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MALTA

An assessment of the macroeconomic forecasts for the Maltese economy performed by the Ministry of Finance in April 2014

An independent report presented by the National Audit Office

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Abbreviations

AMECO	**Annual Macro-Economic database of the European Commission's Directorate General for Economic and Financial Affairs.**
CBM	**Central Bank of Malta**
COM	**European Commission**
COM WIN	**European Commission Winter Forecast 2014.**
ECB	**European Central Bank**
EPD	**Economic Policy Department**
EU	**European Union**
GDP	**Gross Domestic Product**
HICP	**Harmonized Index of Consumer Prices**
IIP	**Individual Investors Programme**
LFS	**Labour Force Survey**
MFIN	**Ministry of Finance**
MFIN APR	**Forecast exercise undertaken by the Ministry of Finance in April 2014.**
MFIN SEPT	**Forecast exercise undertaken by the Ministry of Finance in September 2013.**
NAO	**National Audit Office**
NPISH	**Non-Profit Institutions Serving Households**
NSO	**National Statistics Office**
SGP	**Stability and Growth Pact**
STG	**British Pound**
ULC	**Unit Labour Cost**
USD	**United States Dollar**

1. Introduction.

This report provides an assessment of the macro-economic forecasts presented by the Government of Malta within the Stability and Growth Pact (SGP) document dated April 2014. The macro-economic forecasts have been prepared by the Economic Policy Department (EPD) within the Ministry of Finance (MFIN) and presented to the National Audit Office (NAO) for review in the third week of April 2014. The presented forecasts carry a cut-off date for data of 20th March 2014. In line with the recommendation of the Council directive 2011/85/EU and the Regulation (EU) No.473/2013 the National Audit Office has been given the task by the Minister of Finance to carryout an assessment of the main macro-economic forecasts within the Government Stability and Growth Pact (April 2014) report.

This report will be divided in a number of sections:

a) An overview of the methodology used by the Economic Policy Department to generate the macroeconomic forecasts will be undertaken.
b) An assessment of the underlying assumptions which underpin the current macroeconomic forecast will be presented.
c) The main macroeconomic indicators underpinning the forecasts will be assessed for the 2014-2017 period.
d) A description of the main revisions undertaken in the macroeconomic forecast in comparison to the previous forecast presented by the Government in the Budget Document presented in November 2013.
e) A detailed comparison of the current forecast in the SGP (April 2014) to other macro-economic forecasts presented by other international and local institutions.

This document has been prepared by the consultants following a series of meetings with personnel responsible for the generation of the forecast under review. In particular, the staff at the Economic Policy Department have provided the necessary information and background assumptions to the forecast under analysis. A number of economic reports which provide detail on the current and expected developments within the Maltese economy have also been reviewed and referred to in the preparation of this assessment.

2. The forecasting methodology.

Following a similar exercise which was undertaken in September 2013[1] by the authors of this report and following a number of meetings held with the Economic Policy Department it was ascertained that the forecasting methodology used for this forecast run has remained the same. The Economic Policy Department use a Keynesian structure type econometric model, based on quarterly data to generate yearly macroeconomic forecasts. The econometric model used in the preparation of the forecast is in principle expenditure driven, including a number of identity and behavioural equations using data for the 1995-2013 period. The model also includes a number of predetermined variables. It is evident from the documents provided by the Economic Policy Department for this forecasting exercise that sound econometric methodologies have been used in the overall preparation of this forecast output. The overall running of the model, its updating and fine-tuning processes are carried out by the economists

[1] The consultants preparing this report have also prepared a similar report in September 2013 which assessed the macroeconomic forecasts prepared by the Ministry of Finance in September 2013.

working within the department. One positively notes the detailed and well structured processes used by the Economic Policy Department to ensure that all available information which could assist in the preparation of the forecast is collected, analyzed and taken on board. The macro-economic forecasts presented in Chapter 2 of the Stability and Growth Program is an output from this forecasting model.

The econometric model used in this forecasting run is based on the latest data issued by the National Statistics Office (NSO) up to the 20th March 2014 and all equations in the system have been re-estimated to reflect the recent available data and economic trends. Given the dynamic nature of the modeling process one acknowledges the need for constant revisions and fine-tuning measures to ensure that current economic relationships are adequately reflected in the modeled relationships. The Economic Policy Department regularly discusses the results obtained from its modeling exercise with other officials within the Ministry of Finance and other institutions, who also provide forecast views and estimates of the Maltese economy. This ensures that all information used in the forecasting exercise is up to date and reviewed by experts in the relevant fields of interest. Furthermore, this helps to ensure that the modeling tool available at the Economic Policy Department is kept under constant scrutiny and open to the necessary improvements. It is clear from the meetings with the staff at the EPD that every effort is made to ensure that the current modeling framework reflects the latest available information and incorporates all planned developments in the short to medium term horizon.

Like most other modeling exercises, the preparation of the forecast includes an element of expert judgement. It is positive to note that this is a process, which is well documented and done with detail, and is the result of an internal exercise carried out by the economists working within the Economic Policy Department. It is the experience and anecdotal information available to the economists working in their relevant field which is the prime input to the judgement of the experts. Furthermore, the econometric model, through its detailed systematic framework ensures that the correct recording of data is efficiently captured and translated into information which is pertinent to the forecast of the variables under study.

One notes that the current forecasting process incorporates a set of variables which are treated as completely exogenous to the system of equations. Such variables are dealt with as predetermined and are not affected by the assumed interlinkages in the system. In most of these instances such assumptions, particularly those relating to international developments, are adapted from assumed estimates provided by reputable international institutions. This has to be seen in the light of the international economic situation which still shows some elements of volatility and instability, elements which are likely to impact on Malta’s small and open economy. This practice ensures that all the relevant information up to the cut-off date established for this forecasting exercise is taken on board.

3. Assessment of the main assumptions underlying the macroeconomic forecast.

As explained in the previous section of this report, the forecasts presented in the SGP (April 2014) document are based on a number of economic variables which are treated as exogenous to the overall forecasting exercise. Given the smallness and openness of the Maltese economy in relation to developments in the international economy it is evident that developments in such variables are not affected by factors specifically related to the Maltese economy.

Table 1.1 below provides a list of the main technical variables which are treated exogenously and also provides information on the main sources of information used by the Economic Policy Department to set such assumptions. One notes that most of these variables are related to developments in the international economic environment and projections are based on data published by reputable international organizations, in particular the European Central Bank, the European Commission and Consensus Economics[2]. The modeling framework also includes a number of other assumptions dealing with specific policy related variables which are treated exogenously. The projections set for such variables are mainly set by assumption and are based on the best possible information to date whilst they are periodically reviewed to ensure consistency with the prevailing macroeconomic conditions. The assumptions have been reviewed for this assessment process but have not been included in the table below.

Table 1.1: Main macroeconomic forecast assumptions.

Variable	Data source	2013 (Actual)	2014	2015	2016	2017
Short-term interest Rate (annual average)	ECB	0.25	0.25	0.25	0.25	0.25
Long-term interest rate (annual average)	ECB	3.0	3.0	3.0	3.0	3.0
€/USD exchange rate (annual average)	Consensus Forecast	1.33	1.36	1.36	1.36	1.36
€/STG exchange rate (annual average)	Consensus Forecast	0.85	0.83	0.83	0.83	0.83
Nominal Effective exchange rate	Consensus Forecast	1.03	1.03	1.03	1.03	1.03
Real World GDP[3]	Consensus Forecast	0.5	1.7	1.9	1.8	1.8
Nominal World GDP	Consensus Forecast	1.6	2.9	3.4	3.6	3.6
Oil Prices (Brent, USD/barrel) (annual average)	Consensus Forecast	108.5	106.0	106.5	106.5	106.5

Sources: Economic Policy Department, Ministry of Finance

It is the opinion of the consultants that given the high degree of volatility and degree of uncertainty associated with the prediction of such variables the use of forecasts prepared by international organizations constitutes a good practice and is to be encouraged. The use of these assumptions provides a reliable and consistent set of values which ensure that a prudent view of developments within the external environment is incorporated within the forecasting exercise. Given all the information available to the Economic Policy Department and in view of the established cut-off date of 14th February 2014 the adopted external assumptions reflect an adequate level of prudence. Given the size and level of openness of the economy considerable variations in such variables would have a considerable effect on the

[2] Consensus Economics is a world leader in international economic survey data gathering. It polls more than 700 economists each month to obtain their forecasts and views.

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

macroeconomic projections and the use of these estimates help to keep variations to the minimum.

In particular, one notes that this forecast exercise for the years 2014 to 2017 assumes a lower world oil price level for 2014 in comparison to actual data available for 2013. The world oil price level, based on the forecast estimate derived from Consensus Economics is maintained at practically the same level of 2014 for the rest of the forecast years. Developments in the exchange rate, with respect to the value of the USD/Euro and GBP/Euro rates are taken as projected by Consensus Economics. In line with developments over the recent months the expected growth in Malta's main trading partners is assumed to be slightly higher when compared to the growth rates assumed by the EPD in its forecast run carried out in September 2013. It is important to note that the model assumes that the inventory component (which incorporates apart from other factors the statistical discrepancy between the expenditure and output approach in the official GDP estimation process) is kept constant in the forecast horizon to ensure that the contribution of this component to real GDP growth is zero. This assumption is important in view of the fact that over time this particular variable has tended to fluctuate significantly from one period to another.

Whilst acknowledging the important role of the variables highlighted in this section to the overall macroeconomic forecast results, the framework adopted ensures that a reliable set of assumptions are adopted, thus incorporating into the modeling method a prudent and consistent view of developments in important economic variables.

4. A description of macroeconomic forecast presented within the SGP.

This section provides an overview and description of the main macroeconomic variables which were forecasted for the period 2014 to 2017 by the Economic Policy Department within the Ministry of Finance. The aim of this section of the report is to provide a comprehensive analysis of the estimates over the forecast horizon. This assessment is required to fully comprehend the risks associated to the realization of the forecast estimates. The forecasted macroeconomic projections are presented within Table 1.2 overleaf. For comparative purposes the table also includes the actualized 2013 figures for the variables under evaluation, these figures are in line with the published NSO release No.047/2014.

Following a positive year for 2013 in which nominal GDP grew at 4.4%, in 2014 nominal GDP is expected to accelerate at a rate of 4.7% and to then marginally decline in 2015 to a rate of 4.6%. Subsequently the growth rate is expected to stabilize at 4.4% for the remainder of the forecast horizon. Real GDP in 2014 is expected to grow at a sustained pace of 2.3%, which is just marginally lower than the growth rate of 2.4% experienced in 2013.

The EPD therefore anticipates further improvements in the economic environment over 2014 and expects this growth to be supported by increasing output in a number of traditional as well as emerging sectors of the economy. Subsequently in 2015 real GDP is expected to grow by 2.1% and further increase by 1.9% over 2016 and 2017. In the aggregate, the projections portray a positive stable outlook over the entire forecast horizon. Underpinning these results is the expectation that the GDP deflator grows by 2.3% in 2014 and maintains a similar rate of growth over the forecast horizon.

Table 1.2: Macroeconomic projections.

	2013 Actual	2014	2015	2016	2017
At Current Prices					
Private final consumption expenditure	2.6	3.6	4.0	3.7	3.6
General government final consumption expenditure	2.7	4.8	2.8	2.3	2.6
Gross fixed capital formation	0.6	20.2	7.4	6.6	6.5
Exports of goods and services	-6.2	4.8	4.9	4.4	4.3
Imports of goods and services	-6.5	6.6	4.5	3.9	3.7
Nominal GDP	**4.4**	**4.7**	**4.6**	**4.4**	**4.4**
At Constant (2000) Prices					
Private final consumption expenditure	1.8	2.3	2.2	1.9	1.9
General government final consumption expenditure	-0.2	1.9	0.9	0.5	0.6
Gross fixed capital formation	-3.8	15.6	3.4	2.8	2.2
Exports of goods and services	-5.6	2.3	4.2	3.6	3.4
Imports of goods and services	-5.2	3.9	4.3	3.5	3.2
Real GDP	**2.4**	**2.3**	**2.1**	**1.9**	**1.9**
Contributions to growth (Real)					
Final domestic demand	0.6	3.8	2.0	1.7	1.6
Inventories	2.4	0.0	0.0	0.0	0.0
Net exports	-0.7	-1.4	0.0	0.2	0.3
Deflators					
Private final consumption expenditure	0.8	1.3	1.8	1.8	1.7
General government final consumption expenditure	2.9	2.9	1.9	1.8	2.0
Gross fixed capital formation	4.4	4.1	3.9	3.6	4.2
Exports of goods and services	-0.6	2.4	0.7	0.8	0.9
Imports of goods and services	-1.2	2.6	0.2	0.4	0.5
GDP Deflator	**2.0**	**2.3**	**2.5**	**2.5**	**2.4**
Inflation					
HICP	1.0	1.3	1.8	1.8	1.7
Labour Market					
Employment growth[4]	2.6	2.1	1.8	1.8	1.7
Unemployment rate	6.5	6.5	6.5	6.5	6.5
Compensation per employee	1.6	1.1	2.0	2.0	2.0
Labour productivity	-0.3	0.2	0.3	0.2	0.1
Unit Labour Cost[5]	1.9	0.9	1.7	1.8	1.9
External Balance					
External Goods & Services Balance (% of GDP)	5.6	4.1	4.4	4.9	5.4

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

[4] The estimate for the percentage change in Employment growth in the SGP is based upon the Eurostat Labour Force Survey (LFS) definition of total employment based on the resident population concept.
[5] The estimate for the percentage change in Unit Labour Cost (ULC) is based upon the LFS definition of total employment based on the resident population concept..

The forecasted increase in nominal GDP growth of 4.7% for 2014 is driven primarily by the components of final domestic demand. Private final consumption expenditure[6] is expected to increase by 3.6% over 2014, following an expected increase in total employment as well as an expected increase in disposable income. This increase in disposable income is assumed to be the result both of a reduction in utility tariffs as of April 2014 and of a number of specific fiscal measures implemented by the government within the Budget presented on the 4th November 2013 aimed at stimulating consumption. Supported by a projected sustained increase in total employment levels private final consumption expenditure is expected to grow by 4.0% in 2015 and to subsequently grow at positive but marginally lower rates over 2016 and 2017.

General government final consumption expenditure is expected to pick up from 2013 in which it grew by 2.7% and increase by 4.8% in 2014. General government final consumption expenditure is expected to grow at slower rates to reflect the latest information in the government's fiscal consolidation plan.

Crucially however, the component which supports the expected growth of nominal GDP is gross fixed capital formation. Over 2013, nominal gross fixed capital formation grew by 0.6%, however in 2014 the EPD is forecasting a significant increase in investment such that the growth in gross fixed capital formation is expected to reach 20.2%. Such developments are underpinned by the implementation of a significant increase in investment which is to be undertaken within the Maltese energy sector throughout 2014. This assumption reflects discussions between the EPD and the relevant authorities highlighting projections in expenditure plans. Gross fixed capital formation is expected to expand further in 2015 by 7.4% and remain growing at a positive, even if slightly lower growth rate of 6.6% and 6.5% over 2016 and 2017 respectively. The expected path of gross fixed capital formation over the forecast horizon reflects the above mentioned expenditure plans, as well as a number of other government projects which are in the pipeline for the forthcoming years.

The two variables relating to the external trade of goods and services within the economy, namely, exports and imports of goods and services are both expected to regain momentum following a relatively weak performance in 2013. Nominal exports of goods and services, which contracted by 6.2% in 2013, are expected to grow by an estimated 4.8% in 2014 driven primarily by an assumed recovery in nominal world GDP growth and by the expectation of a recovery within the electronics sub-sector. Subsequently in 2015, exports of goods and services are expected to accelerate further at a rate of 4.9% before slowing down to 4.4% and 4.3% in 2016 and 2017 respectively. Similarly, after the contraction in the imports of goods and services of 6.5% experienced in 2013, these are expected to grow by a rate of 6.6% in 2014, spurred on by an expected increase in domestic demand and in particular by the previously mentioned increase in investment assumed to occur over the forecast horizon. The high growth in imports of goods and services experienced in 2014 is however expected to subsequently decline over the forecast horizon, remaining positive nonetheless, but growing at much more subdued rates of growth. It should be noted that in 2014 net exports are expected to negatively contribute to GDP growth. This trend is expected to be reversed from 2015 onwards.

[6] It should be noted that within this report the figures presented for private consumption expenditure also include Non-Profit Institutions Serving Households (NPISH) final consumption expenditure.

The macroeconomic projections valued at constant prices portray the evolution of the estimated variables over the time horizon with the addition benefit of removing any potential distortionary effects which may be attributed to the possible variation in prices. The projected real GDP growth rate of 2.3% expected to occur in 2014 is again driven primarily by the growth in the components of final domestic demand. The growth in private consumption expenditure, spurred on by the expectation of higher employment and increased disposable income, is projected to increase by 2.3% in 2014 and by 2.2% in 2015, prior to subsequently slowing down and stabilizing at 1.9% over 2016 and 2017 respectively. Following a decline in real terms of -0.2% in 2013 general government final consumption expenditure over 2014 is projected to regain pace and grow by 1.9%. The growth in general government final consumption expenditure is however expected to be more subdued over the remainder of the forecast horizon and grow by 0.9% in 2015 before declining to 0.5% in 2016 and 0.6% in 2017. The recorded contraction in 2013 is consistent with the government's fiscal strategy commitments. Over the forecast years this component of expenditure is expected to be in line with current government expenditure plans. The realization of such rates of growth significantly depends on the continuous effort and commitment the government in achieving its very stringent targets.

Crucially, similar to the analysis of the variables undertaken under current prices it may be observed that the variable which seems to be the key catalyst to the major variations within the economy in 2014 is gross fixed capital formation. From a contraction of 3.8% experienced in 2013, it is projected to grow by 15.6% in real terms in 2014. Central to the realization of this growth is thus the expected development in investment within the energy sector which is projected to materialize by the end of 2014. Furthermore, gross fixed capital formation is also expected to grow by a further 3.4% in 2015, partially driven by additional government investment. The expected growth rates for 2016 and 2017 to remain positive but marginally slow down, reaching 2.8 % and 2.2% respectively.

In real terms, both exports and imports of goods and services are expected to grow at a sustained pace over the entire forecast horizon. Following a contraction of both imports and exports of goods and services experienced in 2013, 2014 is characterized by an increase in imports of goods and services of 3.9%. This increase is driven by the expectation of the anticipated investment within the energy sector, and by an increase in exports of 2.3% which is spurred on by a positive outlook for Malta's main trading partners together with the projected increase in exports within the electronics sub-sector. Over the remainder of the forecast horizon imports and exports of goods and services are expected to both grow at a sustained positive rate and at roughly equal pace. It is however anticipated that the growth in imports of goods and services is going to marginally outpace the growth in exports of goods and services in 2015 and that this situation will be reversed in 2016 and 2017. Of particular concern to the forecast for exports and imports of goods and services for 2014 is the assumed development of the deflators for both components. It should be noted that the expectation that price deflators are projected to increase in 2014 compared to the fall registered in 2013 is clearly surrounded by an element of risk.

Given the expected developments in the above components of real GDP for 2014, the Ministry of Finance is hence projecting that the increase in real GDP of 2.3% is going to be principally driven by the components of final domestic demand. It should be noted that this result should be evaluated within the context of the assumption taken by the EPD which assumes that changes in inventories do not contribute materially to GDP growth. This effectively implies a contribution to growth of inventories which is assumed to be zero across the forecast horizon. The contribution to growth of final domestic demand is projected to increase considerably in 2014 to 3.8% from the 0.6% realized in 2013. On the other hand net exports are projected to yield a negative contribution to growth in 2014 of -1.4% which stems from the expected faster growth of imports of goods and services compared to the growth in exports of goods and services. Therefore, although the expected increase in gross fixed capital formation brought about from the increase in investment within the energy sector does contribute significantly to the overall real GDP growth via its effect as a component of final domestic demand, the associated projected increase in imports required to undertaken this investment effectively reduces its overall potential expansionary impact on real GDP growth. The importance of the relative import content within the projected investment increases over 2014 and 2015 have been assumed by the EPD following a set of meetings with the relevant authorities. Over the remainder of the forecast horizon real GDP growth is expected to be driven primarily by the contribution of final domestic demand. In 2015 the developments in the external sector are not expected to contribute to GDP growth, however, the contribution to real GDP growth of the external sector is later expected to turn slightly positive over 2016 and 2017.

The main indicator for inflation and price stability within the economy, the Harmonized Index of Consumer Prices (HICP) is expected to increase by 1.3% throughout 2014 and accelerate even further in 2015 by 1.8%. Hence inflationary pressures are expected to remain subdued after 2013, a year in which the recorded annual inflation rate stood at 1.0%. The forecasted inflation rate is subsequently expected to remain below the 2.0% mark in both 2016 and 2017. The developments in utility tariffs introduced in April 2014 are expected to have an impact on the forecasted inflation developments.

Employment growth[7] is expected to remain positive but decline over the forecast horizon. Employment growth is expected to grow by 2.1% in 2014 spurred on by expected improvements in the economic environment. In 2015, employment growth is expected to be more subdued and grow by 1.8%, a growth rate which is projected to be sustained throughout 2016 and 2017. The EPD asserts that the projected sustained increase in the level of total employment is contingent upon both an expected improvement in the economic environment as well as the expectation of an increase in the female employment rate. The expected increase in the female employment rate stems from the expected impact of specific supply side policies introduced within the government Budget presented on the 4th November 2013. Such policies include the introduction of free child-care centers and an increase in employment flexibility in terms of labour hours worked. Unemployment is expected to remain stable at 6.5% over the entire forecast period and thus remain at the same rate actualized in 2013. This projection is in line with the expectation of higher levels of total employment resulting from a sustained increase in overall economic activity coupled with a simultaneously anticipated rise in the participation rate. Compensation per employee is expected to grow at a moderate pace over the forecast horizon. Initially growing at a slower rate than 2013, in 2014 compensation per employee is expected to grow by 1.1% and thereafter rise by 2.0% per year over the rest of the forecast period. Following the decline in labour productivity of 0.3% endured over 2013 it is anticipated that over 2014 labour productivity is to regain pace and yield a positive rate of growth of around 0.2%, a rate which is expected to be sustained over the forecast period. Unit labour cost[8] is expected to increase

[7] Employment growth in the SGP represents the percentage change of total employment based on LFS definition which applies the resident population concept.
[8] The values for unit labour cost growth in the SGP represent the percentage change in unit labour cost which is derived following the LFS definition of total employment based on the resident population concept.

in 2014 by 0.9% which is lower than the growth rate of 1.9% experienced for 2013. The slower growth in unit labour costs experienced in 2014 can be partially explained by a slower growth in both total employment and compensation per employee coupled with an effectively much higher growth in labour productivity. Over 2015 and 2016 unit labour costs are projected to increase by 1.7% and to subsequently marginally increase further in 2017 by 1.9%.

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

This section of the report provides a comparative assessment of the forecasted macroeconomic variables estimated by the EPD within the April 2014 forecast exercise. The EPD April 2014 forecast shall be first evaluated against the forecast estimates generated by the EPD within their September 2013 forecast exercise in order to assess the implications of the main forecast revisions that were undertaken. It should be noted that the EPD September forecast exercise has a cut-off date specified for the 24th June 2014. This section subsequently presents an evaluation of the EPD April 2014 macroeconomic projections presented against projections generated by two highly respectable institutions namely, the European Commission and the Central Bank of Malta (CBM). At the time[9] of preparation of this report the most recent forecast exercise undertaken by the European Commission was the Winter Forecast (COM WIN) exercise of 2014, which had a cut-off date specified for the 17th of February 2014. Similarly, the latest available published forecast exercise undertaken by the Central Bank of Malta is to be found within the Central Bank of Malta Annual Report 2013 published in April 2014. This has a specified cut-off date pertaining to the macroeconomic projections of the 14th March 2014. Apart from the possible differences relating to methodologies and modeling assumptions utilized between the forecasting exercises undertaken by the different institutions another highly significant discrepancy exists relating to the extent of information available at the time the forecast is undertaken. The CBM forecast exercise was able to include within its estimation exercise the actual full year 2013 statistics[10] relating to the components of GDP whereas the forecast exercise undertaken by the Commission Winter forecast could have only made use of actual GDP statistics for 2013 which provide information up to quarter three[11].

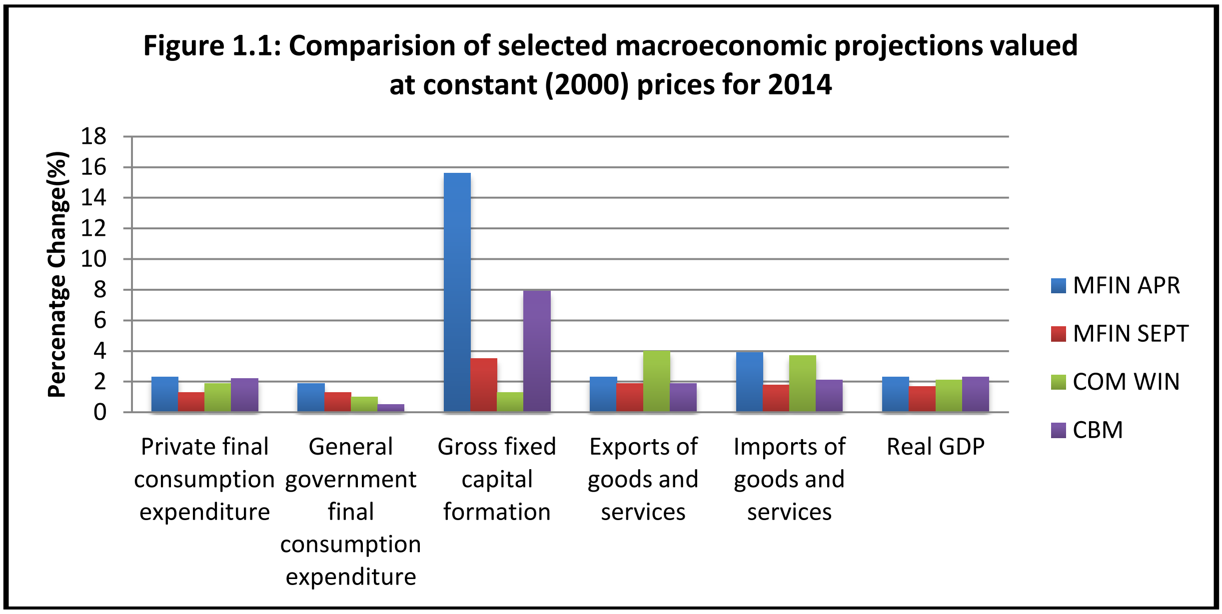
Within section 4 of this report the forecast estimates generated within the EPD April 2014 forecast were evaluated within the context of a forecast horizon extending to 2017. However given that both the CBM and the Commission Winter forecasts only present projections which extend up to 2015 this section shall thus compare and contrast the macroeconomic projections for only 2014 and 2015. These projected macroeconomic estimates are summarized within Table 1.3. Figures 1.1 and 1.2 provide a graphical comparison of the differences in the estimated individual components of real GDP which are provided by the various institutions for 2014 and 2015 respectively.

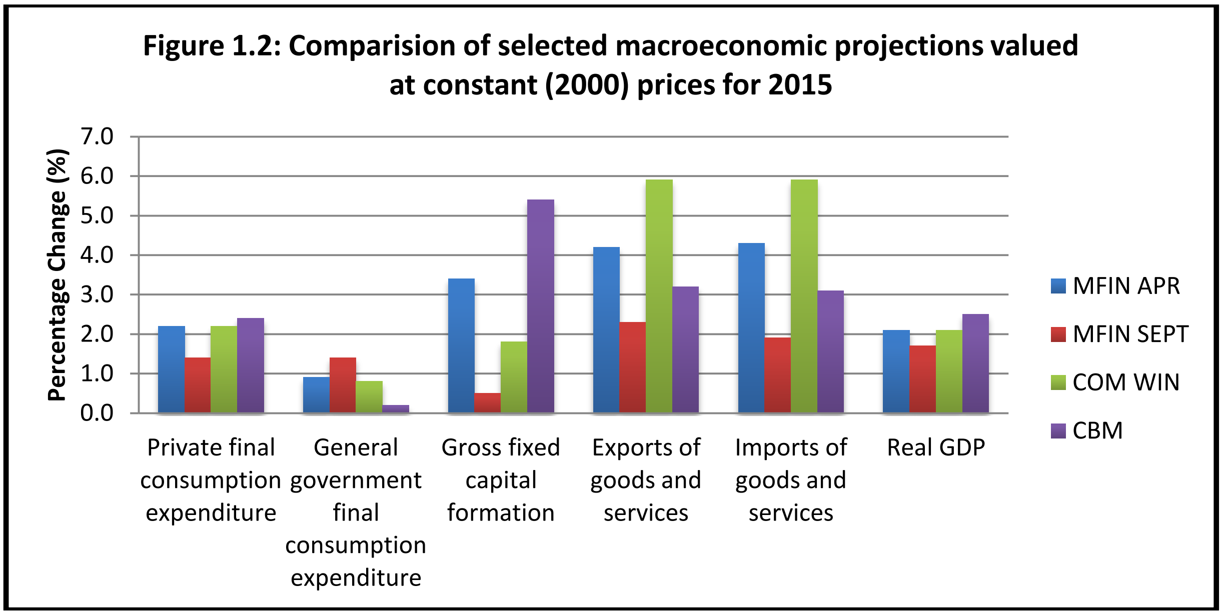
[9] This report was prepared throughout the third and fourth weeks of April.
[10] The National Statistics Office publication on Gross Domestic Product 2013 (news release 047/2014) was published on the 11th March 2014.
[11] The National Statistics Office publication on Gross Domestic Product Q3 2013 (news release 237/2013) was published on the 9th December 2013.

Table 1.3: Comparison of Macroeconomic Projections.

	2014				2015			
	MFIN		COM WIN	CBM	MFIN		COM WIN	CBM
At Current Prices	**SEPT**	**APR**			**SEPT**	**APR**		
Private final consumption expenditure	3.6	3.6	3.1	N/A	3.5	4.0	4.1	N/A
General government final consumption expenditure	2.9	4.8	3.1	N/A	2.4	2.8	3.6	N/A
Gross fixed capital formation	8.1	20.2	5.3	N/A	3.4	7.4	5.3	N/A
Exports of goods and services	4.3	4.8	4.0	N/A	4.3	4.9	7.3	N/A
Imports of goods and services	4.1	6.6	3.9	N/A	3.9	4.5	7.6	N/A
Nominal GDP	**3.8**	**4.7**	**3.8**	N/A	**3.8**	**4.6**	**2.5**	N/A
At Constant (2000) Prices								
Private final consumption expenditure	1.3	2.3	1.9	2.2	1.4	2.2	2.2	2.4
General government final consumption expenditure	1.3	1.9	1.0	0.5	1.4	0.9	0.8	0.2
Gross fixed capital formation	3.5	15.6	1.3	7.9	0.5	3.4	1.8	5.4
Exports of goods and services	1.9	2.3	4.0	1.9	2.3	4.2	5.9	3.2
Imports of goods and services	1.8	3.9	3.7	2.1	1.9	4.3	5.9	3.1
Real GDP	**1.7**	**2.3**	**2.1**	**2.3**	**1.7**	**2.1**	**2.1**	**2.5**
Contributions to growth (Real)								
Final domestic demand	1.4	3.8	1.5	2.5	1.2	2.0	1.7	2.3
Inventories	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1
Net exports	0.2	-1.4	0.5	-0.1	0.5	0.0	0.4	0.2
Deflators								
Private final consumption expenditure	2.3	1.3	1.2	N/A	2.1	1.8	1.9	N/A
General government final consumption expenditure	1.6	2.9	2.1	N/A	1.0	1.9	2.8	N/A
Gross fixed capital formation	4.6	4.1	4.0	N/A	2.9	3.9	3.5	N/A
Exports of goods and services	2.7	2.4	0.0	N/A	2.0	0.7	1.4	N/A
Imports of goods and services	2.3	2.6	0.2	N/A	1.9	0.2	1.7	N/A
GDP Deflator	**2.0**	**2.3**	**1.7**	N/A	**2.0**	**2.5**	2.4	N/A
Inflation Rate								
Overall HICP	2.3	1.3	1.2	1.6	2.1	1.8	1.9	1.9
Labour Market								
Employment growth	1.8	2.1	2.2	1.3	1.5	1.8	2.0	1.7
Unemployment rate	6.3	6.5	6.4	6.6	6.2	6.5	6.4	6.3
Compensation per employee	N/A	1.1	1.5	2.0	N/A	2.0	1.7	2.0
Labour productivity	N/A	0.2	N/A	N/A	N/A	0.3	N/A	N/A
Unit Labour Cost	N/A	0.9	1.6	1.0	N/A	1.7	1.6	1.2
External Balance								
External Goods & Services Balance (% of GDP)	N/A	4.1	3.2	4.6	N/A	4.4	2.9	4.8

Sources: Economic Policy Department, Ministry of Finance, European Commission and Central Bank of Malta, AMECO (website accessed on the 23rd of April 2014)





5.1 Comparison of the EPD September 2013 forecast data to the actual and forecast data in the SGP April 2014 forecast.

This section will compare the forecasts presented by the Ministry of Finance back in September 2013 with the most recent available data and forecasts presented by the Government in the SGP April 2014 program. Data for comparison is available in Table 1.3. Official data published in March 2014 by the National Statistics Office shows that the projected real GDP growth for 2013, as estimated in September 2013 by the EPD, was significantly low at 1.2% compared to the 2.4% registered for the year 2013, as may be observed from Table 1.4 overleaf.

Table 1.4: A comparison of the actualized 2013 macroeconomic variables with the September 2013 forecast projections.

	2013	
At Current Prices	**Actual**	**MFIN SEPT**
Private final consumption expenditure	2.6	2.6
General government final consumption expenditure	2.7	3.0
Gross fixed capital formation	0.6	2.5
Exports of goods and services	-6.2	4.2
Imports of goods and services	-6.5	3.9
Nominal GDP	**4.4**	**3.7**
At Constant (2000) Prices		
Private final consumption expenditure	1.8	1.2
General government final consumption expenditure	-0.2	-0.4
Gross fixed capital formation	-3.8	0.7
Exports of goods and services	-5.6	1.9
Imports of goods and services	-5.2	1.5
Real GDP	**2.4**	**1.2**
Contributions to growth (Real)		
Final domestic demand	0.6	0.8
Inventories	2.4	0.0
Net exports	-0.7	0.4
Inflation Rate		
HICP	1.0	1.7
Labour Market		
Employment growth	2.6	1.8
Unemployment rate	6.5	6.3

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

Although no major divergences could be observed in the overall contribution of the final domestic demand component to real GDP growth one notes differences in the disaggregated components. A more than expected increase in private final consumption has been registered in 2013 compared to the expected pick up back in September 2013, whereas a negative growth rate in gross fixed capital formation was recorded in comparison to an expected slight improvement in this category of expenditure in September 2013 for the full year of 2013.

It may be observed that contrary to the positive contribution expected for the external balance of goods and services component data for 2013 in September 2013 actual data for 2013 shows that this sector of the economy contributed negatively to GDP growth. One notes the significant contribution of changes in inventories to real GDP growth in the data published for 2013. Given the significant volatility recorded within this component over the years the practice employed by the Economic Policy Department in assuming within its forecast estimation that the contribution of this variable over the forecast horizon is maintained at zero is plausible. There is still though a clear need for more analysis in relation to improvements in the treatment of this variable given the magnitude of differences recorded between the forecasted values and the actual values over the years.

Over the course of 2013 overall prices as measured by the HICP stood at 1.0%, significantly lower than the projected rate in the September 2013 forecast for 2013 of 1.7%. Actual data for employment growth in 2013 was higher than the expected rate in September 2013, in fact a 2.6% increase in employment was recorded for 2013. Actual data for unemployment in 2013 shows a slightly higher rate than that projected by the EPD in September 2013.

The expected increase in real GDP growth for 2014 in the current forecast (April 2014) reflects the revised estimates for 2013. Real GDP was being forecasted to increase by 1.2% back in September 2013 driven primarily by a pickup in domestic demand coupled with a slight positive contribution from the external sector. The revised estimates for 2014[12] as provided in the SGP document portray a significantly stronger contribution to GDP growth from the domestic demand component. This is underpinned by the expected growth in private consumption expenditure and the expected developments within the gross fixed capital formation component. Developments in the gross fixed capital formation component are expected to impact significantly on developments in the import component. The contribution of net exports to GDP growth in 2014 is forecasted to be negative, which signifies a notable variation from the expected impact on GDP growth in 2014 from the external sector expected in the September 2013 forecast run. The 1.3% predicted increase in prices, as measured by the HICP for 2014 reflects an expected pick up in price movements compared to the 2013 recorded levels. A similar trajectory was being expected in the September 2013 forecast. One notes the revisions carried out within the different expenditure deflator components. In particular, the imports deflator for goods and services is now expected to increase at a faster rate compared to the exports deflator for goods and services. Whilst recognizing the difficulty in accurately forecasting deflators, it is our considered opinion that more effort should be made to ensure that a more accurate estimate of such important variables is made.

The plausibility of the forecasted GDP growth for 2014 within the SGP document has to be gauged in terms of the information available for the full year of 2013. This growth projection is heavily reliant on the expected developments within the investment component of GDP and the expected sustainment of domestic consumer activity registered in 2013 for the forthcoming years of the forecast. The materialization of this scenario is one of the main risks underpinning the forecasts for 2014 presented by MFIN in the SGP 2014 document.

The higher growth rates projected for 2014 in the SGP document for real GDP are also evident within the components of nominal GDP. Indeed, a significant upward revision in the expected growth rate in nominal investment is projected for 2014. This upward revision has led to an increase in the nominal expected growth rate for imports of goods and services, reaching 6.6% in nominal terms compared to the 4.1% expected in the September 2013 forecast. Exports of goods and services are also being forecasted to grow at higher rates during 2014 and this is in line with the assumed developments in GDP for Malta's main trading partners.

[12] Refer to Table 1.3.

5.2 A comparison of the macroeconomic projections in the SGP (April 2014) with those generated by the European Commission in its Winter Forecast (February 2013).

The Winter 2014 forecast presented for Malta by the European Commission was officially published in February 2014. It is important to note that this forecast carries a data cut-off point of the 17th of February 2014 which implies that the data published by the National Statistics Office in Malta for the full year 2013 is not taken into account. The Winter 2014 forecast projects an increase for year 2014 in nominal GDP of 3.8% and in real GDP of 2.1%. The expected GDP growth in real terms for 2014 as projected by MFIN within the SGP document is of 2.3%, slightly above the expectation of the European Commission but based on more recent data for 2013. The Winter 2014 forecast for real GDP is based on a growth rate of 2.0% for 2013 whilst the latest data for 2013 has been revised upwards by the National Statistics Office to 2.4%. This higher rate is the base used by the MFIN projection. Data referred to in this section can be reviewed in Table 1.3, furthermore Figures 1.1 and 1.2 in this report provide a graphical illustration of the differences in the real GDP growth projections by the different institutions reviewed in this section.

The real GDP growth rate projected in the Winter 2014 Commission forecast for 2014 is mainly underpinned by the contribution of the domestic demand component (1.5%) which is projected to be larger than the contribution from the net exports component (0.5%). The positive contribution (although of a lesser magnitude) of the domestic demand component to GDP growth in 2014 within the Winter 2014 Commission forecasts is also evident in the forecasts presented in the SGP. On the other hand, the contribution from the net exports sector in the Winter 2014 Commission forecast is expected to be positive when compared to the negative expected contribution from this sector of the economy in the SGP document. This divergence has to be evaluated in the light of the official data published for 2013 and the expected developments in the main component of GDP expenditure for 2014.

A significant divergence to note in the forecast values for 2014 is in the component for gross fixed capital formation. The Commission Winter 2014 forecast estimates an increase of 1.3% for gross fixed capital formation. It is clearly evident that the divergence between this estimate and the estimated increase in this component of expenditure for 2014 within the SGP program reflects new information which was not available prior to March 2014. This divergence is also reflected in the forecast values for imports of goods and services and thus also has an effect on the net exports contribution to GDP growth.

The significant differences in the expected developments within the gross fixed capital formation component of aggregate GDP, coupled with difference in the expected growth rates within the private consumption expenditure component explain the differences in the contribution rate of the domestic demand component to GDP growth. The more recent real GDP forecast values within the SGP project stronger growth rates for all of the components which make up final domestic demand. This more positive scenario is based on the most recent available data and reflects information collected by the Economic Policy Department in its preparation to produce the forecast values for 2014 and beyond.

A very similar outlook for real GDP growth in 2015 is presented by both the European Commission in the Winter 2014 document and the SGP (April 2014) document of the MFIN. In both documents, a real GDP growth of 2.1% is projected and this is expected to be mainly driven by the positive contribution from the final domestic demand component and less importantly the net exports components. The contribution from the final domestic demand component is expected to be more significant by both institutions.

Both institutions are expecting a slightly higher rate of inflation in 2014 compared to the 2013 data. Whilst the European Commission is forecasting an increase in prices of 1.2% for 2014, the Ministry of Finance is setting the inflation rate at 1.3%. The expected inflation rates for 2015 are also very similar. Developments in the labour market over the forecast years are fairly similar with employment rates around the 2% growth rate and unemployment rates around the 6.5% mark.

5.3 A comparison of the macroeconomic projections in the SGP (April 2014) projections with those generated by the Central Bank of Malta in April 2014.

A comparison of real GDP growth in the two sets of estimates shows similar drivers of growth for the year 2014. Data referred to in this section can be reviewed in Table 1.3, furthermore Figures 1.1 and 1.2 in this report provide a graphical illustration of the differences in the real GDP growth projections presented by the CBM and by the EPD (April 2014) discussed within this section. In particular, both real GDP forecast for 2014 are at 2.3% and both expect the domestic demand component to be the main driving force for this increase. The CBM is though projecting a lower increase in gross fixed capital formation for 2014 compared to the forecast presented in the SGP. The different rate of growth in gross fixed capital formation for 2014 is reflected in a lower expected increase in imports of goods and services for the same year. Indeed, the assumptions on the import content of the expected increase in investment activity seem to differ between the two forecasting institutions. This leads to a significant difference in the expected contribution of the net exports sector to GDP growth in year 2014. Differences are also noticeable in the expected growth rate for government consumption in 2014. The lower growth rate presented by the CBM reflects the view that government is tightening its recurrent expenditure program in view of correcting the excessive deficit. The CBM assumes that this is coupled by an expected injection resulting from the Individual Investors Programme (IIP).

The rate of growth of real GDP for 2015, forecasted by the MFIN is below that being forecasted by the CBM. This discrepancy is partly explained by the difference in the expected increase in gross fixed capital formation for 2014 between the forecasts presented by the CBM (7.9%) and the SGP document (15.6%). Such differences have an impact on the projected increase in this same component of expenditure for 2015. Indeed, the CBM assumes a higher rate of growth for gross fixed capital formation for 2015 (5.4% compared to 3.4%) on the expectation that the projected expenditure on the new gas energy facility is spread out more evenly over the two year period (2014 and 2015). These forecasts have implicitly resulted in a divergence in the contribution of the final domestic demand component to GDP growth for 2015. The contribution from the domestic demand component to GDP growth in the CBM estimates is higher, reaching 2.3%. This is also partly due to a more robust performance for private final consumption expenditure forecasted by the CBM for 2015. There are only slight differences between the expected contribution of net exports to real GDP growth in 2015 between the two forecasting institutions. One also notes the very similar rates of inflation being forecasted by the CBM and the MFIN. In fact, the CBM is projecting an increase in prices of 1.6% for 2014 and of 1.9% for 2015 compared to the 1.3% increase for 2014 and 1.8% for 2015 projected by the MFIN in the SGP.

A variation in the assumptions pertaining to the expected developments in oil prices is noted between the two institutions**.** The CBM forecasts are underpinned by an expected drop in oil prices in 2014, compared to 2013, and by a further drop expected for 2015. The assumption for oil prices[13] underpinning the SGP macroeconomic forecasts is for a fall in prices between 2013 and 2014 followed by a slight increase in 2015.

6. Conclusion.

The achievement of the projected rate of GDP growth for 2014 in the macroeconomic forecast within the SGP document very much depends on the risks associated with the expected developments within each of the GDP aggregates. In particular, developments over the remaining part of 2014 with respect to gross fixed capital formation will be crucial. The projected contribution of the final domestic demand component for 2014 (3.8%) also hinges on an expected sustained increase in private consumption activity. The expected negative contribution to GDP growth for 2014 from the net export component is also heavily dependent on the balance of risks associated with the import component of the projected gross fixed capital formation expenditure. One however notes that this forecast is based on a slightly better expectation for 2014 with regards to developments in Malta's main trading partners. As to the other years in the forecast horizon the projected trajectory for real GDP growth in the SGP shows a relatively constant rate of growth underpinned by the continued expected impetus to the economy from the final domestic demand side. It is our view that this might well be a plausible trajectory for growth given the assumed underlying developments within the separate GDP aggregates for the forecast years. There are however a number of risks which might put the achievement of such targets to the test. In particular one notes the expected absorption rate for the implementation of government projects, the developments in the export and import deflators, and the assumptions imposed on the inventories component.

Whilst acknowledging the risk associated within the macroeconomic forecasts presented in the SGP (April 2014), it is positive to note that through the use of the macro-econometric model and the expert inputs into the forecasting process the presented forecasts are internally consistent and follow sound economic principles. It is positive to note that the exogenous variables within the forecasting exercise carried out by the EPD for the SGP are based on the views of international reputable organizations and that all possible ad-hoc information available from local sources has been evaluated and taken on board in the preparation of the forecasts in this exercise.

[13] Refer to Table 1.1.