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# An assessment of the Macroeconomic Forecasts on the Maltese economy prepared by the Ministry for Finance

## An independent report presented by the National Audit Office

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## Abbreviations

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| **CBM** | **Central Bank of Malta** |
| **COM** | **European Commission** |
| **COM S.F.** | **European Commission Spring Forecast** |
| **ECB** | **European Central Bank** |
| **EPD** | **Economic Policy Division** |
| **GDP** | **Gross Domestic Product** |
| **HICP** | **Harmonized Index of Consumer Prices** |
| **LFS** | **Labour Force Survey** |
| **MFIN** | **Ministry of Finance** |
| **NAO** | **National Audit Office** |
| **NSO** | **National Statistics Office** |
| **STG** | **British Pound** |
| **USD** | **United States Dollar** |

## 1. Introduction.

This report assesses the macro-economic forecasts of the Government of Malta, prepared by the Economic Policy Department (EPD) within the Ministry of Finance (MFIN) and made available to the National Audit Office (NAO) for assessment in the first week of September 2013[1]. The macro-economic forecasts are based on official published data and other ad-hoc information incorporated into the forecast exercise by the EPD and carries a cut-off date of June 24th 2013. This evaluation and assessment document is being prepared for the NAO which has been given the task by the Minister of Finance to carryout an evaluation and endorsement of the macro-economic forecasts for the years 2013 and 2014 underpinning Government's fiscal plans.

The assessment approach adopted in this report involves a number of steps:

a) A brief overview of the methodology used by the EPD in its forecast preparation.
b) An assessment of the plausibility of the current assumptions undertaken in the forecast preparation exercise (2013-2014).
c) A description of the main macro-economic indicators underpinning the expected developments in the economy for the years 2013 and 2014. In particular, the macro-economic projections are compared with forecasts of the same aggregates prepared by other international and local institutions.
d) An assessment of the macro-economic forecasts in relation to the latest published data by official sources.

This assessment document has been prepared after examining and reviewing a number of economic reports which deal with the expected developments within the Maltese economy over the forecast horizon. In addition a number of other sources which the consultants are familiar with have been taken into account. Several meetings have also been carried out with the economists responsible for the macro-economic forecasting exercise at the EPD within the Ministry of Finance in order to answer any specific queries relating to the forecasting exercise.

## 2. Overview of the forecasting methodology.

The Ministry of Finance uses an econometric model of the Maltese economy based on quarterly data to generate yearly macro-economic forecasts. The Economic Policy Department within the Ministry of Finance is responsible for the overall running and maintaining of the econometric model. Such forecasts are included in the annual government budgetary projections and serve as a basis for the preparation of a number of policy direction documents by the Ministry of Finance. In particular, the Stability Program published annually by the Ministry of Finance, in accordance with European Union Council regulations, is based on such forecast estimates.

[1] Referred to in this report as the MFIN September forecast.

Although the model maintains the overall Keynesian structure adopted in the year 2001 by its developers (Cambridge econometrics in conjunction with Ministry of Finance staff) a number of structural differences have been carried out over the years by the staff at the EPD. Given the dynamic nature of the economic modeling process one acknowledges that the econometric model used for the forecast estimation exercise is under constant review and changes are carried out periodically to ensure that developments within the Maltese economy are taken on board adequately. The model is re-estimated periodically with newly issued official data and the equation interrelationships are reviewed regularly by the EPD staff. The model and its results are discussed regularly within the Department and with officials from the Ministry of Finance. The forecasts are also discussed with other institutions which also provide forecasts on the Maltese economy on a periodic basis. It is positive to note here that the process of information gathering and forecast generation that is followed by the Economic Policy Department is comparable to that of other institutions and that staff at the department seek to ensure that the main tool used for the forecasting exercise is kept under constant scrutiny and open up to periodic improvements.

It is important to highlight that the preparation of the forecast also includes an element of expert judgment which is the result of the internal expertise of the economists working at the Economic Policy Department. The economists working at the Department are in constant contact with the relevant authorities related to their field of expertise. Moreover their experience and the anecdotal information which they provide in the analysis of their sectoral fields is an essential element of information which is integrated with the already published information by public institutions. The econometric model provides a systematic framework which ensures the correct recording of judgmental information and ad-hoc knowledge into the modeling scenario.

An important element of the forecasting process involves the determination of a set of economic variables which are treated in the model as totally exogenous to the system of equations. The forecasts prepared are thus affected by a number of underlying assumptions which are predetermined for the exogenous variables. In view of this, the Economic Policy Department ensures that such assumptions are adopted in line with estimates provided by reputable international institutions. It is our opinion that this exercise is carried out in a very rigorous and structured procedure which ensures that all data available up to the cut-off date is taken into account in the preparation of the macroeconomic forecasts. This is especially important in the context of an economic international situation which is increasingly volatile and which is likely to impact significantly on the small and open Maltese economy.

Although it was not the scope of this study to review the technicalities of the econometric model used by the Department, the technical documents provided by the Department for this assessment exercise provide detailed evidence of the sound econometric methodologies used in the preparation of the forecast output. The model is mainly expenditure driven encompassing a number of identity and behavioural equations adopting the error-correction methodology developed by Engle-Granger[2], estimated using quarterly data for the 1995 - 2013 period. As explained above, the model also includes a number of economic variables which are treated as exogenous variables and are thus pre-determined in the forecasting exercise. The model is built around six main blocks which deal with government's fiscal programme, the trade sector, gross value added by sector, the labour market, price developments and the components of aggregate demand. Particular emphasis in this assessment will be given to the aggregate demand components of the model which provide forecast values for the final expenditure components of GDP in both nominal and real terms.

## 3. Assessment of the main assumptions underlying the macroeconomic forecasts.

This section shall provide an overview of a number of economic variables which are treated as exogenous variables in the forecasting exercise and are thus treated as pre-determined or given. The reasons for such treatment vary but are particularly related to the fact that such variables are not regarded as being determined by developments in the Maltese economy. This has to be seen in the context of an economy which is small in size but has a high degree of openness in relation to developments in the international environment. Assumptions for forecast values for such variables are based on projections carried out by reputable institutions, in particular the European Central Bank, the European Commission and Consensus Economics[3]. One also notes, that apart from the variables which deal with developments in the external environment there are also other variables which are treated exogenously within the forecasting exercise because they are specifically policy related variables and because there is no sufficient data/indicators which could be used to provide a suitable forecast variable. The Economic Policy Department sets the values for such variables by taking a set of assumptions, which assumptions are recorded and reviewed periodically to ensure best practice.

Table 1.1 below provides a list of the main technical variables treated exogenously in the modeling exercise together with the main data sources used in this forecasting round. It is the opinion of the consultants that given the information available to the EPD (within the restrictions imposed by a cut-off date set on 24th June 2013) the assumptions adopted by the Economic Policy Department reflect an adequate level of prudence and are reasonable possible values in the particular circumstances to date. In particular, one acknowledges the high volatility and degree of uncertainty expected for such variables given the prevailing international economic and geo-political conditions. One would expect that given the size and openness of the economy, fluctuations in such variables would be likely to impact significantly on the macroeconomic forecasts values.

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[2] Further information on the Engel Granger methodology may be found within *Econometrica Vol.55, No.2, (March, 1987), 251-278.*

[3] Consensus Economics, founded in 1989, is the world's leading international economic survey organization and polls more than 700 economists each month to obtain their forecasts and views.

**Table 1.1: Main macroeconomic forecast assumptions.**

| Variable | Data source | 2013 | 2014 |
|---|---|---|---|
| Short-term interest Rate (annual average) | ECB | 0.8 | 0.8 |
| Long-term interest rate (annual average) | ECB | 4.1 | 4.1 |
| €/USD exchange rate | Consensus Economics | 0.8 | 0.8 |
| €/STG exchange rate | Consensus Economics | 1.2 | 1.2 |
| Nominal Effective exchange rate | Consensus Economics | 1 | 1 |
| Real World GDP[4] | Consensus Economics | 0.3 | 1.4 |
| Nominal World GDP | Consensus Economics | 1.5 | 2.9 |
| Oil Prices (Brent, USD/barrel) | Consensus Economics | 106.9 | 105.4 |

*Sources: Economic Policy Division, Ministry of Finance.*

Documents provided by the EPD show that most of the external assumptions which underpin the economic forecasts (world GDP growth, effective exchange rates and world oil price developments) are based on the views presented by international institutions. Such assumptions are revised periodically by such institutions to reflect changes in the external conditions which surround the macroeconomic forecasts. In particular, one notes that this forecast exercise assumes a lower overall world GDP growth rate for both 2013 and 2014 in comparison to the previous forecasts assumptions used by the EPD in preparation of the forecast undertaken in April 2013. A lower world oil price level is also assumed on the basis of projections available on the 24th of June 2013 (the cut off date for the preparation of this forecast) in line with the forecasts of Consensus Economics. Developments in the exchange rate with respect to the value of the Euro with respect to the Sterling and the Dollar follow the expected developments projected by Consensus Economics.

Furthermore it is important to highlight that the inventory component (which incorporates also any discrepancy between the expenditure and output approach in the official GDP estimation) is kept constant over the forecast period thus ensuring that the contribution of this component to real GDP growth is zero. All economic forecasts are subject to various

[4] It should be noted that within the forecasting exercise this variable refers to the growth of foreign markets relevant for the Maltese economy.

downside and upside risks given the fragile economic outlook expected for most countries. Considering the size and openness of the Maltese economy one notes the sensitivity of the overall macroeconomic forecast values in view of such assumptions and projected developments. It should also be noted that in general the macro-economic forecasts presented are based on a set of external sector assumptions, which although are very difficult to predict in the current macroeconomic environment, provide a reliable set of values which ensure that a prudent view of developments in the external environment surrounding the Maltese economy could be incorporated.

## 4. Description of forecast for 2013 and 2014 as presented by MFIN.

This section shall provide an overview and description of the main macroeconomic variables forecasted for 2013 and 2014 as provided by the Economic Policy Department within the Ministry of Finance. It should once again be noted that the resulting forecasts should therefore be appraised within the context of the forecasting exercise having utilized all the required information which was available up till the specified cut-off date of the 24th June 2013.

According to the derived macroeconomic projections illustrated within Table 1.2 it is expected that in 2013 Gross Domestic Product (GDP), both in nominal terms, at 3.7%, as well as in real terms, at 1.2%, is expected to grow at an accelerated rate from what was observed in 2012 which recorded a nominal GDP growth rate of 3.1% and a real GDP growth rate of 0.8%[5]. The Ministry of Finance is thus projecting a further pick up in economic activity from what was recorded in the year 2012. One notes that for 2012 the Maltese economy did however perform better than the euro area average which as a whole experienced a contraction of real GDP of 0.6% [6]. The projections for 2014 are showing a sustained increase in economic activity, both in nominal and real terms. Nominal GDP is expected to grow by 3.8% in nominal terms compared to an increase of 1.7% expected in real terms. Underpinning the result one notes the expected developments in the GDP deflator which is projected to register an increase in 2013 of 2.5% and a further increase of 2% for 2014.

The main indicator for inflation and price stability in the economy, the Harmonized Index of Consumer Prices (HICP), is expected to increase by 1.7% throughout 2013 and accelerate even further in 2014 by 2.3%. The estimates for 2013 and 2014 however present a scenario in which inflationary pressures are expected to be more subdued than what was experienced throughout the year of 2012. The Ministry of Finance is also projecting an increase in total employment of 1.8% for both 2013 and 2014. The unemployment rate is forecasted to fall from the rate of 6.5% observed in 2012 to an unemployment rate of 6.3% in both 2013 and 2014, which is implicitly the result of the increases in total employment and the overall growth in economic activity predicted to occur throughout the forecast horizon.

[5] The actual figures for 2012 were obtained from the NSO release 170/2013 published on the 6/9/2013.
[6] Figure obtained from the Eurostat Statistical Database accessed on 10/09/2013.

**Table 1.2: Macroeconomic projections (MFIN September 2013).**

| | 2012 Actual | 2013 | 2014 |
|---|---|---|---|
| **At current prices** | | | |
| Private Consumption | 1.6 | 2.6 | 3.6 |
| Public Consumption | 7.0 | 3.0 | 2.9 |
| Gross Fixed Capital Formation | 0.7 | 2.5 | 8.1 |
| Exports of Goods and Services | 6.2 | 4.2 | 4.3 |
| Imports of Goods and Services | 4.5 | 3.9 | 4.1 |
| **Nominal GDP** | **3.1** | **3.7** | **3.8** |
| **Contributions to growth (Nominal)** | | | |
| Final Domestic demand | 2.5 | 2.6 | 3.9 |
| Inventories | -1.3 | 0.6 | -0.6 |
| Net Exports | 1.8 | 0.5 | 0.5 |
| **At constant prices** | | | |
| Private Consumption | -0.2 | 1.2 | 1.3 |
| Public Consumption | 5.0 | -0.4 | 1.3 |
| Gross Fixed Capital Formation | -3.9 | 0.7 | 3.5 |
| Exports of Goods and Services | 7.0 | 1.9 | 1.9 |
| Imports of Goods and Services | 5.5 | 1.5 | 1.8 |
| **Real GDP** | **0.8** | **1.2** | **1.7** |
| **Contributions to growth(Real)** | | | |
| Final Domestic demand | 0.3 | 0.8 | 1.4 |
| Inventories | -1.2 | 0.0 | 0.0 |
| Net Exports | 1.7 | 0.4 | 0.2 |
| **Deflators** | | | |
| Private Consumption | 1.8 | 1.4 | 2.3 |
| Public Consumption | 2.0 | 3.4 | 1.6 |
| Gross Fixed Capital Formation | 4.6 | 1.8 | 4.6 |
| Exports of Goods and Services | -0.8 | 2.1 | 2.7 |
| Imports of Goods and Services | -1.0 | 2.2 | 2.3 |
| **GDP Deflator** | **2.3** | **2.5** | **2.0** |
| **HICP** | **3.2** | **1.7** | **2.3** |
| | | | |
| **Labour Market** | | | |
| Total employment (Headcount, LFS) | 2.9 | 1.8 | 1.8 |
| Unemployment Rate | 6.5 | 6.3 | 6.3 |

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

The forecasted increase in Nominal GDP for 2013 is expected to be supported by the increase in overall employment levels which are projected to have a positive impact on the forecasted estimate for private consumption expenditure in 2013. In fact, private consumption expenditure is projected to pick up significantly compared to 2012 and increase by 2.6%. Positive growth rates are also expected for government consumption expenditure and gross fixed capital formation. One highlights that the expected increase in government current consumption is of a lower magnitude compared to 2012, reflecting the implementation of the government's fiscal consolidation programme. The pick up in the domestic demand component contribution to GDP growth is expected to be the main driving force behind the projected increase in GDP for 2013. The contribution to GDP growth in 2013 from the domestic demand component is expected to reach 2.6%. The Ministry of Finance is projecting a faster rate of growth for both private consumption expenditure and investment in 2014 whilst government consumption expenditure is forecasted to increase at similar rates compared to 2013. Overall the domestic demand component is expected to contribute 3.9% to GDP growth for 2014, making this component the main contributor to GDP growth.

Examining the two variables relating to the external trade of goods and services within the economy, namely, exports and imports of goods and services (in nominal terms), it may be noted that although these two estimates are both forecasted to grow, the pace at which this growth takes place is expected to be slower than what was experienced in 2012. Exports of goods and services are expected to grow by 4.2% and imports of goods and services are expected to grow by 3.9% in 2013. The figures forecasted for both 2013 and 2014 portray a scenario in which net exports are expected to be significantly smaller than what was observed in 2012. Therefore the positive impact that the external balance of goods on services may have had on the economy in 2012 is projected to diminish in 2013 and 2014. The contribution of the net exports component to nominal GDP growth over the forecast horizon is expected to be 0.5%.

A deeper understanding of how the Maltese economy is predicted to perform in 2013 and 2014 may be gained by analyzing the macroeconomic projections valued at constant prices, thereby eliminating any potential distortionary effects which may be caused by the impact of variations in prices. Real GDP growth is expected to increase in 2013 by 1.2 % 2013, compared to a growth rate of 0.8% in 2012 and to gain even more momentum in 2014 and grow by 1.7%.

Private consumption expenditure at constant prices is expected to increase by 1.2% in 2013 which illustrates a significant turnaround from what was observed in 2012 were private consumption at constant prices contracted by 0.2%. The expected increase in private consumption expenditure over 2013 by the Ministry of Finance is partly expected to be driven by an estimated increase in total employment in 2013 of 1.8% and an expected pick up in consumer confidence over the full 2013 period. Private consumption expenditure in 2014 is expected to grow slightly faster, reaching 1.3%. Gross fixed capital formation at constant prices is expected to grow marginally during 2013 at a rate of 0.7% following the negative rate of growth recorded in 2012. This component of expenditure is forecasted to continue to expand in 2014 by 3.5%, partly reflecting the likely impact of a number of projects which are in the pipe line by both the private and public sector. Public consumption at constant prices is however expected to fall by 0.4% throughout 2013. This contraction is contingent upon the implementation of the government's fiscal strategy as specified within the Stability Programme 2013-2016 published in April 2013 by the Ministry of Finance. Given the expected developments in the above domestic demand components, the Ministry of Finance is projecting that the increase in GDP forecasted for 2013 and 2014 is mainly spurred on by the contribution of the domestic demand components to GDP. This is expected to reach 0.8% of the growth in real GDP in 2013. In 2013, the main driver of real economic growth is expected to be private consumption given the expected fall in public consumption and the moderate expected increase in gross fixed capital formation. In 2014, the prominence of final domestic demand to the overall contribution to growth is expected to increase to 1.4%, which increase counteracts for the expected reduction in the contribution to growth from the net exports component in 2014.

The external sector is expected to grow at a slower pace than what was experienced in 2012 such that exports of goods and services are estimated to grow at 1.9% in real terms and imports of goods and services are expected to grow at 1.5% in real terms. This growth is also expected to continue throughout 2014 with exports of goods and services increasing by 1.9% in real terms and imports of goods and services also increasing by 1.8% in real terms. According to the EPD such developments are underpinned by the volatile nature of the oil bunkering and oil trans-shipment sectors and their likely impact on trade and GDP statistics. Another issue to be highlighted is the fact that the discrepancy between exports and imports of goods and services in real terms is expected to fall from 1.5 percentage points in 2012 to 0.4 percentage points in 2013 and is forecasted to contract further in 2014 to just 0.1 percentage points. As a result, the contribution of the net exports sector to the overall growth in GDP is expected to fall over the forecast period from around 0.4% in 2013 to around 0.2% in 2014.

## 5. Comparison of MFIN forecast with other institution's expectations for the Maltese economy.

This section of the report aims to provide a brief analysis which compares the main macroeconomic variables obtained by the EPD as a result of its September forecast exercise, which are described within the previous section, with other forecasts generated by two highly reputable initiations, namely the European Commission and the Central Bank of Malta (CBM). The most recent[7] forecast exercise undertaken by the European Commission is the Spring Forecast (Com. S.F.) which was published in May 2013 and has a cut-off date specified for the 23rd of April 2013. Whilst the latest available forecast for 2013 and 2014 undertaken by Central Bank of Malta may be obtained from within the Quarterly Review 2013 Vol. 46 No.1 published in June 2013 which has a cut-off date specified for the 7th May 2013. This section shall however first commence by highlighting the main revisions that have occurred in the September forecast when compared to the previous forecast exercise undertaken by the EPD, the April Forecast.

[7] This report was prepared throughout the first weeks of September 2013.

The April forecast was utilized within both the Economic Review 2013 document and the Update of the Stability Programme 2013-2016 for Malta which were both published by the Ministry of Finance in April and has been conducted using cut-off date[8] as at the 20th of December 2012. The macroeconomic projections for 2013 and 2014 for both the April as well as the September forecast exercises performed by the EPD are illustrated, together with the forecasts of the other aforementioned institutions, within Table 1.3.

One very important factor which has to be taken into account when evaluating and comparing estimates of forecasted macroeconomic variables from different sources is that not only do different institutions utilize different model specifications, but crucially these forecast exercises occur at different points in time, thus implying that the resulting estimates are therefore to a certain extent not strictly comparable. This is because earlier forecast exercises would not have had data and information available to them which forecasts undertaken in subsequent periods would have had at their disposal. Given that these forecasts are short-term forecasts every additional quarter of new data and information, or even an updating of previously observed statistics may have a significant impact on the resulting estimates. On the other hand it should be noted that although the various institutions undertake their forecast exercises over different periods the resulting estimates are in actuality not only contingent on the level of data availability but the exercise itself does also rely to a some extent on the value judgment, the experience and the expertise of the team undertaking the forecast. This fact therefore still allows for the possibility of gaining meaningful insights from the comparison of the forecasted estimates obtained from the various institutions.

### 5.1 An overview of the revised projected estimates of the EPD from the April to the September forecast.

The Ministry of Finance has revised downwards[9] its forecast estimate for real GDP in 2013 from 1.4% to 1.2%, whilst on the other hand real GDP growth in 2014 has been revised upwards from 1.6% to 1.7%. It is important to highlight that in this latest revision the contribution to GDP growth attributable to the final domestic demand category remained unchanged from the April forecast, at 0.8%. It is the view of the Ministry of Finance that the economy is expected to register its main impetus from the final domestic demand side. In particular, the significant downward revision in public consumption, which follows Government's fiscal strategy as indicated within the Stability Programme 2013-2016, has been offset by the upward revision of private consumption (due to an upward revision in employment growth) and by the marginal upward revision of gross fixed capital formation, based on newly expected developments in private investment which are expected to materialize in 2013.

[8] This cut-off date only refers to the actual data inputted for the econometric estimation. It should be noted that the main external assumptions discussed in section 2 were however updated utilizing the Consensus Economics release published in March 2013.

[9] It should be noted that the European Commission also performed a downward revision of the estimate for real GDP growth in 2013 between its Winter 2013 forecast and its Spring 2013 forecast from 1.5 % to 1.4 %.

**Table 1.3: Comparison of macroeconomic projections over the forecast horizon.**

| | 2013 | | | | 2014 | | | |
|---|---|---|---|---|---|---|---|---|
| | MFIN | | COM. S.F | CBM | MFIN | | COM. S.F | CBM |
| **At current prices** | APRIL | SEPT | | | APRIL | SEPT | | |
| Private Consumption | 2.9 | 2.6 | 2.9 | N/A | 2.6 | 3.6 | 3.5 | N/A |
| Public Consumption | 4.5 | 3.0 | 3.9 | N/A | 4.0 | 2.9 | 4.3 | N/A |
| Gross Fixed Capital Formation | 2.4 | 2.5 | 6.0 | N/A | 5.9 | 8.1 | 7.0 | N/A |
| Exports of Goods and Services | 4.1 | 4.2 | 2.3 | N/A | 3.6 | 4.3 | 6.2 | N/A |
| Imports of Goods and Services | 4.1 | 3.9 | 2.2 | N/A | 3.4 | 4.1 | 6.4 | N/A |
| **Nominal GDP** | **3.3** | **3.7** | **3.6** | **N/A** | **3.8** | **3.8** | **4.1** | **N/A** |
| **At constant prices** | | | | | | | | |
| Private Consumption | 0.9 | 1.2 | 0.9 | 1.0 | 1.0 | 1.3 | 1.3 | 2.1 |
| Public Consumption | 0.6 | -0.4 | 1.9 | 1.0 | 0.5 | 1.3 | 2.1 | 0.7 |
| Gross Fixed Capital Formation | 0.5 | 0.7 | 1.5 | 3.2 | 3.2 | 3.5 | 2.5 | 7.0 |
| Exports of Goods and Services | 2.1 | 1.9 | 2.2 | 1.8 | 1.6 | 1.9 | 4.6 | 2.7 |
| Imports of Goods and Services | 1.6 | 1.5 | 2.0 | 1.8 | 1.2 | 1.8 | 4.7 | 3.6 |
| **Real GDP** | **1.4** | **1.2** | **1.4** | **1.4** | **1.6** | **1.7** | **1.8** | **1.9** |
| **Contributions to growth** | | | | | | | | |
| Final Domestic demand | 0.8 | 0.8 | 1.1 | 1.3 | 1.1 | 1.4 | 1.6 | 2.5 |
| Inventories | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net Exports | 0.6 | 0.4 | 0.3 | 0.1 | 0.5 | 0.2 | 0.2 | -0.6 |
| **Deflators** | | | | | | | | |
| Private Consumption | 2.0 | 1.4 | 2.0 | N/A | 1.6 | 2.3 | 2.2 | N/A |
| Public Consumption | 3.9 | 3.4 | 2.0 | N/A | 3.5 | 1.6 | 2.2 | N/A |
| Gross Fixed Capital Formation | 1.9 | 1.8 | 4.5 | N/A | 2.7 | 4.6 | 4.5 | N/A |
| Exports of Goods and services | 2.0 | 2.1 | 0.1 | N/A | 2.0 | 2.7 | 1.6 | N/A |
| Imports of Goods and Services | 2.5 | 2.2 | 0.2 | N/A | 2.2 | 2.3 | 1.7 | N/A |
| **GDP Deflator** | **1.9** | **2.5** | **2.2** | **N/A** | **2.2** | **2.0** | **2.3** | **N/A** |
| **HICP** | **2.0** | **1.7** | **1.9** | **1.4** | **1.6** | **2.3** | **1.9** | **1.4** |
| **Total employment (Headcount, LFS)** | N/A | 1.8 | 1.8 | 1.4 | N/A | 1.8 | 2.1 | 1.4 |
| **Unemployment Rate** | 6.6 | 6.3 | 6.3 | 6.5 | 6.4 | 6.3 | 6.1 | 6.4 |

*Sources: Economic Policy Department, Ministry of Finance, Central Bank of Malta, European Commission.*

On the other hand the contribution of net exports to real economic growth has been revised downwards from 0.6% to 0.4% due to the revised drop in both the imports and exports of goods and services category of expenditure. This drop in both the trade components is contingent upon the downward revision in the assumption of world real GDP for 2013. Given that the contribution to real GDP growth of final domestic demand had remained constant throughout both forecast rounds the projected lower real GDP growth in 2013 of 1.2% may thus be pinned down to the fact that exports of goods and services are expected, according to the September forecast, to fall by more than the fall in the imports of goods and services.

The revised estimates for 2014 portray a scenario in which final domestic demand is set to be stronger than previously forecasted as well as also be responsible for a larger contribution of real GDP growth. Although within the September forecast both the growth rates of imports and exports of goods and services have been revised upwards, the expected increase in imports is of a larger magnitude and thus the overall contribution from the net exports component to real GDP growth in 2014 is expected to fall when compared to the April forecast.

The plausibility of such a revision has to be evaluated in terms of the information available at the date of forecast preparation. The reliance on an eventual pick up in consumer spending over the year 2013 is an essential element on which the expected GDP growth hinges. The plausibility of this scenario is one of the main risks surrounding the forecast presented by MFIN. Furthermore, the weaker external demand sector is leading to a drag in real GDP growth. A better understanding of the likely impact of new data on each of the components of expenditure and thus on the expectation of real GDP for 2013 is provided in Section 6 of this report.

Comparing the two forecasts undertaken by the EPD, at current prices, for 2013 it is immediately observable that in the September forecast the economy is expected to grow at a stronger pace. Nominal GDP growth in 2013 is now expected to reach 3.7% compared to the 3.3% forecasted in April. It should be noted that given the downward revision of private and public consumption expenditure (at current prices) and the marginal increase in gross fixed capital formation, that the increase in nominal GDP growth is thus expected to be driven primarily from changes to the external sector of the economy. Imports of goods and services have been revised downwards in comparison to an upward revision in exports of goods and services. One also notes here the revisions carried out within the different expenditure deflator components. The overall GDP deflator is now projected to increase significantly on the basis of a fall in the import deflator which more then offsets the significant downward revision in the household consumption deflator (which followed a downward revision in the HICP).

Although both forecasts for 2014 predict a sustained pace of nominal GDP growth at 3.8% one notes a significant upward revision in the components for private consumption expenditure and investment in the September revision. This leads to a significant increase in the contribution of the component to GDP growth forecasted for 2014. Over the course of 2014, overall prices as measured by the HICP have been revised significantly upwards leading to increases in the deflator for the private consumption category. The revision recorded for the other expenditure deflator categories resulted in a downward revision in the overall GDP deflator. Whilst one understands the considerable difficulty in forecasting deflators, given the importance of these variables, it is the author's opinion that further modeling efforts in the specific area would strengthen the overall efficacy of the econometric modeling exercise.

**5.2 A comparison of the EPD September projections with those generated by the European Commission in its Spring forecast.**

The Spring 2013 forecasts for Malta presented by the Commission in May 2013 is an updated forecast of the Winter 2013 publication. The update primarily reflects a downward revision in both nominal and real GDP estimates for 2013 with nominal GDP now estimated to grow by 3.6% and real GDP by 1.4%. In nominal terms, the commission is now expecting higher rates of growth in both private and public consumption expenditure, reaching 2.9% and 3.9% respectively, whilst overall investment is expected to grow at a slightly slower pace. The net exports sector of the economy is now projected to contribute less to the overall forecasted GDP increase.

The Ministry of Finance forecast for nominal GDP in 2013 is approximately equal to the Commission forecast however one notes a number of differences in the components of GDP. Whilst acknowledging the importance of the domestic demand component to GDP growth the Ministry of Finance is projecting a more cautious pick up in this component of expenditure for 2013. On the other hand, the Ministry of Finance is projecting a larger contribution to GDP growth from the net exports sector. Both institutions forecast a more sustained GDP growth for 2014 primarily driven by developments in the domestic demand components.

On the real side, the growth rate of 1.4% forecasted for GDP growth by the European Commission for 2013 reflects mainly expected improvements in the domestic demand components of the Maltese economy. The European Commission estimates that the contribution of the final domestic demand component is expected to reach 1.1% primarily underpinned by increases in each of its domestic demand components. In particular, one notes the divergence in the forecasts between the European Commission and the Ministry of Finance for the government consumption category. The view of both institutions with regards to the positive contribution of net exports to GDP growth is very similar with the growth in exports assumed to be larger than the expected growth in imports.

A very similar outlook for real GDP growth in 2014 is presented by both the Ministry of Finance and the European Commission. The main impetus for the expected growth rate of 1.7% by the Ministry of Finance and 1.8% by the European Commission is the sustained pick up in domestic demand activity which is assumed to be the main contributor to GDP growth for the year. The forecasted developments for the external sector are also quite similar between the two institutions, whereby net exports of goods and services are forecasted to contribute just 0.2% of the forecasted GDP increase.

Both institutions have revised downwards their expectations for HICP developments in 2013. Whilst the European Commission is forecasting an increase in prices of 1.9% for 2013 the Ministry of Finance is setting the inflation rate at 1.7%. In contrast to the expected increase in the rate of inflation to 2.3 per cent in 2014 by the MFIN, the rate of inflation for 2014 is projected by the European Commission to remain at 1.9%. Developments in the labour market over the forecast years, as viewed by the two institutions, are very similar with the European Commission expecting a slightly more positive increase in employment growth for 2014. As a result, the European Commission is expecting a slightly lower rate of unemployment for 2014.

### 5.3 A comparison of the EPD September projections with those generated by the Central Bank of Malta in June 2013.

By comparing the two sets of forecasted estimates from Table 1.3 we observe that compared to the CBM the EPD is forecasting a more cautious level of real GDP growth in 2013, at 1.2% compared to the 1.4% forecasted by the CBM. The CBM is forecasting a marginally lower but still positive growth rate in private consumption, a considerably larger increase in gross fixed capital formation than the EPD of 3.2% compared to the 0.7% forecasted by EPD. The most significant discrepancies arise from the comparison of public consumption expenditure and the variables relating to the external sector. The EPD forecasts a contraction of public consumption expenditure by 0.4% for 2013, whereas the CBM estimates that rather than a fall pubic consumption expenditure is expected to effectively grow by 1%. The CBM also forecasts that exports and imports of goods and services are to grow by 1.8% in 2013 thus leading to a contribution to growth from net exports which is considerably below the September forecast provided by the EPD.

There is thus an important difference between the two forecasts for 2013 which stems primarily from the divergence of relative contribution of final domestic demand and net exports to real economic growth. Although both forecasts envisage that final domestic demand will be the main driver of economic growth in 2013 there is a substantial difference in the magnitude of the associated contribution to real GDP growth. The CBM forecasts a contribution to real GDP growth of final domestic demand amounting to 1.3% and a marginal 0.1% contribution to be attributed to net exports. It is clear that the EPD attaches less weight to the contribution of the final demand component to GDP growth whilst assuming that the external sector will also contribute to GDP growth for 2013.

The rate of growth in real GDP for 2014, forecasted by the EPD, is once again below what is being forecasted by the CBM. This implies that even for 2014 the EPD are taking a more cautious stance in terms of real GDP growth. The projected increase in real GDP growth by the CBM from 2013 to 2014 is driven by the increase in private consumption, a moderate increase in public consumption and to a lesser extent an increase in gross fixed capital formation. The CBM forecast also expects that the rate of growth of imports of goods and services will rise faster than the rate of growth of exports of goods and services.

These forecasts have implicitly resulted in a negative contribution to real GDP growth from the net exports component of 0.6% and a final domestic demand component contributing to an overwhelming 2.5%. The forecasted macroeconomic variables for 2014 hence illustrate a divergence in the relative contributions to economic growth. The EPD expects final domestic demand to be the main driver of growth, however it also forecasts a minor contribution of 0.2% attributable to net exports. On the other hand, the forecasts presented by the CBM however suggest that final domestic demand will be the only component to contribute to the real economic growth forecasted throughout 2014.

One notes that in both years of forecast, 2013 and 2014, the CBM is foreseeing a very week external sector and that the contribution of this sector to GDP growth is expected to be minimal. This position is not endorsed by the forecasts presented by the Ministry of Finance in its September revision. One also notes the variation in the EPD forecast for inflation as compared to the CBM forecast for the HICP. It is the view of the CBM that prices pressures will be lower both in 2013 and 2014. The Ministry of Finance forecast for the HICP in 2014 suggests a pick up in the price level and thus a major divergence between the two institutions is noted.

Assessing the expected developments in the labour market it may be observed that the forecasts projected by the CBM seem to be to some extent less optimistic than those projected by the EPD. Although the CBM still projects a positive growth in total employment over both 2013 and 2014, as well as a fall in the unemployment rate between 2013 and 2014, the EPD forecasts total employment to grow at a faster pace over both years as well as the unemployment rate to be lower in both 2013 and 2014.

**6. An overview of the latest published information and associated risks on the current forecasts.**

This section will analyze the risks associated with the current macro-economic forecasts under review in the light of the most recent available data published by the National Statistics Office and other indicators which could shed some light into the balance of risks which one can attribute to the forecast values presented by MFIN for analyses in this report.

Of prime importance to the developments in the external sector of the Maltese economy are recent developments in the expectations for world and EU GDP growth for the year 2013 and beyond. Data published by the European Commission in its Spring Forecast document shows that the European Commission is expecting that the EU economy will stabilize slowly in the first half of 2013, with some expansion in GDP growth expected in the second half of 2013. Growth in the EU is expected to pick up at only moderate speed in 2014. This has to be seen in the context of an expected global economic recovery which is however still expected to suffer from the fragile macroeconomic and financial environment. Fluctuations in the international price of oil, particularly given the current international geo-political tensions, are also of prime relevance to developments in the Maltese economy. Developments in any of the above mentioned categories, which are exogenous to the Maltese economy, would have an impact on the trajectory of the external sector of the Maltese economy.

Officially published data, by the NSO, for the first half of 2013[10], shows that the economy registered an increase in real terms at a rate of 1.7%. This increase is underpinned by a significant drop in the imports of goods and services category which is of bigger magnitude compared to the drop recorded in the exports of goods and services category. The final domestic demand category contributed negatively to the growth in GDP over the same six months period. In particular one notes that the private household expenditure and investment categories have registered drops when compared to the same six months of last year. In view of such developments, the balance of risks to achieve the positive contribution to GDP growth from the domestic demand side projected by MFIN in the current forecast for 2013, increases. The volatility of developments in the international environment, primarily developments in world oil prices, world and EU GDP growth expectations and the significant reductions recorded in both the imports and exports of goods and services category during the first six months of year 2013, have increased the uncertainty associated with the composition of the expected contribution of the net external position to GDP growth over the forecast horizon. It is our view that the contribution of this sector to the overall GDP growth is extremely volatile and given the performance registered for the first half of 2013 the balance of risks to achieve the forecasted rates of growth in the current forecast round has grown. This would very much depend on whether the external sector of the economy would manage to reverse the relatively high negative rates of growth recorded in the first half of 2013.

On the nominal side, official statistics for the first six months of 2013 show an increase in GDP of 3.7%. The increase in GDP is mainly driven by the significant fall in imports of goods and services which more than offsets the fall in exports of goods and services. Latest data published by the National Statistics Office confirms this trend for the January to July period of 2013 compared to the same comparable period of 2012. One also notes the subdued increase (0.9%) registered in private consumption expenditure over the six months to June 2013 which could likely have an impact on the expected MFIN forecasted increase of 2.6% for the full year of 2013. The fall registered in the investment category for the Jan-Jun 2013 period could also impact negatively on the overall forecasted increase being projected by MFIN for this component of expenditure for 2013. Latest data available for the HICP shows a constant downward trajectory in this indicator for price developments in the economy. The expected fall in the inflation rate projected by MFIN for 2013 might well be on track.

The expected developments in the real GDP growth rates for 2014 compared to 2013 are a plausible assumption given the information available to date. At a disaggregated level however, one should note that an assessment of the impact of the latest published figures on the forecasted economic developments for 2014 is surely more volatile and thus less certain. The projected increase in the contribution of the domestic demand component to 1.4% will be surely affected by the development in the growth levels which are actually achieved for 2013.

[10] NSO release 170/2013 published on 6/9/2013.

The improvements expected by MFIN for the main final domestic demand components of private final consumption expenditure and gross fixed capital formation for 2014 are plausible, but significantly depend on, the expected pick up which is forecasted for 2013. Recent data for the external sector is clearly pointing to significant changes in the expected rates of growth in the category for exports and imports of goods and services for 2013. This will surely have a clear impact on the forecasted values for both categories in 2014.

**7. Conclusion.**

Whilst recognizing that the headline GDP figures (for both nominal and real) as forecasted by MFIN might be achievable for the years 2013 and 2014, the risk associated with the achievement of the expected rates of growth would very much depend on the developments in the different components which make up GDP. The Ministry of Finance is projecting an increase in GDP growth which is primarily related to growth in the contribution of the domestic demand component of the economy for both 2013 and 2014. In the light of the most recent data available the balance of risks for this to hold are significantly large as this component of the economy is growing at a relatively slow pace compared to the overall projected increase for 2013. Furthermore, the latest developments in the external sector of the economy point to a positive contribution to growth, which is in access of the contribution from the domestic component of the economy. Indeed, developments in net exports might result to be the main drivers for the expected growth developments for 2013 if current trade data trends persist for the rest of the year.

One acknowledges the downside and upside risks associated with forecasting during this period of international economic instability and one fully agrees with the view taken by the EPD to stick to the main assumptions of international reputable institutions in determining the exogenous variables of the model. One also acknowledges that through the use of its macro-econometric model and the ad-hoc information available during the forecasting exercise the forecasts presented are internally consistent and follow sound economic principles. It is our judgment that the current balance of risks for the composition of this forecast to materialize hinges on developments in the economy over the forthcoming six month period. Given the latest data available an element of over predication in the role of the final domestic demand component to GDP growth is clearly seen as underpinning the MFIN forecasts for GDP growth values. Furthermore, recent developments in net exports seem to increase the risks associated with the projected values for both exports and imports of goods and services and possibly lead to significant differences in the contribution rate of this component to the overall forecasted GDP growth levels.