The Challenges of Productivity Growth in the Small Island States of Europe: A Critical Look of Malta and Cyprus

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2013

This working paper was published as follows:

Camilleri, S.J., and J. Falzon, 2013, The Challenges of Productivity Growth in the Small Island States of Europe: A Critical Look at Malta and Cyprus, *Island Studies Journal*, 8(1), 131-164.

The Challenges of Productivity Growth in the Small Island States of Europe: A Critical Look of Malta and Cyprus

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ABSTRACT: This paper looks at productivity growth rates in Malta and Cyprus and proposes policies as to how these island states countries might augment their productivity and competitiveness. We identify three possible growth strategies for the islands: an Innovation-Oriented Economy, a Controlled Input-Cost Economy and an Opportunistic Growth Model. In order to infer which strategy might be best suited to the two states, we conduct a comparative analysis amongst different EU countries in terms of productivity yardsticks. We also evaluate trends in Gross Value Added (GVA), employment levels, and Unit Labour Costs (ULCs) in the most important economic sectors of Malta and Cyprus. The research suggests that a Controlled-Input Cost model may be best suited to most Maltese and Cypriot economic sectors. We then propose a series of possible policies aimed at fostering future growth and competitiveness in the two island states.

Keywords: Cyprus, economic growth, growth policies, Malta, productivity, unit labour costs

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Introduction

This paper assesses the recent economic performance of the island states of Malta and Cyprus and considers possible future strategies for these economies. One motivation behind our investigation is the suggestion that the two islands registered meagre growth rates following EU accession, despite the trend for lower-income countries to experience higher growth rates as compared to higher-income ones (Böwer and Turrini; 2009). This paper offers ways as to how these economies may obtain higher growth rates in the future. We lay particular attention on productivity growth as evaluated in the context of other European countries and delve into the factors or industries which may further explain any observed disparities. The underlying objective is to attempt to obtain faster convergence by Malta and Cyprus to the better-performing European peers.

In this paper we emphasise three possible productivity growth strategies. The first two are related to two main factors of production: capital and human resources. In particular countries may opt to seek productivity growth by innovating their business processes to achieve higher levels of efficiency. This pre-supposes a commitment in terms of capital investment, for instance in order to upgrade the production process following comprehensive research. Human resources constitute another important factor of production, and economies may endeavour to achieve a competitive edge by emphasising lower-cost inputs, especially human resources. In this respect a country may opt to foster human resources by investing in education and re-training, and possibly by importing labour from overseas, if there are shortages in particular areas. The third growth strategy we identify is not directly related to factors of production, but is based on the exploitation of profitable opportunities which might arise from the external environment, as a result of regulatory changes or shifts in consumer demand.

More specifically, Malta and Cyprus may pursue the following future economic policy objectives:

a) Innovation-Oriented Economy. In this model, the goal is to generate value added by offering products and services which require high aptitude and technical skills. The main competitive driver in such an economy is therefore innovation and the focus on knowledge-intensive activities, while the curtailment of production costs is of secondary importance. Germany is one example of such an economic model; with the country granting primary importance to innovation and providing for the supply of the required personnel by investing in apprenticeships, education and training. This enabled the country to build a reputation for knowledge and innovation-based activities, despite its higher labour costs. Admittedly innovation entails the committing of funds towards substantial research and development, which might prove prohibitive to island economies. Despite this, one may mention the case of Ireland where businesses such as Ryanair and Havok have registered considerable success and growth in market share, attributable to the adoption of innovative operating models.

b) Controlled Input-Cost Economy. In this model, the main source of competitive advantage is the availability of resources at a restrained cost, which permit the production of goods and services at a lower overall price. Asian economies may be cited as an example, and one particular stance taken by Singapore was to tap the input of imported labour through migration. Immigration has historically played an important role in the country; the immigrant population has however increased considerably over the past decade, facilitated by process through which migrants can work in the country, including safeguards which provide for their repatriation during periods of economic slack. Non-residents participate in both the knowledge-based and low-skill labour sectors, where in the latter case they fill vacancies which do not appeal to the resident population.

c) Opportunistic Growth Strategy. This model takes a more piecemeal approach and involves taking actions to foster growth, depending on current events, opportunities and threats. Several examples may be mentioned in this respect; including the United Kingdom fostering the formation of a Eurodollar market in London, partly due to regulatory restrictions applicable to US banks in the 1970s. More recently, China took advantage of the increased demand for new forms of energy generation and became one of the largest producers of solar panels. Such a growth model might be particularly suited for smaller states since these tend to be more flexible in reacting to exogenous change (Alesina and Spolaore; 2003). For instance, Harvey (2011) discusses how Caribbean islands such as Bahamas, Jamaica and Barbados took advantage of opportunities offered by agri-business and agri-tourism activities. Similarly, a host of island economies such as Bermuda, British Virgin Islands, Cayman Islands and Jersey took advantage of the regulatory and globalisation trends in the financial services industry to attract considerable activity as offshore financial centres.

Whilst we do not rule out the possibility that some economies may pursue strategies other than those outlined above, we think that the former ones capture the growth experiences of a large number of countries. The above three models are not mutually exclusive: countries may pursue any of the above strategies for different industries, and it might also be realistic to hypothesise that such policies ought to be used collectively in practice. However, we would like to identify which of the three models may be most relevant to the two island states.

The paper is structured as follows: A brief literature review about growth and economic convergence is offered in Section 2, and a background to Cyprus and Malta is presented in the subsequent section. In Section 4, we look at a suite of productivity yardsticks to gauge how Malta and Cyprus compare with peer European economies and how these comparisons might unfold in the future. Section 5 reviews the productivity trends of the most important economic sectors in Malta and Cyprus. We lay particular emphasis on Unit Labour Costs (ULCs), and depending on the characteristics of the main industries, we infer which of the proposed growth strategies might be most relevant to the two island states. (To our knowledge, no prior research has focused on ULCs across different economic sectors in Malta and Cyprus.) Section 6 suggests possible ways in which Malta and Cyprus might be able to improve productivity, based on the chosen growth model. Section 7 concludes.

Disparities in Growth Rates amongst Countries

Economic convergence across countries entails that poorer economies grow at faster rates than their peers; a trend known as 'beta-convergence' (Bower and Turrini; 2009). Yet, particular countries may find it difficult to boost their growth rates in order to get in line with others. Sachs and Warner (1995) argue that countries might fail in boosting their *per capita* income due to lack of commitment to market-based policies aimed at enhancing efficiency, such as the opening of trade markets and the safeguarding of private property rights. Inefficiencies in capital flows may lead to unsatisfactory growth rates (Easterly and Fisher; 1995). Countries might lack 'absorptive capacity', being ill equipped to adopt the superior technologies and business processes used by foreign firms (Bijsterbosch and Kolasa; 2009).

Eliofotou (2008) explored the issue of hindered growth due to limited labour availability in Cyprus. The author argued that labour supply may be improved through encouraging female and older-population participation in the workforce and also contended that measures should be in place to encourage the input of people with disabilities. In the case of highly skilled jobs, gaps may be filled by hiring foreign and expatriate employees. The labour market may also be prone to inefficiencies emanating from other markets: disparities in capital intensity may spill over to labour productivity, whereby a given unit of labour may achieve different productivity rates across countries, due to being coupled with different units of capital (Kolasa; 2005).

Small island economies may be unable to exploit technological improvements in transportation and they are generally marginalized from key transport routes (Briguglio; 1995). Small states may be hindered by chronic vulnerability (Briguglio; 1995); yet, Easterly and Kraay (2000) reported that smaller countries tend to have higher GDP per capita and that their growth rates are comparable to those of larger ones. Smaller states also exhibit a higher degree of openness; while this may imply higher volatility of growth rates, it can also lead to positive diversification outcomes.

Cordina (2004) noted that vulnerable countries tend to exhibit higher rates of per capita income and savings; a disposition to save and invest may counteract possible exogenous shocks. Similarly, Armstrong and Read (2002) suggest that smaller states often outperform larger ones in economic terms, possibly due to the better quality of political and economic institutions (Congdon Fors; 2007). Katzenstein (1985) argued that smaller states usually have a more open economy which makes them more prone to imported shocks; yet they tend to be more supple in adjusting to change since, unlike larger countries, they cannot resort to protectionist measures which may offer a temporary shield from shocks.

Jersey and St Pierre et Miquelon offer interesting examples of small island economies adapting to changing economic environments by re-tailoring policies and regional contacts. Through their involvement in finance, fisheries, customs clearance and shipping activities, these islands did not restrict their trading partners to immediate neighbours (Fleury; 2009). In the island state of Singapore, entrepreneurs are encouraged to shift their production process overseas, given the higher local labour costs, small domestic market size and declining exports (Wong and Khoon; 2011). Menon (2007) attributes Singapore's excellent economic performance over recent years to a range of government policies which promoted economic diversification, price stability achieved through prudent fiscal and monetary policies, financial sector reforms aimed

at attracting more operators, and investment in education and technology. These objectives were achieved in a context where the government fostered private initiative and transparency.

Background to Malta and Cyprus

Malta and Cyprus both gained independence from Britain in the 1960s. Both experienced significant emigration tendencies in the second half of the twentieth century, with more than 50% of the population of the countries now living overseas, mainly in English-speaking countries. Migrant remittances helped to reduce current account deficits until the 1980s, after which the significance of these remittances has declined (Portelli; 2007). Both joined the European Union (EU) in 2004, and adopted the Euro as their currency in 2008. The island states both followed stable exchange rate policies through currency pegs and subsequently through participating in the ERM2 framework, agreeing to retain their respective exchange rates within specified bands. The process to attain EU membership required the adoption of the *acquis communitaire:* the EU's legal framework across candidate countries. The two islands underwent drastic revisions to conventional policy practices, including the dismantling of trade barriers in order to achieve harmonized tariff structures. In accordance with the theory of economic convergence, one would expect that EU membership should alleviate the per capita income disparity across European economies.

As with other island states, Malta and Cyprus are susceptible to issues of peripherality, due to their inherent size and relative distance from larger economic blocs such as Northern and Central Europe. It is particularly important for peripheral states to compensate for this feature by fostering efficiency and competitiveness (Cole; 1993). Businesses located at the margins of the EU tend to be less innovative and competitive; also because associated transports costs per unit of export far exceed those of core areas (Copus *et al.;* 2008). One should note that the peripherality issue for Malta and Cyprus is not as severe as in the case of other islands located in remote areas; nonetheless their island status still makes them prone to the problem of insularity, implying higher per-unit transport costs, less stable industrial supplies and stock management costs (Briguglio; 1995).

On small islands, domestic demand is often too low to permit significant economies of scale in the absence of production exportation. Other implications of small size include scarcity of natural resources, immobility of venture capital, limited specialized labour and limited diversification potential; these factors may result in higher GDP volatility, and slow down economic growth and financial sector development (Rodrik, 1998; Briguglio *et al.*, 2006; Ramcharan, 2006). Azzopardi (2009) reports that Malta has the highest concentration of exports amongst EU member states; that of Cyprus ranks as the fifth highest in the EU.

Smaller island states tend to be particularly prone to exogenous shocks such as natural disasters, international political instability and fluctuations in prices of raw materials. Despite this, the idea of vulnerability should be considered in the context of the degree to which economies manifest resilience in tackling shocks. Using a sample of 86 countries, Briguglio *et. al.* (2009a) classified both Malta and Cyprus as 'self-made': economies which are significantly vulnerable but have been pro-active in tackling this vulnerability through adopting appropriate policies.

Prior research suggests that smaller states tend to achieve better quality of political and economic institutions (Congdon Fors, 2007). These factors were confirmed by Azzopardi (2010) who conducted an empirical analysis amongst local governments of various European states, including Cyprus and Malta. The author noted significant advantages of smallness in this respect; for instance the affinity between local authorities and the electorate. Yet, particular shortcomings such as lack of co-ordination between various governmental bodies were also evident.

Both Malta and Cyprus devote substantial efforts towards optimizing their use of information technology (IT) to supplement economic activity. Galea (2011) considered various IT indicators of European small states and found that Maltese IT yardsticks rank *pari-passu* with EU averages, whereas Cypriot ones rank below. As compared to EU averages, both islands have higher percentages of firms conducting online business, and higher percentages of employees with IT skills.

Despite this, at a micro level, Maltese and Cypriot businesses tend to allocate relatively few resources for research purposes. This may be due to the modest size of business firms which implies that the required funds might be prohibitive. Moreover, the two countries tend to import a wide range of products, rather than manufacturing them themselves. In addition, prior research in the context of different countries would suggest that firms facing tough import competition tend to downsize their research priorities (Funk; 2003).

One sector which has shown substantial growth during recent decades in both Malta and Cyprus is financial services. A knowledge-intensive sector with minimal requirements for physical imports and exports, but requiring some regulatory ring-fencing, such an industry is particularly suited to island states. Yet, the finance industry tends to be volatile and fickle; business may quickly relocate when better prospects are available elsewhere. Involvement in the financial services industry may result in spillover of knowledge amongst financial institutions operating in the respective countries. If this translates into more sophisticated financial systems, one may expect positive impacts on growth (Seetanah *et al.*; 2009).

Malta

Malta is a small open economy, classified at an innovation-driven stage by the World Economic Forum (2011). The electronics industry accounts for a significant share of manufacturing exports, although this activity is heavily dependent on a single producer. Nevertheless, the Maltese economy still features a comprehensive mixture of sectors (Figures 2 and 3) and this should translate into some degree of diversification benefits (Falzon; 2011). During the 1990s, Malta underwent a series of policies which brought it closer to a market economy, even if perhaps at the expense of higher government deficits and stock of government debt. In the early 2000s, Malta was affected by exogenous shocks in the electronics and tourism industries, leading to a lower rate of employment growth, made worse for Malta by the rising competitiveness of emerging economies where wages are lower than European averages (Ebejer; 2006).

While there is a nucleus of firms involved in financial services, the main sources of finance for Maltese businesses are bank loans. Larger firms may also consider raising funds through the securities market. Both of these sources of finance are relatively stable; in particular commercial banks tend to adopt prudent policies and are financially sound (Camilleri, 2005) and public securities issues typically attract significant investor interest (Camilleri, 2006). Indeed, the global financial crisis which started in 2007 did not cause immediate material impacts on the Maltese financial system (Briguglio *et. al.*, 2009b), despite that production and retail activities showed weakening trends (Azzopardi, 2009).

The Global Competitiveness Index (2011-2012) published by the World Economic Forum (WEF) ranked Malta 51st out of 142 countries. Analysing Malta's ranking in more detail, one notes that the country ranked particularly high in terms of financial market development (15) and health/primary education (29) whereas it performed relatively badly in terms of labour market efficiency (103) and market size (127). The report listed government bureaucracy as the top problem for conducting business, even though particular representatives of foreign owned start-ups expressed satisfaction in terms of their interactions with government institutions (Baldacchino *et al.*; 2008).

Cyprus

Cyprus is a small open economy, also classified at an innovation-driven stage by the WEF (2011). The island is strategically located, and this partly explains how it cultivated relationships with other countries in Europe and the Middle East. Cypriot population comprises Greek and Turkish ethnicities. As outlined by Adaoğlu (2009), the Republic of Cyprus joined the EU on behalf of the whole island, however the Turkish Republic of Northern Cyprus does not form part of the internal market and special arrangements apply for this part of the island vis-à-vis the EU. Data used in this paper relate to Greek-Cypriot community. The Cypriot economy is a services-oriented one, with tourism, financial services and real estate being the most important sectors. Tourism tends to be particularly sensitive to economic instability; this explains the variability of the growth rates of the country over recent years.

Mavris (2004) reports a mixed picture with regards to the competitiveness of the island. In particular, a deterioration in Unit Labour Costs was noted, and firms in traditional sectors such as manufacturing and agriculture were experiencing declining competitiveness. Despite this, there were good prospects in sectors such as financial services, telecommunications, private tertiary education and pharmaceuticals. The Republic of Cyprus ranked number 47th out of 142 countries on the Global Competitiveness Index (2011-2012). Cyprus ranked particularly high in terms of health/primary education (13) and financial market development (25); and it performed relatively low in terms of macroeconomic environment (64) and market size (103).

The country's preparation for adopting the Euro as a home currency in 2008 kept the fiscal deficit under control during the particular period, but the country registered increased deficits thereafter. In 2012 it transpired that a number of Cypriot commercial banks required bailouts due to their high exposures to Greek sovereign debts which were written partly written-off. This led to increased government debts and capital outflows. In January 2013, Moody's downgraded the island's credit rating to Caa3. The latter factors suggest that there are in fact

important differences between the two islands which we are focussing on in this study. Despite this, the fundamental economic structure of the countries is still similar, as shown below. This implies that whilst the countries face common challenges in the real economy, they might actually be 'departing' from a different set of circumstances, where the higher fiscal constraints faced by Cyprus might impact on the state's ability to commit resources to foster future economic growth.

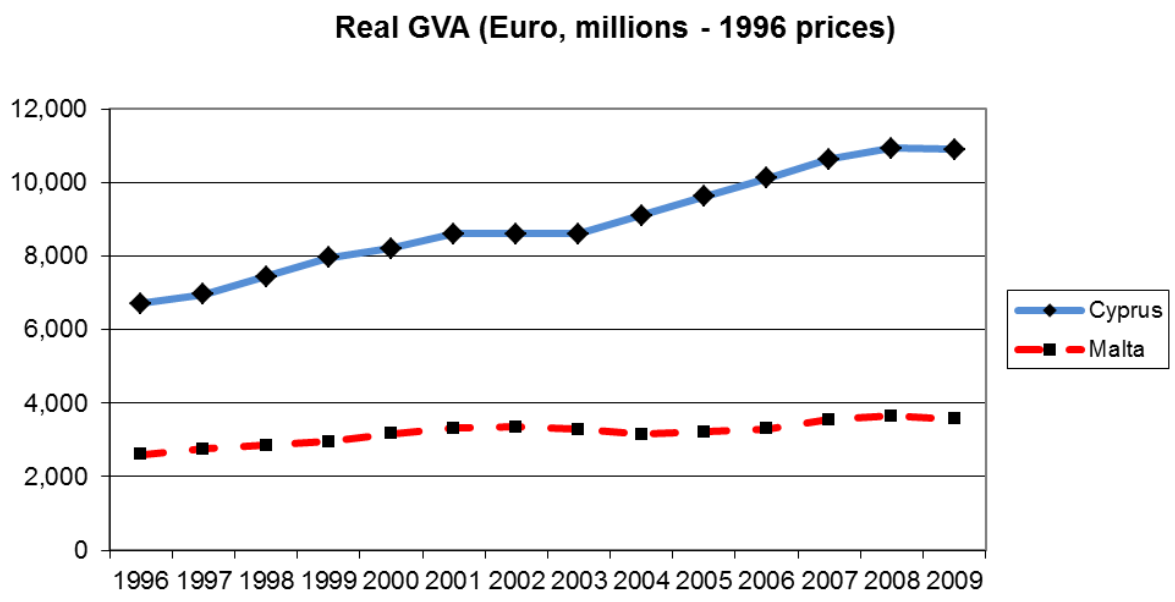
Similarities in Economic Structure of the Two Islands

Whilst the Cypriot economy is larger than the Maltese one, these countries are similar in their economic structure. Figure 1 shows Real Gross Value Added (GVA) for both economies over the years where:

GVA = Compensation of employees + Depreciation + Net operating surplus.

When considering the growth rate of Real GVA, Cyprus performed better than Malta, and a reference to GDP figures (Table 1) indicates that this was the case even after 2009.

Figure 1: Real GVA (Euro Millions; 1996 prices).

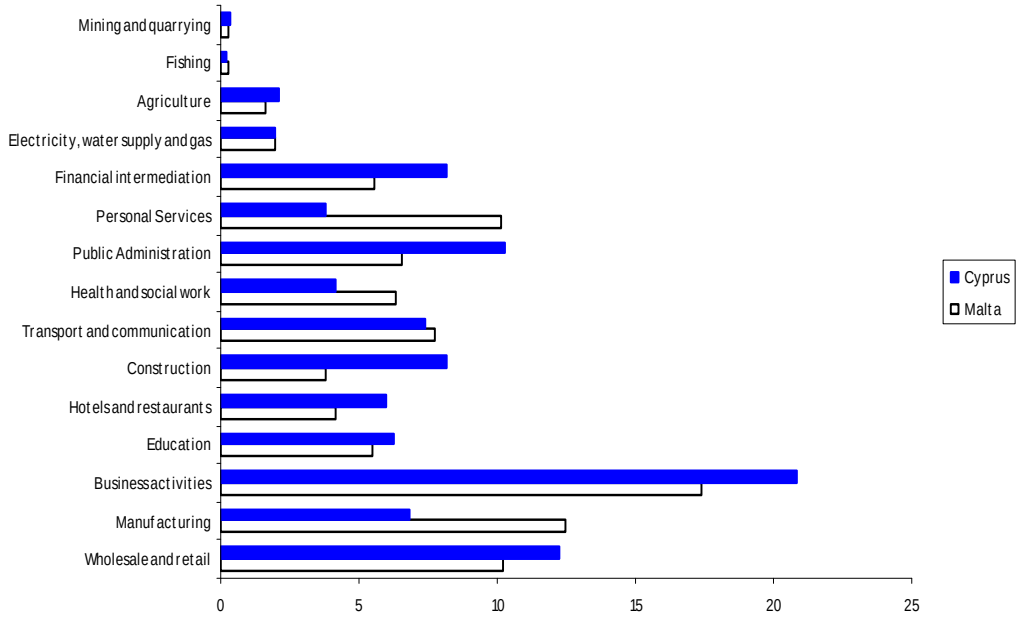


Source: Eurostat

Figures 2 and 3 show snapshots for both economies in terms of the contribution of the main sectors towards GVA and employment as at 2009. Resemblances emerge when considering the relative importance of the sectors which comprise the total economy. Cypriot sectors such as

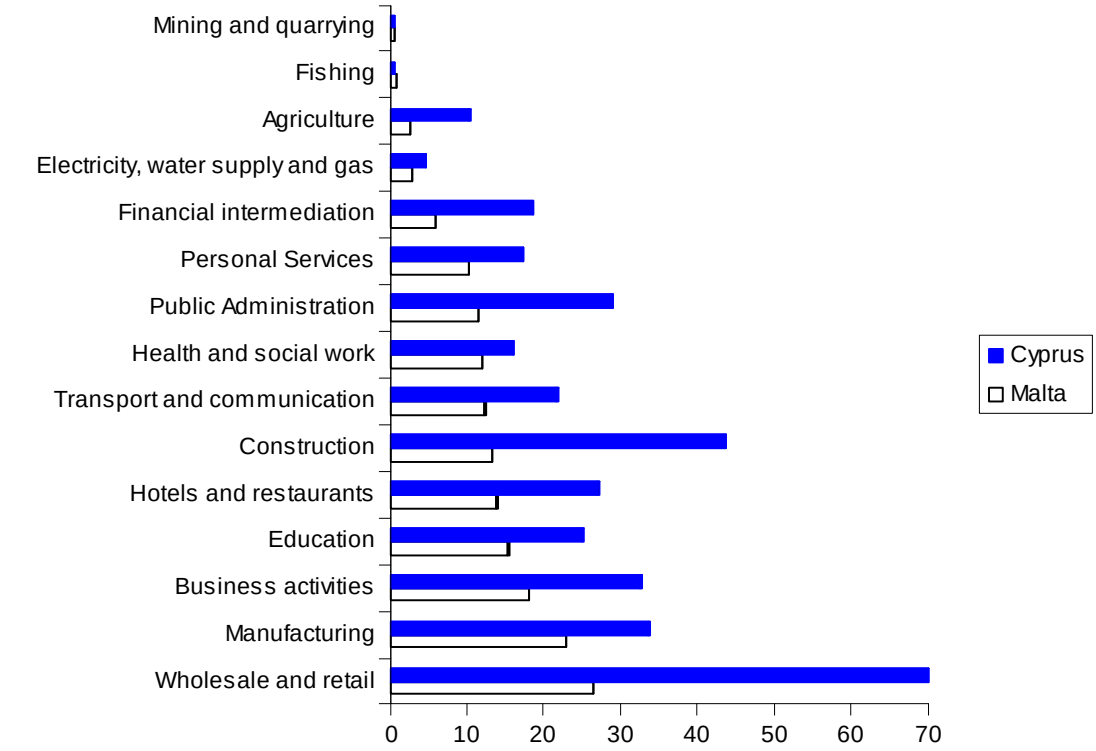
wholesale and retail, business activities, financial intermediation and public administration are larger in relative terms (apart from on absolute terms) when compared to the Maltese counterparts.

Figure 2: Sectoral Gross Value Added as a % of Total GVA (2009).



Source: Eurostat

Figure 3: Employment (000's) (2009).



Source: Eurostat

Böwer and Turrini (2009) considered the growth rates of various European countries with particular reference to the aftermath of EU enlargement. One general trend is for low-income countries to experience higher growth rates as compared to higher-income ones (beta convergence). Malta did not fare well in this respect, registering one of the lowest growth rates across the sampled countries. Cyprus performed marginally better, although its growth rate was still below those registered by other countries having similar *per capita* income.

In restructuring the mixture of economic activities, Malta and Cyprus should consider fostering new growth sectors, accepting that others (such as low-value added manufacturing) are likely to migrate to economies that offer cheaper labour costs. It would also not be advisable for both island states to rely on tourism as the main earnings-generation source, given its inherent volatility (Dodds; 2007). Manera and Taberner (2006) draw attention to further problems relating to the tourism industry in Western Mediterranean islands, such as seasonality, environmental impacts such as overdevelopment and congestion, and the dependence on a handful of countries for tourist inflows.

The Global Competitiveness Index Report (2011-2012) lists a set of difficulties faced when doing business in the two island states. Some are common to both: inefficient government bureaucracy, difficulties in accessing finance, high inflation and unattractive tax rates. Other

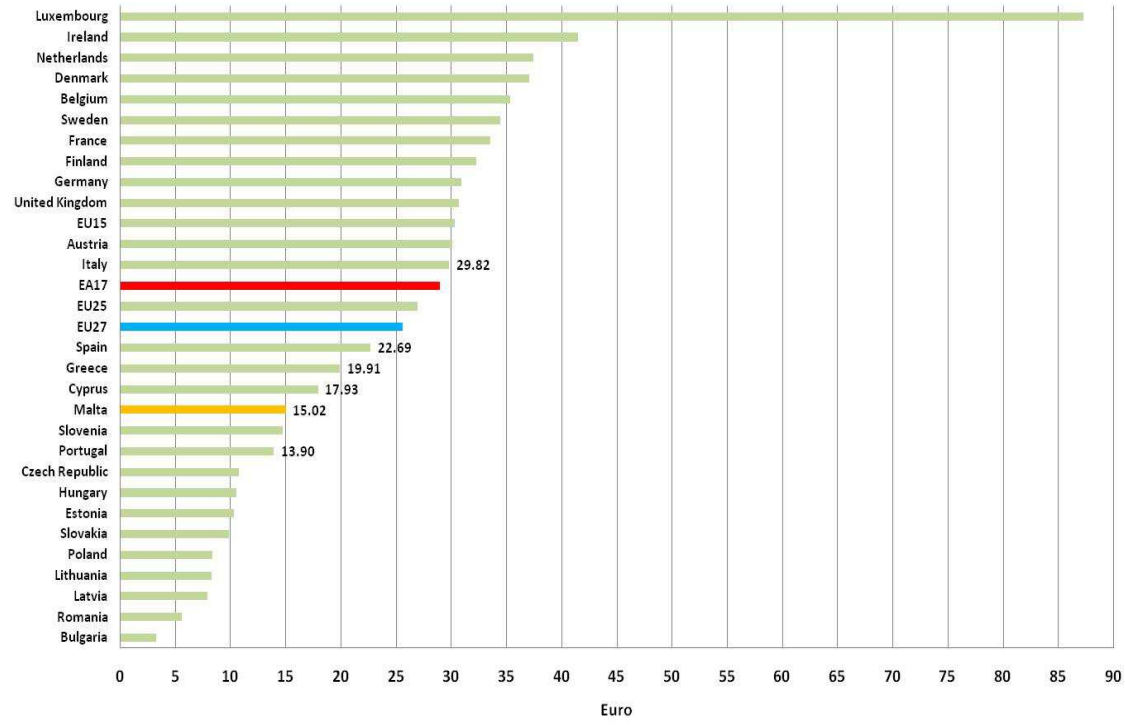
bottlenecks include: an inadequate supply of infrastructure in the case of Malta, and crime in the case of Cyprus. These problems suggest that the governments of the respective countries have a significant role to play in fostering a climate more conducive to economic growth.

The above comparative analysis of the economic structure of the two economies reveals various commonalities. These can serve as a basis for these countries to learn from each other's experiences.

Comparisons with other EU Countries

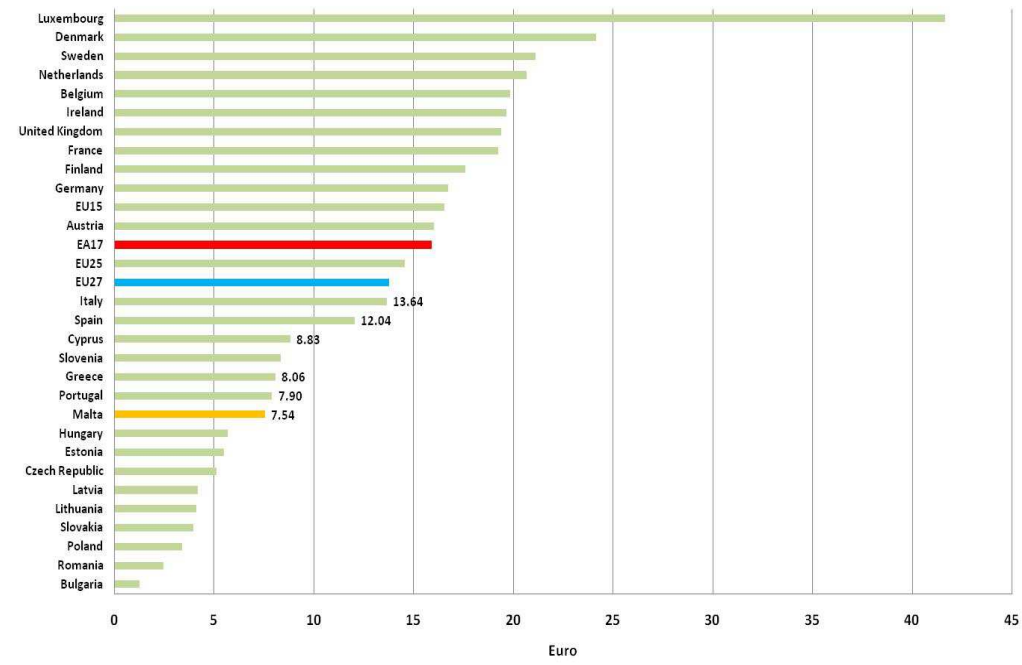
In this section we compare the two island economies with other European countries, in order to assess whether Malta and Cyprus are converging towards their peers in terms of labour productivity. We start by mapping out the rankings of the two islands vis-à-vis the other EU member states as presented in Figures 4-6, providing comparisons in terms of GVA, Employee Compensation and Operating Surplus as at 2007. The two islands rank below EU averages across all comparisons, although Cyprus registered a better performance than Malta. In 2007, Malta had the second lowest GVA per working hour from the Mediterranean peripheral states, just surpassing Portugal. Cyprus performed marginally better than Malta. Out of the 27 EU member states, Cyprus and Malta rank as the 15th and the 16th countries in terms of hourly GVA per employee. Cyprus and Malta registered a compensation rate per hour of €8.83 and €7.54 respectively; the latter is the lowest among Mediterranean countries.

Figure 4: Gross Value Added per working hour (2007).



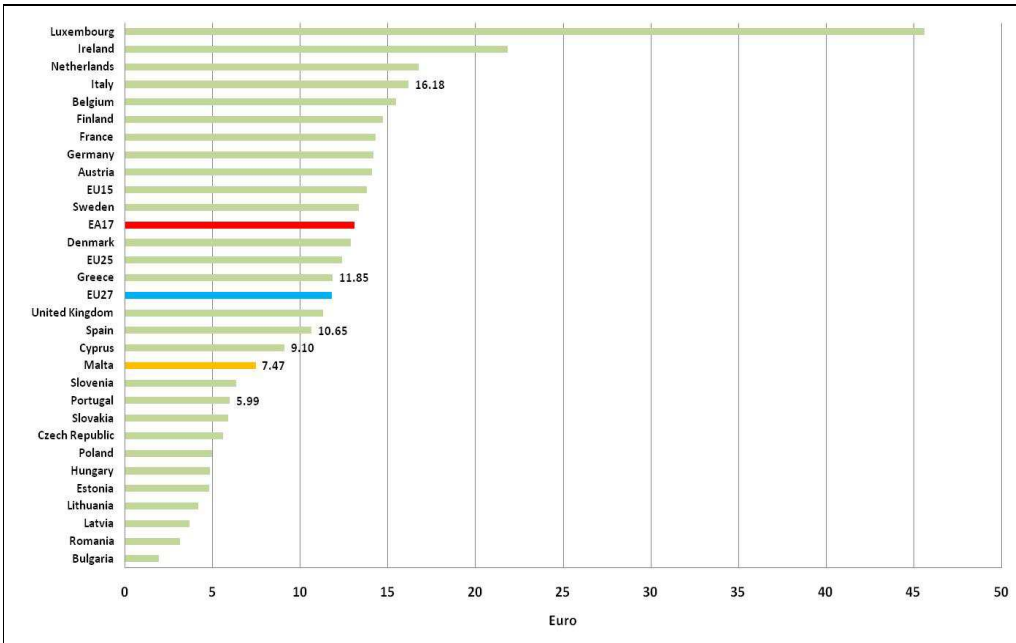
Source: Eurostat

Figure 5: Compensation of Employees per working hour (2007).



Source: Eurostat

Figure 6: Operating Surplus per working hour (2007).



Source: Eurostat

The top performing EU economies include Luxembourg, Ireland and Netherlands. Luxembourg ranks at the top of the scale in terms of the former yardsticks; the country has been able to re-generate its economy via financial and internet-related activities, while sectors such as steel declined in importance. The weakest performers as per 2007 figures are Latvia, Romania and Bulgaria; this may be attributable to peripheral economic underdevelopment as well as the fact that they have only recently transitioned from centrally-planned economies. These yardsticks as plotted in Figures 7 and 8 also suggest geographical differentials in terms of productivity; Northern and Continental countries rank on top, Mediterranean economies rank in the middle, whereas Eastern European countries register the lowest rankings.

Figure 7: Compensation of Employees versus Gross Value Added (2007).

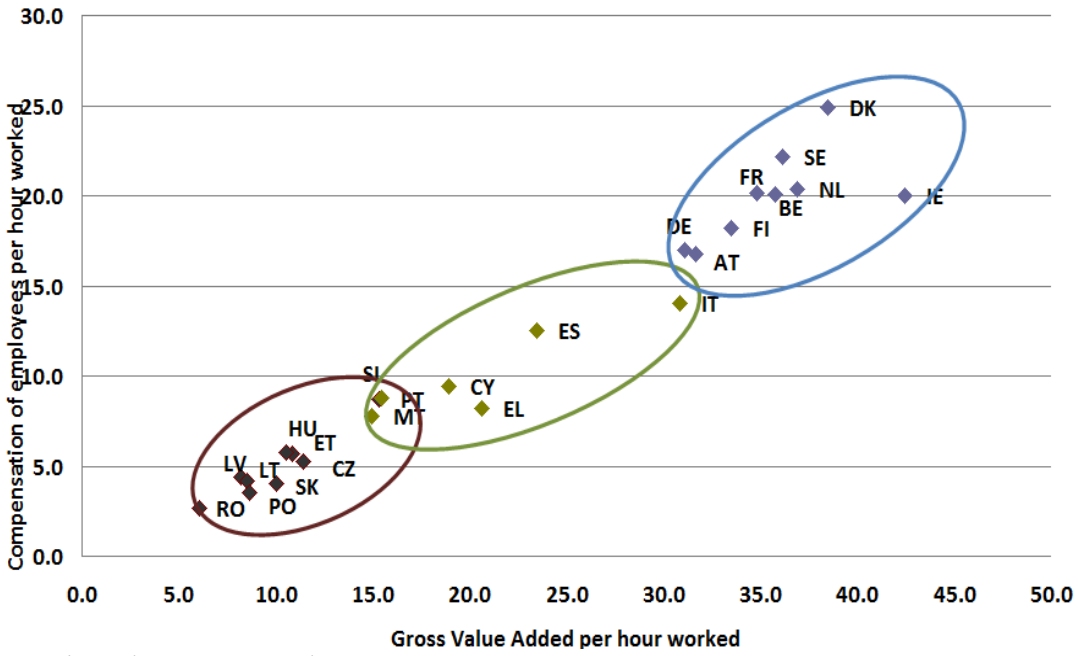


Figure based on Eurostat data

Figure 8: Gross Operating Surplus versus Gross Value Added (2007).

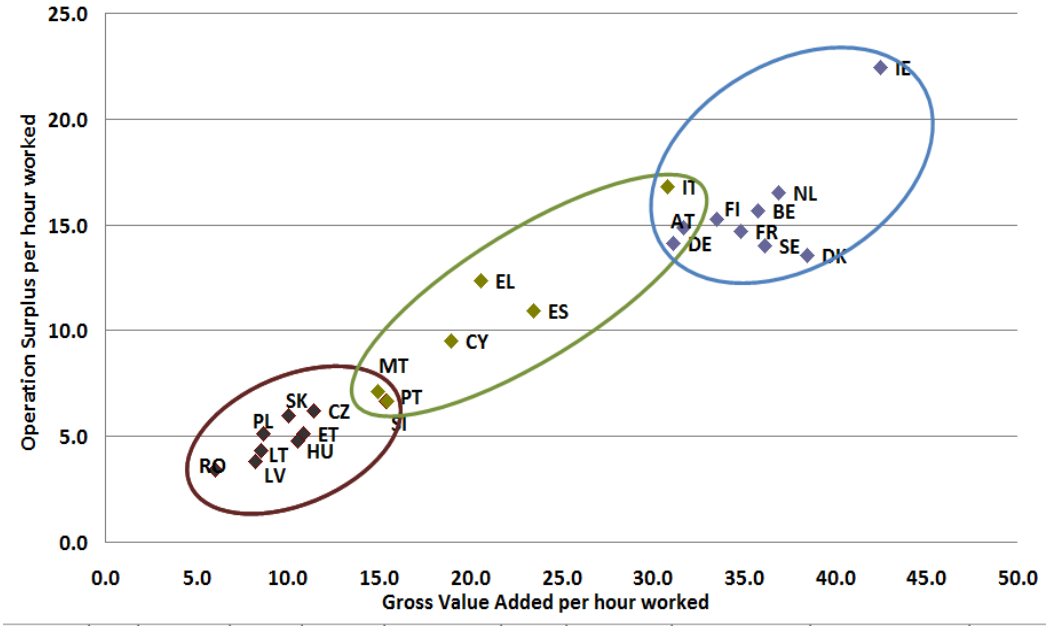


Figure based on Eurostat data

Malta and Cyprus perform (marginally) below average as compared to the other EU countries. These comparisons suggest that the two island states should aim to boost their growth rates in high-productivity industries, such as financial services and technology-related sectors, in order to bridge current gaps.

Considering the forecasts published by the European Commission (2012) as summarized in Table 1, compensation of employees in Malta and Cyprus is expected to remain steady up to 2014 when compared to EU averages. This is particularly the case with Cyprus where compensation is even expected to decrease. This could be interpreted as a favourable trend with respect to productivity; yet this situation might also be the result of weakening demand for products and/or an over-supply in the labour market (i.e. unemployment). In as similar way, ULCs for the two island states are expected to remain steady when compared to European averages. GVA forecasts by the European Commission are not available, and therefore we may look at GDP *per capita* in order to obtain a rough indication. Maltese GDP *per capita* increases are expected to surpass the EU average up to the year 2014, whereas Cyprus is expected to register a weaker performance. This disparity between the expected performances of the two island states may be attributed to the current uncertain situation faced by Cyprus, given the exposure of its commercial banks to risky sovereign debt.

Table 1: **European Commission Summary Statistics and Forecasts.**

	5-Year Averages							Forecasts as at Autumn 2012		
	1993-97	*1998-02*	*2003-07*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
Gross domestic product per capita (% change on preceding year)										
Cyprus	2.2	2.9	2.1	0.9	-4.5	-1.2	-2.1	-3.3	-2.6	-1.5
Malta	4.2	2.3	1.5	3.2	-2.7	2.9	1.3	0.5	1.4	2.1
EU	1.8	2.4	2.1	-0.1	-4.6	1.8	1.3	-0.5	0.2	1.4
Compensation of employees per head (% change on preceding year)										
Cyprus	N/a	4.4	3.6	3.2	2.5	2.7	3.3	-0.9	-0.3	0.5
Malta	7.3	4.7	3.3	5.0	3.6	-0.3	0.8	1.1	2.1	2.0
EU	N/a	3.7	2.8	3.3	1.9	2.3	2.3	2.1	2.1	2.3
Real compensation of employees per head (% change on preceding year) (Note A)										
Cyprus	N/a	1.8	0.6	-1.2	1.8	0.6	0	-3.7	-2.3	-1.4
Malta	N/a	3.3	1.5	1.7	1.0	-3.3	-0.1	-1.3	0	0
EU	N/a	1.7	0.6	0.2	1.7	0.2	-0.6	-0.1	0.2	0.5
Labour productivity (real GDP per occupied person) (% change on preceding year)										
Cyprus	N/a	2.3	0.6	1.4	-1.3	1.3	0	1.7	-1	-0.4
Malta	3.8	2.0	0.9	1.3	-2.1	1	-0.5	0.1	0.3	0.5
EU	N/a	2.0	2.0	0.1	-2.4	2.5	1.4	0.3	0.7	1.1
Unit labour costs, whole economy (% change on preceding year)										
Cyprus	N/a	2.1	3.0	1.8	3.9	1.4	3.3	-2.6	0.8	0.9
Malta	3.3	2.6	2.3	3.6	5.8	-1.3	1.3	1.0	1.8	1.5
EU	N/a	2.0	1.5	4.1	4.4	-0.4	0.9	1.9	1.4	1.2
Real unit labour costs (% change on preceding year) (Note B)										
Cyprus	N/a	-0.7	-0.7	-2.7	3.8	-0.5	0.5	-4.2	-0.7	-0.4
Malta	0.8	-0.2	-0.2	0.5	3.4	-4.1	-0.9	-1.8	-0.7	-0.9
EU	N/a	-0.3	-0.9	1.4	3.2	-1.5	-0.6	0.3	-0.2	-0.5

Note A: Deflated by the price deflator of private consumption.
Note B: Nominal unit labour costs divided by GDP price deflator.

Sources: European Commission, (2012) 'European Economic Forecast Autumn 2012; European Economy No. 7', Directorate-General for Economic and Financial Affairs of the European Commission, Statistical Annex; Tables: 4, 25, 26, 27, 28 and 29

Overall, Malta and Cyprus in particular should act to avert possible deteriorations in their productivity yardsticks; both need to generate higher value added and profitability per unit of input, as well as a higher employee compensation which is commensurate with higher productivity (rather than inflationary wage increases).

Both an 'Innovation-Oriented Economy' and a 'Controlled Input-Cost' model may assist in the generation of higher value added: the former through generating higher productivity per unit of input, whereas the latter through achieving a given output through lower input costs. In addition, the third proposed model 'Opportunistic Growth Strategy' should not be sidelined on the grounds that the actual route which an economy should take should also be dependent on the opportunities and threats emanating from the external environment. Indeed the 'ideal' strategy would probably involve a mixture of these stances. Yet, in attempting to pin-point, which of the models might be more relevant overall, we hypothesise that this depends on the particular internal characteristics of the island states, and therefore we conduct a more detailed analysis of the respective sectors for the two economies below.

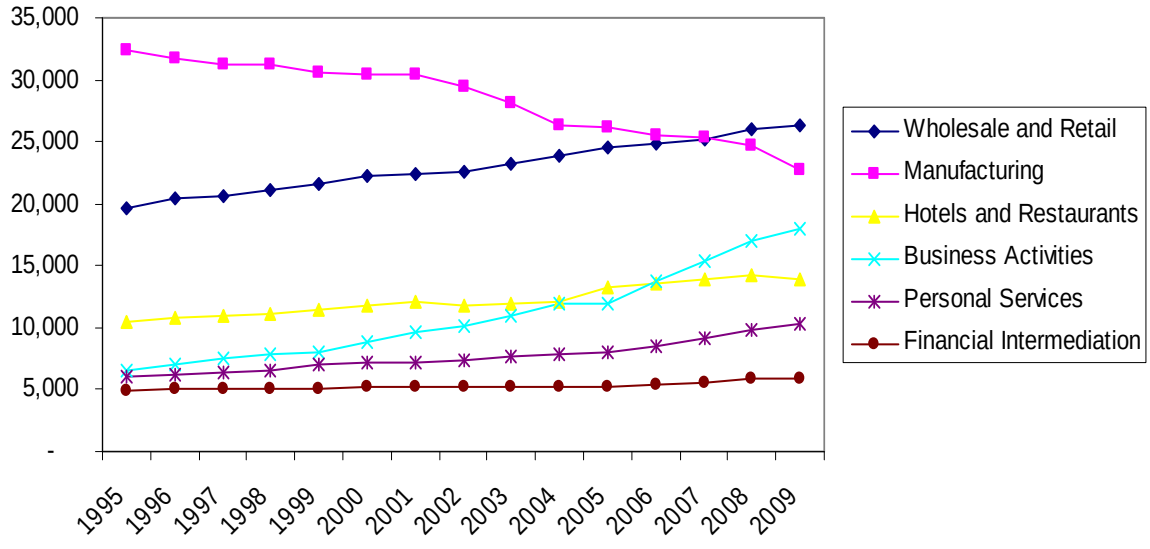
Sectoral Changes in Malta and Cyprus

In this section, we investigate the main structural changes in the Maltese and the Cypriot economies, starting with the selection of particular industries which represent the composition of the two economies. We utilize Unit Labour Cost (ULC) as a competitiveness yardstick. We then look at the main trends prevailing in the most important sectors, in order to suggest which of the three growth models identified earlier might be best suited to the respective sectors and to the economy as a whole.

In the case of both Malta and Cyprus, we selected the three industries which proved traditionally important in terms of GVA generation: wholesale and retail trade, manufacturing, and hotels and restaurants. In the case of Cyprus, construction was also included given that it accounts for a larger share of the overall economy. In addition, we also focus on three other sectors: business activities, personal services and financial intermediation. We opted to include the latter ones on the grounds that these constitute the main drivers of recent growth, even if they do not necessarily account for a large share of the respective economies in absolute size.

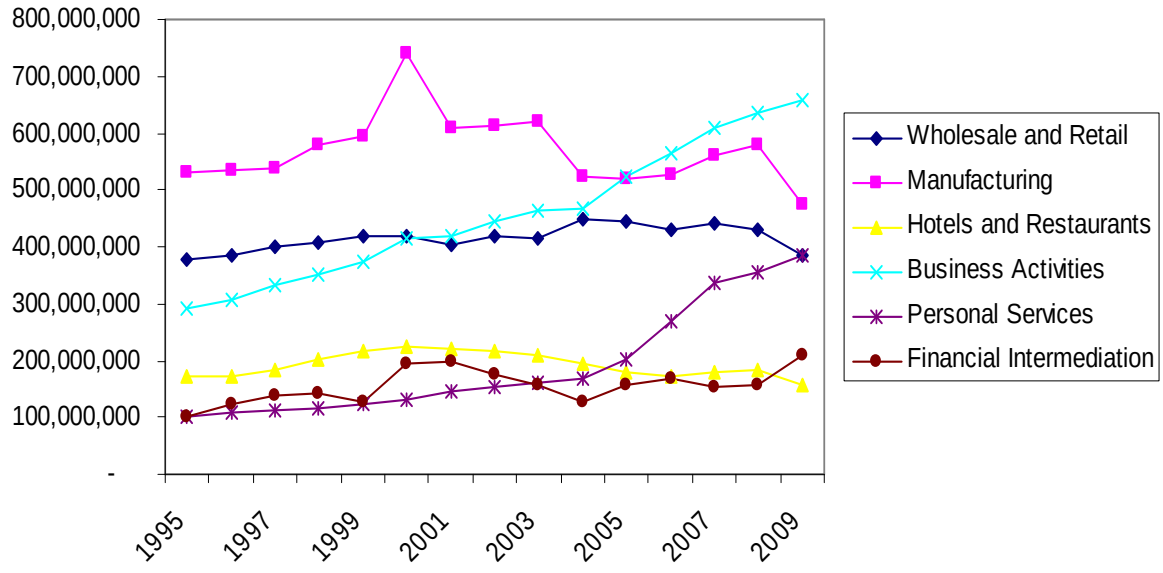
The main movements in these sectors for Malta are summarized in Figures 9-11. During the period 1995-2009, the traditional sectors - wholesale and retail, manufacturing, and hotels and restaurants - registered small or negative growth in real GVA. Considering that this trend was registered over a period of general economic growth (as opposed to a recession), it indicates that these sectors might be experiencing structural problems. For instance, manufacturing might be reaching a point of saturation due to the increased competition from larger economies that offer cheaper labour and rent. Employment in the wholesale and retail and hotel and restaurants sectors increased, and this has led to an overall lower real GVA per employee. The GVA contraction in the manufacturing sector was accompanied by higher overall employee productivity, resulting in a more pronounced reduction in employment.

Figure 9: Malta: Full Time Employment.



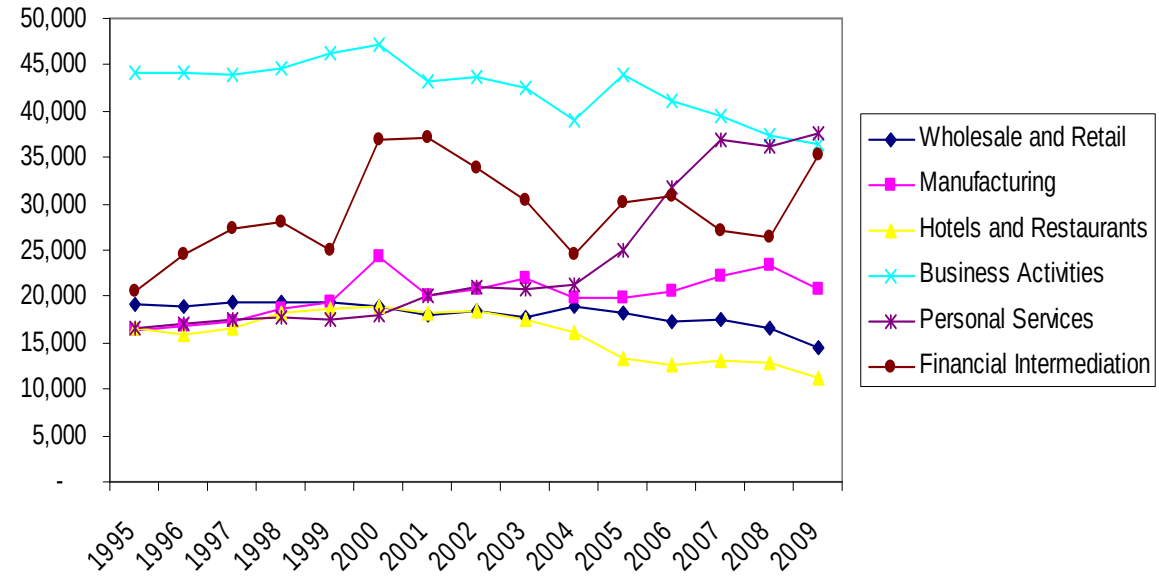
Source: Eurostat

Figure 10: Malta: Gross Value Added (1995 Prices).



Source: Eurostat

Figure 11: Malta: Annual Gross Value Added (1995 Prices) Per Employee.

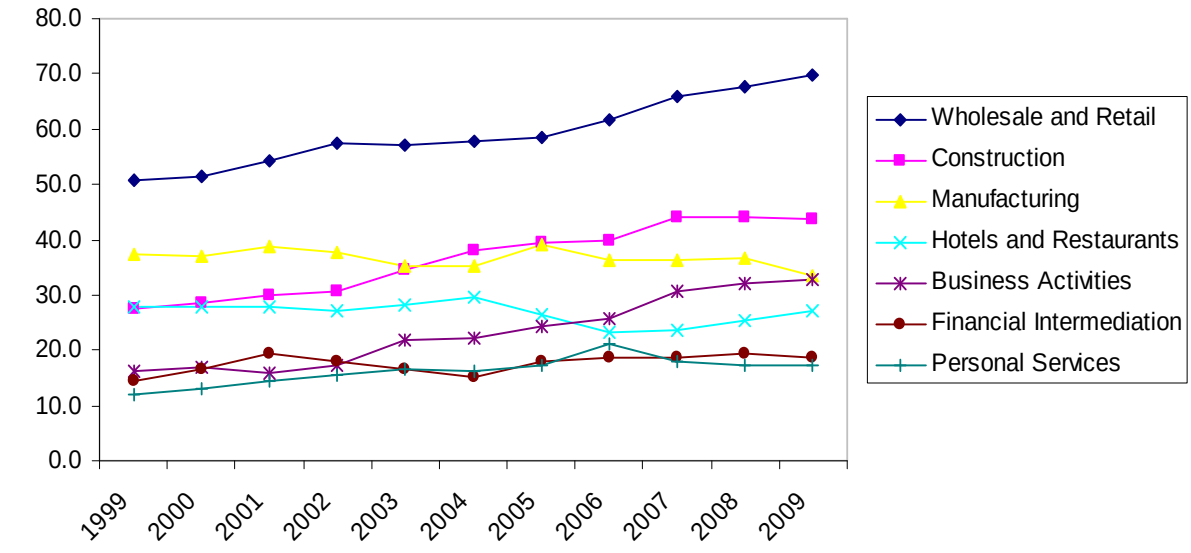


Source: Eurostat

During the same period, the growing sectors (business activities, personal services and financial intermediation) registered increases in both employment and real GVA. An increase of 127% in real GVA per employee in the Personal Services sector is attributable to the increasing productivity of the e-gaming industry.

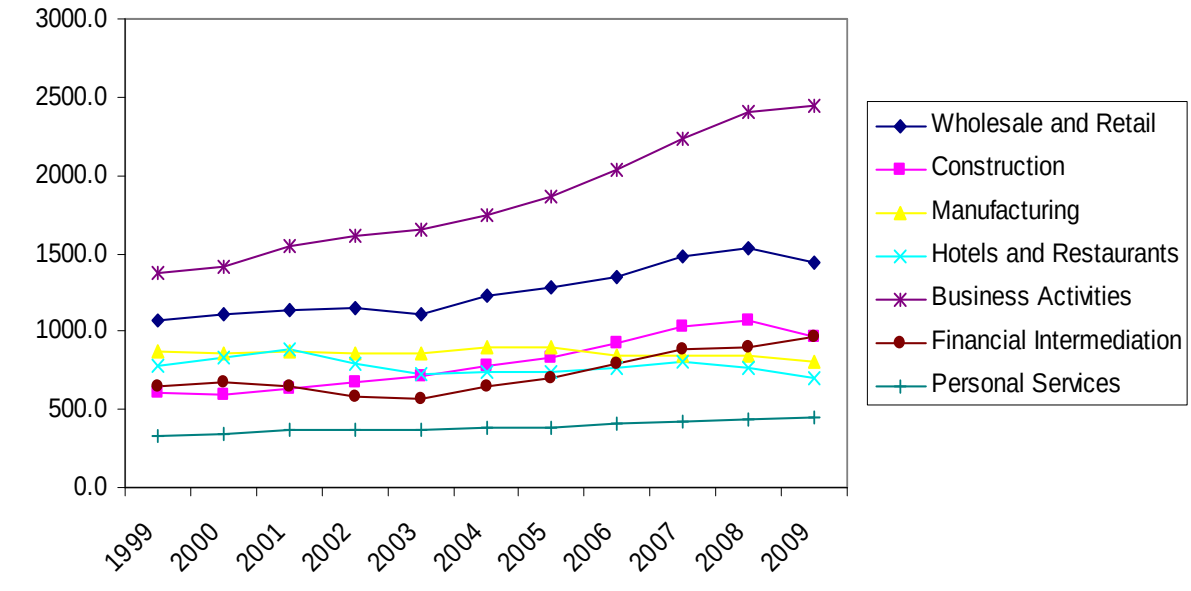
Figures 12-14 show the main trends for the selected Cypriot sectors. The traditional sectors in Cyprus present mixed views. The wholesale and retail and construction sectors registered substantial increases in employment and real GVA over the period 1999-2009. Manufacturing and hotels and restaurants registered decreases in employment and real GVA, as in the case of Malta. The flourishing sectors - business activities, personal services and financial intermediation - registered substantial increases in employment and real GVA; productivity per employee increased in the case of financial intermediation, whereas it decreased in business activities and personal services.

Figure 12: Cyprus: Full Time Employment ('000s).



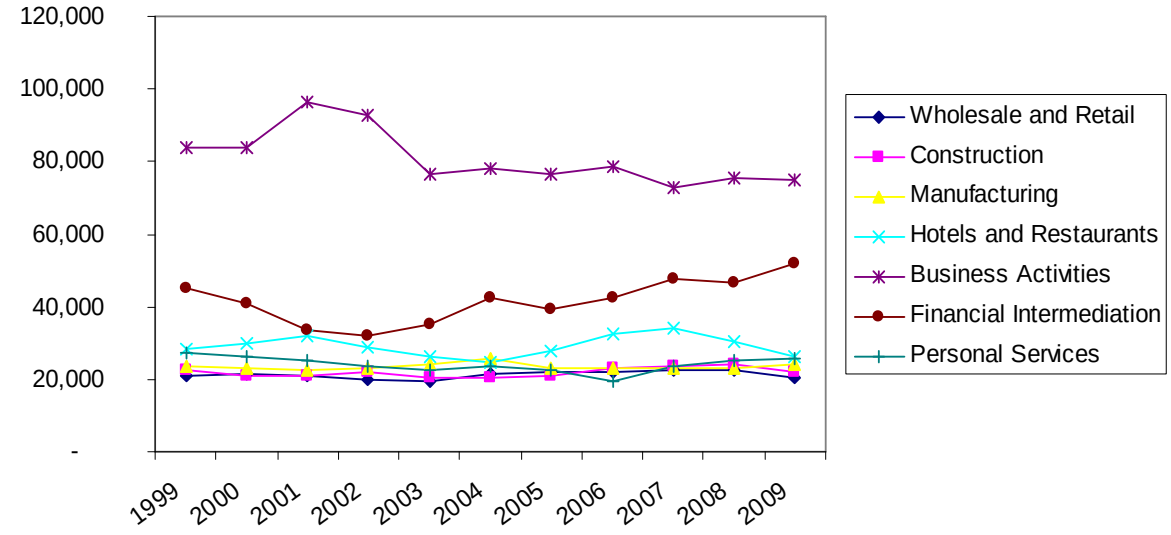
Source: Eurostat

Figure 13: Cyprus - Gross Value Added ('000s) (1999 Prices).



Source: Eurostat

Figure 14: Cyprus: Annual Gross Value Added (1999 Prices) Per Employee.



Source: Eurostat

We next evaluate the competitiveness of the two islands in terms of Unit Labour Costs (ULCs) as compared to other EU Member States. ULC serves as a complementary indicator to economic development, and is estimated as follows:

ULC = Cost per Unit of Labour / Output per Unit of Labour
where:
Cost per Unit of Labour = Compensation of Employees / Number of Employees (Workers only).
and
Output per Unit of Labour = Real GVA / Total Employment (Workers and Self-Employed)

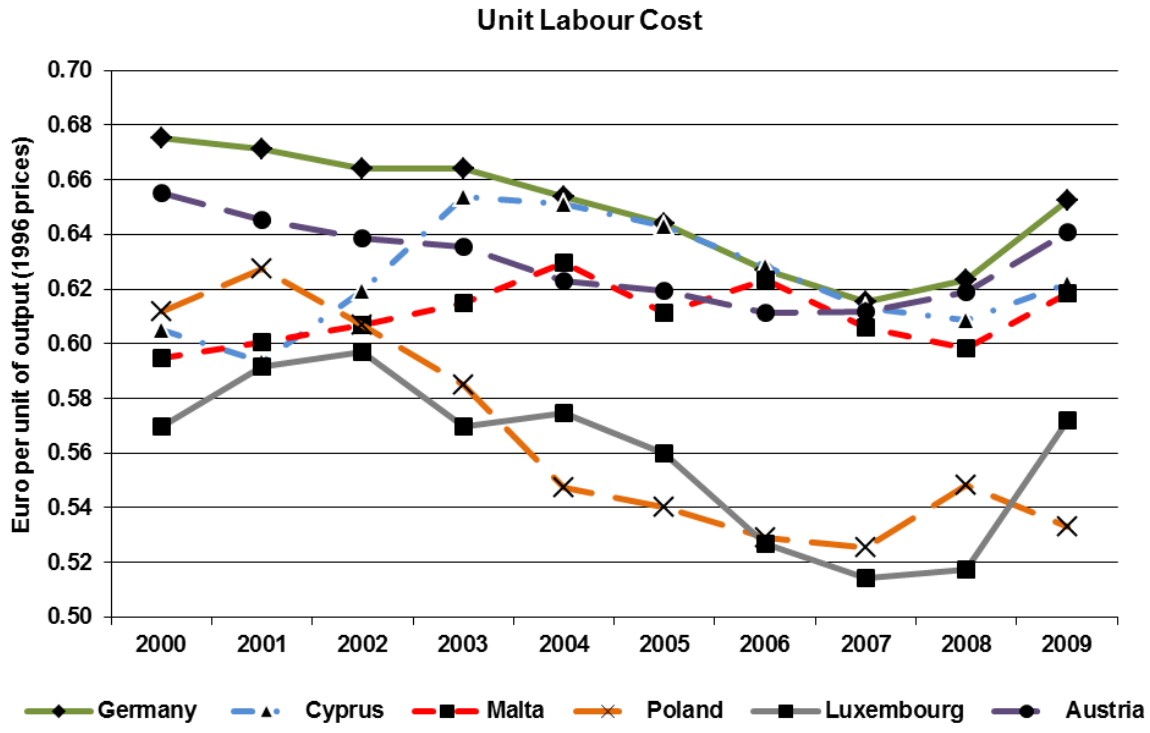
Countries registering low ULCs are considered to be more cost-competitive. The ULC indicator is usually expressed in 'per employee' terms and suggests that an economy may adopt three distinct strategies to enhance cost-competitiveness: reducing remuneration per employee, stimulating productivity per employee, or achieving an efficient mix of both factors. ULC increases may arise either due to positive wage pressures or drops in productivity. Factors which may lead to wage pressures include labour shortages, wage adjustments to inflation, currency fluctuations and pressures from labour unions.

Productivity setbacks can originate from an array of sources. The factors which contribute to productivity may be either internal (i.e. under direct control of internal management) or external (Syverson; 2010). Factors internal to the business include managerial attributes, high-quality labour and capital inputs, research and development, ICT infrastructure and the hierarchical structure of a firm. Factors external to the firm have direct implications on a

producer's ability to exploit opportunities to the advantage of a firm. External factors to productivity include competition, regulation, flexibility of input markets and productivity spillovers. Given this, a negative change in ULC may require amendments to labour and product market policies, technologies and innovation policies or foreign trade policies, depending on the factor leading to drops in cost-competitiveness.

Figure 15 shows the main ULC trends for a sample of countries. ULCs are marginally higher for Cyprus when compared to Malta. The plot also shows the ULCs for other European countries which have been more successful in curbing their ULC in absolute or relative terms during the same period. In addition, Table 1 also shows ULC changes for the years 2010 and 2011 where the island states managed to hold steady on ULCs satisfactorily as compared to EU averages. Forecasts by the European Commission up to the year 2014 (Table 1), suggest that this containment of ULCs as compared to EU averages might continue.

Figure 15: Unit Labour Cost.



Source: Authors' computations based on Eurostat data.

As shown in Table 2, the increase in ULC for the two island states during 2000-2007 was well above the EU average. In both countries, the largest increases in ULC were registered in financial intermediation and business activities; these were particularly higher than EU averages. Different trends across the two islands are evident in the personal services sector, where Malta registered a ULC reduction of 33%, as compared to an increase of 29% in the case of Cyprus. Traditional sectors such as manufacturing and hotels and restaurants, registered ULC increases which were higher than EU averages, and this may result in lower

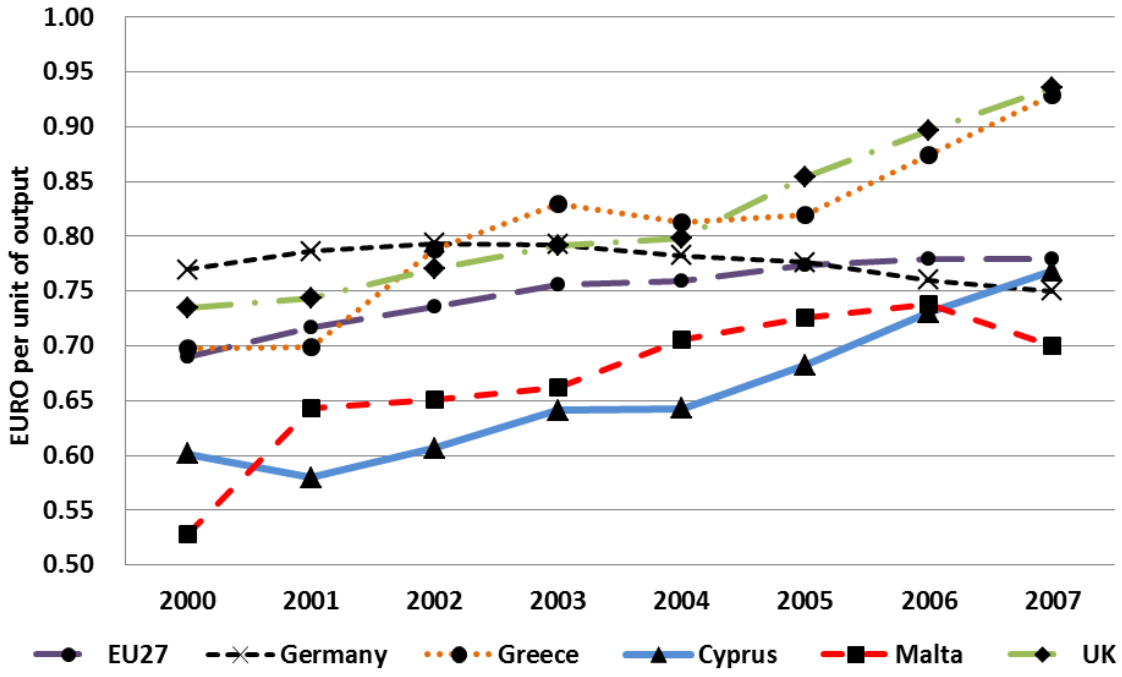
competitiveness in such sectors. Figures 16-18 show ULC trends for manufacturing, hotels and restaurants and financial intermediation across a selection of countries (including Malta, Cyprus and European averages). While Malta and Cyprus registered high increases in ULCs for the Wholesale & Retail and Business Activities sectors as compared to EU averages (Table 2), it is pertinent to note that these sectoral ULCs for the islands still remained below EU averages when considered in absolute terms.

Table 2: Unit Labour Cost Percentage Change 2000-2007.

	Malta	**Cyprus**	**EU 27**
Total Economy	21%	26%	12%
Wholesale & Retail	44%	32%	14%
Manufacturing	33%	35%	14%
Hotels & Restaurants	36%	22%	11%
Business Activities	75%	59%	24%
Personal Services	-33%	29%	26%
Financial Intermediation	77%	38%	2%
Construction	37%	1%	12%
Transport & Communication	18%	39%	10%
Education	20%	22%	17%
Health & Social Work	1%	27%	18%
Public Administration	15%	16%	18%
Electricity, Gas & Water	-10%	20%	-9%
Source: Authors' Computations based Eurostat data.			

Table 2 suggests four particular sectors where the two island states could better control ULC, as compared to EU counterparts. The pronounced ULC change in the business activities sector may have spillover effects on other industries, if the latter end up paying more for services provided by the former sector, such as consultancy and equipment maintenance. This implies that these trends ought to be rectified promptly and thus a policy which proves effective in the short term might be required. This would suggest that opting for the Controlled-Input Cost model might be appropriate, for instance through importing lower cost human resources to rectify shortages in labour supply.

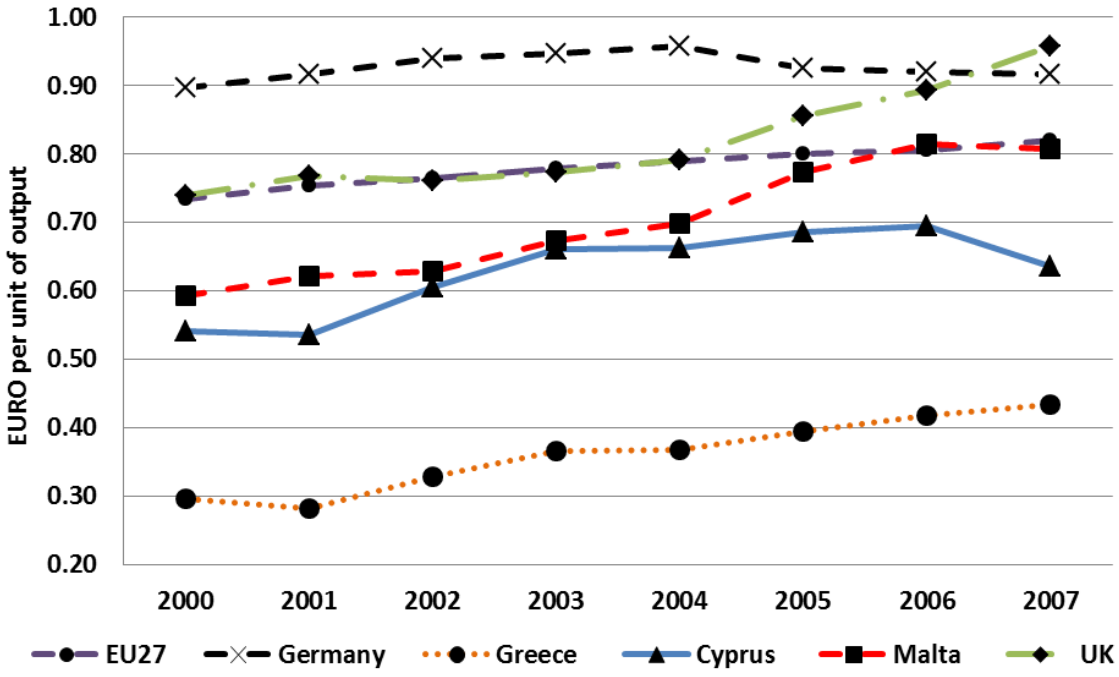
Figure 16: Unit Labour Cost (Manufacturing Sector).



Source: Authors' Computations based Eurostat data.

Financial intermediation in Cyprus and Malta also exhibits more pronounced increases in ULC, when compared to other EU countries. This industry is particularly suited to the two island states since it does not rely on either a significant input of natural resources or the transportation of physical goods. As both countries are investing in nurturing the required human resources for this industry, they may opt to pursue an Innovation-Oriented model, where they pursue activities which generate a higher-value added and require a more significant technical aptitude. For instance, rather than relying on supplying back-office functions, the countries could also try to attract fund-management activities. An Opportunistic Growth stance should also be considered, taking prompt advantage of periodic changes in the industry. In addition, a Controlled-Input Cost policy is equally important, since this might enable the islands to generate a competitive edge over internationally reputable centres (such as Luxembourg, Switzerland, the City of London) where wages tend to be higher.

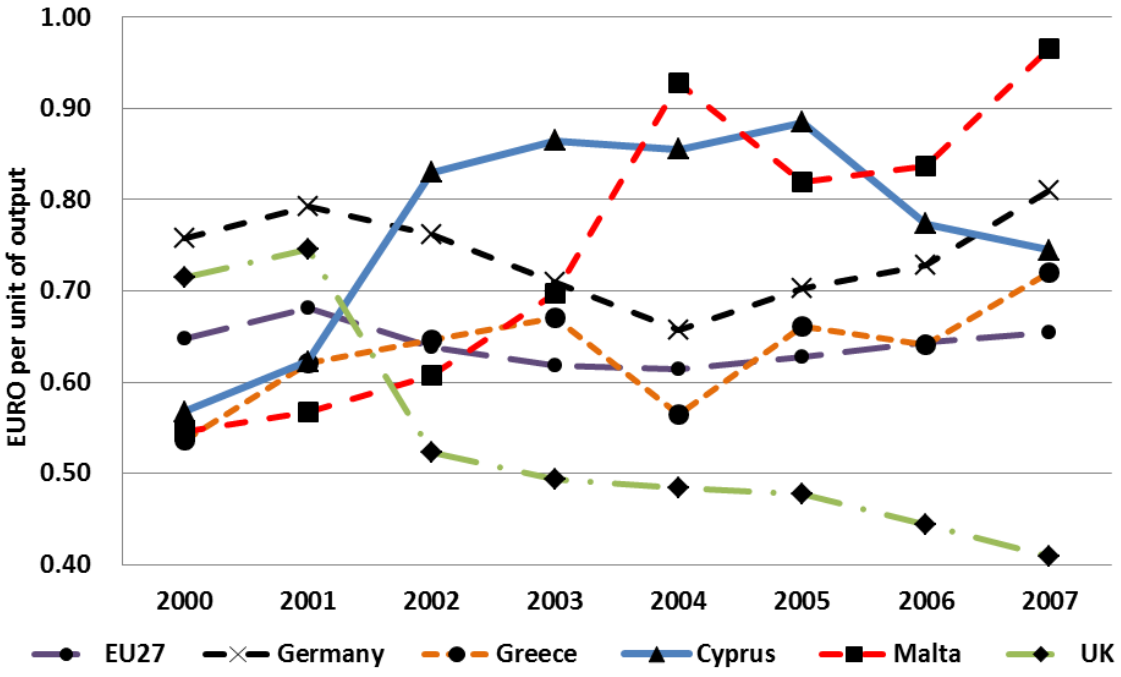
Figure 17: Unit Labour Cost (Hotels and Restaurants).



Source: Authors' Computations based Eurostat data

The wholesale and retail sector in Malta and Cyprus also shows a pronounced rise in ULC. As such activities face increased competition (such as from internet-based selling), a policy mix aimed at accessing cheaper inputs might be necessary; this could include opening up these activities to increased competition. After all, while these sectors may be are liberalized in principle, bureaucracy, outdated practices, and the inherent small size of the countries could be acting as barriers to entry. This suggests that a Controlled Input Cost policy might be more suited for this sector.

Figure 18: Unit Labour Cost (Financial Intermediation).



Source: Authors' Computations based Eurostat data

The fourth sector where ULC trends for the two economies seem worrying is manufacturing. Given that such activities tend to rely to a higher extent on the physical transportation of goods and natural resources, it might be more sensible to opt for a strategy that results in a gradual change in the nature of the activities undertaken in this sector; a higher value added for a given resource input is important. This would suggest that it might be more sensible for the two countries to pursue an Innovation-Oriented model in the long term. Admittedly, this is likely to prove difficult, and as this industry goes through the required restructuring, it might be more sensible to devote commensurate importance to the Controlled Input Cost Model so that the migration of firms to countries where cheaper labour is offered might be delayed. One should note particular practices in Malta and Cyprus that may already be suggesting an Innovation-Oriented Model; for instance larger manufacturing companies often appoint directors and senior management with broad international experience in innovation-oriented industries. Similarly, manufacturing companies in the two island states take on activities which are sub-contracted by more innovative overseas counterparts, and this may be expected to result in a technological spillover.

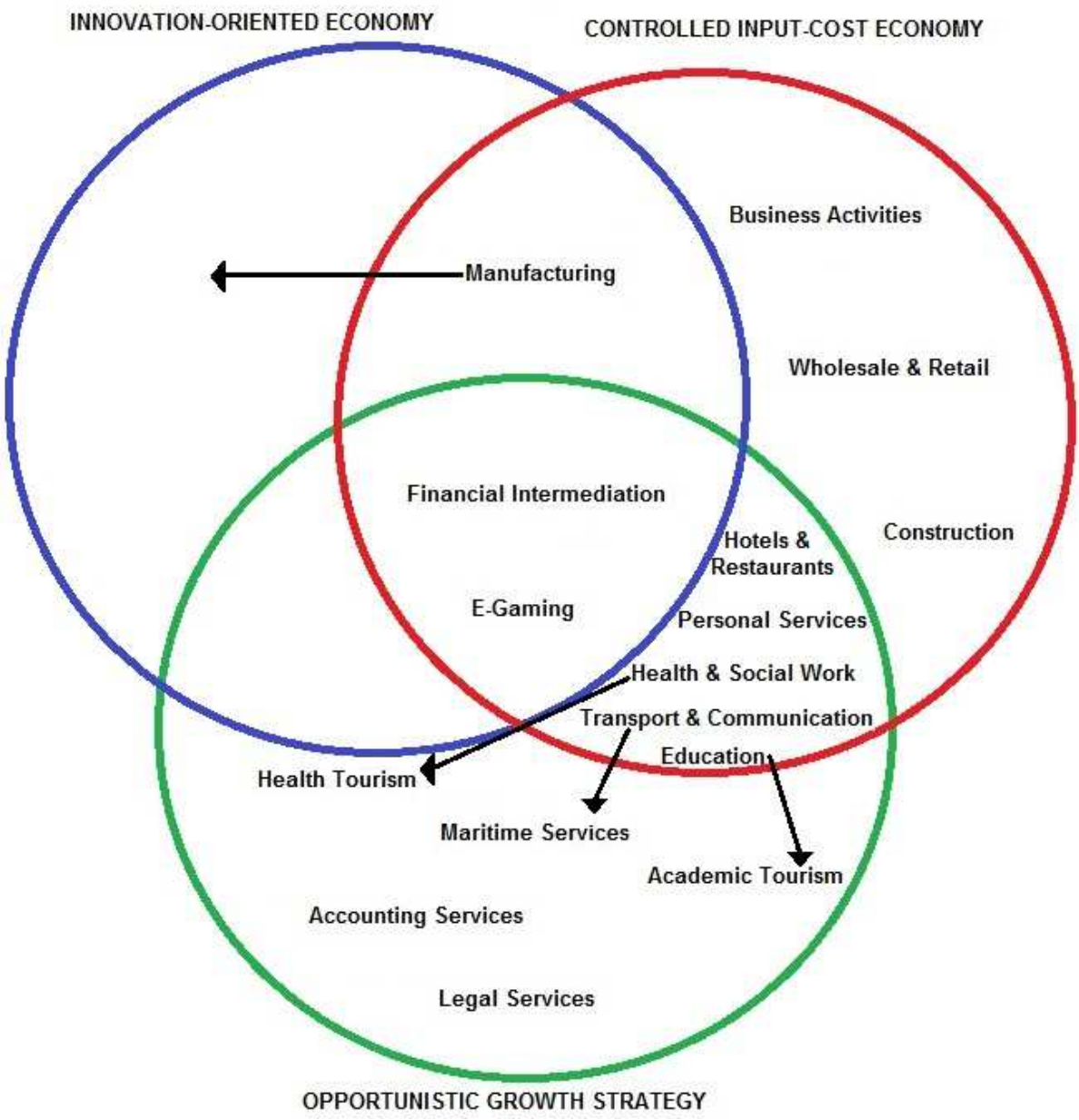
The Construction industry in Cyprus has registered lower changes in ULC as compared to European averages. Yet, it could also be the case that the trend might have reversed since then, given the more recent downward pressure on property prices (which, taken in the context of stable wages, leads to a higher ULC). Factors such as reduced demand, funding hurdles and possible over-development as attested by the number of vacant properties, might also explain

the more recent adverse changes in the Cypriot industry. The latter problems are faced in Malta as well. In view of the constraints placed by this industry on the natural resources of a country (including the exploitation of virgin land), one would not recommend an Opportunistic Growth Strategy since, it should be ascertained that any prospective expansion of the industry would lead to long term benefits, rather than simply generating higher profits in the shorter term. The strategy which seems most suited in case of this sector is the Controlled Input Cost.

Table 2 suggests that Malta performed particularly well in two sectors: personal services and health and social work. This should also be considered in the context of the potential opportunities for growth in the respective industries, which both island states can take advantage of. In the case of personal services, opportunities lie in the gaming industry. The latter is similar to financial services, since it does not rely on the movement of physical goods and, as the industry gets more sophisticated, it requires a commensurate increase in technical expertise and innovation. In addition, gaming activities tends to migrate in response to favourable changes in regulatory and fiscal regimes, suggesting that all three growth strategies will be relevant to this activity. Similarly, growth opportunities lie in the health sector, as the demand for medical tourism augments. The latter could also prove to be an interesting way to reinforce traditional tourism-related revenues. These current trends imply that both island states should cater for such demands, suggesting an 'Opportunistic Growth Model'. Knowledge-based activities - such as accountancy, legal consultancy and the offering of health tourism services - may be lucrative since there might be some leeway for price-setting, in the sense that competition is not as intense as in such other activities as hotels and restaurants and wholesale and retail. This suggests that the countries may try to shift these activities towards an Opportunistic Growth Model. Still, in case of other activities comprised in these industries, an eye should be kept on input costs given that such business may easily migrate elsewhere.

As outlined above, Hotels and Restaurants comprise a significant sector in both Malta and Cyprus. As shown in Table 2, the countries registered a higher change in ULC in this sector as compared to EU averages. A significant portion of the demand for Hotel and Restaurant services emanates from the tourist industry; where price is one important competitive aspect as prospective customers may choose to travel to virtually any location. The price factor is also particularly important in case of tourists seeking to travel in order to save on particular costs, including retired persons who opt to spend winters in warmer climates. We would thus recommend a Controlled Input-Cost model for this sector. In addition, the Opportunistic Growth model is also relevant, since current trends may be exploited to augment traditional tourist markets. These include increased demands for medical, cultural and academic tourism.

Figure 19: Mapping the Future of the Main Industries into the Three Growth Models.



NB. Arrows for particular activities denote a possible transition from one model to the other.

Transportation and communication is another important sector to both Malta and Cyprus; both in terms of the share of economic activity and also due to the fact that these services provide a pre-requisite infrastructure for island-based economic activity. Unfortunately, Table 2 suggests that the islands registered pronounced increases in ULCs as compared to EU averages in this sector. This suggests that the Controlled Input Cost approach could be relevant here. This

choice is reinforced by the notion that such activities are exposed to international competition such as low-cost airlines and overseas communication-related services. Yet, one should also draw attention that both islands may exploit increased demands for maritime-related activities such as berthing, suggesting the applicability of an Opportunistic Growth Strategy as well.

Similar arguments apply to the education sector. The Controlled-Input Cost model is relevant; but the island states may try to take advantage of increased demands for tertiary education and English language tuition emanating from both Southern-European and non-European countries. Again, one may argue that there is some room for charging profitable fees, since prices would still remain lower than those applicable in Northern Europe.

Figure 19 summarizes the above arguments for the main sectors of Malta and Cyprus. While all three models may be relevant to fostering future growth, there is an inclination for most industries to benefit from a Controlled-Input Cost model. Similarly, the Opportunistic Growth Strategy may be relevant for reaping benefits from various economic activities, such as demands associated with an ageing population (dentistry, health-related services, old people's homes) and with English language tuition. In the next section, we explore various policies which may be pursued in facilitating the implementation of such models, with particular emphasis on the Controlled Input-Cost approach.

Recommended Future Policies

In this section, we explore how the two island states may implement policies to foster higher growth rates, and therefore converge with EU peers. We also consider how our suggestions are supported by literature and the experience of other small island states.

Pursuing a Controlled Input-Cost Model

In pursuing a Controlled Input-Cost Model, it is vital for the two islands to equip themselves with the required resources and infrastructure, and make optimal use of human capital and natural resources (including energy-generation capacity).

- Fostering Human Capital

Economic policy needs to be directed to help shift workers away from declining sectors to the growing industries, and this underscores the key role of education to the future development of the Maltese and the Cypriot economies. The size and limited natural resources of Malta and Cyprus place restrictions on the variety of industries in which they may compete. Focusing on knowledge-intensive industries is a suitable option. Such industries include finance, insurance, e-gaming, IT, pharmacology and biotechnology. The transition of these countries from a focus on traditional economic sectors to more innovative ones, pre-supposes the availability of a labour-force equipped with the requisite skills.

Jalan (1982) argues that the quality of the human resources is critical to the economic development of smaller states. This implies that these countries should invest in education and human resources, with the aim of enhancing "absorptive capacity" (Bijsterbosch and Kolasa;

2009). Yardsticks to be achieved comprise a lower rate of early school-leavers, more participants in life-long learning programs and a higher number of science-related graduates. Peripherality and small size typically predispose islanders with a culture for developing overseas connections, adaptation, flexibility and high bonding social capital (Baldacchino, 2005). This implies that human resources may constitute a competitive edge through which Malta and Cyprus may be able to foster economic activity, and therefore it makes sense to devote efforts aimed at nurturing this important resource. The Cyprus Productivity Centre, set up in 1963, was a step in the right direction to utilize human resources to their maximum potential. This institution offers consultancy, training and grants aimed at improving the technical and managerial skills. A similar example is Bahrain's Entrepreneurship Development and Enterprise Creation Program, whose experience suggests that separate initiatives should be co-ordinated with due regard to suitability to local conditions (Hussein & Jaggi; 2004).

According to the higher education rankings published by the WEF (2011), Malta's weakest ranking was in terms of tertiary education enrolment; whereas the weakest ranking for Cyprus related to the availability of research and training services. Both island states obtained favourable rankings in the quality of mathematics and science education – and these areas are particularly important in the context of the new growing industries such as finance and pharmacology. Areas which might require improvement include training programs for educational staff.

At a broader level, the two countries obtained unsatisfactory rankings with reference to the efficacy of corporate boards. Investment in education might result in long-term progress in this respect; however, shorter-term improvements might require the recruitment of skilled immigrant labour or a re-consideration of the selection processes of board participants to tap the best available human input. Research by Classen *et al.* (2012) in the context of smaller firms, supports the idea that better educated board members tend to pursue more effective innovation strategies. Particular companies in Malta and Cyprus have recognized the importance of equipping corporate boards with the appropriate skills, and over the years manufacturing firms and financial services operators have imported know-how from overseas.

Investing in education might not be sufficient on its own and the two countries should lay particular emphasis on nurturing human resources with aptitudes which are expected to be of relevance in the longer-term. For instance, Campos and Coricelli (2002) argue that vocational education may focus too narrowly on current and narrow job requirements, at the expense of equipping trainees with transferable skills.

Policy makers should foster initiatives aimed at increasing labour productivity, such as income structures in line with entailed capabilities and labour allocation systems where resources are employed most efficiently (Estevão; 2004). Malta and Cyprus registered a satisfactory overall performance in terms of labour market efficiency rankings (WEF, 2011); yet, both island states could improve particular aspects, such as the flexibility of wage determination. Another issue relating to human capital is that small island states may often experience higher outflows of labour through migration, and this reduces returns to human capital (Read, 2010). For instance, Azzopardi (2012) reports that, following EU accession, emigration from Malta tended to comprise a higher component of professional and skilled workers. On the positive side, one

may also mention that labour migration, may in the long term serve to re-invigorate the economy, if workers return to the home country enriched with overseas experiences and skills (Baldacchino; 2006). As far as the brain drain is concerned, Malta and Cyprus obtained rankings of 40 and 47 respectively out of a total of 142 countries, confirming this as a potential problem (WEF, 2011).

The theoretical model constructed by Dias and McDermott (2006), which was tested on empirical data, suggests that an educated workforce does not trigger economic growth on its own; entrepreneurs are also required to catalyze human capital and it is the role of national institutions to provide an adequate infrastructure in which this process may efficiently take place.

Finally, it is important to note that investing in human resources is a pre-condition for the Opportunistic Growth and the Innovation-Oriented strategies as well; and this further emphasises the linkages between the different models identified in this paper.

- Optimizing the use of natural resources

One related policy implication is that Cyprus and Malta should control the costs of energy procurement, and also optimize their use of renewable energy sources, especially when considering the volatility of fossil fuel prices. The renewable energy consumption as a percentage of total energy consumption in Malta and Cyprus as at 2005 was below the EU averages (European Environment Agency; 2008). Objectives which are yet to be achieved by Malta and Cyprus in this respect include fostering more competition in the energy industry (in spite of the monopolistic tendencies that accompany small island states) and reduced bureaucracy in the administration of grant schemes which encourage the use of renewable energy sources (Vella, 2008). It is also important for the island states to establish and prioritize the types of renewable technologies which they should adopt, since different technologies yield different cost-benefit outcomes (e.g. Dornan and Jotzo; 2012)

Water presents an important aspect in the overall environmental strategy of small islands, since their modest physical space and natural resources entail that this scarce resource be preserved for future generations. Tourism can exacerbate water scarcity (Ferreira *et al.;* 2006). Water resources in Mediterranean states are limited due to the frequent occurrence of droughts. In addition, there is a notable degree of overuse and pollution in the aquifers of both Cyprus and Malta (Zammit, 2006). Malta preceded Cyprus in augmenting the supply of fresh water through desalination, whereas Cyprus preceded Malta in the treatment and reusing of wastewater. Both island states need to protect their aquifers from pollution and over-use, minimize the wastage of storm-water, and promote the use of second class water for farming and other activities.

On a more general level, a sustainable management of natural resources is critical to small island states since their economies are more prone to irreversible and negative environmental impacts due to inherently vulnerable and fragile ecosystems (Velde *et al.*, 2007). This is especially so for Malta and Cyprus because their resource availability is modest, and their natural attractions (sea, beaches climate) are key selling points in the tourist industry (Gatt,

2011). Overdevelopment and possible overcrowding associated with tourism may lead to environmental and social problems and thus sustainability issues should be kept at the fore. Such small island states need to allocate a greater importance to eco-tourism initiatives and to avoid the depletion of natural resources.

Technological innovation is another factor which may be implemented in order to achieve a reduction in input costs. This notion is discussed in some detail below. The ensuing discussion also illustrates how the three models identified in this paper may overlap and are not mutually exclusive.

Pursuing an Opportunistic Growth Strategy

Speed is essential in taking advantage of prevailing trends at the opportune time; otherwise such economic prospects might be exploited by more efficient competitors. This pre-supposes an effective policy framework that facilitates necessary transitions. Efficient government institutions are crucial for developing countries to improve their growth rates (Assane and Grammy; 2003, Prasad; 2008). The relationship between institutional support and per capita output is particularly strong in countries with relatively low incomes (Cavalcanti and Novo; 2005). Böwer and Turrini (2009) suggest that the role of the state may be overhauled through improvements in the legal and justice systems, improved efficiency of public administration, reduction in size of government, and a consolidation of state finances. One factor which impinges on the success of governments is the ability to access funding programs such as those offered by the EU, and it is vital for Malta and Cyprus to ensure that adequate human resources and know-how are available in order to fully exploit such initiatives.

Transposing these ideas to the two island economies, we may start by looking at the insights provided by the Competitiveness Index (WEF, 2011). Malta ought to devote more efforts to improve state-related policies. Malta ranked 106 in terms of regulatory burden, and 56 in terms of favouritism in decisions of state officials and transparency of policy-making. Dodds (2007) illustrated how these factors have appeared in the Maltese tourist industry, where the lack of political motivation and poor interaction between relevant authorities accounted for the lethargy with which the efforts towards a sustainable tourism policy were met.

The institutional factors relating to Cyprus are generally better than Malta's. Yet, the country registered lower rankings with respect to the investor protection framework and prospects of financing through the local equity market. It would seem that the latter two factors are inter-related (La Porta *et al.* 1997; Pagano and Volpin, 2005).

In the case of both Malta and Cyprus, policy makers should be more seriously concerned with overseeing the procedures of entry and exit of firms in different industries, thus facilitating the transition towards an economic structure comprising new and promising sectors. Barriers to entry may slow down the process where less efficient players get replaced by more efficient ones (Blanchard, 2004). Such a change is essential to foster competition and achieve an innovation-based economy (Metcalfe and Ramlogan, 2005). Overall, governments should ensure that bureaucracy does not dampen or overwhelm, but rather encourages and facilitates investment, trade and innovation.

In addition, the policy makers of the two island states should take a prominent role in managing the negative impacts of peripherality by adopting suitable economic policies (Petrakos et al. 2012). The Competitiveness Index indicates that both Malta and Cyprus rank relatively low when considering available airline seats and railroad infrastructure (WEF, 2011) – indeed, there are no railways in the two countries– but then Malta ranks rather highly in terms of port infrastructure, and Cyprus registers a high ranking when considering road quality. Prior research suggests that accessibility may be enhanced through more efficient means of communication, transport, and technology and through fostering innovation so that the economy emphasizes the production of high value-added products (Fortuna *et al.*; 2001, Lal and Peedoly; 2006). In addition, since most firms in smaller economies tend to be of modest size, the availability of financing for small and medium sized enterprises is crucial.

An interesting example of peripherality management is Ireland's superior performance in attracting investment and demand for financial, marketing and IT services. This may be attributed to market-based polices, lower cultural and language barriers, and an industrial policy that promotes inward investment through fiscal and financial incentives (Görg and Ruane; 2010). Singapore constitutes another 'role-model', as described above. Cypriot and Maltese policy-makers could therefore strive to compensate for the possible shortcomings of peripherality and small size, by exploiting potential advantages. The latter may well include higher human resource flexibility and the development of niche markets based on unique characteristics; for instance, remoteness and distinct local island traditions may augment tourist activity. Offering place-specific services and products based on local craft knowledge is an interesting option, since the market for such services is intimately connected to the inherent location and therefore unlikely to migrate overseas (Baldacchino; 2006).

Pursuing an Innovation-Oriented Model

Innovation is a main catalyst behind economic growth, and policy makers should devote some attention to its spillover effects. Firms often enjoy the benefits of innovations and research conducted by peers without having to pay related costs (Sena; 2004). However, given the absence of a nucleus of firms which devote substantial efforts towards research and innovation in both Malta and Cyprus, local firms might be less prone to enjoy such externalities, as is typical of most small island states. The tendency for innovation in Europe is to cluster around regions in such countries as Germany, Sweden and France rather than in peripheral countries such as Portugal and Greece. In an empirical analysis of European smaller firms, Lasagni (2012) concluded that innovation on part of SMEs is fostered through building relations with innovative suppliers and customers and through maintaining contacts with research-based institutions. Empirical research also suggests that innovation and creativity are central factors which account for the success of new start-ups. For instance, in the survey conducted by Baldacchino *et al.* (2008), respondents in Malta claimed that novel ideas have to be generated in order to compensate for the country`s structural handicaps.

The overall rankings of Cyprus and Malta relating to innovation were generally low as compared to those registered in other areas (WEF, 2011). This suggests that the two island states have to bolster their innovation capacity. The weakest rankings related to availability of

scientists and quality of scientific research institutions in the case of Malta. In the case of Cyprus, the weakest ranking was registered in terms of company spending on research and development. Nevertheless, the two island states are striving to upgrade their innovation strategies: the Cyprus Research Promotion Foundation was set up in the 1990s, whereas Malta is in the process of implementing a National Research and Innovation Policy through the Malta Council for Science and Technology. Malta has attracted investment by innovation-oriented companies involved in such areas as information technology and aircraft maintenance (Azzopardi; 2009).

Overall, it is expected that the above battery of policies should augment the economic growth rates of the two island states, and therefore contribute towards their convergence with EU peers.

Conclusion

Whilst islands may be more prone to the disadvantages of smallness, peripherality and vulnerability, the way in which these economies have evolved over the years suggests that they tend to 'cultivate resources' which equip them to tackle the former characteristics and even take advantage of them. Various studies show that smaller states often register better economic performance than their larger counterparts (Congdon Fors, 2007), tend to achieve higher rates of savings (Cordina, 2004), have a tradition in establishing overseas relationships and possess a significant dose of 'social capital' (Baldacchino, 2005). Peripherality and smallness may also bolster additional attractions for tourism. Thus, while smaller islands may be more vulnerable, a large number of them are more resilient as well. Overall, it is critical for smaller island economies to establish well-thought aims and policies, especially when considering that they possess limited natural resources.

This paper has focused on the small island states of Malta and Cyprus, exploring how these countries may foster future growth and expedite the process of economic convergence with their EU counterparts. A comparative analysis of the economic structure of these states suggests that they share similar industrial cross-sections, with traditional sectors interacting with more innovative ones. Different competitiveness yardsticks in the context of other European countries were compared, and unit labour cost was chosen as the key yardstick for different economic sectors in both island states. Our findings suggest that a Controlled-Input Cost model might be the most relevant growth strategy for Cyprus and Malta, and practical policies to help in pursuing this model were identified. Overall, this study offers a framework on the basis of which the islands may channel their efforts to foster future economic growth , which is a pre-requisite for convergence with EU peers. The importance of such objective becomes even more evident when considered in the context of the islands' disappointing growth trends following EU accession (Bower and Turrini; 2009) since one may reasonably expect lower income countries to experience higher growth as compared to higher income ones.

Of course, the relative importance of the factors which foster growth tend to change with time. Policies should not be 'set in stone', but should be subject to dynamic assessment. Moreover, the policies suited to particular activities may shift from one growth model to another. The

state has a considerable role to play in fostering these policies, and such an involvement should take place within prudent constraints on fiscal deficits, in the absence of which the economic growth and convergence of Malta and Cyprus may be compromised.

Acknowledgements

The authors thank two anonymous referees for their helpful comments. An earlier version of this paper was presented at the National Economic Forum, organized by the Malta Institute of Management, on 6th May 2011. The authors acknowledge the assistance of Clyde Caruana for the compilation of relevant statistics and figures.

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