An Assessment of the Macroeconomic Forecasts for the Maltese Economy prepared by the Ministry for Finance in April 2016

A report prepared by the
Malta Fiscal Advisory Council

April 2016

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Dear Minister

LETTER OF TRANSMITTAL

In terms of article 13 of the Fiscal Responsibility Act, 2014 (Cap 534), I have the honour to transmit a report by the Malta Fiscal Advisory Council (MFAC) on the assessment of the macroeconomic forecasts for the Maltese economy prepared in April 2016 by the Ministry for Finance within the Update of Stability Programme 2016 – 2019.

On the basis of the latest available information, the MFAC considers the real GDP growth forecasts for the years 2016 – 2019, respectively at 4.2%, 3.1%, 2.9% and 2.4%, to be achievable, also when considering the 6.3% real growth registered in 2015. These projections are within a relatively close range to those published by the Central Bank of Malta in its latest Annual Report and the Winter Forecasts of the European Commission. The series of macroeconomic forecasts underpinning the Update of Stability programme 2016 – 2019 are overall deemed to be within the endorseable range of the MFAC.

The MFAC notes that the forecasting methodologies adopted by the Economic Policy Department are based on sound econometric techniques and the equations underpinning the modelling structure have undergone a number of improvements to reflect the latest trends observed from published data. The international exogenous assumptions continued to be based on reputable and latest available sources, while fiscal assumptions were based on the direct input of the Budget Office. The MFAC also acknowledges the effort exerted by the Ministry's officials in order to ensure greater internal consistency between the macroeconomic and fiscal forecasts. Overall, the MFAC considers the macroeconomic forecasting performance of the current models to be reasonable.

The MFAC notes that the sources of real GDP growth presented in the Update of Stability Programme are expected to fluctuate throughout the forecast horizon, with domestic demand being the main driver for growth in all years apart from 2018, where net exports are expected to be the main source of growth. The economic outlook is conditioned by the projected profile for gross fixed capital formation, which in turn is driven by a number of projects which are expected to take place during the forecast horizon. In this respect, the MFAC positively notes the rigorous approach adopted by the Economic Policy Department in compiling adequate background information to support this outlook, including extensive consultations with a broad range of key stakeholders in the economy. The MFAC views favourably this approach, particularly in view of the volatile nature of the investment and external sector components.

A certain element of downside risk, nonetheless, remains, especially for the outer forecast years, as the expected gross fixed capital formation is highly dependent on the extent to which a number of private and public investment projects will materialize as projected.

An element of downside risk may also exist in the case of export growth, particularly in the outer forecast years, as this outlook is conditioned by the assumption that the euro retains its relatively competitive exchange rate and by the positive assumed performance of Malta's main trading partners against a background of ever changing international economic conditions.

With regards to private consumption expenditure, this is expected to expand further but decelerate from the high growth registered in 2015. The MFAC considers this profile to be plausible, when evaluated against the recent positive labour market developments, characterised by employment growth and low unemployment rates, a scenario which is likely to continue prevailing throughout the forecast horizon.

The MFAC also notes that the forecasted path for general government final consumption expenditure reflects the latest information available to the Ministry. However, in order to independently evaluate the likelihood of its trajectory, the MFAC would have found it useful to obtain more detailed breakdown of government expenditure components at the time the endorsement of macroeconomic forecasts was being carried out.

As regards the deflator forecasts, the MFAC observes that although the GDP deflator has remained consistent between forecast rounds, significant revisions have been carried out within almost all the deflators forecasted by the MFIN. It is the MFAC's opinion that whilst one recognises the difficulty in accurately forecasting deflators, more effort should be made to ensure a better quality and reliability of these estimates in the light of the considerable impact such deflators can have within the context of analysing the performance of the economy in real terms.

Finally, the MFAC would like to express satisfaction at the constructive dialogue held with the parties involved in the preparation of these forecasts and the collaboration extended by Ministry officials. However, it would like to invite the Ministry to consider ways how to better align the modus operandi to the timelines and requirements envisaged by the European Semester, and in particular, to allow more sufficient time for the MFAC to scrutinise the macroeconomic forecasts and offer feedback as part of the endorsement process.

Yours sincerely

Rene Saliba
Chairman

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Abbreviations

CBM	**Central Bank of Malta**
CBM APR	**Forecast exercise undertaken by the Central Bank of Malta in April 2016**
COM	**European Commission**
COM WIN	**European Commission Winter Forecast 2016**
DBP	**Draft Budgetary Plan 2016**
ECB	**European Central Bank**
EPD	**Economic Policy Department**
GDP	**Gross Domestic Product**
HICP	**Harmonized Index of Consumer Prices**
ITS	**Institute of Tourism Studies**
LFS	**Labour Force Survey**
MFAC	**Malta Fiscal Advisory Council**
MFIN	**Ministry for Finance**
MFIN APR	**Forecast exercise undertaken by the Ministry for Finance in April 2016**
MFIN OCT	**Forecast exercise published by the Ministry for Finance in October 2015**
NPISH	**Non-Profit Institutions Serving Households**
NSO	**National Statistics Office**
STG	**British pound**
USD	**United States dollar**
USP	**Update of Stability Programme 2016-2019**

1. Executive summary.

This report presents an evaluation of macroeconomic forecasts prepared by the Ministry for Finance for presentation in the Update of the Stability Programme to the European Commission in April 2016. In the process, the report also evaluates the main assumptions adopted by the Ministry for Finance which underpin this current forecast. The Malta Fiscal Advisory Council is of the view that on the basis of the latest available information, the projected increase in the headline real GDP figure for 2016 and the other forecast years may indeed be achievable. Following the exceptional rate of GDP growth registered for 2015, there is now an expectation for a sustained rate of growth within the economy for the forthcoming years, a growth rate which is expected to be positive but at a lower level when compared to the rates registered for 2015. The projections reviewed in this report are in line with the view of other institutions, particularly the Central Bank of Malta and the European Commission who also provide their macroeconomic estimates for a number of key variables for the years under analysis.

The positive outlook anticipated for 2016, in terms of real GDP growth, is expected to be spurred on by the components of both final domestic demand and net exports, with final domestic demand accounting for a proportionally larger contribution. The projected growth of real GDP of 3.1%, in 2017, is expected to be supported only from components of final domestic demand. Partly explaining the negative contribution that net exports is expected to generate over 2017 is the anticipation of an acceleration in imports driven by a number of major investment projects as well as the developments in other components of domestic demand. In contrast to 2017, real GDP growth over 2018 is expected to be driven primarily by the external sector of the economy. However, in 2019 the 2.4% expansion in real GDP growth is expected to be generated mainly from the final domestic demand component which is projected to be complemented by a smaller positive contribution from net exports.

The Malta Fiscal Advisory Council is of the opinion that the projection of a sustained increase in real GDP over the forecast horizon, although plausible, is to an extent set to be dependent on the expected performance of both gross fixed capital formation as well as the anticipated developments within the external sector. Whereas it is noted that the MFIN has prudently taken into account only projects which have a high probability of materialization, the performance of the Maltese economy is exposed to the impact of the ever changing international economic climate and to the risks associated to the possibility of the non-materialization or slower-than-anticipated progress of a number of public and private investment projects. The Malta Fiscal Advisory Council therefore acknowledges a certain element of risk surrounding this forecast view which is expected to increase in the outer forecast years.

It is the view of the Malta Fiscal Advisory Council that the methodology employed by the Economic Policy Department in the undertaking of this forecast is based on sound econometric techniques. The Malta Fiscal Advisory Council positively notes the structured and well documented process used by the Ministry for Finance in the preparation of the forecasts. This entails the use of all information available to date and the incorporating of a number of assumptions which are mainly of an external nature, based on projections prepared by international reputable organisations. This serves to reduce the risk to the forecast in view of the smallness of the local economy and its reliance on international developments.

While the Malta Fiscal Advisory Council acknowledges that the forecasting exercise undertaken by the Economic Policy Department depends also on the inputs from other departments and entities within Government, however, it feels that more needs to be done on the streamlining of the process by which data is channelled between departments so as to improve the overall accuracy of the forecasts and ensure that pre-agreed deadlines are met. It is in this regard that the Malta Fiscal Advisory Council recommends that the preparation of such forecasts should give enough lead time to other entities that use the forecasts as inputs for their reports and analysis.

2. Introduction.

This report provides an assessment of the macroeconomic forecasts prepared by the Ministry for Finance (MFIN) for presentation within the Update of the Stability Programme (USP) to the European Commission (COM) in April 2016. This assessment is being carried out in fulfilment of the responsibilities set for the Malta Fiscal Advisory Council (MFAC) in terms of the Fiscal Responsibility Act, 2014 (Cap. 534) by virtue of which, the MFAC shall monitor the Government's compliance with the fiscal rules and shall assess both the macroeconomic and the fiscal forecasts prepared by the Government throughout the year. The forecasts prepared by the Economic Policy Department (EPD) within the MFIN cover the 2016 to 2019 time window and include all data made available up to 23 March 2016. A preliminary set of macroeconomic forecast data was presented to the MFAC for review on 15 April 2016 and a full and final set of macroeconomic estimates was then provided on 26 April 2016. This report is subdivided in the following sections:

i) An overview of the forecasting methodology adopted in the preparation of the forecast by the EPD.
ii) An assessment of the underlying assumptions which underpin the macroeconomic forecast.
iii) A description and an assessment of the main macroeconomic variables over the 2016-2019 forecast years.
iv) A comparison of the current forecasts to the most recent forecasts published in October 2015 by the MFIN. This current forecast is also compared to other forecasts published by other institutions, primarily the Central Bank of Malta (CBM) and the COM.

The views presented in this report are based on an assessment prepared following a number of meetings with personnel from the MFIN responsible for the preparation of the forecasts for the 2016-2019 years. The main underpinnings of the econometric model used as a base for this forecast have been explained to the MFAC by the staff at the EPD. In addition, a number of other reports, prepared by other institutions, focusing on the current and expected future state of the Maltese economy have also been taken into account by the MFAC in the preparation of this report.

3. Overview of the forecasting methodology.

The forecasts presented by MFIN in the National Reform Programme (NRP) submitted to the COM on 15 April 2016 and in the USP document to be presented to the COM by the end of April 2016 are based on the output derived from the macroeconometric model which is managed and maintained by the EPD within MFIN. This forecast represents the most recent updated position of the Government of Malta with respect to developments in the economy following the presentation of the Draft Budget Plan (DBP) in October 2015. The model used is a Keynesian type macroeconometric model, mainly driven by the expenditure components of Gross Domestic Product (GDP). Whilst data within the model is inputted on a quarterly basis, the output from the model is published on an annual basis. A cut-off date of 23 March 2016 was used for the inputting process of the data in this forecast round and thus a full year of data for year 2015 is taken as the base inputted data for this current forecast.

The model comprises a set of structural equations which are updated regularly by the EPD to ensure that such equations reflect the latest trends observed from published data. Various regression estimation techniques are used within the model, with the error-correction model, developed by Engle and Granger[1] being the most common specification adopted for estimation of the structural equations. In particular, one acknowledges the current efforts by the macroeconometric modelling team within EPD to better disaggregate the forecasts for both the exports and import components of the economy. In view of the continuously observed changes in the structure of the Maltese economy, these updates are part of a continuous programme of development and updating which aims to ensure a better representation of the underpinning linkages of the economy.

The data inputting process is also enhanced by ad-hoc information made available from time to time to the EPD. Such information is used to populate a number of identity and behavioural equations which feature within the model. One positively notes that such ad-hoc information is collected using a well documented and an adequately backed up structure of internal meetings as well as consultations with key stakeholders within the Maltese economy. Furthermore, variables treated as exogenous to the system of equations are mainly based on information obtained from organisations of international repute so as to reduce the risk associated with possible variations arising from expected forecasted values of such variables. This is particularly important in view of the smallness of the local economy and its reliance on international developments. Forecast assumptions are adopted from documents published

[1] Econometrica, Vol 55, No2. (March,1987), 251-278.

by Consensus Economics[2] and the European Central Bank (ECB). A separate section of this report (Section 4) provides a detailed overview of these assumptions.

One acknowledges that the forecasting exercise undertaken by the EPD depends also on the inputs from other government departments and entities within government. It is within this context that more emphasis should be given to the streamlining of the process by which data is channelled between departments so as to improve on the timing and accuracy of the forecasts.

It is the view of the MFAC that the methodology employed by the EPD in the undertaking of this forecast is based on sound econometric techniques. In particular, the robustness of such methods has been tested extensively and has now been used over a number of years within different forecast rounds. In addition, assumptions and expert judgement views incorporated within the forecast are backed and supported by information provided to the EPD in the run up to the preparation of the forecast. Notwithstanding, there is still some element of risk associated with the forecast and this is acknowledged in the forecast presented by the EPD. To this effect, the EPD undertakes an exercise in the quantification of risks to help obtain a better understanding of the robustness of the forecasts being published.

The MFAC notes that the EPD undertakes a total of sixteen alternative model based growth projections, the methodology of which is based on a recent study conducted by EPD staff which in turn is based on the IMF methodology as outlined in the paper by Elekdag and Kannan (IMF working paper, WP/09/178). It is noteworthy that such analyses involves two evaluations: the incorporation of past forecast errors and an *ex post* evaluation of the balance of risks surrounding the baseline macroeconomic projections. The conclusions derived by the EPD, based on the use of the Pearson skewness indicator, show that there is an upside risk for 2016 and a downside risk in the outer forecast years surrounding the macroeconomic projections. The undertaking of these various risk scenarios is encouraged and supported by the MFAC as this serves to assess the validity and reliability of the obtained results. The MFAC also supports the current practice adopted by MFIN whereby the forecasting methodology and the results of such methodology are discussed on a continuous basis with other agencies, both in Malta and abroad, that provide similar forecasts and estimates.

4. Assessment of the main assumptions underlying the macroeconomic forecasts.

Table 1 provides a list of the main macroeconomic variables assumed to be exogenous within the forecasting framework adopted by MFIN. The EPD internalises within its modelling framework a number of forecasting assumptions adopted by reputable international organisations, particularly the ECB and Consensus Economics. The forecast being presented in this report is thus based on a set of economic variables which are treated as completely

[2] Consensus Economics is a leading international economic survey organization which polls a vast number of forecasts to derive projections for a number of key macroeconomic variables.

exogenous to the internal developments within the Maltese economy. This is in view of the smallness and openness of the Maltese economy whereby developments in the international economy are not expected to be specifically affected by the changes occurring within the local economy. In addition to the internationally related variables assumed to be exogenous within the system, a number of other assumptions which reflect specific domestic policy related variables are also treated as exogenous. The information provided for the compilation of this report by the EPD shows that all the latest available information is taken on board in the preparation of the current forecast and such information is consistently updated when new information becomes available.

Table 1: Main macroeconomic forecast assumptions.

Main Forecast Assumptions	Data Source	2015	2016	2017	2018	2019
Short-term interest rate (annual average)	ECB	0.05	0.05	0.05	0.05	0.05
Long-term interest rate (annual average)	ECB	1.60	1.80	1.80	1.80	1.80
USD/€ exchange rate (annual average)	ECB + Consensus Economics (March 2016)	1.11	1.10	1.08	1.10	1.11
STG/€ exchange rate (annual average)	ECB + Consensus Economics (March 2016)	0.73	0.77	0.74	0.74	0.74
Real GDP Growth of main trading partners	Eurostat + Consensus Economics (March 2016)	1.6	1.6	1.7	1.7	1.7
Oil prices (Brent, USD/barrel)	US Energy Information Administration (EIA) + Consensus Economics (March 2016)	48.7	38.0	42.9	44.7	44.7

Sources: Economic Policy Department, Ministry for Finance

The assumptions adopted in this forecast have a cut-off date of 7 March 2016 and reflect the most recent available data in relation to economic and geo-political factors within the countries considered as the main trading partners for the Maltese economy. It is noteworthy that in relation to the most recent forecast views presented by MFIN in October 2015, this current forecast incorporates a number of variations within the trajectory patterns of the main forecast assumptions. In view of the degree of uncertainty and volatility attached to the prediction of such variables, the use of forecasts prepared by international reputable organisations provides a good platform for the derivation of a prudent and realistic view of the external environment within which the Maltese economy operates. The importance of these assumptions increases in the Maltese context in view of the size and level of openness of the economy whereby any variations in such external variables could lead to significant effects on the underpinnings of the local economy.

World oil prices are expected to remain around the $40 per barrel over the forecast horizon with the lowest levels being expected for 2016 at $38 per barrel. Recent developments in the world price of oil are thus reflected in the forecasts for this variable. Of significance to note is the considerable lower world price of oil expectations in the current forecast in comparison to the expected developments within this component in October 2015. As in previous documents assessed by the MFAC, the expected developments within the exchange rate in the forecast years, with respect to the value of the USD/euro and the STG/euro rates are taken as projected by Consensus Economics. The euro is projected to depreciate with respect to the USD over 2016 and 2017, and to subsequently appreciate over the outer forecast years. With respect to the STG, the euro is expected to appreciate over 2016 and to subsequently depreciate in 2017 before maintaining this level in the outer forecast years. Furthermore, short term interest rates are projected to remain stable in line with the expected rates assumed by MFIN back in October 2015. On the other hand, long term interest rates are projected to be above the rates expected in October 2015. One has to note that a certain degree of risk and uncertainty exists in relation to the forecasts for such variables especially over the outer forecast years, in particular with respect to developments in the exchange rates and interest rates. This could indeed lead to a significant impact on the main output variables for the economy.

Recent developments over the last few months of 2015 and the first few months of 2016 have led to a downward revision within the real GDP growth rate expected for Malta’s main trading partners. A real growth rate of 1.6% is now expected for 2016 in comparison to a rate of 2.0% back in October 2015. Whilst noting that a positive rate of growth is being forecasted for world GDP, as weighted by Malta’s main trading partners, the reliance of the local economy to growth projections in particular countries remains strong and such specific country developments could lead to variations within the external components of the economy.

As is common practice with most forecasting models used by various institutions, including the COM and the CBM, the EPD forecast maintains a zero contribution rate from the inventory component[3] to GDP growth over the forecast years. This assumption is deemed plausible and considered adequate in view of the significant fluctuations which are normally recorded within this variable. A number of other variables, which are more of a domestic nature, are also assumed to be exogenous within the modelling structure adopted by MFIN. Estimates from these variables are based on ad-hoc information available at the time of preparation of the forecast and present a certain element of expert judgement on the part of

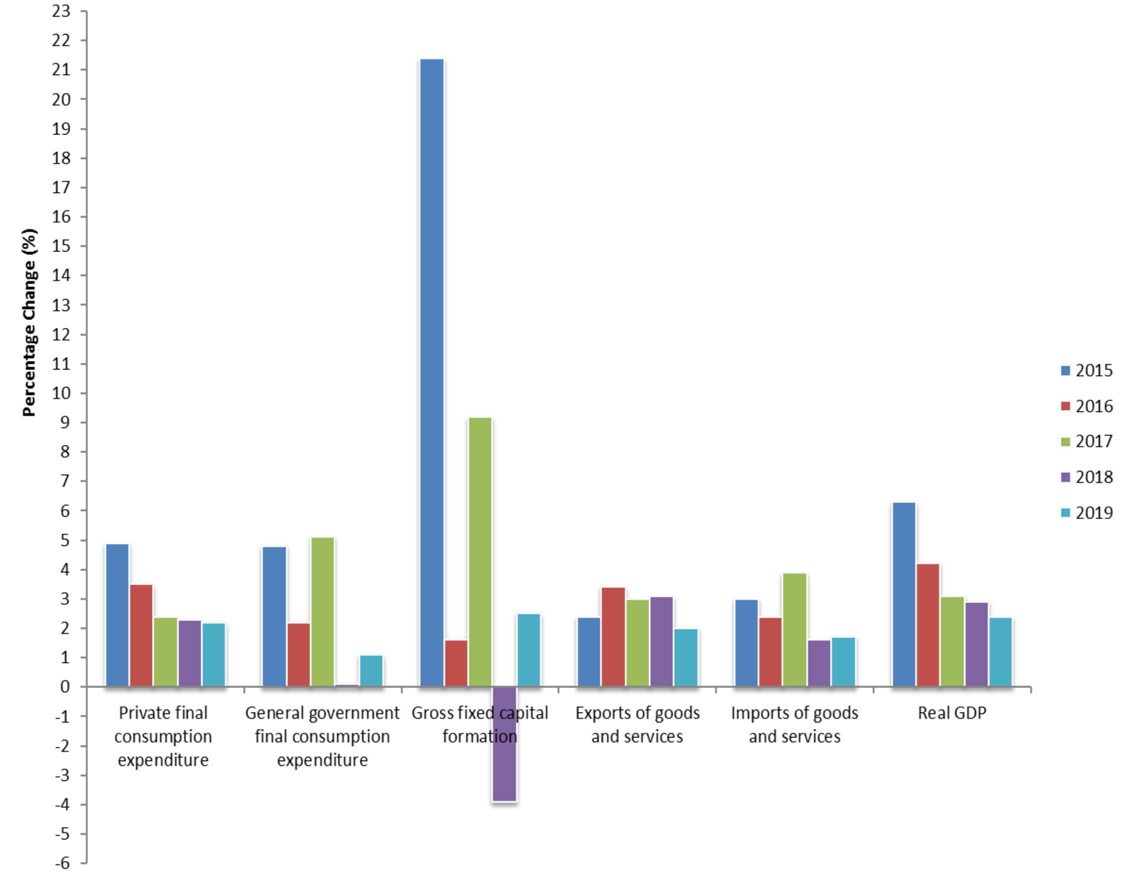
[3] This is assumed to incorporate also an element of statistical discrepancy between the expenditure and output approaches used to measure GDP.

those preparing the forecast. The adopted modelling framework ensures that the latest information available to date on government policies and initiatives planned for the economy are captured within the current forecast round. As observed over the recent years, the accuracy of such information could be a major factor affecting the accuracy of the forecasts both in the short and medium term framework.

5. Description and evaluation of the macroeconomic forecasts presented within the USP.

This section presents an overview and evaluation of the main macroeconomic variables which were forecasted for the period 2016 to 2019 by the EPD in their April 2016 forecast exercise. It aims to provide a broad assessment of the estimates over the forecast horizon and to identify the main risks related to the realization of the forecast estimates. Table 2 shows the forecasted macroeconomic projections for the period 2016 up to 2019, together with the recorded figures for 2015. The actualized 2015 figures for the main GDP aggregates, illustrated in Figure 1, were provided by the EPD and are in line with the NSO release No.041/2016 published on 8 March 2016.

Figure 1: Estimates of selected macroeconomic variables valued at chain linked volumes by period (reference year 2010) over the forecast horizon



Sources: Economic Policy Department, Ministry for Finance, National Statistics Office.

Table 2: Macroeconomic projections 2016 - 2019[4]

	2015	2016	2017	2018	2019
At current prices					
Private final consumption expenditure[5]	6.1	5.0	4.3	4.2	3.9
General government final consumption expenditure	6.5	4.1	7.2	2.5	3.5
Gross fixed capital formation	27.7	5.1	12.6	-1.2	5.5
Exports of goods and services	4.0	3.2	4.3	4.2	3.5
Imports of goods and services	4.4	2.1	5.1	2.5	3.2
Nominal GDP	**8.8**	**6.8**	**5.6**	**4.8**	**4.5**
At chain linked volumes by year (reference year 2010)					
Private final consumption expenditure[5]	4.9	3.5	2.4	2.3	2.2
General government final consumption expenditure	4.8	2.2	5.1	0.1	1.1
Gross fixed capital formation	21.4	1.6	9.2	-3.9	2.5
Exports of goods and services	2.4	3.4	3.0	3.1	2.0
Imports of goods and services	3.0	2.4	3.9	1.6	1.7
Real GDP	**6.3**	**4.2**	**3.1**	**2.9**	**2.4**
Contributions to real growth (percentage points)[6]					
Final domestic demand	7.5	2.6	4.0	0.5	1.9
Inventories	-0.5	0.0	0.0	0.0	0.0
Net exports	-0.6	1.6	-0.9	2.4	0.5
Deflators					
Private final consumption expenditure	1.1	1.5	1.9	1.8	1.6
General government final consumption expenditure	1.6	1.8	2.0	2.4	2.4
Gross fixed capital formation	5.2	3.5	3.0	2.8	2.9
Exports of goods and services	1.6	0.1	1.3	1.0	1.5
Imports of goods and services	1.4	-0.2	1.2	0.9	1.5
GDP Deflator	**2.3**	**2.6**	**2.5**	**1.9**	**2.1**
Inflation rate					
HICP	1.2	1.6	1.9	1.8	1.7
Labour market					
Employment growth[7]	3.5	2.7	2.7	2.2	2.0
Unemployment Rate [8]	5.4	5.3	5.3	5.4	5.4
Compensation per Employee[7]	1.7	2.8	2.4	2.5	2.5
Labour productivity[7,9]	2.7	1.5	0.4	0.6	0.4
Unit Labour Cost[7]	-1.0	1.4	2.0	1.9	2.1
Real Unit Labour Cost[7]	-3.4	-1.2	-0.5	0.0	0.0
Potential output and Output gap					
Potential Output	4.5	4.2	4.2	3.4	2.8
Output Gap (% of potential output)	1.6	1.6	0.6	0.1	-0.3

Sources: Economic Policy Department, Ministry for Finance, National Statistics Office.

4 Forecast estimates represent growth rates unless stated otherwise.
5 Includes Non-Profit Institutions Serving Households (NPISH).
6 Chain-linking by volumes gives rise to the contributions of GDP not adding up to the aggregate real GDP series.
7 The estimate for the percentage change in Employment growth, Compensation per Employee, Labour Productivity, Unit Labour Cost and Real Unit Labour Cost in the USP is based upon the National Accounts definition of total employment.
8 The estimate for the unemployment rate in percentage terms follows the Eurostat harmonized definition.
9 Real GDP per persons employed.

After the exceptional high growth of 8.8% in 2015, nominal GDP growth in 2016 is expected to remain high at a rate of 6.8%. Nominal GDP growth is projected to expand at a decreasing rate over the forecast years with an expected rate of growth in 2017 of 5.6%, of 4.8% in 2018 and 4.5% in 2019. Following 2015, a year which was characterized by a more than expected buoyant expansion of real[10] GDP amounting to 6.3%, over 2016 real GDP growth is expected to grow at a positive, but somewhat slower pace of 4.2%. As observed from Figure 1 below, real GDP growth is expected to remain positive but increase at a declining rate over the remainder of the forecast years, at 3.1% in 2017, 2.9% in 2018 and 2.4% in 2019.

The positive outlook for 2016 in terms of real GDP growth is expected to be spurred by the components of both final domestic demand and net exports, with final domestic demand accounting for a proportionally larger contribution. The contribution to real GDP growth of final domestic demand is projected to decline from the exceptional contribution of 7.5 percentage points realized in 2015, to 2.6 percentage points in 2016. In contrast to 2015, a year in which the contribution of net exports was negative at 0.6 percentage points, in 2016 this component is now expected to yield a positive contribution to real GDP growth of 1.6 percentage points on the back of an expected pick up in exports of goods and services and a marginally slower rate of growth in imports of goods and services, in real terms.

The projected growth of real GDP of 3.1% for 2017 is expected to be spurred on entirely by the components of final domestic demand (4.0 percentage points), which more than offset the negative net exports contribution to growth (-0.9 percentage points). Partly supporting this anticipated negative contribution of net exports over 2017 is the expectation of a significant increase in imports related to a number of major investment projects as well as developments in other components of domestic demand. In contrast to 2017, real GDP growth in 2018 is expected to be driven primarily by the external sector of the economy. In fact, the external sector is anticipated to contribute 2.4 percentage points to the overall growth expected over 2018 whilst the final domestic demand is anticipated to contribute only 0.5 percentage points. Similar to 2016, for 2019 real GDP growth is expected to be supported by the components of both final domestic demand (1.9 percentage points) and net exports (0.5 percentage points), with final domestic demand accounting for a significantly larger contribution to growth. It should be noted that contingent to the actualization of the relative contributions to growth over the forecast horizon is the assumption employed by the EPD that inventories do not contribute materially to GDP growth.

From the anticipated developments in the relative contribution to real GDP growth, as well as from an initial assessment of the forecast estimates presented in Table 2 it is possible to note a degree of volatility with respect to the contribution to real GDP growth of both the final domestic demand and the external sector generated over the forecast years. Underpinning this volatility are the expected developments in gross fixed capital formation and the two components of the external sector. Within this context, it should be noted that the volatile

[10] Real GDP has been derived on the basis of the methodology of chain linking by volumes utilizing 2010 as the year of reference.

nature of gross fixed capital formation and the underlying risks surrounding the components of the external sector are the two main factors which should be recognized as the main elements of risk surrounding the expected positive developments for real GDP growth over the forecast horizon. Furthermore, the expected developments in both the import and export deflators are of substantial importance to the projected impact that the components of net exports are expected to have on GDP growth in real terms.

Following the exceptional growth recorded in 2015 of 6.1% in nominal terms and of 4.9% in real terms, private final consumption expenditure[11] is expected to retain momentum and to expand over the entire forecast horizon. However, this expansion is anticipated to follow a path of decelerating growth over the forecast years. In nominal terms it is expected to expand at the slower rate of 5.0% in 2016 and to thereafter grow at 4.3% in 2017, retain its momentum over 2018 at 4.2% before expanding at a more subdued pace of 3.9% in 2019. Growth in real private final consumption expenditure in 2016 is anticipated to decelerate to 3.5% and to 2.4% in 2017 prior to maintaining approximately the same rate across both 2018 and 2019. Underpinning the expansionary path in private consumption expenditure over the forecast horizon are the anticipated developments within the labour market. As may be observed from Table 2, the EPD, across the entire forecast horizon, is anticipating a continuous growth in both compensation per employee and total employment, which, coupled with a stable unemployment rate around the low level of 5.3%, support the expected expansionary path of private final consumption expenditure. The forecasted growth in private final consumption expenditure over 2016 is to be also sustained by an anticipated increase in personal disposable income resulting primarily from a reduction in the tax burden which stems from a number of specific fiscal measures implemented by the Government within the Budget for 2016.

General government final consumption expenditure in 2015 grew in nominal terms by 6.5% and by 4.8% in real terms. The growth trajectory for government final consumption expenditure both in real and nominal real terms is expected to be positive but its pace is expected to vary extensively throughout the forecast horizon. In 2016, general government final consumption expenditure in nominal terms is expected be more subdued than in 2015 and grow by 4.1% prior to accelerating to 7.2% in 2017. Over 2018 it is still expected to grow but by a more restrained pace of 2.5%, whilst in 2019 it is expected to marginally accelerate and grow by 3.5%. A similar trajectory may be observed for government final consumption expenditure in real terms with an anticipated rate of growth in 2016 of 2.2%, an acceleration is expected for 2017 at 5.1% and the growth rates for 2018 and 2019 are projected to be 0.1% and 1.1% respectively. The MFAC notes that anticipated developments pertaining to the forecasted path of general government final consumption expenditure over the forecast horizon reflect the latest information available to the MFIN.

[11] It should be noted that within this report the figures presented for private final consumption expenditure also include NPISH.

Following the significant recorded growth of 27.7% over 2015 in nominal terms and 21.4% in real terms, gross fixed capital formation is expected to expand, but at a considerably more subdued paced in 2016, at 5.1% in nominal terms and 1.6% in real terms. This more subdued growth has to be placed within the context of the base effect generated from the significant growth recorded in 2015. In 2017, gross fixed capital formation, is expected to pick up pace and accelerate by 12.6% in nominal terms and 9.2% in real terms. After what are expected to be three consecutive years of considerable expansionary growth, between 2015 and 2017, in 2018 it is expected to decline by 1.2% in nominal terms and 3.9% in real terms. In the outer forecast year of 2019 gross fixed capital formation is expected to once again expand at a moderate pace of 5.5% in nominal and 2.5% in real terms. The historical and projected paths of this component of final domestic demand illustrate its underlying highly volatile nature.

Underpinning the marginal growth in gross fixed capital formation for 2016 is the projection of the materialization of a number of one-off public and private investments projects. It may be noted that the EPD expects the level of large scale investment projects within the energy sector, which drove the growth experienced in 2015, to be sustained over 2016. The projected expansion in 2017 is thereafter expected to be supported by a number of significant investments in the health and educational sectors, further investments in the energy sector, as well as the aviation sector. The relocation of the Institute of Tourism Studies (ITS) and the redevelopment of the former ITS site are also expected to contribute to the projected 2017 investment growth rate. It may be noted that one of the main factors contributing to the decline in gross fixed capital formation in 2018 is primarily the expectation of a decline in large scale energy related investment projects. Gross fixed capital formation is subsequently expected to pick up in 2019 on the back of a number of private and public investment projects which are expected to materialize within various sectors of the economy.

The MFAC positively notes that the EPD incorporated a number of projected investment streams within their forecast exercise which were identified following a series of high level meetings with the relevant entities. The MFAC acknowledges that an element of downside risk surrounds the realization of the projected path of gross fixed capital formation across the forecast horizon given that its realization is dependent on the effective absorption rate of the projected investment. However, the MFAC also notes that within the USP the EPD have indicated, that a number of possible large scale projects have been omitted from the forecast exercise either due to lack of available details pertaining to the particular project or due to a concrete risk of non-materialization of the project. This practice ensures that the projected path of gross fixed capital formation may be indeed viewed as one which is prudent across the entire forecast horizon. It should also be noted that the actualization of the estimates for gross fixed capital formation in real terms and thus its overall contribution to real GDP growth, also depends on the expected realization of the deflator for gross fixed capital formation which is forecasted to increase by around 3.0% throughout the entire forecast horizon.

The contribution of net exports to the real GDP growth is expected to fluctuate throughout the forecast years. In 2016, following the negative contribution registered for 2015, a positive contribution of 1.6 percentage points is expected. The contribution from this component is subsequently expected to experience a further turnaround in 2017 (-0.9 percentage points) prior to retaining a positive contribution over the remainder of the forecast horizon. This variation, in the relative contribution of net exports to real GDP growth across the forecast years is thus contingent on the realization of the projected path of both imports and exports in nominal terms as well as highly conditional on the actualization of projected import and export deflators.

Exports of goods and services are expected to expand in both real and nominal terms across the entire forecast horizon. In nominal terms exports of goods and services in 2016 are expected to be more subdued than in 2015 and expand by 3.2%, then after picking up pace in 2017 and 2018 and grow at 4.3% and 4.2% respectively, prior to marginally slowing down to 3.5% in 2019. Although the resultant impact of the forecasted deflator for exports of goods and services has not changed the overall outlook with respect to the anticipated expansionary path for exports of goods and services in real terms, it should be noted that variations do emerge in terms of magnitude and trajectory. In real terms exports of goods and services are expected to accelerate by 3.4% in 2016, to then slowdown in 2017 and 2018 and grow at 3.0% and 3.1% respectively prior to expanding at the more subdued rate of 2.0% in 2019. The EPD is anticipating that the expansion in exports of goods and services will be supported by various external factors. Crucial to the realization of the projected estimates is the assumption that the euro retains its relatively competitive exchange rate position and that the positive expansionary outlook in terms of GDP growth for Malta's main trading partners materializes. These two factors are anticipated to support the export performance of a number of manufacturing and service industries, as well as to support the tourism sector which is expected to grow over the forecast horizon. The EPD is anticipating that at the sectoral level the projected expansionary path in exports of goods and services will be principally driven by a strong performance in the pharmaceuticals industry, the tourism sector, the remote gaming sector, the other business services sector, as well as the other services sector.

The MFAC acknowledges that there is an element of risk surrounding the realization of the expected growth in exports over the forecast horizon. Variations with respect to the assumed projected path for the Euro and the possible negative impact on trade and tourism which could stem from potential fluctuations in the international geopolitical scenario may be viewed as downside risks thus mitigating the realization of the anticipated expansionary growth in exports of goods and services. Furthermore, another downside risk surrounding the actualization of this component over the forecast horizon, relates to the possibility of the expansionary outlook of Malta’s main trading partners being less favourable than what is being assumed within the forecast exercise. Such uncertainties may be viewed as central elements of risk which have to be recognized within the assessment of the underlying forecast projections.

Over the forecast horizon, imports of goods and services are expected to expand both in nominal and real terms. This expansion is however expected to be volatile and vary in terms of its relative magnitude from year to year. Over 2016, imports of goods and services are expected to be more subdued than in 2015, a year which registered an exceptional increase in gross fixed capital formation (which implicitly contained a relatively high import content) and it is anticipated to expand by 2.1% in nominal terms and 2.4% in real terms. This growth is expected to be driven by an expected expansion in both the components of final domestic demand and exports of goods and services. Over 2017, imports of goods and services are expected to accelerate by 5.1% in nominal terms and 3.9% in real terms. These projections are expected to be in part supported by an acceleration of gross fixed capital formation and an expansion of both private final consumption expenditure and exports of goods and services. The more subdued growth rates of 2.5% in nominal terms and 1.6% in real terms expected for 2018 are anticipated to be the result of a contraction in gross fixed capital formation. Subsequently, in 2019, imports of goods and services are expected to pick up marginally and grow by 3.2% in nominal terms and 1.7% in real terms spurred on by the anticipated expansion in both the components of final domestic demand and exports of goods and services. It should be noted that the expected developments within imports of goods and services over the forecast horizon, and in particular 2016 and 2017, are contingent on the realization of various key public and private investment projects which implicitly contain a relatively high import content and on the expected sustained expansion within a number of export oriented industries.

The main indicator for inflation and price stability within the economy, the Harmonized Index of Consumer Prices (HICP) is expected to accelerate from the 1.2% recorded in 2015 and reaching 1.6% in 2016. The HICP is expected to subsequently accelerate further in 2017 by 1.9% prior to marginally declining by 0.1 percentage points per year over the remainder of the forecast horizon. The acceleration of inflationary pressures over 2016 and 2017 is expected to be driven mainly by services prices as well as processed and unprocessed foods.

As may be observed from Table 2, the positive developments experienced within the labour market over 2015 are anticipated to be sustained across forecast years. Following the positive developments in employment growth over 2015 which recorded a growth rate of 3.5%, in 2016, employment growth is expected to grow, but by the marginally slower pace of 2.7%. Employment growth is projected to retain this positive momentum and grow at the same rate over 2017 prior to expanding by the marginally lower rates of 2.2% and 2.0% over 2018 and 2019 respectively. The historically low unemployment rate recorded in 2015 of 5.4% is expected to remain roughly stable throughout the forecast horizon. This positive outlook for both the unemployment rate and the rate of employment is expected to be supported by the projected developments in the economic environment as well as by the anticipated positive impact originating from the ongoing active labour market policies undertaken by the Government in relation to targeted segments of the labour market. In particular, one notes policies aimed towards raising the female participation rate. Furthermore, it should be noted that another factor which is anticipated to support the projected expansion in the rate of employment growth over the forecast years are the projected developments in relation to the inflow of foreign workers.

Following 2015, a year which registered a significant increase in labour productivity of 2.7%, thus implying an improvement in Malta's overall competitiveness, over 2016 the EPD projects labour productivity to increase at 1.5%. This rate is above the average expected increase of around 0.5% throughout the remainder of the forecast horizon. Compensation per employee is projected to undertake an expansionary path over the forecast horizon and accelerate from the 1.7% actualized in 2015 to 2.8% over 2016 and to retain momentum and expand at around 2.5% per year over the remaining of the forecast years.

Following the contraction of 1.0% in 2015, over 2016, unit labour cost (in nominal terms) is expected to pick up and expand by 1.4% as a result of a rate of growth in compensation per employee which is now expected to outpace the growth in labour productivity, implying that increases in productivity growth are now expected to lag behind average wage growth thus increasing overall unit labour cost. This scenario is expected to be sustained throughout the remainder of the forecast horizon which projects unit labour cost to expand at an average of around 2.0% per year. The EPD expects the growth in real unit labour costs to contract by 1.2% over 2016, by 0.5% over 2017 and to thereafter remain constant as a consequence of the anticipated developments in price of output as measured by the GDP deflator.

The projected developments in potential output and the output gap[12] over the forecast horizon are presented within Table 2. As already positively noted by the MFAC in past forecast exercises, the EPD generates these two estimates utilizing a methodology commonly agreed upon with the COM, namely, the production function approach. Over the forecast horizon, MFIN is projecting an overall gradual deceleration in potential output growth, from the 4.5% recorded in 2015 to 4.2% over both 2016 and 2017 and to subsequently decline to 3.4% and 2.8% respectively over 2018 and 2019. Supporting the projected path of potential output over 2016 and 2017 are the anticipated positive developments in labour productivity and employment growth coupled with the expected growth in gross fixed capital formation. The fall in potential output in the outer forecast years is in part driven by the projected deceleration in employment growth and the expected developments in gross fixed capital formation. The EPD projects a positive but narrowing output gap over 2016 to 2018, from a positive 1.6% of potential output in 2016, to 0.1% of potential output in 2018, culminating with a slightly negative output gap in 2019. This trajectory is underpinned by the anticipated developments in real GDP growth and the EPD's estimated level of potential output.

[12] A positive output gap denotes that actual output growth is projected to exceed potential output growth.

6. Comparison of the MFIN's Draft Budgetary Plan 2016 forecast for the year 2015 to the actualized data for 2015.

This section provides an assessment of the forecast estimates presented by the MFIN for the year 2015 within their October 2015 forecast exercise against the actualized figures for the same year, as presented within the USP. Table 3 presents a comparison of the actualized 2015 macroeconomic variables with the MFIN October 2015 forecast. The statistics published by the NSO (release no.041/2016) on 8 March 2016 portray a growth rate of real GDP for 2015 amounting to 6.3%, demonstrating that the estimate forecasted by MFIN of 4.2% in their October forecast exercise was to an extent a rather cautious estimate. Within this context, it is noteworthy to highlight that a number of revisions have been undertaken within the GDP components by the NSO between the news releases of 8 March 2016 and that of 4 September 2015 (release no.163/2015).

Examining the contribution to real GDP growth generated by its various components it may be noted that there are no significant divergences with respect to the overall impact that the final domestic demand and the net exports components were expected to produce in terms of their contribution to real GDP growth. However, as may be observed from Table 3, a number of divergences do emerge in relation to the relative scale of the component's contribution. Compared to the realized figures, final domestic demand was forecasted to contribute 1.4 percentage points less and net exports was expected to yield a larger negative contribution to real GDP growth. Evaluating the individual components of final domestic demand, it may be observed that the discrepancy of 1.4 percentage points in the contribution of real GDP growth between the forecast estimate and the actualized figure for 2015 is primarily attributable to a more than expected increase in both private final consumption expenditure and government final consumption expenditure in 2015 when compared to the forecasted pick up. It should be noted that the marginal negative contribution of 0.5 percentage points of changes in inventories to real GDP growth recorded in 2015 is another discrepancy which emerges from the comparison to the October 2015 forecast exercise, which presented a zero contribution to real GDP growth. This discrepancy stems from the current practice employed by MFIN to assume a zero contribution rate to growth over the forecast horizon for this component.

Examining the external sector, it may be observed that whereas only imports of goods and services, in real terms, were expected to expand in 2015, with export levels projected to remain constant at 2014 levels, the performance of both components was however more buoyant than anticipated. More favourable external conditions than expected resulted in an expansion of real exports of goods and services amounting to 2.4%. Furthermore, the higher than expected growth in private final consumption expenditure supported a higher than anticipated growth in real imports of goods and services which expanded by 3.0% compared to the projected more subdued growth rate of 1.4%. These developments implicitly led to a forecasted contribution to real GDP growth for net exports which generated a higher negative contribution, of 1.9 percentage points, compared to the negative contribution of 0.6 percentage points registered for 2015.

Table 3: A comparison of the actualized 2015 macroeconomic variables with the MFIN's Draft Budgetary Plan 2016 forecast for the year 2015[13].

	2015	
At current prices	**Actual**	**MFIN OCT**
Private final consumption expenditure[14]	6.1	4.3
General government final consumption expenditure	6.5	2.9
Gross fixed capital formation	27.7	27.2
Exports of goods and services	4.0	2.5
Imports of goods and services	4.4	3.8
Nominal GDP	**8.8**	**6.5**
At chain linked volumes by year (reference year 2010)		
Private final consumption expenditure	4.9	3.5
General government final consumption expenditure	4.8	1.0
Gross fixed capital formation	21.4	21.4
Exports of goods and services	2.4	0.0
Imports of goods and services	3.0	1.4
Real GDP	**6.3**	**4.2**
Contributions to real growth (percentage points) [15]		
Final domestic demand	7.5	6.1
Inventories	-0.5	0.0
Net exports	-0.6	-1.9
Inflation rate		
HICP	1.2	1.0
Labour market		
Employment growth[16]	3.5	1.9
Unemployment Rate[17]	5.4	5.8

Sources: Economic Policy Department, Ministry for Finance, National Statistics Office

A further discrepancy which is observed pertains to the projection for the unemployment rate of 5.8% compared to the actualized 5.4%, implying a better than expected performance within the labour market. The projected developments in the overall price level, as measured by the HICP, where also projected to be more subdued, at 1.0% compared to the actualized 1.2% recorded over 2015. The variation in employment growth between the projection of 1.9% and the actualized growth of 3.9% is in large part explained by the different definitions utilized for total employment between the USP and the October 2015 forecast exercise, which implies that the two figures are therefore not strictly comparable. The MFAC is of the

[13] Forecast estimates represent growth rates unless stated otherwise.
[14] Includes NPISH final consumption expenditure
[15] Chain-linking by volumes gives rise to the contributions of GDP not adding up to the aggregate real GDP series.
[16] The estimate for the percentage change in employment growth recorded in 2015 within the USP is based upon the National Accounts definition of total employment, whilst the forecast estimated for 2015 within the DBP 2016 is based upon the Eurostat Labour Force Survey (LFS) definition of total employment based on the resident population concept. Hence the two are not strictly comparable.
[17] The estimate for the unemployment rate in percentage terms follows the Eurostat harmonized definition.

opinion that the use of a consistent definition across forecasting rounds would ensure a more congruent assessment process.

7. A comparative analysis of the macroeconomic projections presented in the Update of the Stability Programme 2016-2019.

This section of the report provides a comparison of a number of macroeconomic variables as projected by different institutions for the Maltese economy. More specifically, the forecast estimates of the MFIN will be compared to those published by the COM (February 2016) and by the CBM (April 2016). It is important to highlight at the outset that different institutions produce forecasts at different points in time and thus discrepancies between the estimates could be influenced by the level of information available at the set cut-off date for the relative forecasts. In particular, the forecast exercise undertaken by the COM in its Winter forecast only makes use of GDP data available up to and including the first three quarters of 2015. This is in contrast to the forecasts being presented in this section by the MFIN and the CBM, whereby both institutions use the full year of GDP data available for 2015 as a base within the respective forecasting exercises. One also notes variations in relation to the relative input data used by the different institutions with respect to the labour market. In fact, the forecast exercises undertaken by the COM and by the CBM make use of data available up to and including the first three quarters of 2015. On the other hand, the MFIN forecast estimates are based on input data covering the full year 2015. This section also includes an evaluation of the revisions presented by the MFIN in this report, for 2016, in comparison to the forecast for year 2016 provided in the DBP document which was published in October 2015.

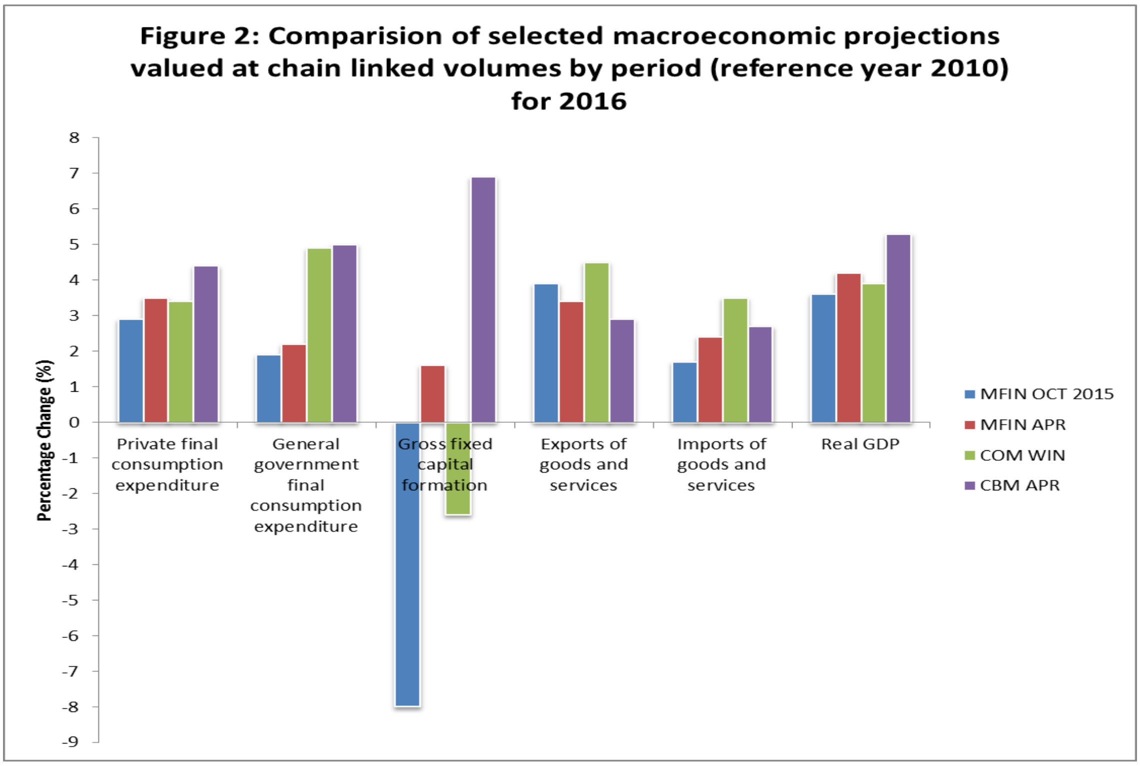
Table 4 provides a summary of the forecasts presented by each institution for 2016 and 2017 generated over the recent months. In this regard, one should be very cautious in the undertaking of a comparison of the COM Winter forecast with the current MFIN forecasts given that these are not strictly comparable. On the other hand, both the forecasts being presented by the CBM and the forecasts of the MFIN are comparable. The focus of this section will be on the forecasts for the years 2016 and 2017 given that both the COM and the CBM present forecasts up to year 2017. Figure 2 and Figure 3 provide a graphical illustration of the estimated differences in the specific components which make up real GDP.

Table 4: Comparison of macroeconomic projections.[18]

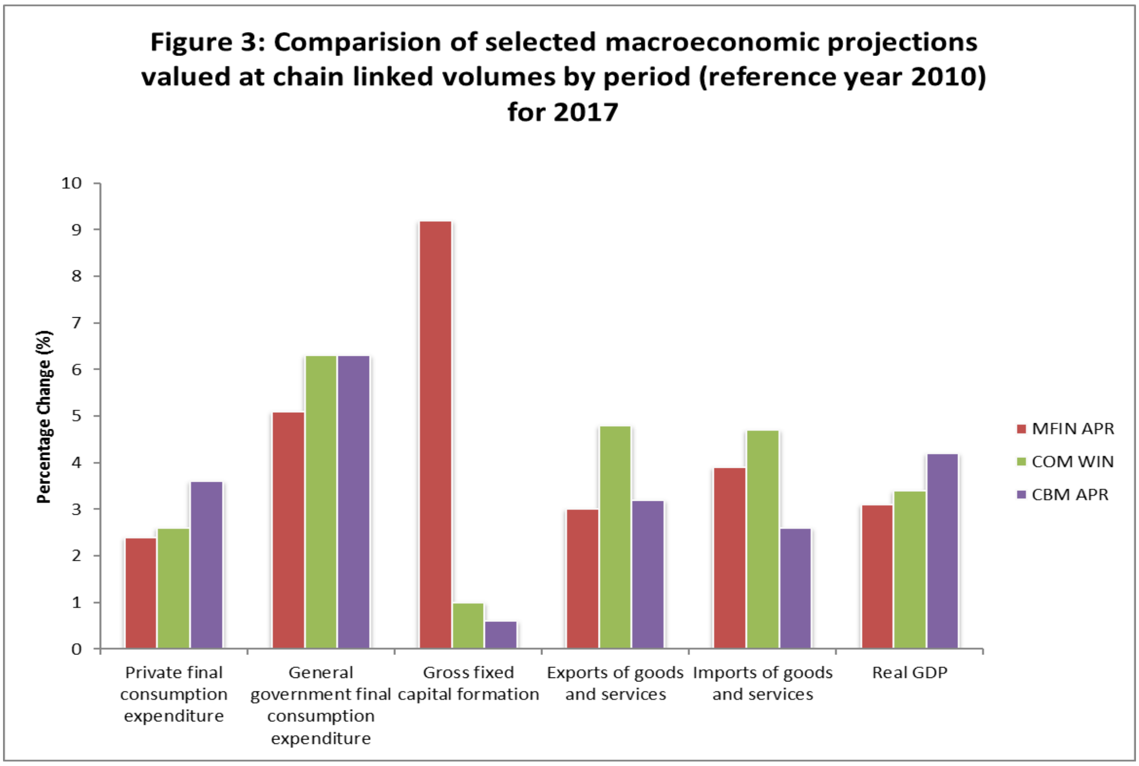
	2016				2017		
At chain linked volumes by year (reference year 2010)	**MFIN OCT 2015**	**MFIN APR**	**COM WIN**	**CBM APR**	**MFIN APR**	**COM WIN**	**CBM APR**
Private final consumption expenditure[19]	2.9	3.5	3.4	4.4	2.4	2.6	3.6
General government final consumption expenditure	1.9	2.2	4.9	5.0	5.1	6.3	6.3
Gross fixed capital formation	-8.0	1.6	-2.6	6.9	9.2	1.0	0.6
Exports of goods and services	3.9	3.4	4.5	2.9	3.0	4.8	3.2
Imports of goods and services	1.7	2.4	3.5	2.7	3.9	4.7	2.6
Real GDP	**3.6**	**4.2**	**3.9**	**5.3**	**3.1**	**3.4**	**4.2**
Contributions to real growth (percentage points)[20]							
Final domestic demand	0.3	2.6	2.2	4.7	4.0	2.8	3.2
Inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net exports	3.3	1.6	1.7	0.5	-0.9	0.5	1.0
Deflators							
Private final consumption expenditure	2.0	1.5	1.7	N/A	1.9	2.1	N/A
General government final consumption expenditure	3.2	1.8	N/A	N/A	2.0	N/A	N/A
Gross fixed capital formation	1.9	3.5	N/A	N/A	3.0	N/A	N/A
Exports of goods and services	1.7	0.1	N/A	N/A	1.3	N/A	N/A
Imports of goods and services	1.3	-0.2	N/A	N/A	1.2	N/A	N/A
GDP Deflator	**2.5**	**2.6**	**2.5**	**2.1**	**2.5**	**2.6**	**2.0**
Inflation rate							
Overall HICP	1.8	1.6	1.7	1.2	1.9	2.1	1.8
Labour market							
Employment growth[21]	2.0	2.7	2.4	3.7	2.7	2.4	3.3
Unemployment Rate[22]	5.6	5.3	5.4	5.1	5.3	5.4	5.2
Compensation per Employee[21]	3.2	2.8	3.4	1.7	2.4	3.4	2.4
Labour productivity[21,23]	1.6	1.5	1.5	N/A	0.4	1.0	N/A
Unit Labour Cost[21]	N/A	1.4	1.9	0.2	2.0	2.4	1.5
Real Unit Labour Cost[21]	N/A	-1.2	-0.6	N/A	-0.5	-0.2	N/A
Supply Side							
Potential GDP (y-o-y % change)	3.4	4.2	3.9	N/A	4.2	3.7	N/A
Output Gap (% of potential GDP)	0.6	1.6	1.0	N/A	0.6	0.6	N/A

Sources: Ministry for Finance, Central Bank of Malta, European Commission

[18] Forecast estimates represent growth rates unless stated otherwise.
[19] Includes NPISH final consumption expenditure.
[20] Chain-linking by volumes gives rise to the contributions of GDP not adding up to the aggregate real GDP series
[21] The estimates, across all the institutions, are based upon the National Accounts definition of total employment.
[22] The estimate, across all the institutions, follow the Eurostat harmonized definition.
[23] Real GDP per persons employed.



Sources: Economic Policy Department, Ministry for Finance



Sources: Economic Policy Department, Ministry for Finance

7.1 A comparison of the macroeconomic projections in the USP (April 2016) with those generated by the Central Bank of Malta in its Annual Report for 2015 (April 2016).

Following the stronger than expected performance registered for the Maltese economy in 2015, both institutions expect the growth rate in real GDP to slow down for 2016 and to slow down further for 2017. For both years, the expected growth rate of real GDP is forecasted to be higher in the CBM estimates. Data provided in Table 4 shows the differences in growth projections by the two institutions. For 2016, both institutions expect the domestic side of the economy to be the main driving force for GDP growth. The contribution to growth from the domestic side of the economy is projected by the CBM to reach 4.7 percentage points compared to the 2.6 percentage points projected by the MFIN. The CBM estimates in fact project higher expected growth rates for each of the domestic component aggregates. In particular, one notes the expected increase in investment expenditure being forecasted by the CBM for 2016, which is expected to grow by a further 6.9% in real terms following the significant increase of 21.4% registered for 2015. This contrasts to the rate projected by the MFIN which stands at a moderate 1.6%. As to the contribution of the external sector to GDP growth, the forecast of the MFIN is stronger when compared to the CBM forecast. The MFIN are projecting a contribution of 1.6 percentage points to GDP growth compared to the low 0.5 percentage points contribution forecasted by the CBM. This divergence is mainly due to the higher anticipated increase in exports of goods and services by the MFIN for 2016.

For 2017 both institutions forecast a still strong and positively contributing domestic demand sector to GDP growth. The contribution from the domestic side of the economy is expected to slow down in 2017 when compared to 2016 in case of the CBM whilst the contribution from the domestic demand side is projected to increase further by the MFIN. This difference mainly arises from the expected developments by both institutions within the gross fixed capital formation component. Investment expenditure is forecasted to grow at a high rate of 9.2% in 2017 within the MFIN forecasts in comparison to the low rate of growth of 0.6% projected in the CBM figures. The lower expected GDP growth rate for 2017 projected by the MFIN in comparison to the CBM is also due to the varying projected contribution from the external sector of the economy for 2017. Whilst the CBM expects a positive contribution from the external sector in 2017, the MFIN forecast projects that the contribution from the external sector will turn negative. The varying views for the external component of the economy for 2017 between institutions hinges on the contrasting developments expected for 2017 in the domestic side of the economy. The projected differences particularly for the gross fixed capital formation component are expected to primarily influence the import component of the economy given that both institutions expect exports to pick up relatively well in 2017.

Inflation projections provided by the CBM show that the annual rate of inflation, measured by the HICP, is expected over 2016 to remain unchanged from 2015, at 1.2%, before it accelerates to 1.8% in 2017. The CBM projection is based on a set of technical assumptions related to the expected behaviour of exchange rates and the international price of oil. This contrasts to the expectation of the MFIN whereby the inflation rate for 2016 is expected to rise to 1.6% from the 1.2% registered for 2015. A further acceleration to 1.9% is projected for 2017, which is relatively similar to the rate expected by the CBM.

Some similarities are also noted in the expected trajectory for employment growth and the unemployment rate over the 2016 and 2017. Both institutions expect employment to grow in 2016 with the rate of growth expected by the CBM to be relatively higher (3.7% compared to 2.7%). Furthermore, the rate of growth expected for 2016 by the CBM is higher when compared to the rate registered for 2015 of 2.9%. This view is the result of an expected acceleration within the private sector labour market which will exceed the expected moderate increase in employment growth within the general government sector. The expected rate of employment growth for 2017 by the CBM is still forecasted to be higher than that provided by the MFIN reaching 3.3% compared to the 2.7% expected increase by the MFIN. The unemployment rates forecasted by both institutions for 2016 and 2017 are expected to reflect the ongoing labour market policies, thus contributing to reach rates which are below the expected overall EU averages for this indicator of economic activity. Both institutions expect the unemployment rate to hover around the 5.2% rate.

7.2 A comparison of the macroeconomic projections in the USP (April 2016) with those generated by the European Commission in its Winter Forecast (February 2016).

Real GDP is projected in the COM forecast to grow at a rate of 3.9% for 2016 and at a rate of 3.4% in 2017. Such developments have to be analysed in the light of the projected rate of growth in real GDP of 4.9% for 2015 published in the Winter forecasts of the COM on 4 February 2016. The COM publication does not include the latest data published by the NSO for the full year of 2015 and this contrasts to the MFIN (April 2016) forecast which assumes that the data for the full year 2015 is taken into account. As a result, one should highlight at the outset that the two sets of forecasts being reviewed within this section are thus not strictly comparable as they include different bases for the data used in the preparation of the forecast.

As shown in Table 4 real GDP growth is expected by both institutions to be positive and strong for 2016. Both institutions thus expect the Maltese economy to continue with its positive stance but to slow down slightly in terms of the magnitude of growth. Furthermore, the rates of growth for 2017 are still expected to be positive but of a lower magnitude in comparison to the forecasted 2016 rates. Some minor differences are though noted between the different contributors to GDP growth. In particular, the main components of variation are the expected trajectory for gross fixed capital formation and developments within general government final consumption expenditure.

In 2016, the MFIN are projecting a very low rate of growth within the gross fixed capital formation component in view of the significant increase registered in 2015. On the other hand, the COM, expects investment to decline in 2016 following the expected increase in 2015 registered for this component. The differences between the two forecasts are partly explained by the fact that the MFIN forecast includes information which was not available to the COM prior to February 2016. The differences noted between the forecasts of the two institutions within the exports and imports components are marginal and in total for 2016, the contribution from the external sector of the economy is expected by both the MFIN and the COM to be positive and around the 1.6 percentage point mark.

Very similar trajectories are forecasted for price developments in 2016 and for developments within the labour market. The HICP is expected to reach 1.6% by the MFIN whilst the rate projected within the COM Winter forecast is set at 1.7%. Similar growth rates are being projected for employment growth and the unemployment rate for 2016. Both institutions expect developments within the labour market for 2016 to improve over and above the performance recorded in 2015.

Growth for 2017 is expected to remain buoyant and strong following the performance of 2016. The COM expects real GDP to grow by 3.4% in 2017 following the 3.9% rate expected for 2016, whilst the MFIN expect real GDP to grow by a further 3.1% in 2017 compared to the 4.2% growth rate for 2016. One though notes differences in the main contributors to growth as forecasted by both institutions. The COM expects a positive contribution from both the domestic side of the economy and also from the external side. This is in contrast with the MFIN forecast which projects a negative contribution from the external sector to growth in 2017. One again notes a major variation in the projected growth rate for gross fixed capital formation. The COM expects this component of GDP to grow only marginally by 1.0% in 2017 whilst the MFIN expect a significant pick up in investment expenditure in 2017 of 9.2%. This variation, apart from having an impact on the domestic contribution to GDP growth also has an impact on the expected rate of growth of imports within the Maltese economy. Variations in this component could also be attributed to the additional data available to the MFIN at the time of preparation for this forecast in comparison to the data available to the COM in its publication of their forecast in February 2016.

The trajectory for inflation, measured by the HICP, for 2017 is for both institutions expected to slightly pick up. The COM expects the inflation rate at 2.1% compared to 1.7% in 2016 whilst the MFIN expectation for 2017 is of 1.9% up from the 1.6% expected for 2016. Similar growth rates, for employment growth and the unemployment rate are being projected by both institutions for 2017. Both institutions expect the labour market to be a key driver of economic activity in the forecast years.

As previously noted in Section 5, the EPD produce their estimates for potential output and the output gap values based on a methodology commonly agreed upon with the COM, the production function approach. The main divergences between the MFIN’s and the COM’s estimates may in part be explained by the fact that each institution utilizes their own macroeconomic forecast as a base for the estimation of potential output and the output gap.

7.3 A comparison of the macroeconomic projections in the USP (April 2016) with those generated by the MFIN in the Draft Budgetary Plan 2016.

This section of the report provides a comparative assessment of the forecasted macroeconomic variables for 2016 presented by MFIN within this forecasting round evaluated against the forecast estimates for the same year generated within their Draft Budgetary Plan (DBP) 2016 published on 12 October 2015. It should be noted that the cut-off date set for the MFIN's October forecasting exercise was set at 4 September 2015, implying differences in the quantity and quality of information available to the MFIN between the two forecasting rounds.

From Table 4 it may be noted that MFIN have undertaken a number of significant revisions between the two forecasting rounds. The economic outlook for 2016 is now expected to be more positive than in the DBP, such that the rate of growth of real GDP for 2016 has been revised upwards from 3.6% to 4.2%. This upward revision is underpinned by a stronger final domestic demand component which more than offsets the downward revision in the contribution of net exports from 3.3 percentage points to 1.6 percentage points. This implies that whereas in October 2015 the MFIN projected a real GDP growth rate for 2016 to be driven principally by net exports, in this forecasting round it is now expected to be spurred on to a greater degree by final domestic demand. These divergences may be attributable to an upward revision in all the components of final domestic demand, hence implicitly accounting for an upward revision in imports of goods and services and a marginal downward revision in the anticipated growth of exports of goods and services.

Assessing the individual expenditure components of GDP, it may be observed that a significant turnaround has occurred with respect to the projection for gross fixed capital formation between the two forecast rounds, from a contraction of 8.0% (in real terms) in the DBP to an expansion of 1.6% in the USP, which should also be evaluated within the context of an actualized growth in 2015 (in real terms) of 21.4%. This revised forecast position is underpinned primarily by the anticipation of considerable developments in gross fixed capital formation which are to be supported by a number of large one-off private and public investment projects. A minor upward revision has also been undertaken with respect to the projected expansion of government final consumption expenditure over 2016, from 1.9% to 2.2% (in real terms). Although this revision may to an extent be of concern to the MFAC, it nonetheless still reflects a decline from the rate of growth of 4.8% recorded over 2015. This new projection reflects the latest information available related to developments in public finances. Private consumption expenditure is also expected to be more robust and expand by 0.6 percentage points more than what was projected in the DBP which may be in part attributable to a more positive outlook for both employment growth and the unemployment rate together with a slower acceleration in prices.

As previously noted, the contribution of net exports to real GDP growth over 2016 in this forecasting round is projected by the MFIN to account for a proportionately smaller portion of the overall anticipated expansion. This revision stems from the fact that MFIN are anticipating a marginally lower growth in exports of goods and services and a simultaneously higher growth in imports of goods and services compared to the previous forecasting round. The marginal decline in exports is in part supported by the downward revision within the assumption undertaken for the real GDP growth rate expected for Malta's main trading partners, whilst the growth in imports of goods and services, is supported by a stronger anticipated performance within the components of final domestic demand.

The MFAC notes that although the GDP deflator has remained consistent between forecast rounds, significant revisions have been carried out within almost all the deflators forecasted by the MFIN. Of particular significance are the changes to the deflators for gross fixed capital formation, exports of goods and services and imports of goods and services. While the MFAC acknowledges the difficulty in accurately forecasting deflators, however as already noted by the MFAC in past macroeconomic assessments, it is of the opinion that more effort should be made to guarantee an improved quality and reliability of these estimates in the light of the substantial bearing they can have within the context of examining the performance of the economy in real terms.

The inflationary pressures for 2016, as captured by the HICP, are now expected to be more subdued than what was forecasted within the DBP, such that the HICP forecast has been revised downwards from 1.8% to 1.6%. A factor which supports this revision is the adjustment in the assumed path for oil prices in 2016 between forecasts, which has been also revised downwards.

The MFAC also notes that the MFIN, in this forecasting round, projects a relatively more positive overall outlook in terms of labour market developments for 2016, in particular one notes an increase in the rate of employment growth and a marginal decline in the unemployment rate. The growth in compensation per employee is however now expected to be marginally more subdued and expand by 2.8% mainly due to strong developments in the labour market.

A divergence may also be noted with respect to the projected potential output and output gap values between the two forecast rounds. In this forecast round the MFIN is projecting an overall potential output of 4.2%, up from the 3.4% forecasted in October. Similarly, an upward revision has also been undertaken with respect to the output gap, which is now projected to amount to 1.6% compared to 0.6%. These divergences may in part be explained by the fact that the estimates are based on different macroeconomic forecasts.

8. Conclusion

The MFAC's evaluation recognizes that on the basis of the latest available information, the projected increase in the headline real GDP figure for 2016 and the other years may indeed be feasible. The MFIN projections analyzed in this report are also broadly in line with the view of other institutions, primarily the CBM and the COM, whereby following the exceptional rate of GDP growth recorded for 2015, there is an expectation for a sustained growth rate within the economy, albeit at levels which are below those recorded for 2015. This MFAC assessment acknowledges a number of risks to the current forecasts. It should be noted that the volatile nature of gross fixed capital formation, which is indeed anticipated to be the most volatile component of final domestic demand, and the underlying risks surrounding the components of the external sector, are the main elements of risk to the expected positive developments for real GDP growth over the forecast horizon. Furthermore, of substantial importance to the projected impact on GDP from the net exports component are the expected developments in both the import and export deflators.

This assessment also recognizes and supports the structured and well documented processes used by the MFIN in the preparation of the current forecasts. It is positive to note that the macroeconometric model used as a tool in the preparation of this forecast is continuously updated to ensure that the observed changes in the structure and composition of the Maltese economy are taken on board within the modelling framework. Furthermore, in view of the openness and small size of the economy the process of internalizing within the modelling framework the views of international reputable organisations helps to reduce the uncertainty which encapsulates the overall forecast exercise.

As noted in previous assessments carried out by the MFAC, while significant efforts have been made to enhance the coordination and streamlining of activities between the different entities which provide their inputs to the fulfilment of the forecasting exercise, there is a need for further initiatives towards this end. The forecasts prepared by the MFIN are used as a base input within a number of reports compiled by various government departments and other entities. It is in this regard that the MFAC recommends that the preparation of these forecasts should give enough lead time to other entities that use the forecasts as inputs for their reports and analysis.

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