



# The \_\_\_\_\_ Contribution of Copyright-Based Industries to the Economy of **TRINIDAD AND TOBAGO**

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2023-01-03

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An abstract graphic design featuring a repeating pattern of stylized letters. The letters, including 'S', 'T', 'Z', 'E', 'H', 'N', 'O', and 'C', are rendered in two colors: white and a vibrant orange. They are arranged in a grid-like fashion across the entire image. The background is a solid orange color with a subtle, intricate texture of fine, concentric, wavy lines that create a sense of depth and movement. The overall composition is modern and rhythmic, with the letters appearing to float or be integrated into the textured surface.



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**This report was prepared using inputs from the Trinidad and Tobago study team, Tyrone Ottley, Desmond Perry, Charlyn Duncan and Kenneth Bissoon. It was edited by Dr Winford James. The research was conducted with financing from the Caribbean Development Bank under its Cultural and Creative Industries Innovation Fund. Thanks to all contributors. The authors take full responsibility for the data and analysis provided.**

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# 01 INTRODUCTION

The purpose of this study is to update estimates of the contribution of copyright industries to the economy of Trinidad and Tobago (T&T)<sup>1</sup>, published by the World Intellectual Property Organization (WIPO) as James (2012). In addition to updated data on the contribution to Gross Domestic Product (GDP), employment, and trade, the study will provide estimates of the contribution of copyright to productivity and development as measured by GDP per capita. Some key policy implications of the updated estimates are also provided.

<sup>1</sup>Trinidad and Tobago, Copyright Act (Act No. 8 of 1997, as amended up to Act No. 5 of 2008) Available at (<https://wipolex.wipo.int/en/legislation/details/6639>).

In addition to this Introduction, the study comprises seven other sections. Section 2 provides a brief update of the law governing copyright in T&T. Section 3 describes the broad economic structure of T&T, in terms that are relevant to an adequate understanding of the contribution of the copyright industries. Section 4 provides an update of the profile of the copyright industries. Section 5 summarises the methodologies utilised, including data sources. Section 6 provides updated estimates of the contribution of copyright to GDP, employment, and trade, with attention to the implications for growth of intra-industry trade. Section 7 estimates the contribution of copyright to productivity and growth of GDP per capita. Section 8 summarises the findings and presents some of their policy implications.

# 02 COPYRIGHT LAW AND MEASUREMENT OF T&T COPYRIGHT-BASED INDUSTRIES

The legal underpinning of the proprietary interests in T&T's copyright industries is found in the country's Copyright Act. Through this legal framework, rightsholders can create protectable content and authorise or prohibit use of the works produced. T&T ratified and incorporated into its Copyright Act 1, several of the international copyright treaties that impact substantive rights. Specifically, the Copyright Act incorporates provisions of several international copyright treaties, including the WIPO Copyright Treaty<sup>2</sup>, the Marrakesh Treaty<sup>3</sup>, and the Beijing Treaty<sup>4</sup> on Audio-Visual Performances. These treaties address the protection of rights in a digital environment, the recognition of computer programmes as literary works (and therefore as protectable interests), the provision of books accessible to the visually disabled and blind, and the recognition of economic rights for audio-visual

performers, such as actors, dancers, musicians, singers, acrobats, conjurers, animal charmers, jugglers, and lecturers.

Global consumer markets are changing. Digital technologies and internet-based creation and distribution platforms are rapidly emerging that enable production of literary and artistic content that is a potential source of copyright. On the digital distribution platforms, such as Instagram and YouTube, the owner of the platform decides how much and when creators can earn fees for uploaded content, mostly without reference to any applicable national copyright laws. In particular, content created via or for social media platforms remains largely administered by the platforms themselves, making available to content creators limited avenues for remuneration or for recourse in the case of violations. In the case of non-fungible tokens developed using blockchain and artificial intelligence technology, fluctuating global market prices, the absence of transparency, and the absence of regulation of cryptocurrencies are a substantial source of doubt about the ownership and enforcement of rights. This doubt creates related challenges of monetisation when the copyright industries in T&T create and share

<sup>2</sup>WIPO Copyright Treaty, (adopted in Geneva on December 20, 1996). Available at: (<https://wipolex.wipo.int/en/text/295166>).

<sup>3</sup>Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled, 2013. Available at (<https://wipolex.wipo.int/en/text/301016>).

<sup>4</sup>Beijing Treaty on Audiovisual Performances, (adopted by the Diplomatic Conference on the Protection of Audiovisual Performances in Beijing, on June 24, 2012), Available at (<https://wipolex.wipo.int/en/text/295837>).

their copyright content on digital platforms, especially in regional and global markets. Some of these challenges also have a bearing on the availability of data to measure accurately the scale of copyright-based value creation in, and cross-border distribution from, specific jurisdictions.

Despite amendments to the Copyright Act to broaden the scope of protection for works (such as performers' audio-visual content), continued changes to global digital platforms may necessitate

further changes in the law if it is to effectively support increase of the contribution of copyright-based industries to output, employment, and trade. Issues to be considered include the types of technologies that can help Collective Management Organisations (CMOs) to manage rights in digital spaces, the inter-operability of these technologies with local infrastructure and the relationship between the digital platforms, the technologies, and the legal and regulatory framework provided by the laws and enforcement institutions of T&T.

## 03 BACKGROUND ON T&T'S ECONOMY

The copyright industries are elements of the set of industries that can produce capital. Broadly defined, capital refers to output produced that can be stored and used repeatedly by various economic sectors to produce output. An appropriate economic background to an assessment of the contribution of copyright sectors, is the changing structure of the economy as measured by the share of GDP of industries that can produce capital. The importance of these industries to the dynamic behaviour of an economy has been established since the classical economists, and especially since the works of Leontief (1953; 1970) and Lewis (1954). Nowadays, it is well understood that as they develop, they boost a country's capacity to participate in intra-industry

trade by bringing innovative solutions to problems thrown up by local and global markets. In general, a reasonable proxy for these industries is the sum of manufacturing, construction, and other industries such as education and the creative industries defined collectively in ISIC J-P. The significance of the share of GDP of these industries, alongside the quality of institutions and the level of technology, in determining GDP per capita was established by James and Hamilton (2022).

The data in Table 1 documents the pattern of structural change of T&T's economy between 2010 and 2019. For interpretation, we use a reference benchmark of 65%, which is the share typical of the

**Table 1**  
**Economic Structure of T&T, 2010–2019 (USD).**

Year	Industries with capacity to produce capital				Growth of CPIs (%)	GDP (\$bn)	GDP share of CPIs (%)	Growth of GDP share of CPIs (%)	Growth of GDP (%)
	Manufacturing Billion (\$bn)	Construction (\$bn)	Other (\$bn) (ISIC J-P)	Sum (\$bn)					
2010	4.11	1.61	5.93	11.7	-	24	48.5%		
2011	3.96	1.47	6.12	11.6	-0.9%	24	48.2%	-0.6%	-0.3%
2012	3.85	1.44	6.23	11.5	-0.3%	24.3	47.5%	-1.5%	1.3%
2013	3.86	1.55	6.53	11.9	3.6%	24.8	48.1%	1.4%	2.2%
2014	3.76	1.57	6.55	11.9	-0.5%	24.6	48.3%	0.4%	-0.9%
2015	3.9	1.5	6.6	12.0	0.9%	25	48.0%	-0.7%	1.5%
2016	3.76	1.46	6.69	11.9	-0.7%	23.6	50.6%	5.4%	-5.6%
2017	3.69	1.41	6.81	11.9	0.0%	22.9	52.1%	3.0%	-3.0%
2018	3.7	1.41	6.84	12.0	0.3%	22.9	52.2%	0.2%	0.1%
2019	3.59	1.33	6.99	11.9	-0.3%	22.6	52.8%	1.0%	-1.2%
Ave.					0.3%		49.6%	1.0%	-0.7%

Source: UNSD Country Profiles Database



major developed economies in the global system. The data indicate that, while the share of GDP attributable to capital-producing industries fell well below the benchmark structure, the economic structure of T&T has improved during the period from 48% of GDP in 2010 to 53% in 2019. The improvement stems from growth of the real output of the industries that can

produce capital at an average of 0.3% per year over the period, while real GDP declined by 0.7% annually. This evidence clearly indicates existence of significant potential to develop the T&T economy through growth of the share of GDP of the industries that can produce capital, including by, inter alia, promoting relatively faster growth of the copyright industries.

## 04 UPDATED PROFILE OF THE COPYRIGHT INDUSTRIES

Since 2012, there have been changes in the nature and functioning of the copyright industries, including the growing influence of information technology on production and distribution of works, and on the characteristics of contributing creators.

### MAS PRODUCTION

Mas production and Mas bands have been evolving and changing over the years. Some bands, like Tribe, are now approaching Mas creation as a business. Some produce Mas the traditional way by making everything from raw materials, but some big bands import inputs (e.g. headbands) and locally create the final costuming, such as feathering and making of backpacks. With six bands, Tribe is a major player in the industry. Some Mas producers also import most of the fabrics used in costume production, on the assumption that it would be harder for competitors to copy their costumes if the same inputs cannot be produced locally. Traditionally, backpacks were mainly made by local wire-benders, but now welders are employed by most big bands to make backpacks of sturdier materials to last for the duration of the two-day street parade. Some big bands which operate as a business do not participate in the street parades for competition, since a condition of participation is that the entire costume must be made locally. The non-participating bands view local production as economically infeasible, especially as the prize money for a winning band is not attractive.

### MUSIC PRODUCTION

Digital technology has caused a significant evolution of the methods of music production since the first audio recording in the 19th century. Today, creators can make good music at home with a notebook,

suitable applications, a microphone, and time on hand. Indeed, the modern music creator can set up a very sophisticated recording studio at home on that basis. Elements of music can be created separately and then combined digitally. This has resulted in recording artistes being able to produce very attractive music without using the services of expensive studios that depend on simultaneous recording of the different elements during a live production.

### MACHEL MONTANO

Machel Montano is the most successful and popular artiste in T&T. He is considered an international Soca superstar. Machel was born on 24th November 1974 in Trinidad, the southernmost Caribbean Island. He sprung into the limelight when he sang "Too young to Soca" in 1984. Since then, he and his brother have joined some friends and formed a band named "Xtatik" in 1989. With him as lead singer, the band has produced several albums and hits, including "Big Truck" and "Music Farm". Machel has collaborated with several international and regional superstars like Beanie Man, Outa Space, Shaggy, Winning Season, Lil Jon and Pitbull, Floor on Fire, and Ariana Grande. The band has undergone several name changes - from Xtatik to Machel Montano HD (High Definition) to Alternative Concepts; however, the consistent production of high-quality music has remained a characteristic of its works. Machel Montano has put on and headlined many shows across several countries, selling out venues like Madison Square Garden and the Hasley Crawford Stadium, with "Machel Monday" his signature event for T&T's annual Carnival.



## COLLECTIVE MANAGEMENT

There now exist four registered CMOs operating in T&T's music industry. Three administer copyrights: Copyright Music Organisation of Trinidad and Tobago (COTT), Trinidad and Tobago Copyright Collecting Organisation (TTCO) and Advancing Writers Entertainers Singers on Music Endeavours (AWESOME). One of them, the Trinidad and Tobago Reprographic

Rights Organisation (TTRRO), administers reprographic rights. With multiple CMOs administering the same rights, there have been disagreements and challenges which have resulted in a negative perception of copyright law. Additionally, there continues to be weak enforcement of copyright laws by the police and Customs officers.

## 05 MEASUREMENT METHODS

An updated assessment of the contribution of the copyright industries to output, trade, productivity and growth requires two sets of parameters: (i) copyright factors to be used to extract data on copyright from the national accounts, and from employment and trade statistics; and (ii) valid elasticities that measure the contribution of the copyright industries to growth. The copyright factors used are those reported in the T&T study of 2012 combined with those derived from the studies undertaken by the Central Statistical Office (CSO) of Saint Lucia. The elasticities used are those that were estimated by James and Hamilton (2022).

Data from the Saint Lucia 2016 Supply and Use Tables (SUT) and the T&T 2000 SUT were used to identify the share of industry output that bears copyright in the broad industry classifications of the national accounts. The Saint Lucia SUT and the T&T SUT were also used to obtain coefficients that lead to updated estimates of the contribution to trade, both imports and exports. National Accounting aggregates for T&T in 2016 were obtained from either the Central Statistical Office of T&T or the United Nations Statistics Division (UNSD) for the period 2010 to 2019. Data from the 2012 study and the updated estimates of the contribution to output and employment were used to develop the estimates of the contribution to national productivity and data from the UNSD were used in conjunction with data from the 2012 study and

the 2016 estimates to determine the contribution to growth of GDP per capita.

In this update, we have incorporated estimates of the copyright value in the local pharmaceutical industry. Patents are the main foundations of the pharmaceutical industry, but in countries like T&T, where royalties for use of the patents involved in the production of generics are due to foreign inventors, a substantial amount of copyright is involved in generic pharmaceutical production and in the packaging of its output for distribution. The relevant rights cover content published in journal articles, clinical and research papers, graphs, tables, market research data, competitive analysis, and copyright in supporting publications and materials. Copyright and database protection also play an increasingly important role as research relies increasingly on bioinformatics and other research methods used to analyse very large and dynamic sets of genetic, clinical, and bio-physical data. In the absence of adequate public data on the subject, and using comparable coefficients from other industries, we estimate that copyright protection covers 35% of all the output produced in the country. This assumption does not risk much overall error since the overall value of the sector's output is very small, approximating \$52 million.

## 06

CONTRIBUTION OF COPYRIGHT  
TO T&T'S ECONOMY

Estimates of the contribution of copyright to GDP and trade are reported in Table 2. Though broadly consistent with WIPO (2015) industry classifications, the estimates report on industries that could be identified as producing copyright output using the 2016 SUT of Saint Lucia and the 2001 SUT of T&T and national accounting aggregates for T&T. The identifiable copyright bearing sectors are (i) pharmaceuticals; (ii)

furniture; (iii) textiles, clothing and leather; (iv) paper; (v) printing; (vi) transport and storage; (vii) information; (viii) sound, video, television broadcasting and production activities; (ix) communication; (x) photographic and other professional and technical activities; (xi) advertising and market research services; (xii) arts, entertainment and cultural activities; and (xiii) wholesale and retail trade.

**Table 2**  
**Estimates of the Contribution of the Copyright Industries to GDP and Trade, T&T, 2016 Total Output.**

Industry With Copyright Output	GDP???	Copyright Factor	Copyright Value added	Import Coefficient for Sector	Import Value	Copyright Value in Imports	Export Coefficient for Sector Total	Export Value	Copyright Value in Exports	Copyright Trade Balance
Manufacturing of pharmaceuticals	52.9	0.35	18.5	17.2	909.9	318.5	0.6	31.7	11.1	-307.3
Furniture	1438.4	0.06	79.1	0.41	589.7	32.4	0.2	273.3	15.0	-17.4
Textiles, clothing, leather	170.0	0.009	1.5	0.78	132.6	1.2	0.5	86.7	0.8	-0.4
Paper	373.3	0.49	184.0	1.04	388.2	191.4	0.7	250.1	123.3	-68.1
Printing	406.6	1.00	406.6	0.16	65.1	65.1	0.1	56.9	56.9	-8.1
Transport and storage	5006.5	0.06	300.4	0.33	1637.1	98.2	0.5	2252.9	135.2	36.9
Information	82.3	1.00	82.3	0.02	1.5	1.5	0.1	9.9	9.9	8.4
Sound, video and television broadcasting and production activities	289.5	1.00	289.5	0.02	5.2	5.2	0.1	34.7	34.7	29.5
Communication	4215.6	1.00	4215.6	0.02	84.3	84.3	0.1	505.9	505.9	421.6
Photographic and other professional and technical activities	1847.2	1.00	1847.2	0.16	295.6	295.6	0.2	314.0	314.0	18.5
Advertising and market research services	439.8	1.00	439.8	0.01	4.4	4.4	0.0	0.0	0.0	-4.4
Arts, entertainment and cultural activities	390.9	1.00	390.9	0.16	62.5	62.5	0.2	66.5	66.5	3.9
Wholesale and retail trade	226.8	0.06	13.6			0.0		0.0	0.0	0.0
<b>Total</b>	<b>14939.8</b>		<b>8269.1</b>		<b>4176.1</b>	<b>1160.3</b>		<b>3882.7</b>	<b>1273.3</b>	<b>113.0</b>
GDP	149879.0									
Copyright Share of GDP			0.05517178							
Imports					53,928.30					
Copyright Share of Imports						0.022				
Exports								50980.3		
Copyright Share of Exports									0.025	

Sources: CSO, T&T; CSO, Saint Lucia; T&T Review of the Economy, 2017.



In 2016, the aggregate copyrighted works and support services of these industries was TTD8.3 bn or 5.5% of GDP, an annual increase of 2.9% from the 4.8% of GDP achieved in 2011. Thus, the data indicate that the copyright sector grew faster than the economy between 2011 and 2016. The copyright industries contributed TTD1.3 bn or 2.5% of exports and TTD1.2 bn or 2.2% of imports, yielding an overall positive trade balance of TTD113 million (mn). Importantly, the “arts, entertainment and cultural” industries, which contains the iconic music industry, achieved a positive intra-industry trade balance of TTD3.9 mn, based on TTD67 mn of exports and TTD63 mn of imports. Several other industries in the core of the copyright sector achieved significant positive intra-industry trade balances, including “sound, video, and television broadcasting and production activities” (\$29.5 mn), and “photographic and other professional and technical activities” (\$18.5 mn). This positive intra-industry trade performance of the core copyright industries is yet another reason to introduce policies that promote increased investment in the copyright sector, including its institutional framework and innovative capacity.

Table 3 reports estimates of the contribution of copyright activity to employment in 2016, generated using reference data from the Saint Lucia 2016 SUT, the Jamaica 2007 SUT and the T&T 2000 SUT. The estimate of 26 producers of copyright output in the manufacture of pharmaceuticals is based on the assumption that the ratio of copyright employees to copyright value-added of the industry is similar to that of the “advertising and market research services” (1.4). The estimates suggest that the copyright industries contributed 3.28% of total employment in the economy in 2016. Among the important contributing subsectors in 2016 were “wholesale and retail trade” (26%); “sound, video and television broadcasting and production activities” (14%); “telecommunications activities” (9%); “computer and information service activities” (6.8%); and the creative hub of “arts, entertainment and cultural activities” (4.3%). The 3.28% share in 2016 reflects a rise in total national employment and productivity growth in the copyright industries through technological and institutional change.

**Table 3**  
**Copyright Employment in Trinidad and Tobago, 2016.**

Item	Employment	% share
Manufacture of pharmaceuticals	26	0.001293
Manufacturing of textiles, wearing apparel and leather	949	0.047183
Manufacturing of paper products, printing and recorded media	1081	0.053723
Manufacture of furniture	34	0.001701
Other wholesale and retail trade	5262	0.261601
Passenger land transport	274	0.01364
Other transportation support activities	136	0.006761
Publishing activities	1182	0.058746
Sound, video and television broadcasting and production activities	2906	0.144492
Telecommunications activities	1726	0.085807
Computer and information service activities	1364	0.067826
Activities of head offices; Management consultancy activities	2444	0.121522
Architectural, engineering and technical activities; R&D	1184	0.058844
Advertising and market research	618	0.030732
Photographic and other professional and technical activities	61	0.003043
Arts, entertainment and cultural activities	867	0.043086
Total Copyright Employment	20113	1
Total Employment	612414	
Copyright Share of Employment	0.0328	

**Source:** Computed from the CDB Copyright Industries Database

## 07

CONTRIBUTION OF COPYRIGHT TO  
PRODUCTIVITY AND DEVELOPMENT

Multisectoral productivity growth is one of the two main channels through which an economy generates growth of its GDP per capita, and, hence, its development (ul Haque, 1995). The other is the macroeconomic process of economic restructuring, institutional development, and innovation (James and Hamilton, 2022). Productivity growth is also one of the main means by which a society can meet its obligations to environmental preservation while improving the living standards of its people. An estimate of the contribution of the copyright industries to economy-wide productivity can be obtained by using the ratio of the estimated contribution of the copyright sector to GDP and its estimated contribution to employment. In the case of T&T, the contribution of copyright to GDP in 2011 was 4.8% and the contribution to employment was 5.0%. Thus, the contribution of the copyright sector to productivity in 2011 was 0.96, i.e., 96% of economy-wide productivity. The estimates for 2016 indicate that the copyright share of GDP grew to 5.5% while the share of employment declined to 3.28%. Therefore, the contribution of copyright to economy-wide productivity increased to 1.68, or 68% above the national average. The improvement can be explained by the rapid digitisation of the copyright industries compared to the rest of the economy as they seek to maintain their competitiveness in global markets.

Since the copyright industries are elements of the capital sector, which is the principal driver of industrial restructuring, the data indicates it is in the country's interest to accelerate investment to grow the share of the copyright industries in GDP relative to its share in employment aimed at raising the contribution of the sector to overall productivity. In broad terms, this is achieved by emphasizing investment strategies that successfully promote sector innovation, upgrade its supporting institutions, and increase its contribution to the output of the sectors that can produce capital. The latter increase is achieved partly by boosting the backward and forward linkages of the developing copyright industry to the rest of the domestic production system, augmented by stimulus from domestic and export demand. With identifiable lags, the effects of successful strategies that grow productivity relative to unit cost feedback to validate the investment undertaken by growing the rate and level of savings (and financing capacity) achieved by the copyright industries.

The strategies that lead to growth of productivity in the copyright sector are specific applications of the general macroeconomic strategies required to grow living standards in the economy, established with global data by James and Hamilton (2022). Based on data for 128 countries up to 2019, James and Hamilton (2022) used Rubin counterfactual modelling (Rubin 1974) to show empirically that investment to upgrade these strategic factors causes development. The level of development achieved by any country such as T&T depends on the set of characteristic long-run elasticities linking the strategic factors to GDP per capita and the level of country investment deployed to upgrade them. Model estimation revealed that the characteristic elasticities of countries such as T&T are 2.33% for the capital share of GDP; 1.75% for the quality of institutions; and 1.42% for the level of technology. These parameters are individually and collectively greater than 1, signalling that a country such as T&T would rapidly increase its living standards if it invested in upgrading its competitive strategy. On the other hand, since the characteristic constant term is -1.92%, a country such as T&T would tend to lose ground if it failed to improve these strategic variables.

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

Estimates from James (2012) reveal that the copyright sector contributed 4.8% to T&T's GDP in 2011. It is also known from the data provided by the UNSD that in 2011 the capital-producing sectors contributed 48.2% to T&T's GDP. Thus, in 2011, the copyright sectors contributed approximately 10% to the output of T&T's capital-producing sectors. In 2016, the capital-producing industries produced 50.6% of GDP, so the copyright industries contributed about 11% of the output of the industries with the capacity to produce capital.



Using the above elasticities that are valid for countries such as T&T, these data imply that each 1% growth of the copyright share of GDP contributed 0.23% to the growth of GDP per capita in 2011 and 0.26% to the growth of GDP per capita in 2016. Between 2011 and 2016, the copyright share of GDP grew from 4.8% to 5.5% or about 2.9% per year. Using the average copyright elasticity of 0.244%, the copyright industries contributed about 0.71% to GDP per capita growth per year between 2011 and 2016.

These findings support the general principle that the larger the contribution of the copyright sector to the growth of GDP per capita each year, the greater the contribution of the copyright sector to the development of the economy. Therefore, the overall contribution of the copyright industries to T&T's productivity growth and development depends on how much investment effort is put into growing the copyright share of GDP by growing the copyright sector faster than GDP and faster than employment. The GDP of T&T grew at an average (trend) rate of less than 1% in the past five years. Using this trend growth rate as the minimum projected growth rate over the next five years, this implies that the output of the copyright industries must grow at an annual rate that is greater than 1%. Further, this minimum rate of growth may have to be increased as a policy

target to keep sustainable any public debt used to support investment to develop the sector, since its sustainability also depends on whether the rate of growth exceeds the rate of interest on the applicable public debt.

Productivity is most appropriately interpreted in terms of the flow of labour inputs augmented by workers' knowledge, skills, and self-confidence. Thus, this targeted growth rate of 1% can normally be achieved by growth of the sum of (i) labour productivity growth in the copyright sector; (ii) growth of the knowledge, skills, and self-confidence of workers in the copyright sector; and (iii) growth of the number of workers employed in the copyright sector. National priorities can determine the distribution among the contributing components. Such simultaneous growth is achieved by sector-targeted investment strategies that upgrade the capacity of the copyright industries to innovate, upgrade their supporting institutions, and increase their contribution to the output of the sectors that can produce capital. The overall actual growth of GDP per capita is then dependent on the effort put into growing other capital-producing sectors as well as into upgrading institutions and technological capacity in the copyright sector and the wider economy.

## 08

## SUMMARY AND POLICY IMPLICATIONS

The main evidence presented in this update indicates that the structure of the T&T economy has improved between 2010 and 2019, as the share of capital-producing industries in GDP increased from 49% to 52% over the period. Nevertheless, this share is well below the benchmark 65% typical of developed economies. Some of this progress appears to be due to the faster growth of the copyright industries than the GDP, as indicated by the increase in the share of the copyright industries in GDP, from 4.8% in 2011 to 5.5% in 2016, while the share of employment declined from 5% to 3.28%. The result was an increasing contribution to economy-wide productivity and to growth of GDP per capita over the period. These data also seem to suggest that the copyright industries achieved a contribution to productivity that is significantly higher than the average for the economy, which was evident in the data produced by James (2012). Interestingly, the copyright industries

generated a significant positive trade balance in 2016, led by a substantial contribution from the iconic arts, entertainment, and cultural industries. The overall result is that, as components of the capital-producing sector, the copyright industries are well positioned to boost the national capacity to diversify the economy and increase its intra-industry exports, moving away from current levels of dependence on the energy sector while growing the GDP per capita. It is, therefore, in the national interest to undertake investment programmes and introduce policies to grow the share of the copyright industries in the capital sector, as well as, in the economy as a whole.

Consistent with the recommendations presented in James (2012), this update suggests some additional policy suggestions 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 the industries, including the administrative capacity of the collective management societies that support the enforcement of copyright law and enable creators to benefit from their works. This is especially relevant in this increasingly digital environment in which content created via or for social media platforms is largely administrated by the platforms themselves, allowing content creators limited avenues for remuneration or for recourse in the case of violations. Another suggestion is to increase national investment in the education system aimed at growing the knowledge, skills, and self-confidence of the operators in the copyright sector, since these are the main assets deployed by the industry to create innovative works and deploy them as capital. This suggestion is also validated by the fact that the macro and micro forces

driving economic growth are unified by the growth of employment, labour time and by growth of the knowledge, skills, and self-confidence of workers. The copyright industries are export-oriented capital industries, and on the evidence produced they can produce competitively for the global marketplace. Thus, a third policy suggestion is that since the capital-producing industries contribute a share of GDP that is well below the benchmark of the most competitive economies, it would be in the national interest to introduce investment financing arrangements and incentives to boost growth of the copyright output of the economy and its intra-industry exports as a method of increasing the share of the capital industries in GDP. Such growth would generate increased linkages to the rest of the economy while facilitating diversification of exports.

## 09 REFERENCES

- James, V. (2012). The Economic Contribution of Copyright-Based Industries in Trinidad and Tobago [https://www.wipo.int/export/sites/www/copyright/en/performance/pdf/econ\\_contribution\\_cr\\_tt.pdf](https://www.wipo.int/export/sites/www/copyright/en/performance/pdf/econ_contribution_cr_tt.pdf)
- James, V. and R. Hamilton (2022). Strategic Factors in Economic Development Revisited. *Development Essays*, Issue 1, No. 1.
- Leontief, W. (1953). Dynamic analysis. In W. Leontief., H. Chenery, P. Clark, J. Duesenberry, A. Ferguson, A. Grosse. R. Grosse, M. Holzman, W. Isard, and H. Kinstin (eds.). *Studies in the structure of the American economy: Theoretical and empirical explorations in input output analysis* (pp. 53-90). Oxford University Press.
- Leontief, W. (1970). The Dynamic Inverse. In *Contributions to Input-Output Analysis*, Vol. I, ed. by A. P. Carter and A. Brody. Amsterdam: North-Holland.
- Lewis, William. A. 1954. Economic Development with Unlimited Supplies of Labour. *Manchester School of Economics and Social Studies*, 22: 417-419.
- ul Haque, I. (1995). *Trade, Technology, and International Competitiveness*. World Bank: Economic Development Institute.
- WIPO (2020). Beijing Treaty on Audio-visual Performances, (<https://www.wipo.int/wipolex/en/treaties/textdetails/12213>)
- WIPO (2013). Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled, (<https://www.wipo.int/wipolex/en/treaties/textdetails/13169>)
- WIPO (2015). *Guide on Surveying the Economic Contribution of Copyright Industries*. WIPO publication 893. Geneva: WIPO.



