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The Evolution of the Maltese Economy since Independence

Aaron G. Grech[1]

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Corresponding author's email address: grechga@centralbankmalta.org

Address
Pjazza Kastilja
Valletta VLT 1060
Malta

Telephone
(+356) 2550 0000

Fax
(+356) 2550 2500

Website
www.centralbankmalta.org

E-mail
info@centralbankmalta.org

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Abstract

This paper surveys the performance of the Maltese economy in the first half century since independence. The picture that emerges is of a nation that has benefitted from an extraordinary rate of economic growth and a significant reduction in volatility. The Maltese economy has matured exceedingly rapidly, with cycles of inflation and unemployment becoming much less pronounced and with a consistent underlying downward trend. The economic structure has shifted strongly towards services, which has led to an increased demand for labour that has accommodated the secular rise in female participation. The role of the state has changed dramatically, though as in other small open economies it continues to play a relatively more active economic function. The financial system has also altered beyond recognition, playing a more direct role in affecting economic activity. While the Maltese economy faces significant challenges, the strengths developed since independence will stand it in good stead.

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1. Introduction

Post-independence Malta has been an economic success story. In the first three decades after independence, Alesina & Spolaore (2003) note that Malta was among only six countries in the world (the others being the Asian tigers and Botswana) to achieve an annual average growth rate higher than 5%. Even more recently, after the great recession of 2008, while the euro area's gross domestic product (GDP) is still below its 2008 level, Malta's economic output is nearly 13% higher (as against Germany's 4% improvement during the same period).

This rapid pace of development was not a foregone conclusion. The Maltese economy did not perform well in the interwar period (Apostolides, 2011) and was severely affected by the Second World War. Findlay & Wellisz (1993) report that a United Nations study carried out around the time of independence (Stolper, Hellberg & Callender, 1964) had recommended mass emigration as "the only feasible solution in the long run".[2] The authors note that "contrary to the dire predictions of the experts" there was instead considerable success in developing alternative sources of employment to reliance on the British naval base, which before its dismantling had accounted for over a quarter of total employment.

A precise analysis of the Maltese economy's evolution since independence is, however, hampered by the lack of consistent time series for many economic variables. Though Malta's official statistics predate independence by a hundred years,[3] since EU accession there have been very significant changes in statistical methodologies which have caused considerable breaks in series.[4] More importantly, the lack of online databases containing Maltese data pre-1995 complicates the task significantly. The scope of this paper is to try to address these issues by presenting consistent macroeconomic time series for Malta, constructed by using existing official data compiled using different methodologies. The approach taken to compile these series is explained in an appendix to this study. The rest of the paper is divided in six sections dealing with different economic themes spanning from national output to price developments to the role of the banking system.

At the outset, it is important to point out that this article will only provide a brief outline of the trends displayed by the compiled macroeconomic time series. For a thorough review of economic, social and political developments over this long period of time, particularly relevant because written in the context of the times, one should resort to studies like Bonnici (1977), Chamber of Commerce (1977), Metwally (1977), Delia (1978), Briguglio (1988), Scicluna (1993), Findlay & Wellisz (1993), Cordina (1996), National Statistics Office (2000), Delia (2002), and Azzopardi (2011).

Moreover, though all measures have been taken to make these series as consistent as possible, it is very important to stress that the analysis of long macroeconomic time

[2] There were dissenting opinions. Balogh & Seers (1955) had argued that in a small country like Malta, emigration would have a negative impact due to the limited pool of skilled workforce.

[3] The first so-called Blue Book was published in 1851, covering the results of the 1842 Census.

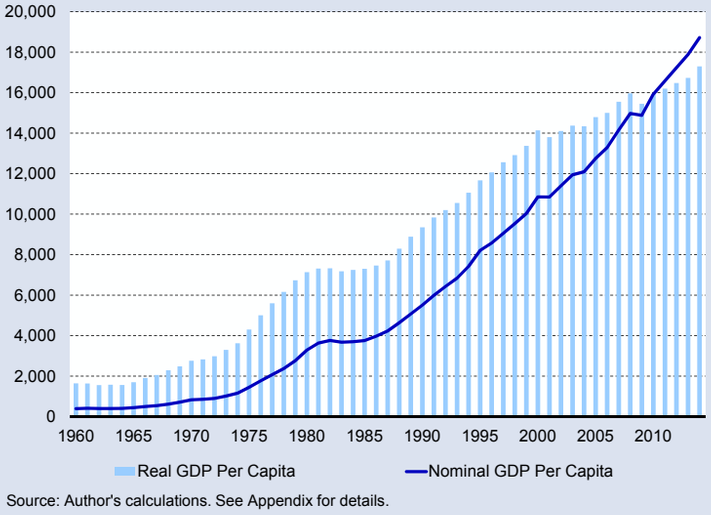
[4] These changes are described in Grech & Pace (2004) and Pace Ross, Bonello & Dimech (2014).

series needs to be made with due caution. Doyens of time series analysis have repeatedly pointed out that economic data cannot be treated as the equivalent of data used in the natural sciences due to the impact of structural changes, statistical modifications and regime shifts (for instance, see Hamilton, 1990 and Hendry, 2000). In fact, such concerns formed an integral part of the famous Lucas (1976) critique.

2. Economic growth, business cycle and structural changes

Economists' preferred measure of wellbeing is GDP per capita. This indicator suggests that the conditions of the average Maltese have improved by 46 times since 1964. More realistically if one accounts for rising prices, wellbeing rose eleven-fold, from €1,600 to €17,300 in 2014 (see Chart 1). Other indicators confirm the increased affluence of the Maltese. For instance, home ownership which stood at 32% in 1967 had risen to 76% in 2011. The bank deposits of the non-bank public rose in nominal terms from €0.4 billion in 1970 to €12.2 billion in 2014, or by seven times after considering inflation.

Chart 1
GDP PER CAPITA
(euro)



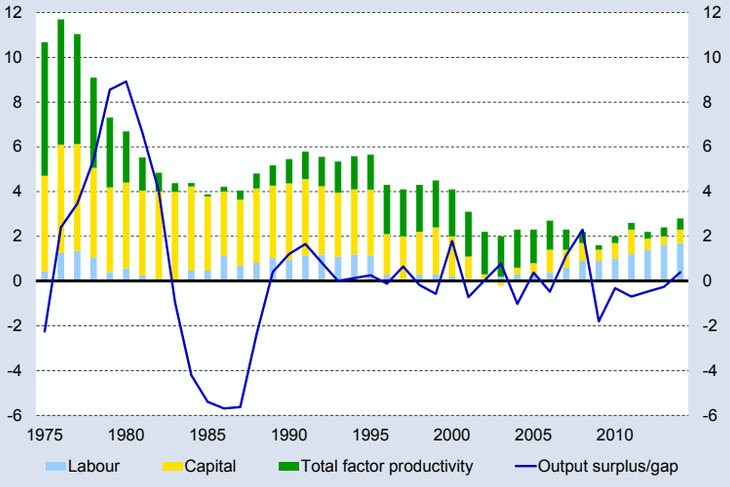
Source: Author's calculations. See Appendix for details.

Real GDP per capita fell in only four years (1983, 2001, 2004 and 2009) while in nominal terms it contracted only in 1983 and 2009. During the late 1960s and 1970s growth averaged 10%, before slowing down to 1% in the early 1980s. It then recovered to 5% between the late 1980s and 2000, before dropping to 0.4% during the pre-EU accession restructuring years. Over the last decade it rose to 1.9% (2.5% if 2009 is excluded). Using a standard production function approach,[5] one finds similar results in terms of business cycle fluctuations (see Chart 2). When the country was in its initial development stage, the economic cycle was very pronounced and long. In the 1990s the economy tended to operate at full capacity, while in the 2000s it was quite volatile, before the great recession.

During the late 1970s the economy grew sharply, driven by a strong rise in the capital stock, which by 1980 was three times its size in 1970. This contributed to raise significantly

[5] For a description of this approach applied to Malta, refer to Grech (2004a) or to Grech & Micallef (2014). A long time series of the output gap across time can also be found in Central Bank of Malta (2006).

Chart 2
OUTPUT SURPLUS/GAP AND CONTRIBUTIONS TO POTENTIAL GROWTH



Source: Author's calculations. See Appendix for details.

total factor productivity. However in the early 1980s investment declined somewhat, particularly in the public sector,[6] while total factor productivity stalled. This resulting sharp recession was followed by a boom in the early 1990s which saw a much more balanced improvement in potential growth. During this period, though capital investment remained the main source of expansion, there was a steady pickup in employment and in total factor productivity. In the second half of the 1990s, employment growth decelerated, while growth in the capital stock slowed down. After EU accession, Malta's potential output improved again, with the exception of the dip in 2009 due to international developments. The main thing that stands out in the post-accession period is the sharp rise in the contribution of employment.

The historically unprecedented rise in labour participation will be discussed in more detail in another section of this study. However at this stage, it should be noted that this development together with the relatively low increases in capital stock which have accompanied it, broadly reflect changes in the structure of the Maltese economy. As can be seen in Table 1, in the wake of EU accession, the economy's orientation towards service activities became quite more pronounced. It should be noted that industry's gross value added actually rose between 2004 and 2014 by 17%, and its productivity improved significantly. As explained in Grech & Zerafa (2015), the recent transformation of the Maltese economy is the result of the appearance of a large swathe of new operators rather than the disappearance of others. Even agriculture and fisheries witnessed considerable growth in its value added, up by 47% in nominal terms, despite that their share of the total halved in the last two decades.

Malta has traditionally had a large services sector, as the presence of the British naval base necessitated several ancillary services and resulted in a very good infrastructure

[6] See Grech (2000) for a discussion of public and private investment trends during this period.

Table 1
SHARE OF GROSS VALUE ADDED BY BROAD ECONOMIC SECTOR
Per cent

	1980	1990	2000	2004	2014
Agriculture and fisheries	4	4	3	2	2
Industry	38	31	27	28	17
Services	59	65	70	70	81

Source: Author's calculations. See Appendix for details.

particularly for transhipment and trade. For instance, a 1892 report to the United States Congress by its Consul notes that "facilities exist here for receiving, storing and distributing cargoes…that no other port in this part of the world possesses…the markets of the countries that press so closely around this busy and advantageous port offer now, more than they ever have done before attractions for the exporters of western goods and productions."[7] The opportunities foreseen in the 1890s during the first era of globalisation are still present today, though the emphasis since EU accession has now shifted to export-oriented services. Besides tourism, the Maltese services sector has expanded to include higher value-added activities generated by the financial services sector, specialised forms of tourism – such as language schools and dive centres, maritime activity, professional services, back-office administration, information technology and gaming. In fact, computer programming, professional services and administrative support accounted for over a quarter of the increase in value-added since EU accession. This is quite an achievement given that in 2004 these sectors amounted to just 9% of total value added. In ten years, the value added of computer programming rose to more than six times its initial value. Moreover, during the same time, the arts, entertainment and recreation sector saw its share of total value added increase from 2.1% to 8.5%.

The new services sectors are changing the Maltese economy in many different ways. As can be seen in Table 2, Malta has now become a net exporter. In fact, exports of goods and services have exceeded imports in six of the last eight years, mostly thanks to the sharp rise in exports of services. This contrasts sharply with the double-digit trade deficits that characterised the Maltese external sector till the mid-1990s.

Table 2
SHARE OF GROSS DOMESTIC PRODUCT BY EXPENDITURE CATEGORY (NOMINAL)
Per cent

	1964	1974	1984	1994	2004	2014
Private consumption	75	80	70	58	63	55
Government consumption	15	18	15	18	19	20
Gross fixed capital formation	17	18	21	22	21	19
Net exports	-21	-29	-13	-5	-1	6

Source: Author's calculations. See Appendix for details.

[7] Consiglio (2006) documents the rise of the Maltese banking sector under British colonial rule. On the other hand, Chircop (1997) reminds us that colonial rule also impacted negatively on some sectors.

Another thing that has emerged in the last decade is the decline in the investment ratio, which before its rise in 2014 due to the construction of the electricity interconnector with Sicily had fallen to ratios typical of the late 1960s. While this reflected in part a decline in dwelling investment following the moderation of the house price boom, the rise of the services sector, with its relatively much lower need for capital, played a crucial role.

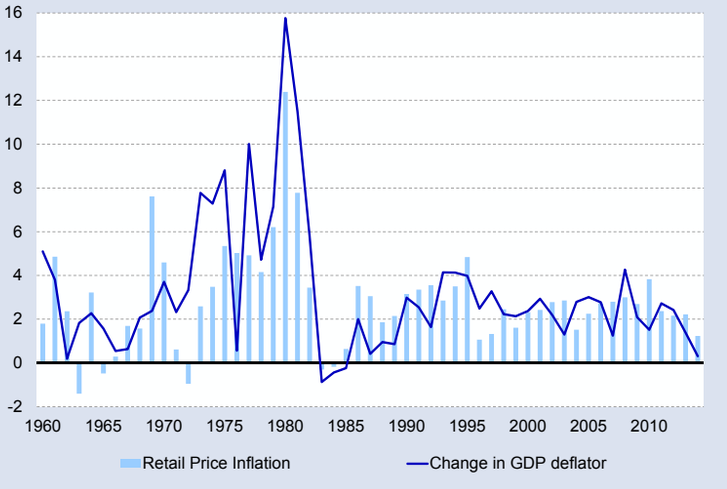
Before passing on to review other indicators, it is interesting to note the developments in private and public consumption. The decline in the private consumption ratio has to be interpreted with caution. Private consumption in 2014, even after taking account of price changes, is nine times higher than it was at independence.[8] Government consumption has, by contrast, grown eleven-fold.

[8] For a review of trends in consumption up to the early 2000s, see Cassar & Cordina (2001). For a more recent analysis, see Grech (2014).

3. Prices and costs

The volatility of economic activity in Malta is also reflected in the degree of price movements. As can be seen in Chart 3, though it averaged just over 2%, retail price inflation fluctuated substantially in the 1960s and early 1970s, with three cases of negative inflation. Changes in the GDP deflator were more pronounced, averaging nearly 3%. In later years, the oil shocks contributed to raise inflation considerably, with retail price inflation reaching 12.4% in 1980, while the GDP deflator increased by 15.8%. By 1983, the situation became diametrically opposite with declines in both indices. Wage and price controls, coupled with a sharp economic downturn, led to this abrupt correction. In the decade between 1986 and 1995, retail price inflation averaged 3.2%. At first, changes in the GDP deflator were more muted, but following the 1992 devaluation of the Maltese lira they rose above 4% for some years.

Chart 3
PRICE CHANGES IN MALTA
(per cent)



Source: Author's calculations. See Appendix for details.

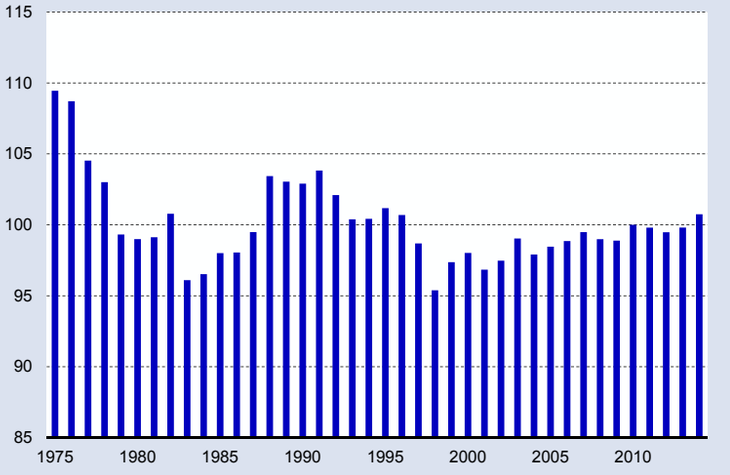
Since joining the EU, retail price inflation has averaged 2.5%, though in 2014, on account of a sharp reduction in utility prices, it fell to the lowest rate observed since 1985. Changes in the GDP deflator have also moderated considerably in recent years, falling to just above 0% in 2014.

Chart 4 suggests that Malta's terms of trade worsened significantly in the late 1970s and early 1980s, possibly due to the oil price shocks. Oil prices tend to have quite large impacts on the Maltese economy as electricity and water generation are nearly wholly dependent on fossil fuels.[9] In the late 1980s the terms of trade improved considerably as the price of exports grew more sharply than that of imports. The 1992 devaluation of the

[9] Grech & Micallef (2014) demonstrate that "an oil price shock leads to a persistent deterioration in the terms of trade and worsens the trade balance".

Maltese lira reversed this process and the terms of trade started once again to deteriorate, falling to their lowest point in 1998. Thereafter, Malta's terms of trade have been on a consistent slightly upward trend, rising by about 4% over the last fifteen years. Underpinning this overall result are two diverging developments. On the one hand, the price of exports of goods appears to have plummeted, driven down by falling semiconductor prices, while conversely the price of exports of services has risen very substantially throughout the period.

Chart 4
TERMS OF TRADE
(2010 = 100)



Source: Author's calculations. See Appendix for details.

Turning again to retail price inflation,[10] the sources of price changes has shifted considerably over time. Table 3 shows that food price inflation was relatively low in the 1960s and 1980s but quite high in the 2000s and, especially, in the 1970s. This is similar to what happened in transport and communications prices, though in this case large increases were recorded in the 1970s and the 1990s, but price inflation was considerably lower in the 2000s.

Prices of water, electricity, gas and fuels tended to remain quite stable, except for sharp jumps in the 1970s and 2000s. Inflation was more subdued and turned negative over the past years. On the other hand, inflation in the beverages and tobacco sub-index, which also features a lot of government control on prices, was quite strong throughout the period, though it appears to have slowed down in more recent years.

A clear break in trend is evident in inflation of prices of clothing and footwear items, recreation and culture services and household equipment and maintenance services, with price changes in recent decades being much more muted, or even turning negative. This could be a reflection of greater competition in these sectors.

[10] Since 1996, the National Statistics Office has also compiled the Harmonised Index of Consumer Prices (HICP) besides the Retail Price Index (RPI). Where there are significant differences between the two indices (see NSO, 2008 for details), the inflation rates displayed by the two indices are very similar, with a correlation coefficient of 0.85.

Table 3
RELATIVE WEIGHTS AND INFLATION OF RPI SUB-INDICES

Per cent

	1960s	1970s	1980s	1990s	2000s	2010-14
Food						
Inflation over period	18	123	21	25	38	15
Weight of sub-index	42	40	42	37	24	21
Beverages & tobacco						
Inflation over period	67	80	36	77	47	16
Weight of sub-index	9	10	9	9	6	6
Clothing & footwear						
Inflation over period	10	36	22	-18	-13	0
Weight of sub-index	13	12	11	8	8	7
Housing						
Inflation over period	10	25	12	36	41	8
Weight of sub-index	3	4	4	4	8	8
Water, electricity, gas & fuels						
Inflation over period	-7	174	-1	3	166	-11
Weight of sub-index	3	3	3	3	2	3
Household equipment & maintenance						
Inflation over period	10	38	10	34	6	4
Weight of sub-index	6	6	6	5	8	7
Transport & communication						
Inflation over period	18	137	29	47	15	3
Weight of sub-index	10	9	10	13	23	23
Personal care & health						
Inflation over period	25	72	33	24	34	6
Weight of sub-index	5	5	6	6	6	9
Recreation & culture						
Inflation over period	25	46	23	28	16	8
Weight of sub-index	5	7	5	8	9	9
Other goods & services						
Inflation over period	12	99	22	20	29	10
Weight of sub-index	4	4	4	6	6	7

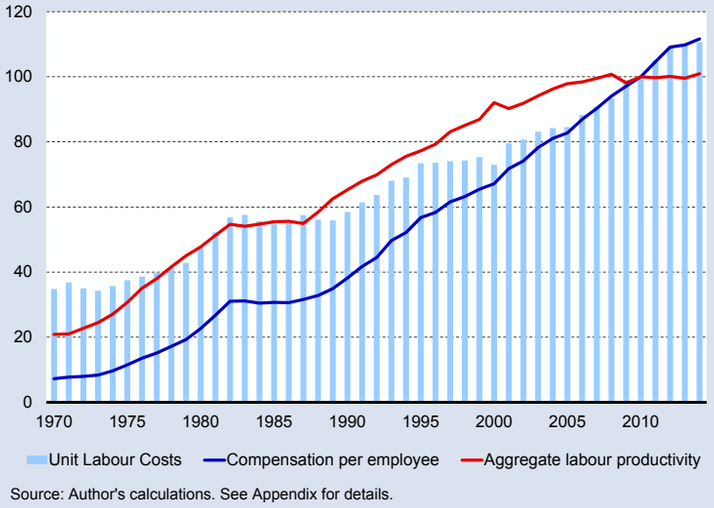
Source: Author's calculations. See Appendix for details.

Another interesting thing that emerges from Table 3 is the considerable change in consumption patterns of Maltese households. Whereas between the 1960s and 1980s, food items comprised 42% of the typical consumption basket, by 2014 their importance had dropped by half. A lot of this decline reflected the growing importance of transport and communication services. There was also a strong rise in the share of expenditure going to other types of services, notably personal care and health together with recreation and culture. Conversely the relative importance of beverages, tobacco, clothing and footwear fell. This implies that an ever-growing component of the RPI is now coming from locally-produced services rather than from imported goods.

This implies that the role of domestic costs in determining overall price changes may be rising. One way of assessing trends in domestic costs is by looking at unit labour costs (ULC). In fact, retail price inflation and changes in ULCs between 1970 and 2014 have a positive correlation of 0.63. Chart 5 depicts the growth in compensation per employee and compares it with developments in aggregate labour productivity.[11]

These two variables together determine the trend of ULCs. As can be expected in a fast-growing economy, ULCs have increased substantially over time. Nominal compensation per employee has grown by a multiple of 15 times since 1970, while real aggregate labour productivity is nearly 5 times that in the same year. On average, ULCs have grown by 2.7% per annum. The 1970s and 1990s saw a much sharper expansion, possibly reflecting the relatively high rate of economic growth leading to a faster rise in wages. After EU accession, ULCs also grew significantly, but contrary to previous periods, this was due to aggregate labour productivity slowing down. Grech & Zerafa (2015) argue that this reflects the strong shift towards services in these years, rather than a break in the secular rise in productivity.

Chart 5
UNIT LABOUR COSTS: COMPENSATION AND PRODUCTIVITY
(index 2010 = 100)



Source: Author's calculations. See Appendix for details.

[11] For an earlier study on the same topic, see Grech (2004b).

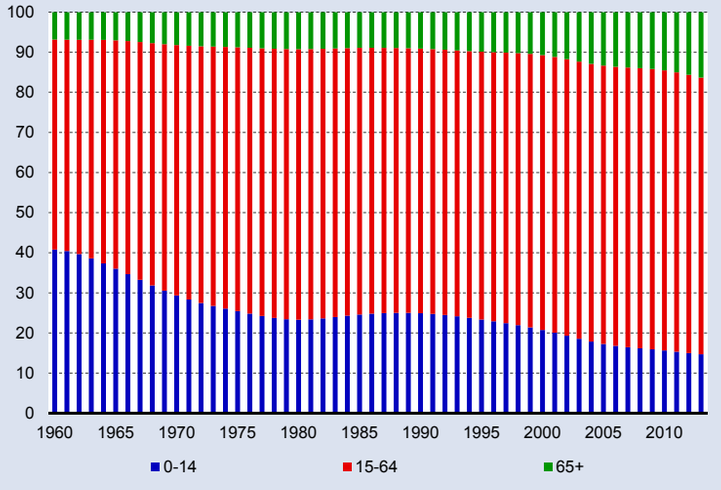
4. Labour market developments

To get an understanding of labour market developments in the decades since independence,[12] one needs to first understand the very significant demographic and social transitions that have occurred concurrently.

In the first decade after independence, the Maltese population fell by nearly 7% or about 21,000, mostly due to emigration outflows. Thereafter the situation changed substantially, such that the Maltese population was 104,000 persons higher or nearly a third larger half a century after independence. From a country with net emigration, Malta has become the recipient of a growing number of migrants. Whereas in 1995 only 1.9% of the population residing in Malta were foreign citizens, twenty years later this proportion had risen to 5.9%. In particular, since EU accession, the number of foreign residents has doubled in absolute terms and their increase has exceeded the growth in Maltese citizens.

While changes in migration flows have played a central role in determining population dynamics, there have been other forces at play. As can be seen in Chart 6, the proportion of the young population has been dropping consistently, driven downwards by the inexorable fall in the birth rate. Whereas at independence there were five and a half times more young people than elderly persons, since the start of the 2010s the elderly now outstrip the young in Malta. However while the decline in the young population will undoubtedly affect economic growth negatively in the future, at present Malta has one of the highest proportions of the working age population in its history. The so-called demographic dividend[13] underpins the cycle of economic growth in Malta. In the 1970s,

Chart 6
AGE STRUCTURE OF THE MALTESE POPULATION
(per cent)



Source: Author's calculations. See Appendix for details.

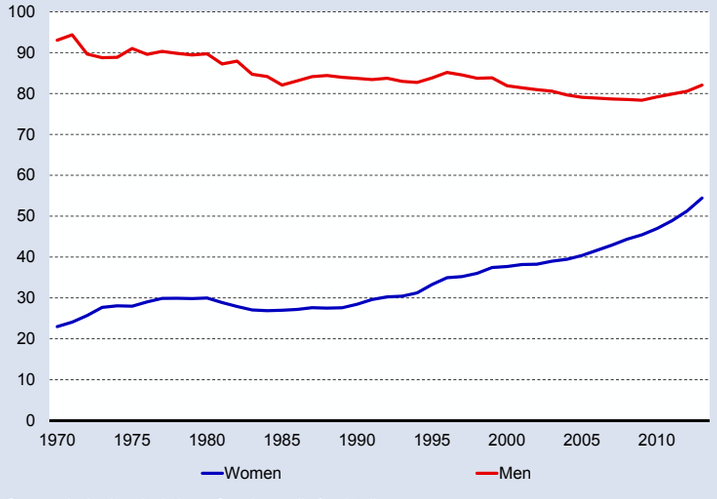
[12] Starting from 2000, administrative employment and unemployment records have been supplemented by results of a regular Labour Force Survey. In this section we mainly focus on the administrative data as they cover the entire period being reviewed. However in some cases, we also use back-casted Labour Force Survey data compiled using the approach described in Grech (2003a).

[13] See Bloom, Canning & Sevilla (2001) for a discussion of how economic growth is affected by demographic transitions.

the proportion of the working age rose by 5 percentage points and this coincided with a pronounced acceleration in economic growth. This was followed by a relative decline in the working age population in the 1980s, which featured a strong recession. Then in the 1990s the resurgence in the growth of the size of the working age population coincided with resumed economic growth. The story since EU accession is clearer as most migrants came to Malta seeking work in its growing economy.

Besides the demographic dividend, the Maltese labour market was also affected by a transformation in the role of women in society.[14] Rising education levels combined with changing social norms have contributed towards increased formal labour market activity by women. Chart 7 shows that, except for recent years, male participation rates have been falling consistently even though they remain amongst the highest in Europe. This long-term decline mainly reflects the expansion of post-secondary education. On the other hand, though female participation in post-secondary education has also risen spectacularly, this has not dampened the trend rise in formal labour participation.[15] Female participation rose significantly in the post-independence years, reflecting higher public employment and the rapid expansion of sectors such as textile manufacturing. The 1980s recession affected female workers much more sharply than it did their male counterparts, with a relatively larger drop in participation rates. This was followed by a resumption of the previous trend of rising female participation. As can be seen in Chart 7, since EU accession there have been considerable advances in this area. In fact, the increase observed in the last decade is higher than that witnessed in the previous three decades.

Chart 7
PARTICIPATION RATES BY GENDER: AGE 15 TO 64
(per cent)



Source: Author's calculations. See Appendix for details.

[14] See for instance Baldacchino & Sultana (1994).
[15] Camilleri (2007) notes that while in the early 1970s women were around 12% of the total student body of the University of Malta; in 1991 the number of female students surpassed that of male students. By 2012, there were 40% more female students than male students in tertiary education.

Underlying this shift in gender employment, there was also a change in the prevalence of part-time employment. Table 4 shows that those having only a part-time job were the equivalent of 1% of the labour force at the end of the 1960s. In the 1990s there was a surge in this type of employment, particularly amongst women. This trend continued in the 2000s and the early 2010s, such that by 2014 those working just part-time were the equivalent of 20% of the work force. At the same time, there has also been quite a significant rise in those who work part-time besides their full-time employment, from 1% of the labour force at the end of the 1960s to 14% in 2014.

Since 1960, the Maltese economy has created an additional 67,000 full-time jobs, 60% of which went to women. The 2010s show the fastest rate of job creation, with the increase for men in half the decade amounting to the entire increase in the previous two decades. For women, the pace of job creation is also the highest ever registered, though not to the extent of the acceleration seen for men.

Table 4
EMPLOYMENT TRENDS
Thousands

	1960s		1970s		1980s		1990s		2000s		2010-14	
	M	W	M	W	M	W	M	W	M	W	M	W
Full-time												
Change	5.6	6.2	7.9	9.5	2.5	-2.0	4.8	7.5	1.0	7.7	6.2	11.0
% of labour force	76.0	20.0	72.0	26.0	72.0	23.0	68.0	27.0	65.0	31.0	61.0	35.0
Part-time (also have full-time)												
Change	0.6	0.0	1.0	0.1	0.9	0.2	7.1	2.3	3.7	3.1	0.6	1.4
% of labour force	1.0	0.0	2.0	0.0	3.0	0.0	8.0	2.0	10.0	4.0	9.0	5.0
Part-time only												
Change	0.2	0.3	0.5	0.7	0.6	0.8	3.3	6.1	5.3	6.4	2.3	3.4
% of labour force	0.0	1.0	1.0	1.0	1.0	2.0	3.0	6.0	7.0	10.0	8.0	12.0

Source: Author's calculations. See Appendix for details.

Those working just part-time rose by nearly 30,000, and again 60% of these additional jobs went to women. In this case, however, one does not note any particular acceleration in the 2010s compared to the previous decade. On the other hand, there appears to have been a deceleration in the increase of those working part-time in addition to their full-time job.

The trend over time of sectorial distribution of employment broadly mirrors that in gross value added described in Table 1. Agriculture's and industry's relative importance have steadily declined, particularly after the surge in services activity that followed EU accession (see Table 5). The declines in relative employment shares are noticeably more pronounced than those in relative value added shares. This suggests that over time, firms in agriculture and fisheries and in industry have become more capital intensive and increased the productivity of their labour force. The intra-sectorial composition of activity also changed substantially. For instance, whereas in the early 1980s those employed in the manufacture of clothing and footwear constituted 17% of all industrial workers, in

Table 5
SHARE OF FULL-TIME EMPLOYMENT BY BROAD ECONOMIC SECTOR

Per cent

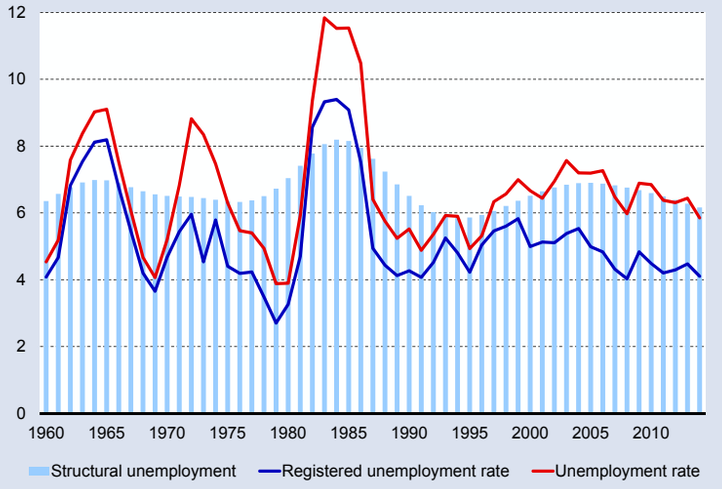
	1980	1990	2000	2004	2014
Agriculture and fisheries	6	2	2	2	1
Industry	39	36	32	28	15
Services	55	62	66	70	84

Source: Author's calculations. See Appendix for details.

2014 their share had fallen to just 4%. In absolute terms, by 2014 employment in clothing and footwear manufacturing fell to one-tenth its level three decades earlier. In a similar way, the share of workers in the tourism industry out of total employment in services has declined from 11.5% in the early 1980s to around 7.5% in 2014. This occurred despite the fact that in absolute numbers, employment in tourism rose by half during the last thirty years.

Similarly to GDP growth and price inflation, the labour market has become increasingly less volatile in Malta over time. This could reflect the increased reliance on skilled labour, which firms are less prone to fire in bad times.[16] Chart 8 shows that up to the start of the 1990s there tended to be quite significant cyclical movements in the unemployment rate. Both the administrative or registered unemployment rate and the measure based on the Labour Force Survey definition show very similar trends, though the latter always exceeds the former as it has a broader scope. A standard HP-filter has been applied to the broader unemployment rate in order to distinguish between cyclical and structural movements.[17] This measure suggests that structural unemployment fell in the first

Chart 8
UNEMPLOYMENT RATES
(per cent)



Source: Author's calculations. See Appendix for details.

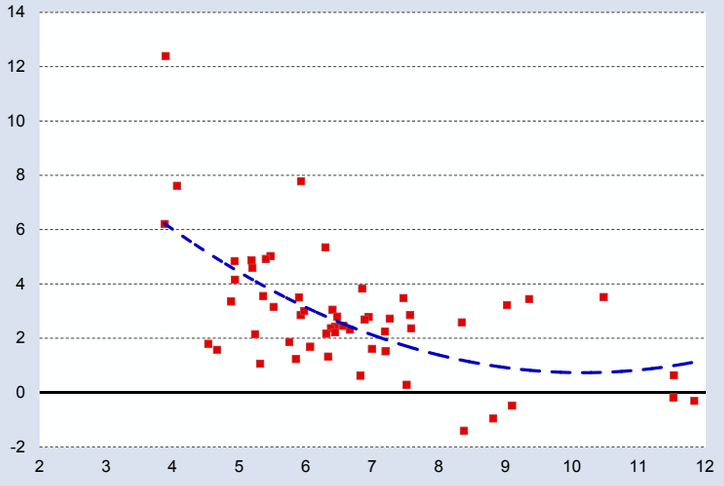
[16] See Micallef (2015) for a recent survey on labour force adjustment preferences for Maltese firms.
[17] See Micallef (2014) for alternative measures of structural unemployment in Malta.

decade after independence, before rising sharply during the 1980s recession. This was followed by a decade-long drop till 1995, after which there was a slight rise during the economic restructuring that preceded EU accession. In more recent years, the structural unemployment rate in Malta appears to have declined considerably in stark contrast with developments in the rest of the euro area.[18]

There is a clear relationship between developments in unemployment and the evolution of economic activity, in line with Okun's law. Regressing changes in unemployment on changes in GDP yields a statistical significant relationship. The short-run Okun's coefficient is estimated at around 0.1, while the long-run coefficient stands at 0.2.[19] The rate of output growth consistent with stable unemployment appears to stand at 1.3%.

Chart 9 shows that Maltese data on inflation and unemployment also display the negative relationship known as the Phillips curve. Higher levels of unemployment are associated with low or negative inflation rates, and vice versa. However the Phillips curve in Malta is quite flat, which suggests that the output gap plays a relatively small role in determining inflationary pressures. This implies that lower unemployment should be less inflationary in Malta than in other countries. The flattening of the Phillips curve is a phenomenon common to most developed countries, with economic literature suggesting it reflects the effects of globalisation.[20] Increased competition from abroad, together with rising shares of foreign labour weakens pressures for price rises. In Malta, these effects may have been accentuated by EU accession and increased reliance on internet shopping.

Chart 9
PHILLIPS CURVE - INFLATION VS UNEMPLOYMENT
(per cent)



Source: Author's calculations. See Appendix for details.

[18] Micallef (2013) goes through many possible causes for these diverging trends.
[19] These results are nearly identical to those found in Apap & Gravino (2014) and Micallef (2013).
[20] See for instance Iakova (2007).

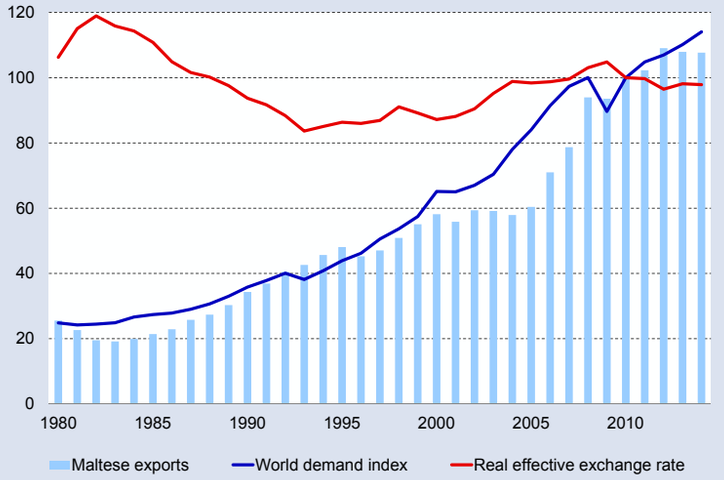
5. The external sector

The Maltese economy is one of the most open economies in the world. In fact, exports and imports were already equivalent to 165% of GDP at independence. In the 1970s and 1980s this ratio rose to over 200%, with the following decade seeing it go close to 250%. EU accession has accentuated the openness of the Maltese economy, so much so that in recent years exports and imports together have exceeded by three times GDP.

Chart 10 shows that exports have tended to grow in line with foreign demand over time. The foreign demand index is a weighted average of the imports of Malta's main trading partners[21] while the real effective exchange rate is computed by the World Bank. In the early 1980s Malta's real effective exchange rate was high, leading to lower exports. Thereafter exports were boosted by more competitive prices, but mostly mirrored the rise in foreign demand. One period when Maltese firms appear to have lost considerable export share was the early 2000s. At that time, large parts of the manufacturing sector were restructuring due to the removal of tariff protections ahead of EU accession. Concurrently the semiconductor industry – which was the largest exporting sector at that time – was affected negatively by the dot-com bubble. The real effective exchange rate was also worsening during those years. The emergence of the new services sectors in 2006 corresponded with a large rise in foreign demand before the financial crisis. After the crisis, Maltese exports were aided by an improved real effective exchange rate combined with a recovery in foreign demand.

For most of the post-independence period, the EU was Malta's main export partner. In fact, the EU accounted for more than two-thirds of Malta's exports in the period between

Chart 10
MALTESE EXPORTS: WORLD DEMAND AND REAL EXCHANGE RATE
(index 2010 = 100)

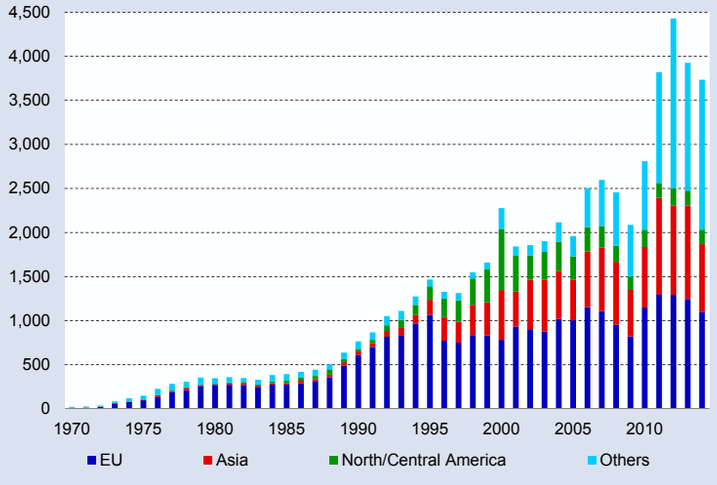


Source: Author's calculations. See Appendix for details.

[21] For more details on this indicator, see Hubrich & Karlsson (2010).

1970 and 1995, with a peak of 81% in 1991 (see Chart 11). This share fell to just over half in the years preceding EU accession, and is now down to less than a third. Exports to EU countries, and to North and Central American nations, in 2014 were just above their 1995 level. On the other hand, exports to Asian countries are four and a half times higher, while sales to other countries have multiplied by 22 times. However one needs to interpret these figures very cautiously, as nearly 87% of the increase in exports of goods between 2003 and 2014 was generated by re-exports of fuel. On the other hand, since 2003 there has been a sharp decline of about a fifth in Malta's exports of machinery and transport equipment. A substantial part of these large movements is explained by price changes (the price of oil is 3 times higher than in 2003, while semiconductor prices are a third less).

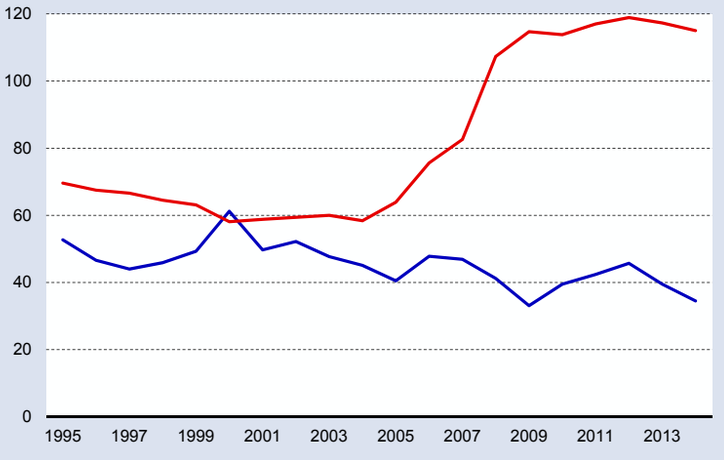
Chart 11
EXPORTS OF GOODS BY REGION
(euro millions)



Source: Author's calculations. See Appendix for details.

Moreover, despite the boost provided by the emergence of fuel re-exports, the share of export goods out of overall GDP has been declining, in line with the reduction in the relative importance of manufacturing. As already discussed elsewhere in this article, the post-EU accession period witnessed a spectacular rise in export-oriented services activity. Malta has traditionally had a surplus in its services trade, but in recent years this has grown to unprecedented levels, resulting in the country experiencing its first current account surpluses in decades. Chart 12 shows that services exports have nearly doubled their share of GDP since 2004. While certain sectors which drove this rise, like online gaming and financial services, have somewhat slowed down recently, there are other emerging sectors that show considerable potential, such as computer programming and professional services.

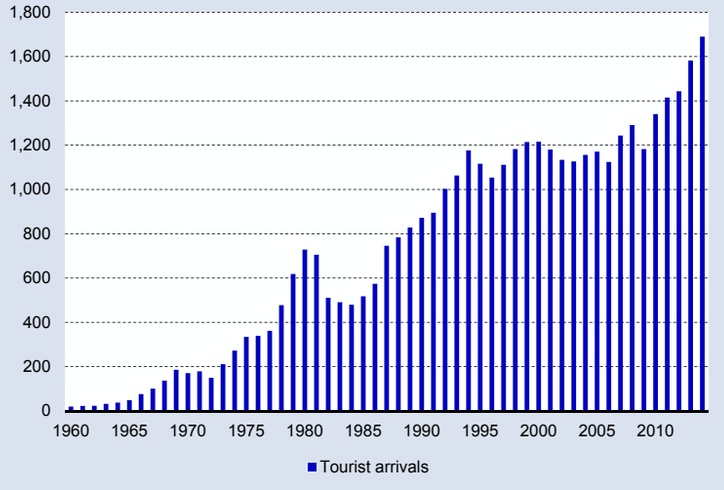
Chart 12
THE RISE OF SERVICES EXPORTS
(% of GDP)



Source: Eurostat.

Furthermore the tourism sector which had appeared in the early 2000s to be facing an uncertain future has in recent years rebounded strongly.[22] Chart 13 shows that the Maltese tourism industry had grown in sharp spurts, followed by somewhat longer periods of stagnation or decline. Thus after quadrupling in last half of the 1960s, the number of visitors then declined for some years, before increasing by a factor of five till 1980. At that point tourism earnings stood at €261 million, or 25% of GDP. This was followed by seven years of relative decline with revenue halving at one point, before another surge

Chart 13
TOURISTS VISITING THE MALTESE ISLANDS
(thousands of persons)



Source: Author's calculations. See Appendix for details.

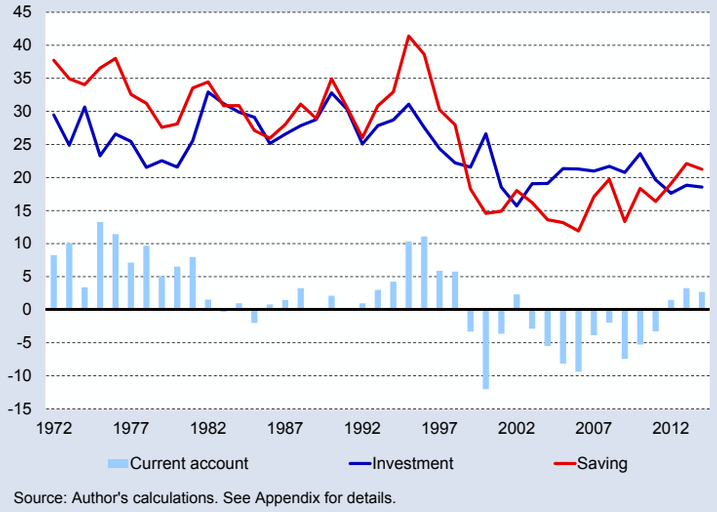
[22] For a more detailed analysis of tourism trends, see Gatt & Falzon (2014).

that brought the number of visitors above one million in 1992. After that, the number of arrivals remained stable for more than a decade between 1994 and 2005. Since then, with the exception of 2009, the number of visitors has surged, nearing 1.7 million. This is nearly 45 times the amount of tourists who visited the Maltese islands in 1964. In 2013 for the first time, gross earnings from tourism exceeded €1 billion, or 14% of GDP.

Returning to the increase in foreign direct investment in recent years, one has to note that these have been accompanied by an interesting inversion in trend. Whereas historically Malta's GDP has tended to be lower than its Gross National Income (GNI), since 1995 it has mostly been higher than the latter's level. The GNI adjusts the GDP by the net amount of income received and paid abroad. The more the country attracts foreign direct investment and foreign workers, the likelier that more profits and wages will be repatriated to the source country. While in the decades prior to EU accession Malta's GNI used to be 5% higher than its GDP, it is now nearly 5% lower.

Despite this development, Malta's current account balance has still turned positive in recent years. With the exception of 2002, Malta had been running a deficit since 1998 (see Chart 14). The deterioration in the current account position reflected according to Grech (2000) a steady decline in government saving that offset the impact of a lower investment ratio.[23] In recent years, while the investment ratio declined further, as the capital intensity of production fell due to the surge in the labour-intensive services sector, there was a recovery in saving. As will be shown in the following section, this reflected in part an underlying improvement in government finances.

Chart 14
CURRENT ACCOUNT: INVESTMENT AND SAVING
(per cent of GDP)



Source: Author's calculations. See Appendix for details.

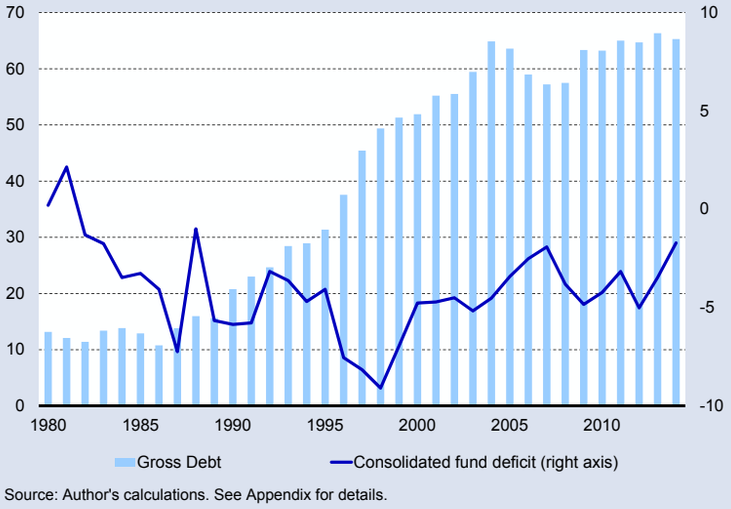
[23] The national accounts identity (Y=C+I+G+X-M) implies that any difference between saving (Y-C-G) and investment (I) is financed by the difference between exports and imports (X-M).

6. The role of Government

The previous section ended with a discussion of how trends in saving and investment affected the current account balance. To a significant extent these trends were determined by government spending decisions. Grech (2000) argues that the large current account surpluses in the 1970s reflected the very high government saving prevalent in those years due to large annual rent payments for the use of the military base that the British government operated in Malta. Once those rents disappeared, government saving (or the surplus of revenue over recurrent expenditure) took a distinctly downward path turning negative in the mid-1990s.

Chart 15 shows that the balance of Government on the Consolidated Fund[24] and its gross debt. Since 1995 government finance data have been compiled using Eurostat definitions which are not strictly in line with the indicators shown in this Chart. However, the two sets of measures show the same overall trends, with a correlation coefficient of 0.9 and 1 for the government balance and the government debt, respectively.

Chart 15
CONSOLIDATED FUND DEFICT AND GROSS DEBT
(per cent of GDP)



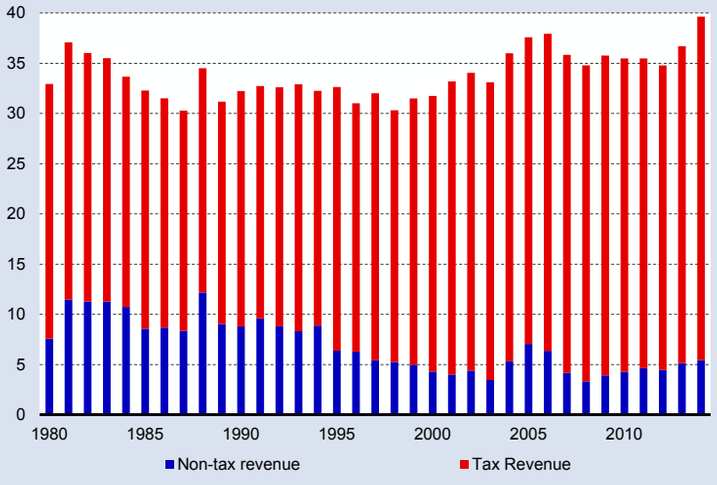
Source: Author's calculations. See Appendix for details.

The government deficit worsened nearly consistently between 1982 and 1998. This was due to the fact that government revenue as a percentage of GDP slipped from 37.1% in 1982 to 30.3% in 1998, mostly on account of a lower proportion of non-tax revenue. At the same time, total expenditure went from 35% to 39%, largely on account of rising public debt servicing costs.

[24] The "Consolidated Fund" is a relic of British administration. It is the term used for the main bank account of the government in Commonwealth nations. It differs from the General Government sector as defined in Eurostat government finance statistics in many ways, as it is more of a cash flow statement rather than an account of revenue and expenditure on an accrual basis. Moreover it does not cover the transactions of a number of public sector entities.

After 1998 non-tax revenue stabilised, as can be seen in Chart 16. On the other hand, tax revenue rose steadily, such that the tax intake grew from 25.1% of GDP in 1998 to 34.2% in 2014. This growth can be divided into two phases. In the first, which lasted till 2005, the rise in the tax revenue was driven by indirect taxes. This probably reflected the successful implementation of VAT, which widened the tax base compared to the previous customs and excise taxation. In the second phase, which started just after EU accession, tax revenue growth was instead driven primarily by higher direct tax revenue. This principally reflected higher corporate taxation receipts generated by the increased activity in the services sector.

Chart 16
GOVERNMENT REVENUE: SOURCES
(per cent of GDP)



Source: Author's calculations. See Appendix for details.

Turning to spending, whereas the burden of public debt servicing continued to increase, most other outlays fell as a percentage of GDP, as can be seen from Table 6. The only

Table 6
GOVERNMENT SPENDING AS A SHARE OF GROSS DOMESTIC PRODUCT
Per cent

	1980	1990	2000	2005	2010	2014
Personal emoluments	10	10	10	9	9	9
Contributory benefits	5	6	7	7	9	8
Non-contributory benefits	4	4	3	3	3	3
Other current expenditure	10	10	10	9	9	9
Public debt servicing	1	1	4	4	6	8
of which interest payments	1	1	3	3	3	3
Capital expenditure	7	8	5	6	5	5

Source: Author's calculations. See Appendix for details.

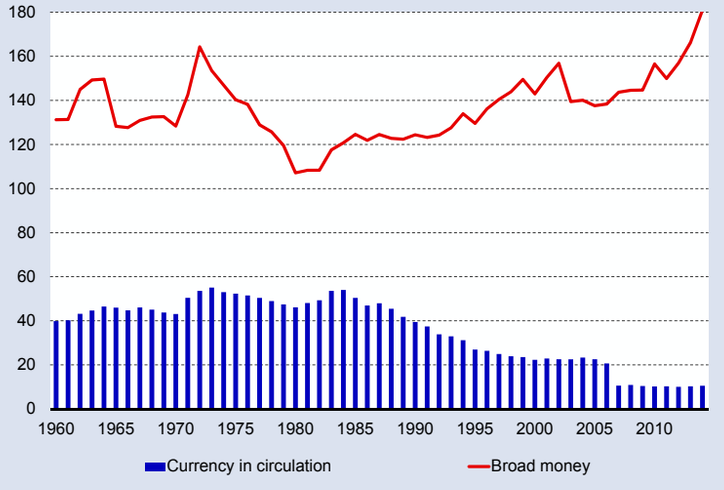
exceptions were contributory social security benefits. Here the maturing of the pension system, combined with the impact of increased ageing led to a steady rise. In fact, whereas in 1980 outlays on personal emoluments were double the spending on contributory benefits, in recent years spending on these two items has converged.

7. The financial system

The rapid evolution of the Maltese economy has led to substantial changes in the local financial system. Before the early 1990s, the Maltese financial sector was very highly regulated by the Ministry for Finance, both in terms of interest rate and capital controls.[25] These controls were gradually removed and government's role in the banking sector (including direct shareholding) was limited substantially. With the removal of capital controls, the Central Bank of Malta focused its operations on maintaining a credible exchange rate peg,[26] while financial sector liberalisation led to a significant rise in bank lending.

Chart 17 displays the changes over time of two monetary aggregates: currency in circulation and broad money (which besides currency also includes bank deposits). Broad money as a share of GDP declined in 1970s, as while in absolute terms deposits tripled, GDP grew even faster. That said, in the early 1970s a run on a bank led to a rise in currency holdings. After the 1980s recession, growth in broad money picked up greatly. Currency demand also started to decline in importance, though as shown in Grech (2014), it remained very high by European standards. The adoption of the euro led to a halving of the stock of currency, as authorities sought to reduce the use of cash. Since 2006, currency holdings have risen by 38%, but this is dwarfed by the concurrent doubling of deposits.

Chart 17
CURRENCY IN CIRCULATION AND BROAD MONEY
(per cent of GDP)



Source: Author's calculations. See Appendix for details.

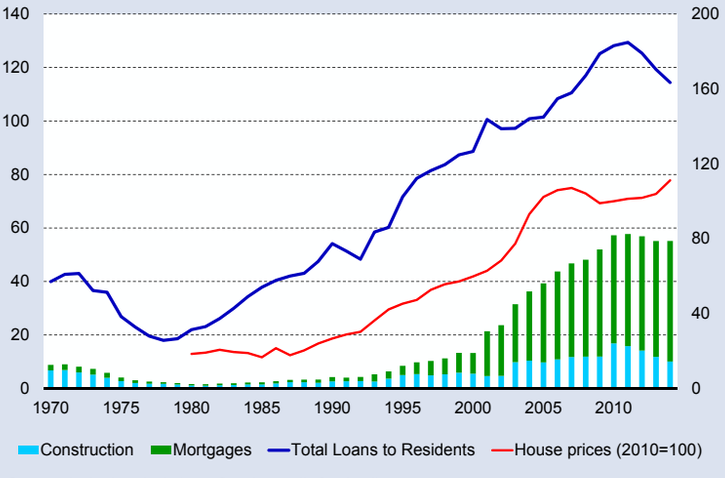
This constant rise in deposits is one of main strengths of the Maltese financial sector. It has enabled the Maltese banking model to remain very traditional, with local banks depending on resident deposits to finance their activities which, in turn, focused on

[25] See Falzon (1994) and Azzopardi & Briguglio (1993).
[26] For Malta's monetary policy framework prior to the adoption of the euro, see Grech (2003b).

standard lending. Maltese banks have also opted to maintain significantly lower loan-to-deposit ratios than neighbouring economies, which made them very resilient to financial crisis affecting banks in other countries.

However, as can be seen from Chart 18, taking a long-term perspective, one can easily see that the nature of bank credit in Malta has changed radically over the last decades. Between 1995 and 2010, the relative size of total loans to residents doubled to reach 129% of GDP. This appears to have been spurred by a significant rise of mortgage lending, which grew from 3% of GDP in 1995 to 40% in 2010. Concurrently lending to construction firms increased from 5% of GDP to 17%. Whereas in 1980, these two forms of lending constituted just 8% of total bank credit, three decades later they took up 45%. That does not mean that they necessarily crowded out other types of lending – such as providing finance to manufacturing firms or to other economic sectors. In fact, other lending rose from 20% of GDP in 1980 to 71% in 2010. This notwithstanding, it appears that the financial liberalisation of the 1990s has increased the role that banks play in the determination of household consumption. In the 1970s and 1980s banks dealt mostly with firms. Personal credit is now half of their activity.

Chart 18
BANK CREDIT: THE RISE OF MORTGAGE LENDING
(per cent of GDP)



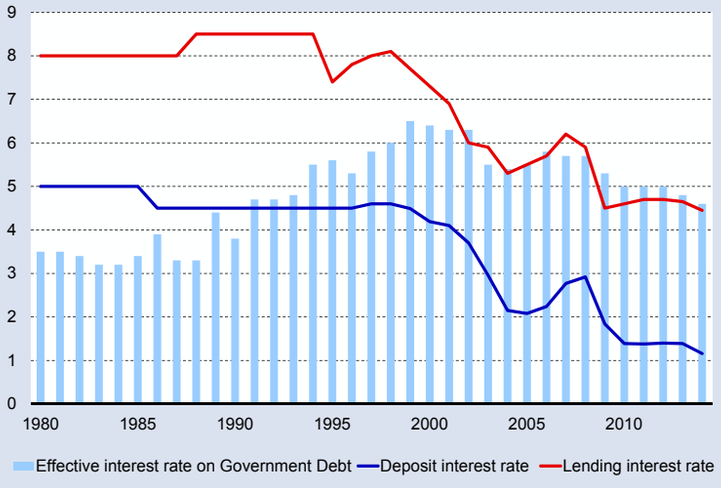
Source: Author's calculations. See Appendix for details.

Another thing emerges strongly from Chart 18. The rise of mortgage lending coincided with a sharp rise in house prices. Falzon, Zammit & Camilleri (2005) argued that banks' lending practices helped to accommodate demand. Nevertheless they note that in the 1980s mortgage lending had also been rising strongly (in absolute terms it quadrupled) while house prices had remained broadly stable. This reflected the fact that in that period Government was intervening in the housing market by selling plots of land at very low prices to young couples. The winding-down of such programmes (which became limited to low-income cases) did little to dampen the attractiveness of home ownership for Maltese households. In the 1990s house prices doubled, but this was exceeded by the rise

observed in the three years prior to EU accession when house prices grew by 14% per annum on average. In subsequent years, house price inflation dampened sharply. House prices actually declined in 2009, the first instance since the recession in the 1980s. Bank credit to construction firms fell while growth in mortgage lending decelerated.

Chart 19 shows another major development in the Maltese financial system. After liberalisation, interest rates embarked on a distinctly downward path, which may explain why credit became so attractive to households and firms. Deposit rates moved broadly in line, though as demonstrated in Micallef & Gauci (2014) banks have tended since the recent financial crisis to lower them more than they do lending rates.

Chart 19
INTEREST RATES
(per cent)



Source: Author's calculations. See Appendix for details.

At the same time, the effective rate paid on Government debt[27] rose steadily till the early 2000s, principally as in preceding years it was being held down by very low-interest foreign loans. Up to 1995, the effective rate paid on Malta Government Stock (MGS) fluctuated between 5.5% and 6%, whereas that paid on foreign loans rose from 1.4% in 1980 to 3.7% in 1995. The late 1980s also saw the emergence of treasury bills, which started at relatively low rates, but which by the late 1990s had risen to an average of 6%. In the years preceding EU accession and the adoption of the euro, effective rates on Government debt fell but not to the extent that lending rates did. Thus, while at the start of interest rate liberalisation there was a 3.5 percentage point gap between the lending rate and the effective interest rate paid on MGS, at the time of EU accession lending rates fell below the rate charged to Government. This somewhat strange development is being reversed in recent years, as rates charged on treasury bills and MGS have fallen significantly. Moreover the previous differential between interest paid on foreign and local loans has now disappeared.

[27] This was calculated by dividing the outstanding government debt by type by the interest paid on that debt.

8. Conclusion

This paper has tried to survey the performance of the Maltese economy in the first half century since independence. This task was complicated by the very substantial structural shifts that accompanied this evolution, as well as breaks in series in official statistics. Taking these caveats into account, there are some rather clear trends.

The picture that emerges from the data is of a nation that has benefitted from an extraordinary rate of economic growth and which over time has seen a significant reduction in economic volatility that contrasts with what one would expect of a small economy increasingly exposed to international trade. The Maltese economy has matured exceedingly rapidly, with cycles of inflation and unemployment becoming much less pronounced and with a consistent underlying downward trend. The structure of the economy has shifted strongly towards services, which has led to an increased demand for labour that has accommodated the secular rise in female participation in formal labour market activity.

From a fortress economy that depended crucially on the UK's military budget, Malta's economic structure has transformed into a much diversified and fairly independent set of industries. The role of the state has changed dramatically, though as in other small open economies it continues to play a relatively more active economic function. The financial system in a matter of two decades has also altered beyond recognition, with much more ready access to finance for households and a more direct role in affecting economic growth through decisions on interest rates charged and on lending policies adopted.

Trying not to repeat the mistakes made by economists who looked at the prospects for the Maltese economy at independence and got it completely wrong, I conclude by pointing out the main challenges it might face over the next years. The increased internationalisation of the Maltese economy has been a great boon, but it also means that the operators in this country need to focus greatly on retaining their competitiveness. This will potentially necessitate significant changes in labour market practices, particularly in view of the ageing transition which will be affecting substantially the supply of labour. Employers will need to provide ever more flexible arrangements to retain and attract staff, while attitudes towards training and employing older workers will have to change radically. Similar considerations apply to migration. A service economy needs workers, and while the planners of the 1950s and 1960s deemed emigration inevitable, the policymakers of coming years will need to look into adopting a holistic approach towards migration if the pace of growth of the high value added activities is to continue unabated.

To face the challenge posed by ageing on health, long-term care and pension expenditure, Government will need to become more efficient and bolster further the state of its finances preferably by halting the growth in the share of spending on debt servicing. At the same time, investment in education and training, together with providing necessary infrastructure – especially in new areas such as digital networks, will remain of key importance. The financial sector will need to continue to evolve rapidly to ensure that the large savings of the Baby Boom generation are utilised in the most effective way to sustain economic growth. Like they did in recent years, Maltese firms will need to constantly

seek new markets to make up for the declining opportunities that the ageing traditional markets will be providing.

While these challenges are significant, the prospects for the Maltese economy are much rosier now than at independence, as over the last fifty years through the concerted actions of the main stakeholders the Maltese have built a strong and stable economic framework that has withstood immense difficulties. If over the next decades, this positive and dynamic approach is retained and strengthened further, it will stand the Maltese economy in good stead.

Appendix: The data used in this paper

Maltese macroeconomic data are unfortunately plagued by a number of breaks in series. The National Office of Statistics (NSO) publishes on the Eurostat website data going back to 1995 and in some cases just to 2000 or even 2008. There are a number of international agencies that publish longer time series, such as the IMF's International Financial Statistics, the World Bank's Development Indicators and the European Commission's annual macro-economic database (AMECO). A number of private institutions also have compiled long macroeconomic time series for Malta, e.g. the Penn World tables of the Centre for International Comparisons at the University of Pennsylvania.

In this paper I have as much as possible resorted to official statistics. To extend the monetary aggregates and the national accounts series backwards from 1995, I primarily resorted to data published on the Central Bank of Malta's (CBM) website (https://www.centralbankmalta.org/real-economy-indicators and https://www.centralbankmalta.org/monetary-banking-and-financial-markets). These data collected by the CBM's Statistics Department are the last vintages of data prior to the shift in official statistics methodology introduced immediately before EU accession. In the case of national accounts data, these were spliced using the growth rates found in the pre-1995 data. This practice of splicing using growth rates was adopted whenever there was a considerable break in series between values pre- and post-methodological changes.

A considerable number of series were extended backwards only thanks to the invaluable work carried out by my colleague, Ms Sandra Zerafa. She mostly utilised old CBM and NSO publications, such as Quarterly Reviews and Abstracts of Statistics, together with data stored in databases previously compiled by staff at the CBM's Statistics Department. I would like to thank the staff at the libraries of the CBM and the NSO for their help and support in this task. Similar thanks are due to the CBM's Statistics Department. Another great source was the non-profit library Internet Archive (https://archive.org/), which stores copies of old versions of the NSO website and thus enables one to retrieve several old vintages.

Pre-1995 data on potential output and its determinants were adopted from a study I carried out using pre-European System of National Accounts (ESA) data back in 2004. Employment data in this study were the result of studies I published in 2003 when I tried to create consistent employment series, such as part-time employment and the full-time equivalent workforce. These estimates are mainly based on Employment and Training Corporation (ETC) administrative data calibrated to reflect the relationship that existed between ETC and Labour Force Survey (LFS) data post-2000.

Data on relative weights of RPI sub-indices over time was derived from NSO (2008).

The measure of ULC was derived using spliced data on real GDP and compensation of employees, together with measures of full-time equivalent employment derived in line with Grech (2003a).

The data on the age structure of the Maltese population were taken from past issues of the NSO's Demographic Review. These were combined with past ETC data to estimate the participation rates since 1970, rather than 2000 as in official data. The approach taken to backcast the LFS unemployment rate is explained in Grech (2003a), and reflects the relationship that existed between LFS and ETC unemployment rates post-2000.

Turning to the external sector, the world demand and the real exchange rate index are compiled in line with the approaches suggested by the ECB and World Bank. The export of goods and the tourism arrivals data are taken from the CBM's statistical website, while the past data on the current account was compiled from old Abstracts of Statistics.

The section on government finances owes a lot to the work of my colleague, Mr John Farrugia, who took upon himself the painstaking task of trying to reconcile the different definitions adopted over time in government finance statistics compilation. He is also the source for the effective interest paid on government debt.

The Central Bank of Malta's house price index goes back only to 2000. I extended it backwards using information on average house prices from Falzon, Zammit & Camilleri (2005).

Finally the data on interest rates prior to the adoption of the euro is derived from work I had conducted in 2014 for a study on currency demand and is mostly from old Quarterly Reviews of the Central Bank of Malta.

The database with all these data can be accessed at: http://www.centralbankmalta.org/file.aspx?f=1222

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