



The _____ Contribution of Copyright-based Industries to the Economy of SAINT LUCIA

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01 INTRODUCTION

The primary objective of the report is to update the contribution estimates of the copyright industry to the Saint Lucia economy, as provided by James (2012). In addition to contributions to Gross Domestic Product (GDP), employment and trade, the update includes estimates of the copyright industry's contribution to productivity and GDP per capita growth. Consequently, the report also highlights some important policy implications of the updated data, especially for the country's long-term development strategy.

Consistent with the requirements of the Caribbean Development Bank (CDB)-supported training conducted from September to December 2022, the report is based on the inputs provided by student participants. These inputs formed the basis for student evaluation and certification.

The report comprises seven other sections in

addition to this introduction. Section 2 summarises the economic background necessary for updating the contribution estimates of the copyright sector to the economy. Section 3 provides an update on Saint Lucia's copyright regime, its relationship with the country's creative industries and the extent to which the legal and institutional framework supports the economic interests of rights holders. It also discusses the opportunities and challenges that technological innovations provide for Saint Lucia's copyright-based industries. Section 4 updates the profile of the country's copyright sector. Section 5 summarises the methodology used to update the estimates. Section 6 reports the updated contribution of copyright to GDP, employment and trade, especially monitoring the scope for innovation-based intraindustry trade. Section 7 presents the evidence on the contribution of GDP per capita to productivity and growth. Section 8 summarises the report and presents updated policy implications.

02 ECONOMIC BACKGROUND

The copyright industries are a subset of capital-producing industries. Capital is defined as output that can be stored and used repeatedly by various economic sectors to produce their own output. Accordingly, the suitable economic background for studying the copyright industries' contribution to the economy is data on the evolving economic structure, best measured by the GDP share of the capital-producing industries (James and Hamilton, 2022). The proxy for the output of the industries capable of producing capital is the sum of the output of manufacturing, construction and "other industries" (ISIC J-P), which includes education and the copyright industries. Since the works of Leontief (1953; 1970) and Lewis (1954), these industries have been recognised as critical for the dynamic behaviour of a multi-industry economy. In an economy such as Saint Lucia's, with a long history of natural-resource-based interindustry trade and slow economic development, the development of capital industries increases the capacity to rely on innovation-driven intraindustry trade as the basis for enhancing productivity and the standard of living that the country can achieve.

The data in Table 1 documents structural changes in the economy of Saint Lucia between 2010 and 2019 (United Nations Statistics Division [UNSD], Country Profiles Dataset). The reference benchmark structure is 65%, which is the typical share of major developed economies in the global economic system (James and Hamilton, 2022). The data indicate that the economic structure of Saint Lucia, although already below the benchmark structure, deteriorated, with the share of capital-producing industries decreasing from 54.5% of GDP in 2010 to 49% in 2019. The stagnation stems from the average growth of the real output of these industries being slower than the rest of the economy. The evidence in Table 1 indicates that these industries were being displaced partly by the traditional tourism sector, which includes core elements such as retail trade, restaurants and hotels. The decline in the share of capital-producing industries coincided almost exactly with an increase in the share of tourism-related industries from 27.5% of GDP to 36% of GDP. Therefore, the tourism industries based on natural resources grew faster than the GDP. The data points to a basic need for the country to reassess its tourism

development strategy to incorporate major elements of capital-producing industries into it. This is because the international evidence published by James and Hamilton (2022) clearly demonstrates that it is in the country's interest to enhance its efforts to increase its GDP per capita by fostering the growth of the share of capital in GDP. This is feasible through promoting the development of the copyright industries, in addition to upgrading the country's institutions and its innovation rate. This can be achieved through strategies that promote the export of products from capital-producing industries on the tourism platform and enhance the country's capacity to engage in productivity-boosting intraindustry trade.

Table 2 provides supporting evidence of the national strategy's overall reliance on the core natural-resource-based tourism industry to create quality jobs. The share of employment in "wholesale and retail, hotels and restaurants" remained relatively stable, accounting for approximately 32% of the jobs from 2016 to 2019. In combination with the data in Table 1, this evidence suggests that the country was relying on its core (natural resource-based) tourism sector to build linkages with the rest of the economy and enhance productivity. In contrast, the share of employment in capital-producing industries drifted upward after some decline. The overall result was inevitably falling productivity in the capital-producing sector, highlighting the conclusion that, contrary to the requirements implied by international evidence, the strategy did not focus on improving national living standards. It is also interesting to note that the evidence in the tables indicates that there was only limited investment in creating good jobs in the copyright industry's iconic "arts, entertainment and recreation" sector. The share of employment in this industry cluster decreased along with the share of capital-producing industries in production.

Table 1
Economic Structure of Saint Lucia, 2010 to 2019.

Year	Wholesale, Retail Trade, Restaurants and Hotels (ISIC G-H)	Capital Share of GDP (ISIC D, F, J-P)
2010	27.5	54.5
2011	28.7	54.0
2012	30.3	53.1
2013	31.3	51.6
2014	34.1	49.3
2015	34.0	50.3
2016	34.1	49.8
2017	35.5	48.7
2018	35.5	49.6
2019	36.0	49.0

Source: UNSD Country Profiles Database

Table 2
Structure of Employment in Saint Lucia, 2016 to 2019.

	2016	2017	2018	2019
	Number of Persons Employed			
Industry group	82379	81483	81417	84135
Arts, entertainment and recreation	1.39%	1.21%	0.92%	0.96%
Capital-producing industries	56.63%	53.76%	52.92%	57.04%
Wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service activities	31.79%	30.81%	31.50%	32.61%

Source: CSO, Saint Lucia

03 COPYRIGHT LAW IN SAINT LUCIA

Copyright law protects original works of authorship, including literary, dramatic, musical and artistic works. This exclusive right to authorship allows creators to monetise their content and determine, with a limited number of exceptions, how others can engage with their works. Copyrighted content in Saint Lucia is generally protected for life plus 50 years. However, computer-generated programmes, films and sound

recordings are protected for a period of 50 years from the time they are created, broadcasted or published (in the case of sound recordings and films).¹ Amendments have been made to the Copyright Act to legally recognise and provide administrative and

¹The Copyright Act, 1995 (Act No. 10 of 1995), amended by Copyright Amendment Act, 2000 (Act No. 7 of 2000), s.9. Available at <<https://www.wipo.int/wipolex/en/text/586007>>.

licensing rights to collecting societies as well as to extend the range of civil remedies against infringers.

Saint Lucia is a member of the WIPO Internet Treaties and earlier copyright treaties that recognise the rights of creators in sound recordings and broadcasting, as outlined in the Rome Convention. Provisions from these treaties have been incorporated into local law, thereby reinforcing the legal framework for the recognition of rights associated with music and the development and broadcasting of original works, such as films, cable and radio programming. The country is not a member of the Beijing Treaty on Audiovisual Performances, which aims to provide performers with economic rights in audio-visual works and to recognise the important role that performers play in these industries. Performers include participants in creating the works, such as actors, dancers, musicians, singers, acrobats, conjurers, animal charmers, jugglers and lecturers. Without additional safeguards for proprietary content, the economic interests of performers in Saint Lucia are not fully protected.

Technology has changed how several elements of Saint Lucia's creative industry create and share their work with the public. Digital streaming services and internet platforms, such as Instagram, TikTok and NFT marketplaces, have emerged as new and important avenues through which Saint Lucian visual artists, musicians and influencers can monetise their creative content by distributing it to a global audience. However, these new avenues of monetisation present several copyright-related challenges to creators. One of the most significant challenges is generating sustainable incomes on digital platforms with remuneration models based on viewership and subscribers. Under these schemes, the platform owner decides how much creators can earn in fees for uploaded content and when creators can do so. In case of NFTs, fluctuating global market prices and the absence of regulation of cryptocurrencies compel creators to be cautious about relying too heavily on these sources of income (Sun, 2022).

Collective management is an important element of the copyright system in an economy. Collective Management Organizations (CMOs) enable

professional monitoring of the use of protected works, negotiation of licences with prospective users, documentation of accurate and comprehensive rights management data and information, collection of payments for the use of protected works and ensuring fair and appropriate distribution of collections amongst rights holders after deducting allowable expenses. The Eastern Caribbean Collective Organization (ECCO) is the CMO that represents the interests of writers and music publishers in Saint Lucia (James, 2012). Through reciprocal agreements with other CMOs worldwide, ECCO can represent and license a global repertoire of copyrighted music for public performance, broadcast, cable transmission and online and mobile use. After the organisation collects fees and accounts for its administrative costs, the remainder is paid to its members as royalties. ECCO plans to begin licensing mechanical rights to compensate producers and performers of sound recordings whenever their music is used directly or indirectly in broadcasts or public performances.

Investigations by the study team have revealed that ECCO is currently experiencing serious financial and organisational challenges. Membership on its Board is limited to a maximum of three consecutive two-year terms. However, the chairmanship recently changed hands more frequently than its two-year term limit (in 2016 and 2017). Distributable revenue fell from more than EC\$2.5 million to about EC\$20,500 in just one year (2017). No distributions have been made to copyright members of the organisation since 2017. The office in Saint Lucia is not staffed by senior delegates or personnel with significant years of experience in the field. Currently, there are only three active institutions that license works from ECCO, two of which are part of a chain of Caribbean hotels and the other is a bank with a regional presence in Saint Lucia. The organisation currently lacks the capacity to license live events across its jurisdiction, such as concerts, festivals, carnivals or other public music performances. It has lost much of the trust and confidence that it had built up since taking over the collective management function from the Performing Rights Society. Due to ECCO's failure to collect and pay royalties, several members have left the organisation to join other organisations.

04 UPDATE ON THE PROFILE OF THE SAINT LUCIAN COPYRIGHT SECTOR

The Government of Saint Lucia (GOSL), through the Carnival Planning and Management Committee and the Cultural Development Fund, assists rights holders by obtaining a copyright licence from ECCO when hosting national carnival events.

In recent years, a unique local music segment has emerged in Saint Lucia. Formerly, soca and calypso were the primary genres used by mainstream entertainers, traditional media sources and other media platforms, both locally and regionally. Recently, soca has evolved into many diverse forms and subgenres. In 2012, the most notable local development was initially called the Lucian Kuduro. It was a fusion of wild drums, Saint Lucian French Creole (Kwéyòl) lyrics² and elements of the original Kuduro sound from Angola in southwestern Africa. Saint Lucian Kuduro has evolved into the Dennery Segment, which incorporates elements of the original Kuduro sound, Zouk (a sound from the French Caribbean), Lucian percussions and Kwéyòl lyrics (Phillips, 2019).

²Kwéyòl is one of the country's native languages.

Most songs creatively address controversial social and cultural topics. This distinct combination has evolved into a product that has since been endorsed by the GOSL.

To date, various producers and artists associated with the Dennery Segment are registered and have copyright protection. Some of their music is seasonal, particularly for the annual carnival celebration and song competitions, while others are produced throughout the year. The Dennery Segment has the potential to stimulate significant economic growth due to its consistent year-round production. In addition to creating employment opportunities for artists and producers, the Dennery Segment also benefits other sections of the population. The music has been endorsed by both the Saint Lucia Tourism Authority and Trade Export Saint Lucia, which market it as a cultural product to tourists. This expands its promotion not only locally in hotels and tourist-related accommodations but also internationally in the Americas, Europe, Asia and Africa.

05 METHODOLOGY

An update on the copyright industries' contribution to output, employment, trade, productivity and growth requires two key sets of parameters: (i) the copyright factors for extracting data on copyright from national accounts and employment and trade statistics and (ii) reliable elasticities that measure the contribution of the copyright industries to growth. The copyright factors used were those identified by the Saint Lucia CSO based on the earlier study reported by James (2012), its own surveys and other relevant sources, including the WIPO (2015) guide. The elasticities used were based on estimates produced by James and Hamilton (2022) using global data.

Data from the Saint Lucia 2016 Supply and Use Tables (SUTs), the Trinidad and Tobago 2000 SUT and the Jamaica 2007 SUT were used to identify the industries whose output is subject to copyright. The same data sources were also used to obtain

coefficients that lead to updated estimates of the contribution to employment and trade, including both imports and exports. National accounting details for Saint Lucia for 2016 were obtained from the CSO and the UNSD for the period 2010–2019. Data from the 2012 study and the updated estimates were used to calculate the contribution to output and employment. The estimates of the contribution to national productivity were developed using data from the UNSD in conjunction with data from the 2012 study and the 2016 estimates, to estimate the contribution to GDP per capita growth.

The CSO has clarified that the copyright factors for Saint Lucia are derived from two main sources. The first source was, an estimate of the subjective assessment of the average income of creative industry practitioners, such as musicians, artists, crafters and writers obtained from the responses

to random samples of small and micro firms. The “Map It to Tap It” data collection initiative was also carried out based on geographical location. Seven communities were surveyed as a sample. These communities include Anse La Raye, Monchy, Gros Islet, Castries, Soufriere, Laborie and Dennery. Similarly, an estimate of copyright’s share in the industry’s sales was provided.

The second data source consisted of estimates from a selected set of comparator countries that have conducted similar studies using sample surveys under the WIPO project, including James (2012). The copyright factors have been broadly estimated so far without using detailed financial data on the copyright industry’s share in employment, output or trade of the responding firms in Saint Lucia. Nevertheless, they are broadly consistent with estimates used in other countries’ studies within the WIPO project to assess the copyright industry’s contribution to the economy.

06

CONTRIBUTION OF COPYRIGHT TO THE ECONOMY OF SAINT LUCIA

Table 3 reports updated results for 2012 and 2016 compiled by the CSO based on the 2016 SUT. The industries identified are consistent with, but do not strictly match, the classifications in WIPO (2015). Instead, the industries bearing copyright are identified as (i) textiles, wearing apparel and leather; (ii) paper products, printing and recorded media; (iii) furniture; (iv) wholesale and retail trade; (v) passenger land transport and other transportation support activities; (vi) publishing activities; (vii) sound, video and television broadcasting and production activities; (viii) telecommunications activities; (ix) computer and information service activities; (x) activities of head offices and management consultancies; (xi) architectural, engineering and technical activities; R&D; (xii) advertising and market research; (xiii) photographic and other professional and technical activities and (xiv) arts, entertainment and cultural activities. Data are not yet available from the SUT to update the contributions of these sectors to employment, but the contributions to output and trade have been reliably estimated.

The 2010 estimate of the contribution to GDP published by James (2012) was 8%, and the estimate for 2012 is now revised to 6% of GDP. The estimates for 2016 indicate that the contribution to GDP was 5%. The reason for the declining contribution to GDP appears to be a substantial fall in the level of activity in several core subsectors, leading to corresponding declines in copyright value-added. For example, the output of the iconic “arts, entertainment and cultural” industries decreased from \$287.4 million in 2012 to \$252.7 million in 2016. Similarly, activity in the publishing industry decreased from \$10.9 million in 2012 to \$9.3 million in 2016. Further, advertising and market research revenue declined from \$15.6 million

in 2012 to \$13.3 million in 2016, while the output of “photographic and other professional and technical activities” dropped from \$20.3 million in 2012 to \$17.4 million in 2016. Overall, the evidence indicates that the copyright industry grew more slowly than the economy between 2010 and 2016. The decline in the copyright industry’s contribution is consistent with the downward trend identified in the share of GDP of all capital-producing industries (see Table 1). This reflects a broad trend of underinvestment in capital-producing industries and the displacement of capital production by traditional tourism in the path of economic development. The international evidence published by James and Hamilton (2022) suggests that such a path is generally inconsistent with the requirements of economic development, as evidenced by the growth of the economy’s GDP per capita.

Table 4 provides important data on the impact of copyright on trade in 2016, assuming the same copyright factors as those used for production. Copyrighted products accounted for 16% of all imports and 5% of all exports. Overall, the economy was a net importer of copyrighted output, but there were key sectors that provided important clues on how policy could be redirected. Passenger land transport and telecommunications activities, both elements of nondedicated support for core copyright industries, recorded a trade surplus totalling EC\$7.861 million. By comparison, the iconic arts, entertainment and recreation industries generated a trade surplus of EC\$99.34 million. These industries epitomise the copyright industries’ potential to participate successfully in intraindustry trade through continuous innovation linked to capital production and learning by doing. Given that a sustained transition towards

intraindustry trade fosters ongoing productivity growth and improved living standards, the key takeaway from the evidence is that it is in the country's best interest to invest significant resources towards enhancing the institutions and innovative capacity of core copyright activities such as arts, entertainment and recreation.

The estimates of the copyright industry's contribution to employment in Table 5 are based on the following key assumptions: (i) the productivity (and hence the labour coefficients) of copyright workers in furniture production was the same as that in the production of paper products, printing and recorded media; (ii) the productivity of copyright workers in "architectural, engineering and technical activities; R&D" was the same as in "computer and information service activities"; (iii) the productivity of copyright workers in

"photographic and other professional and technical activities" was the same as in publishing activities and (iv) the productivity of copyright workers in "arts, entertainment and cultural activities" was the same as in "advertising and market research". Based on these assumptions, the copyright industry contributed 3.4% of total employment in 2016, which decreased from 4.4% in 2010. The evidence reflects the previously identified trend since 2010 of the economy relying more on the resource-based tourism sector to generate quality jobs and increase value-added. The main contributors were "arts, entertainment and cultural activities" (29.4%), followed closely by "wholesale and retail trade" (24.5%). Other important contributors were "sound, video and television broadcasting and production activities" (7.5%) and "photographic and other professional and technical activities" (5%).

Table 3
Updated Estimates of Copyright Value-Added, 2012 and 2016.

	Copyright Factor	Estimated Output		Copyright Output		Copyright Value-Added	
		2012	2016	2012	2016	2012	2016
Manufacturing of textiles, wearing apparel and leather	.07	4.62	4.81	0.30	0.32	0.10	0.11
Manufacturing of paper products, printing and recorded media	0.42	18.32	19.10	7.73	8.06	2.48	2.91
Manufacture of furniture	.05	18.32	19.10	0.85	0.89	0.27	0.32
Other wholesale and retail trade	.07	918.80	993.40	66.96	72.40	31.54	37.94
Passenger land transport	.07	212.00	246.70	15.45	17.98	9.71	11.17
Other transportation support activities	.07	121.40	136.00	8.85	9.91	5.42	5.04
Publishing activities	1.00	10.90	9.30	10.90	9.30	5.93	6.33
Sound, video and television broadcasting and production activities	1.00	17.60	17.00	17.60	17.00	12.19	11.81
Telecommunications activities	.07	261.50	230.70	19.06	16.81	13.61	10.07
Computer and information service activities	0.35	4.80	4.80	1.68	1.68	1.37	1.36
Activities of head offices and management consultancies	0.19	3.27	2.80	0.61	0.52	0.37	0.31
Architectural, engineering and technical activities; R&D	0.19	16.44	14.05	3.06	2.62	1.84	1.54
Advertising and market research	1.00	15.58	13.31	15.58	13.31	9.36	7.84
Photographic and other professional and technical activities	1.00	20.31	17.36	20.31	17.36	12.20	10.21
Arts, entertainment and cultural activities	1.00	287.40	252.70	287.40	252.70	162.50	143.61
Total Copyright Value-Added				476.36	440.86	268.87	250.56
GDP						4314.8	5036.60
Copyright share of GDP						.06	.05

Source: CSO Saint Lucia

Table 4
Contribution of Copyright to Trade in Saint Lucia, 2016.

	Copyright Factors	Imports 2016, EC\$000	Copyright in Imports, EC\$000	Exports 2016, EC\$000	Copyright in Exports, EC\$000	Copyright Trade Balance, EC\$000
Manufacturing of textiles, wearing apparel and leather	.07	55261.50	3868.31	9325.85	652.81	-3215.50
Manufacturing of paper products, printing and recorded media	0.42	49588.46	20827.15	5156.90	2165.90	-18661.26
Manufacture of furniture	.05	40584.07	2029.20	853.79	42.69	-1986.51
Other wholesale and retail trade	.07					
Passenger land transport	.07	6780.10	474.61	103325.45	7232.78	6758.17
Other transportation support activities	.07					
Publishing activities	1					
Sound, video and television broadcasting and production activities	1					
Telecommunications activities	.07	18532.23	1297.26	34292.85	2400.50	1103.24
Computer and information service activities	0.35					
Activities of head offices and management consultancies	0.19	29947.52	5690.03	12634.03	2400.47	-3289.56
Architectural, engineering and technical activities; R&D	0.19	1746.36	331.81		0.00	-331.81
Advertising and market research	1	65990.97	65990.97	133.24	133.24	-65857.73
Photographic and other professional and technical activities	1	315708.79	315708.79	1249.46	1249.46	-314459.33
Arts, entertainment and cultural activities	1	4144.06	4144.06	103480.31	103480.31	99336.25
Total		588284.06	420362.18	270451.88	119758.15	-300604.03
Exports				2413731.4		
Imports		2652402.9				
Copyright share of exports					.05	
Copyright share of imports				0.16		

Source: Saint Lucia SUT, 2016

Table 5
Copyright Employment in Saint Lucia, 2016.

	Employment	% Share
Manufacturing of textiles, wearing apparel and leather	132	.044
Manufacturing of paper products, printing and recorded media	151	.050
Manufacture of furniture	17	.005
Other wholesale and retail trade	739	0.245
Passenger land transport	28	.009
Other transportation support activities	14	.005
Publishing activities	93	.031
Sound, video and television broadcasting and production activities	228	.075
Telecommunications activities	105	.035

	Employment	% Share
Computer and information service activities	108	.036
Activities of head offices and management consultancies	192	.064
Architectural, engineering and technical activities; R&D	122	.041
Advertising and market research	49	.016
Photographic and other professional and technical activities	150	.050
Arts, entertainment and cultural activities	888	0.294
Total Copyright Employment	3017	1.000
Total Employment	88486	
Copyright share of employment		.034

Source: CDB Copyright Database Saint Lucia

07

CONTRIBUTION OF COPYRIGHT TO PRODUCTIVITY GROWTH AND DEVELOPMENT IN SAINT LUCIA

It has been established that productivity growth is one of the key channels helping an economy increase its GDP per capita and, hence, contribute to its development (ul Haque, 1995). An estimate of the copyright industries' contribution to economy-wide productivity can be obtained by using the ratio of the copyright sector's estimated contribution to GDP and its estimated contribution to employment. As per the updated data provided by the CSO as reported above, the copyright sector's contribution to GDP in 2010 was 8%. The estimated contribution to employment, as published by James (2012), was 4.4%. Thus, the copyright sector's contribution to productivity was 1.81. These estimates indicate that productivity in the copyright sector was 81% higher than that of the economy. By comparison, the estimated 2016 contribution to GDP of 5% and to employment of 3.4% indicate that the copyright productivity ratio was 1.47, signifying that copyright productivity was 47% higher than that of the economy. Despite this, the evidence shows that the copyright industries remained relatively more productive than the economy.

The evidence indicates that it is in the country's interest to invest in growing its copyright sector to ensure development. To the extent that this investment increases the share of the copyright industries in GDP relative to its share of employment, the result will be to raise the sector's contribution to overall productivity and lead to an increase in the affordable standard of living. In broad terms, this is achieved by two sets of related investment strategies: (i) those that successfully promote economy-wide innovation, upgrade national supporting institutions and increase the capital-producing sectors' contribution to GDP and (ii) sector-specific strategies that focus on investment in institutional progress and innovation, employing the knowledge, skills and self-confidence of workers to increase the marginal product of labour faster than the real wage and raise profits and savings to validate the undertaken investment. The latter increase in productivity, profits and savings would be achieved partly by boosting the backward and forward linkages of the developing copyright industry supply to the rest of the domestic production system, which would be augmented by a stimulus from domestic and export demand. Successful strategies will work with identifiable delays and are unified by the rate of increase in labour employment (time), knowledge, skills and workers' self-confidence.

The strategies that contribute to productivity growth in the copyright sector are specific applications of the general strategies required to achieve economic productivity growth, as established with global data by James and Hamilton (2022). Based on data from 128 countries up to 2019, James and Hamilton (2022) used Rubin's counterfactual modelling to empirically show that investing in upgrading these strategic factors leads to development. The level of development achieved by a country such as Saint Lucia depends on the set of characteristic elasticities linking strategic factors to GDP per capita and the level of investment effort the country puts into upgrading them. Model estimation revealed that the characteristic long-run elasticities of countries such as Saint Lucia are $\alpha_1 = 2.33$ for the capital share of GDP, $\alpha_2 = 1.75$ for the quality of institutions and $\alpha_3 = 1.42$ for the level of technology. These parameters are individually and collectively greater than 1, indicating that a country such as Saint Lucia can rapidly increase its living standards by investing in upgrading its competitive strategy. In contrast, since the characteristic constant term is -1.92, a country such as Saint Lucia will likely lose ground if it fails to improve these strategic variables.

It is generally understood that an industry's contribution to the growth and development process reflects a combination of the industry's share in GDP and the growth and transformation achieved within the industry, assuming that other potential contributing factors are held constant. Further, this analysis extends to the sector's contribution to the set of capital-producing industries. Each capital-producing sector contributes to productivity growth and development through (i) its internal growth achievements and (ii) its share of the total production of the capital-producing sectors. The copyright industries are elements of the capital-producing industries of the economy.

It is also evident from the data in Table 1 that in 2012, the capital-producing sectors contributed 53.1% to Saint Lucia's GDP. Thus, based on the 6% to 53.1% ratio, it is estimated that in 2012, the copyright sectors contributed 11.3% to the output of Saint Lucia's capital-producing sectors. Using the long-run elasticities identified above as valid for countries such as Saint Lucia, these data imply that each 1% growth of the copyright share of GDP will contribute $2.33 * 0.113\%$, or 0.264%, to the growth of the country's living standards

as measured by GDP per capita. In 2016, the share of the copyright sector in the capital industries decreased to 10%, indicating a lower copyright elasticity of 0.23. These findings suggest a general principle: the larger the share of the copyright sector in the total capital-producing sector, the greater the contribution of the copyright sector to economic development. Therefore, the overall contribution of the copyright industries to Saint Lucia's productivity growth and development depends on the level of investment effort dedicated to increasing the copyright share of GDP by expanding the copyright sector faster than GDP. Additionally, there is evidence that the share of the sectors has been rebounding since 2016, though it stagnated in the period from 2019 to 2021. According to the UNSD database, the GDP of Saint Lucia grew at an average (trend) rate of 2% over the five years from 2014 to 2019. Using this trend growth rate as the minimum projected growth rate over the next five years implies that to support the development process, the output of the copyright industries must grow at an annual rate exceeding 2%. Further, this minimum growth rate may need to be increased as a policy target to maintain the country's public debt that facilitates investment, as its

sustainability also depends on whether the growth rate exceeds the interest rate on the public debt. Accordingly, the tendency for the copyright sector to grow more slowly than the economy needs to be reversed by deliberate investment programmes and policies.

Finally, productivity is best interpreted in terms of the flow of labour inputs augmented by workers' knowledge, skills and self-confidence. In that case, achieving a targeted growth rate above 2% can be achieved by combining labour productivity growth in the copyright sector with the growth of knowledge, skills and self-confidence of workers and the corresponding increase in the number of workers employed. National priorities can determine the distribution among the contributing components. Such simultaneous growth is achieved through sector-targeted investment strategies that enhance the capacity of the copyright industries to innovate, upgrade their supporting institutions and increase their contribution to the output of capital-producing sectors. The actual growth of GDP per capita will also depend on the effort put into developing other capital-producing sectors, upgrading institutions and enhancing technological capacity in the copyright sector and the economy.

08 SUMMARY AND POLICY IMPLICATIONS

The main evidence presented in this update indicates that, from a development perspective, the structure of the Saint Lucian economy deteriorated between 2010 and 2019. The share of capital-producing industries in GDP declined from 54.5% to 49% over the period. Furthermore, this structure is well below the benchmark of 65%, which is typical of developed economies. Simultaneously, there is clear evidence that the copyright industries are substantially more productive than the rest of the economy and that key elements of the copyright sector can boost the country's capacity to export. The arts, entertainment and recreation industries showed a substantial intraindustry trade surplus in 2016, the largest among the copyright industries.

In this context, the copyright industries generally declined as a share of GDP and produced only a small and declining share of the output of capital-producing sectors. It is well known that the copyright industries' contribution to economic restructuring depends on their size and growth rate. Although

these industries are growing faster than the economy and other capital-producing industries, they are still too small to cause a substantial shift in the overall economic structure. However, they are contributing positively to the improvement of living standards. These findings suggest that it is in the national interest to expand the size of the copyright industries in Saint Lucia to boost their contribution to overall economic restructuring and development. This policy suggestion is also supported by the evidence that productivity in the copyright sector is substantially higher than productivity in the rest of the economy. The overall implication is that, as components of the capital-producing sector, many key elements of the copyright industries are well positioned to enhance the national capacity to diversify and develop capital-producing industries' share in GDP, trade competitively and raise its living standards over time.

Consistent with the recommendations outlined in the WIPO report of 2012 (James, 2012), the updated data suggests the necessity of implementing additional

policy initiatives to increase the share of the copyright industries in the capital sector. One suggestion is to introduce a set of policies aimed at improving the institutional framework supporting industries. This includes enhancing the capacity of collective management societies that facilitate the enforcement of copyright laws and enable creators to benefit from their works. In that regard, policymakers need to urgently address the deterioration of ECCO's institutional and financial capacity. Given the factor that unifies the macro and micro policy tracks, another suggestion is to increase national investment in the education system aimed at enhancing the knowledge, skills and self-confidence of operators in the copyright sector. These are the main assets deployed by the industry to create innovative works and transform them into capital that can be competitively exported. The copyright industries are export-oriented capital industries that the country can competitively produce for the global marketplace. This is supported by the evidence that the arts, entertainment and recreation industries generated a trade surplus in 2016.

Thus, a third policy suggestion is that since the capital-producing industries contribute a GDP share

significantly greater than the benchmark set by the most competitive economies, it is in the national interest to introduce investment financing schemes and incentives to boost both the relative size and the growth rate of the copyright industries within the economy. Such growth would generate increased linkages to the rest of the economy and facilitate the diversification of exports. Ultimately, an increase in the relative size of the copyright industries in the economy of Saint Lucia, achieved through adopting investment policies that accelerate their growth rate beyond that of the rest of the economy, would lead to substantial increases in the standard of living that Saint Lucia's economy can sustain. The final policy suggestion entails implementing regulatory and policy measures to protect the rights of copyright owners who create, share or promote their work on digital platforms. This involves improving the copyright knowledge of key stakeholder groups, implementing outreach and awareness campaigns regarding the relationship between copyright interests and digital platforms (particularly blockchains, online music streaming and video-streaming services and the metaverse) and establishing constructive partnerships with regional and international institutions that advocate for the rights of copyright holders in digital environments

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