

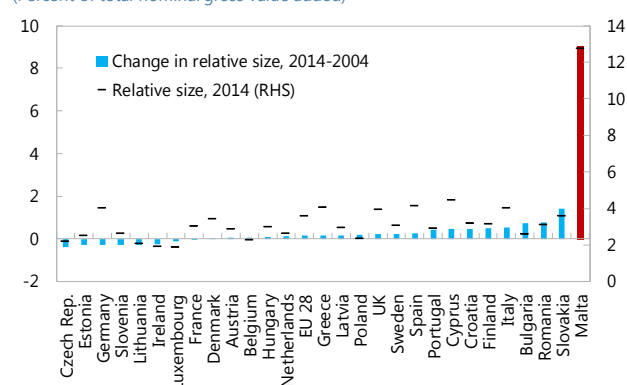
THE GAMING INDUSTRY IN MALTA¹

The gaming industry has become one of the largest and most dynamic sectors in the Maltese economy, with a significant contribution to production, exports, taxes, employment, and productivity. Ongoing regulatory efforts and recent business trends, partly driven by market pressures, should help preserve the comparative advantage gained so far. However, challenges persist, including from a skills gap problem and weak infrastructure.

A. Introduction

1. The gaming industry is a key contributor to Malta's economic growth. Driven by an increasing demand for remote gaming services (e.g., online and mobile casino games, lotteries, and sports betting), the economic significance of the gaming industry has risen in several EU countries (Box 1). But nowhere has this trend been more evident than in Malta, where the share of Arts, Entertainment and Recreation (which includes the gaming industry) in the overall nominal gross value added (GVA) expanded by about 9 percentage points during 2004-14, compared with an EU average of about 0.2 percent. In recent years, the expansion of Malta's gaming industry has been even more prominent as it accounted for more than a quarter of nominal GVA growth during 2012-16.

Arts, Entertainment & Recreation: Change in Relative Size
(Percent of total nominal gross value added)



Source: Eurostat and IMF staff calculations.

2. The success of Malta's gaming industry is explained by several factors. Malta has developed a reputation as a leading licensing jurisdiction for remote gaming benefitting from a first-mover advantage. In 2004, it became the first country in the EU to regulate that industry, attracting investors from several member states, such as Sweden, Austria, and the UK. The Maltese regulatory model is simple and effective, and it has been replicated in other EU countries (European Commission, 2017). Other pull factors include the prevalence of an English-speaking population, the country's business-friendly tax environment and political stability. In addition, the land-based segment of the industry (e.g., casinos) has expanded on the back of domestic income growth and burgeoning tourism.

Gaming Industry in Malta: Selected Indicators

	2014	2015	2016
Gross value added (€m)	795.3	901.4	1010.7
% of total GVA	10.7	11.1	11.6
Number of operating firms	289	276	266
Gaming tax revenue (€m)	52.6	55.2	56.3
% of corporate tax revenue	10.3	9.4	8.7
Exports (€m) 1/	2512.3	2906.3	3181.8
% of total exports	20	22	23

1/ Proxied by exports of the Personal/Cultural/Recreation sector.
Sources: Malta Gaming Authority, Maltese authorities, Haver Analytics, and IMF staff calculations.

¹ Prepared by Jorge Salas. The author is grateful to participants of a workshop hosted by the Ministry of Finance for their useful comments and suggestions.

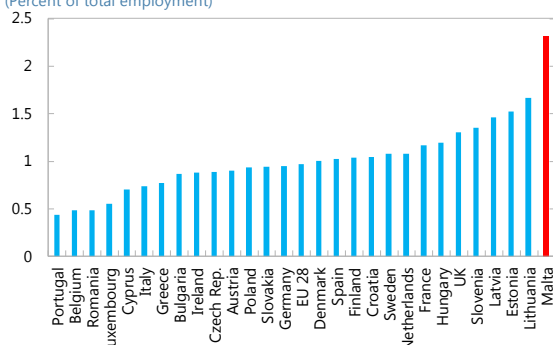
Box 1. Gaming in the EU

The EU gaming market is estimated to grow at 3 percent annually. According to [calculations reported by the European Commission](#), the EU gambling market generated revenues for €85 billion in 2011 and is expanding at an annual rate of around 3 percent. Revenues in the online gaming segment are estimated to have increased from €9 billion in 2011 to €13 billion in 2015, representing around 14 percent of the overall gambling market. The number of online gamblers in the EU is above 7 million.

The contribution of gaming activities to employment and exports is modest for most EU countries. On average, less than 1 percent of total employment in the EU is accounted for by Arts and Recreation activities including gambling and betting. Similarly, for the majority of member states, the share of gaming exports (included in the Personal/Cultural/Recreation sector) in total exports of services is below 1 percent. In contrast, the contribution of gaming to employment and exports observed in Malta is much larger.

Employment in Arts and Gambling Activities, 2014 1/

(Percent of total employment)

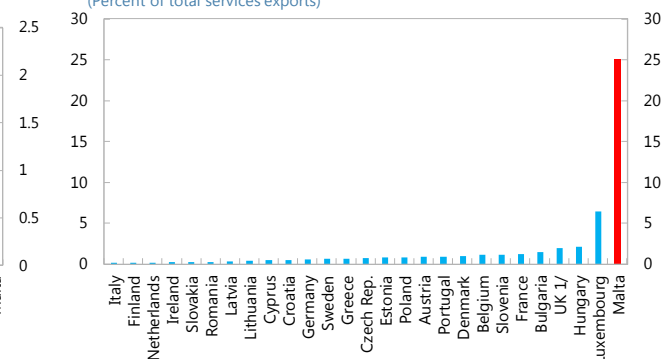


Source: Eurostat and IMF staff calculations.

1/ Data corresponds to employment in R90-92 NACE codes.

Personal/Cultural/Recreation Exports, 2014

(Percent of total services exports)



Source: Eurostat and IMF staff calculations.

1/ 2013 data is used for the UK.

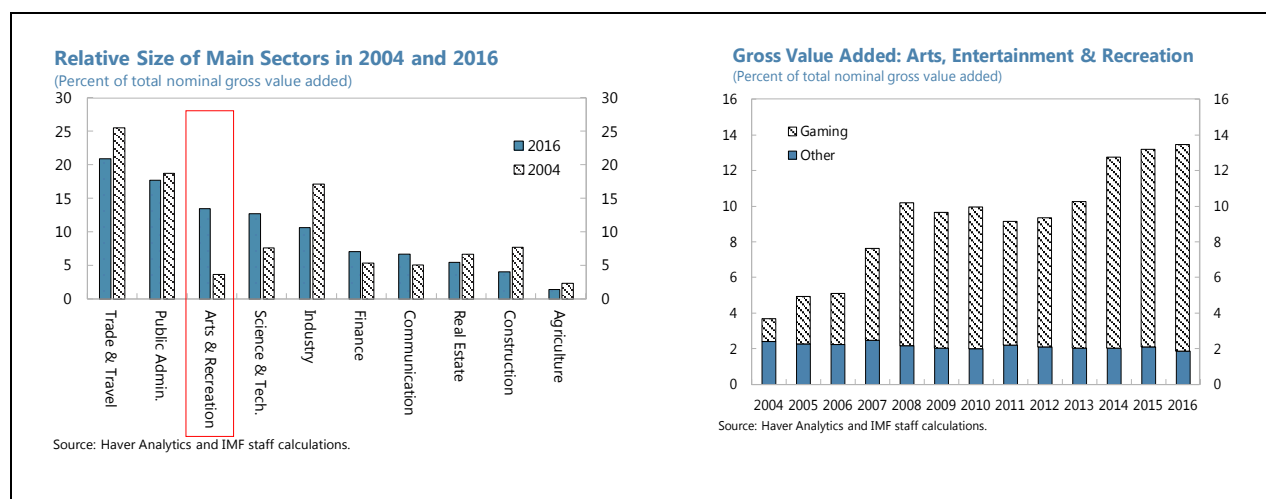
There is no specific EU legislation for online gaming services. While some EU countries have monopolistic regimes run by a public or private operator, an increasing number of members (including Malta) have adopted licensing systems for more than one operator. The existence of diverse licensing regimes in the EU implies that gaming operators targeting customers in different countries need to hold multiple licenses.

A cooperation agreement is in place to tackle challenges of online gaming. A framework for EU [cross-country cooperation](#) was agreed in 2015 to exchange information, best practices, and assist national gaming authorities in their supervisory function. Cooperation focuses on risks including online gambling addiction, financial and identity fraud, and privacy breaches. The arrangement also seeks to ensure well-regulated gaming in Europe, preventing money laundering and match-fixing in sports.

3. This note analyzes the economic significance and challenges for the gaming sector in Malta. First, the relevance of the sector is assessed in terms of its contribution to gross value added, trade, taxes, employment, and labor productivity. Then, the paper describes ongoing amendments to the regulatory framework, such as efforts to tackle financial integrity risks. Finally, prospects for further expansion of the gaming sector are discussed, including challenges from changes to the online gaming regulation in other EU countries, digital skills shortages, and weak infrastructure.

B. Economic Contribution: Production, Trade, and Taxes

4. Gaming has become one of the largest and most resilient industries in Malta. The gaming industry is a major contributor to the Arts, Entertainment and Recreation sector of the national accounts.² The share of this sector in Malta's total nominal gross value added (GVA) increased from 4 percent in 2004 to nearly 14 percent in 2016, becoming the third largest main industry in the economy, behind Trade, Travel, Accommodation and Food, and Public Administration. The average annual growth rate of nominal GVA generated by Arts, Entertainment and Recreation was above 17 percent in the 2012-2016 period, with an estimated deceleration since 2015. The expansion of this sector accounts for the bulk of the economy's structural rebalancing towards services in the last decade. The gaming industry alone (i.e., Gambling and Betting Activities in the NACE classification system) accounted for almost 12 percent of Malta's GVA in 2016.³ Reflecting in part increased merger activity, the number of remote gaming operators somewhat declined in recent years, but it recovered from 266 at end-2016 to 282 in June 2017.



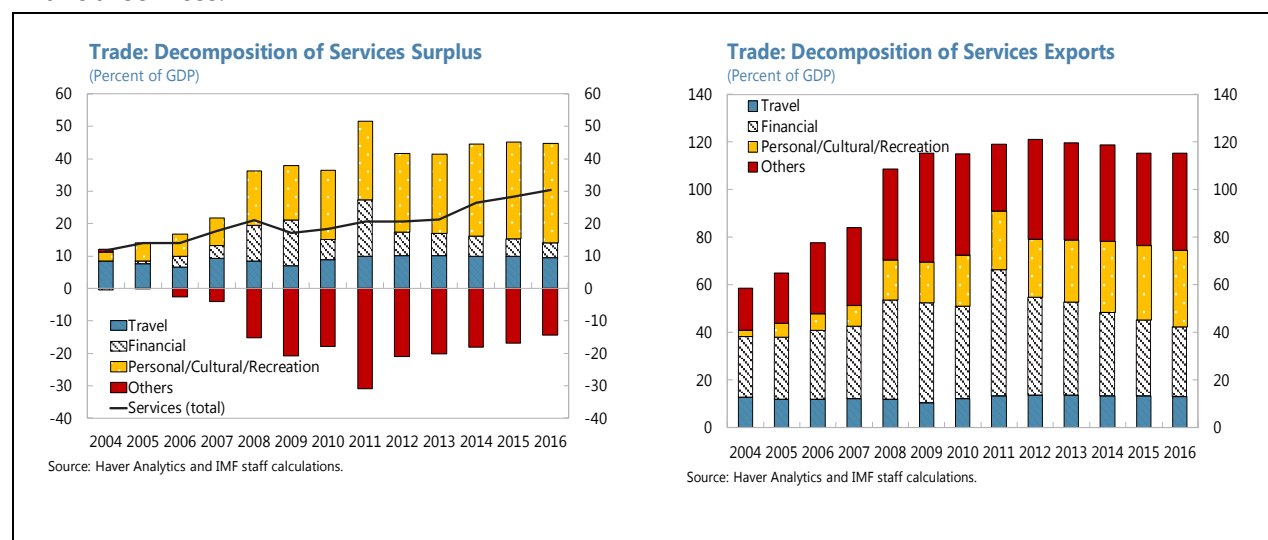
5. The gaming industry has a strong impact on Malta's overall output. A recent study by the Central Bank of Malta (CBM) (2017) estimates sector-specific accounting multipliers based on an input-output framework. In particular, "output accounting multipliers" represent measures of each sector's direct and indirect contribution to the economy's overall output, taking into account the relative amount of final demand driven by each sector. Using symmetric input-output tables for the year 2010, the CBM finds that the sector encompassing the gaming industry ranks second out of 40, contributing to roughly 10 percent of Malta's total output.⁴ This result mainly reflects the gaming industry's sizable final demand, which is dominated by exports. The inter-industry linkages of gaming operators in Malta are mostly limited to some support services, including from consultancy and law firms, data centers, web hosting, hardware and gaming software development, and IT security auditing.

² The definition of this sector corresponds to the R-U codes in the NACE classification system, which also includes Other Service Activities.

³ The remote gaming business generates around 90 percent of the gaming industry's value added, while the rest is accounted for by the land-based segment (Malta Gaming Authority, 2017).

⁴ Cassar (2017) provides additional evidence on the increasing importance of the gaming sector in terms of Malta's GVA, labor income, and employment.

6. The surge in services exports was largely driven by the remote gaming sector. Malta has recently experienced a notable improvement in its current account balance, mainly reflecting the economy's shift to export-oriented services (Grech and Rapa, 2016). The services surplus surged from 12 percent of GDP in 2004 to 30 percent of GDP in 2016. Over the same period, the surplus in the Personal/Cultural/Recreation sector (which includes remote gaming) experienced an even stronger increase from 3 to 31 percent of GDP, largely explained by the rise in its exports as sectoral imports only grew from 0.1 to 1.4 percent of GDP. The destination of more than 80 percent of those exports are other EU member states. The contribution of Personal/Cultural/Recreation to the services surplus has been more substantial than that of other important sectors, such as tourism and financial services.



7. Gaming taxes as a percent of GDP have remained stable in recent years. To attract investors, Malta has set a gaming tax cap of €466,000 per year. Between 2014 and 2016, gaming tax revenues remained unchanged at 0.6 percent of GDP, representing about 9 percent of corporate income tax revenue, whereas their share in total tax revenues marginally decreased from 2.3 to 2.1 percent. In 2016, the industry generated €56.3 million in gaming taxes, a 7 percent increase relative to 2014.

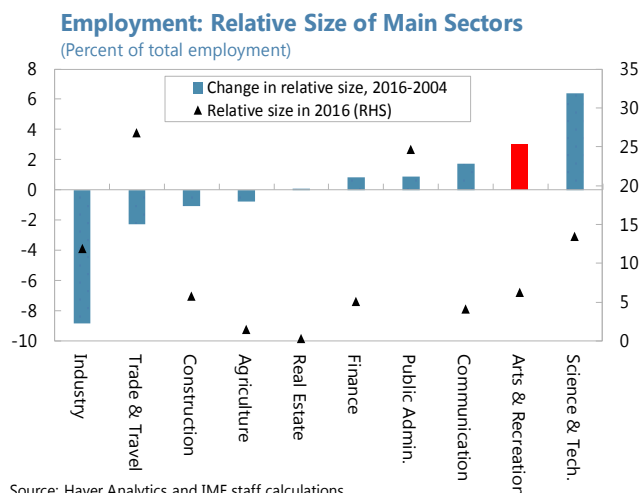
C. Employment and Reliance on Foreign Workers

8. In June 2016, gaming firms and its service providers accounted for 4 percent of Malta's full-time equivalent jobs. A study conducted by the Malta Gaming Authority (2016) estimated overall employment associated with the gaming industry at 8,950 full-time equivalent (FTE) jobs in June 2016, representing around 4.4 percent of the economy total.⁵ Focusing only on gaming firms, the number of FTE jobs was calculated at 6,407 in June 2017, of which roughly 85 percent was accounted for by the remote gaming segment. The expansion of these jobs has been significant, growing at an annual average rate of almost 30 percent in 2015-2016.

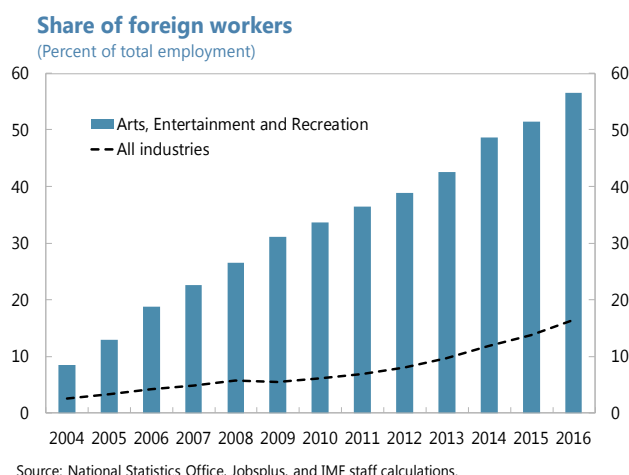
⁵ These calculations include firms offering gaming services from Malta and firms and self-employed persons providing services to gaming firms.

9. Sectoral shifts in employment are partly explained by the gaming industry's growth.

The increase in the relative importance of the services sector has affected the composition of employment in Malta. Per EU employment statistics, Arts, Entertainment and Recreation (including gaming) increased its share in total employment by 3 percentage points between 2004 and 2016, representing now more than a fifth of private sector employment in services excluding Trade and Travel. Only professional services linked to Science and Technology gained a larger share of total employment during that period. At 6.3 percent of total employment in 2016, the relative size of employment in Arts, Recreation and Other Services now exceeds that of Construction and Finance.



10. The remote gaming industry is highly dependent on foreign workers. Survey-based evidence indicates that remote gaming firms have become highly dependent on non-Maltese employees, as they amount to 67 percent of the total (Malta Gaming Authority, 2017). These workers occupy mainly high-skilled and specialized jobs, including 55 percent of technical positions, 61 percent of professional posts, and 70 percent of senior management roles. In the same vein, statistics from Jobsplus (the Public Employment Services) show that the percentage of foreign workers in the Arts, Entertainment and Recreation sector has increased from one-third in 2010 to 57 percent in 2016. The reliance on foreign workforce reflects the digital skills shortage in the country (eSkills Malta Foundation, 2017), driven in part by the requirements of the gaming industry.⁶ To attract international workforce, there is a 15 percent tax cap on the salaries of certain highly-qualified positions occupied by foreign workers in the gaming industry and other activities, as specified in the Malta Highly-Qualified Persons Rules.



11. Wage growth in the gaming sector has been strong. Based on information from the 2017 EU KLEMS database, labor compensation per employee in Arts, Entertainment and Recreation grew by more than 6 percent per year during 2004-2015, on average, compared to nearly 3 percent in the overall economy. Wage pressures in the gaming industry have escalated in recent years, reflecting a high labor turnover—especially among foreign employees—and strong inter-firm competition for workers.

⁶ According to a 2016 study commissioned by the Malta Gaming Authority, the gaming industry accounted for 30 percent of all digital economy jobs in Malta in 2015.

D. Labor Productivity and Structural Change

12. A quantitative framework is used to analyze sectoral drivers of productivity growth.

The decomposition employed by McMillan et al. (2014) allows to assess the contribution of the gaming industry to labor productivity growth in Malta. Economy-wide labor productivity growth can be explained by two components: (i) productivity gains in individual sectors ("within" component), and (ii) labor reallocations across sectors ("structural change"). The quantitative decomposition is given by:

$$\Delta Y_t = \sum_i \theta_{i,t-k} \Delta y_{i,t} + \sum_i y_{i,t} \Delta \theta_{i,t} ,$$

where Y_t and $y_{i,t}$ denote the economy-wide and sectoral labor productivity levels, respectively, $\theta_{i,t}$ is the share of employment in sector i , and the Δ operator refers to the change in productivity or employment shares between $t - k$ and t . The "within" and "structural change" components of labor productivity growth correspond to the first and second terms on the right-hand side, respectively. An important limitation of the analysis below is that sectoral price deflators are not available for Malta, so the decomposition uses data on nominal labor productivity (GVA per worker).

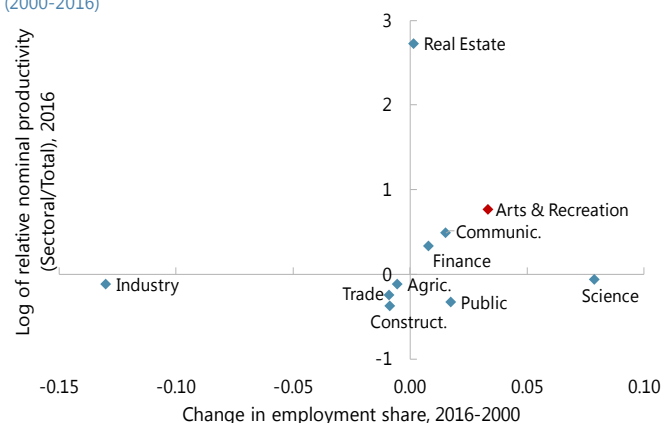
13. Employment gains in gaming were a key determinant of growth-enhancing structural change in Malta. During 2000-2016, nominal labor productivity increased by more than 4 percent per annum, on average.⁷ Roughly a fifth of that growth was accounted for by structural change (0.8 percent) while the remainder was explained by productivity gains within all individual sectors, which were particularly strong in services. The relevance of the gaming industry as a driver of labor productivity growth is underlined by the significant contribution of the Arts, Entertainment and Recreation sector to the structural change component (0.7 percent). In effect, a closer look at the data shows that among the above-average productivity sectors, Arts, Entertainment and Recreation was the most rapidly expanding sector in terms of employment share. More generally, during 2000-2016, labor moved from relatively

Decomposition of productivity growth, 2000-2016 (Average percentage changes, per annum)

Nominal labor productivity growth	Component due to:	
	"Within sectors"	"Structural change"
4.17	3.37	0.80
	<i>of which Arts & Recreation:</i>	
	0.47	0.72

Source: Haver Analytics and IMF staff calculations

Relative Labor Productivity and Change in Employment (2000-2016)



Source: Haver Analytics and IMF staff calculations.

⁷ Real labor productivity grew by slightly above 1 percent, on average, during 2000-2016. The annual growth rates of nominal and real labor productivity were highly correlated over that period (correlation coefficient = 0.9).

unproductive sectors such as Industry (e.g., manufacturing) and Construction to high-productivity service activities including Arts, Entertainment and Recreation, Communication, and Finance. However, some below-average productivity sectors also experienced employment gains during that period (e.g., Public Administration).

E. Regulatory Framework and Risks to Financial Integrity

14. The fast-moving gaming industry requires sustained efforts to ensure that the sector is subject to efficient regulation and effective supervision. To preserve the industry's competitive advantage, ongoing reform aims to eliminate duplication of administrative requirements, simplify the regulatory burden, boost innovation in the business-to-business (B2B) segment, and adopt a risk-based approach to compliance. The new licensing framework seeks to enhance the efficiency of regulatory processes in the sector, while introducing flexibility to deal with technological developments (e.g., role of cryptocurrencies in gaming activities) and meet consumer protection standards. These regulatory measures are being accompanied by stronger emphasis on effective enforcement of compliance.

15. The envisaged regulatory improvements aim also to contain financial integrity risks. The Malta Gaming Authority has stepped up its collaboration with the Financial Intelligence Analysis Unit with respect to Anti-Money Laundering (AML) initiatives (Box 2). Under the current regulation, the only gaming operators that are subject to Anti-Money Laundering and Combating Financing Terrorism (AML/CFT) requirements are casino licensees. Recent legislative and regulatory amendments transposing the EU's Fourth AML Directive (December 2017) bring the remote gaming sector within the AML/CFT framework.

Box 2. Money Laundering Risks in the Gaming Sector

The Malta Gaming Authority has taken steps to tackle money laundering risks in the sector. A [Supranational Risk Assessment Report](#) released by the European Commission in June 2017 highlighted the vulnerability of certain gambling services, such as online gaming, to money laundering risks. Potential risks include operations by gaming companies undertaking or facilitating money laundering, as well as players targeting the industry to launder money. In recent years, the Malta Gaming Authority has suspended or cancelled the licenses of a number of gaming operators investigated by Italian agencies in connection with money laundering. In addition to enhancing its collaboration with the Financial Intelligence Analysis Unit (see below), the Gaming Authority has created an internal AML unit to conduct supervision.

The authorities have strengthened the legal framework to mitigate these risks. The Parliament recently approved amendments to the Prevention of Money Laundering Act and the Prevention of Money Laundering and Funding of Terrorism Regulations. These reforms allowed to complete the transposition of the Fourth AML Directive into Maltese law.

AML/CFT regulation and supervision will follow a risk-based approach. Supervision will be carried out jointly by the Gaming Authority and the Financial Intelligence Analysis Unit. The authorities are elaborating a risk profile of all the gaming operators, which will be updated regularly. This profiling exercise will guide the risk-based supervision model on AML/CFT issues for the gaming sector. The Financial Intelligence Analysis Unit will be responsible for evaluating the outcome of the supervisory reviews and recommending enforcement actions to the Gaming Authority where appropriate (including administrative penalties and the suspension or withdrawals of licenses).

F. Growth Outlook and Challenges Ahead

16. Prospects for growth are still favorable. The Malta Gaming Authority expects further growth in revenue and employment for remote gaming operators over the next few years. New investments are likely to materialize as many foreign companies in the remote gaming sector remain confident in Malta as a start-up location (Ernst and Young, 2017). Expectations for land-based operators are also positive, but somewhat less upbeat than those for remote gaming. The impact of Brexit is still uncertain, but may present opportunities as operators currently established and licensed in the UK and British territories may relocate to Malta as a gateway to the EU. While Malta is likely to remain competitive, given its regulatory framework, possible international corporate tax reforms may affect the sector unfavorably.

17. Recent business consolidation is likely to continue due to market and regulatory pressures. Partly because of increased merger and acquisition activity, the number of operators in the remote gaming industry has declined in recent years (although a recovery was observed in the first half of 2017). This tendency towards business consolidation reflects growing market competition and cost pressures linked to regulatory factors. In particular, companies are facing higher taxation burden and rising costs of licensing and compliance as an increasing number of EU countries are developing their own licensing regimes for online gaming. Against this background, operators are seeking to increase their customer base in markets outside Europe, and Malta could potentially become a major provider of gaming-related services to foreign companies through the growth of the B2B segment of the industry (Malta Gaming Authority, 2016a).

18. Weak infrastructure and skill gaps pose challenges. Addressing the digital and ICT skills shortage is a priority for sustaining the success of the gaming industry. This requires to further facilitate the attraction of foreign workers, including by mitigating pressures on the property and rental market. To improve the educational and training system, the authorities recently launched the European Gaming Institute of Malta, aiming to increase the supply of domestic workers for the gaming sector. Upgrading infrastructure and expanding the availability of modern office space would reduce growth constraints and enhance business productivity (see Selected Issues Paper I).

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