

The Economic Contribution of Copyright-Based Industries in Trinidad and Tobago



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Copyright-Based Industries in Trinidad and Tobago

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Potential and Policies for Economic Transformation

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Acronyms

ABC	Association of British Calypsonians
ADR	Alternate Dispute Resolution
ASCAP	American Society of Composers, Authors and Publishers
ASYCUDA	Automated Systems for Customs Data
BMI	Broadcast Music Inc.
CARICOM	Caribbean Community
CCL	Caribbean Copyright Link
CISAC	Confédération Internationale des Sociétés d'Auteurs et Compositeurs
CMO	Collective Management Organisations
COMTRADE	United Nations Commodity Trade Statistics Database
COTT	Copyright Music Organisation of Trinidad and Tobago
CPC	Central Product Classification
CSO	Central Statistical Office
GDP	Gross Domestic Product
GEMA	Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte
IFRRO	International Federation of Reproduction Rights Organisations
ISIC	International Standard Industrial Classification of All Economic Activities
ITC	International Trade Center
IPRS	Indian Performing Rights Society
NALIS	National Library and Information Systems Authority
NCBA	National Carnival Bands Association
NGO	Non Governmental Organisation
RRO	Reproduction Rights Organisation
SACEM	Société des Auteurs, Compositeurs et Editeurs de Musique
SNA	System of National Accounts
SUT	Supply and Use Tables
TAPA	The Tobago Academy of Performing Arts
TATT	Telecommunications Authority of Trinidad and Tobago
THA	Tobago House of Assembly
TRIPS	Agreement on Trade Related Aspects of Intellectual Property Rights
TTBPA	Trinidad and Tobago Broadcasters and Publishers Association
TTCO	Trinidad and Tobago Copyright Organization
TTFC	Trinidad and Tobago Film Company
TTIPO	Trinidad and Tobago Intellectual Property Office
TTRRO	Trinidad and Tobago Reprographic Rights Organization
TTSNA	Trinidad and Tobago System of National Accounts
TSTT	Telecommunication Services of Trinidad and Tobago
TUCO	Trinbago Unified Calypsonians Organization
UK CDPA	Copyright, Designs and Patent Act 1988 of the United Kingdom
UNSD	UN Statistics Division
USC	University of the Southern Caribbean
UTT	University of Trinidad and Tobago
WCT	WIPO Copyright Treaty
WIPO	World Intellectual Property Office
WPPT	WIPO Performances and Phonograms Treaty
WTO	World Trade Organization
YTC	Youth Training Centre

Abstract

This study measures the contribution of copyright to GDP, employment and trade in Trinidad and Tobago. It employs a sector-wide collaborative research process. The study seeks to shed light on the policies that might best promote the optimal use of the opportunities generated by growth of the copyright sector in the Trinidad and Tobago economy.

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1. Executive Summary

Industries based on copyright and related rights have a considerable impact on national economies. National studies in many countries reveal that these industries are major players in terms of their contribution to a country's Gross Domestic Product (GDP), employment and foreign trade. This study probes the extent to which *a similar claim can be made for the economy of Trinidad and Tobago*, including whether the copyright sector displays characteristics that offer a long-term promise of moderating the effects of random shocks to the energy sector and the fiscal space of Trinidad and Tobago. The general aim is to update the indicators and framework for policy design, implementation, monitoring and evaluation that might give the copyright industries an optimal place in transforming the structure, growth performance, and the internal and external balances of the economy. The results should also provide a basis for other applications, such as determining the value of the copyright and other capital assets and their implications for the extension of the current term of applicable copyright laws. The measures provided are economic in focus, but it should be noted that copyright-based outputs, such as music and art, do have significant non-economic benefits and it is worthwhile for stakeholders to consider these when making policy.

The copyright industries are defined as industries in which 'copyright plays an identifiable role' in creating tradable private economic (property) rights and income from use of these economic rights (WIPO, 2003:18, 22). They use the protection of original expression provided by copyright and related rights and, in particular, their protection by actual enforcement, or threat of it, as the basis for investment, employment and, ultimately, generation of income from sale of a product or service, or sale of the economic rights themselves. WIPO (2003) classifies the copyright-based industries into four broad categories convenient for statistical measurement: (i) Core Copyright Industries, which exist to create, produce and/or distribute copyright materials; (ii) Interdependent Copyright Industries, which are engaged in the production, manufacture and sale of equipment that facilitate copyright activity; (iii) Partial Copyright Industries, whose main activities may not be copyright-based but include a significant component of products and services that are secured by copyright, and (iv) Non-dedicated Support Industries, which are the distribution industries that facilitate broadcasting, communication and distribution or sales of copyright-based activities that are not classified as core copyright activities. These industries serve to measure spill-over effects of the Core, Interdependent and Partial Copyright Industries. They deal in wholesale and retail, general transportation, telephony and the internet.

The Central Statistical Office of Trinidad and Tobago, a major stakeholder in the study, provided direct access to the national accounts and the results of the continuous sample survey of the population. This allowed the adoption of a satellite accounting methodology yielding results that are consistent and directly comparable with the country's estimates of GDP, employment and trade: that is, the results estimate the same variables and have the same basis and form as those of any other sector report in the system of national accounts of Trinidad and Tobago – gross sales (output) and intermediate costs, the difference of which yields the value added or GDP at market prices; the compensation of employees; consumption of fixed capital; operating surplus; taxes on production and indirect taxes – which sum to the GDP at market prices. Intermediate costs are the sum of payments for materials, electricity and energy, intermediate services, and subcontracts. The GDP at basic prices is the sum of the compensation, the consumption of fixed capital, and the operating surplus. Constant price estimates are made at the same time, in this case with 2000 as the base year. The satellite account extracts and recombines details from the existing accounts and supplements them with information not normally available to, or found in, the System of National Accounts (SNA), for reasons of coverage. For example, the accounts for steelbands are not normally found in the national accounts, nor are data on the production and sale of steelpans. Estimates are supplied for 2000, 2007 and 2011. Estimates for 2011, as for any current year in national accounting, involved forecasts of prices and output for at least the last quarter of the year: in this case, for the third and fourth quarters. They are provisional estimates.

An important basis of the method was the conduct of two surveys that yielded copyright factors and interpretations. One survey, a standard establishment survey, obtained opinions and evaluations of how the industry works from best-practice copyright practitioners in the national environment, along with initial suggestions for choosing the applicable copyright factors and practical suggestions as to how the industry can be supported to become a global player in the copyright sector. The other survey, a supplementary copyright sector survey, obtained further detailed financial data and information on activity rhythm, as well

as opinions, as a basis for characterising copyright and other industry factors. The questionnaires used can be made available. Separate data were collected on employment from the six rounds of the Continuous Sample Survey of the Population, and on prices from the monthly consumer price index surveys.

The resulting estimates are that, despite the overwhelming dominance of the petroleum industry, copyright-based industries contributed 4.8% of the GDP and 5% of all jobs in 2011, as compared to 3.6% and 3.9%, respectively, in 2000. These estimates are broadly in line with the global trends in 2011, which average 5.5% of GDP and 5.8% of jobs. The sector also displayed net real growth over the period 2000 to 2011 with respect to the use of intermediates and capital, and a growing capacity to employ finance and retained earnings to fuel expansion over time through growth of the profit share of value added. The growth of employment of intermediates is also a very strong measure of the sector's growing tendency and capacity to generate externalities by employing a variety of forms of domestic capital. The growth in the profit share was perhaps engineered partly by a falling average annual real wage in the sector – an aspect that is a fruitful area for further study. With respect to trade in copyright output (goods and services), the copyright sector was a net positive contributor to the flow of foreign exchange, yielding about US\$32 million of foreign exchange in 2000, US\$35 million in 2007, and US\$50 million in 2011.

The star performer in the copyright sector was radio and television, which experienced explosive growth in the last decade and is also now the largest segment of the core copyright sector and the copyright sector generally. Important contributors to the positive trade performance are steelbands (music) and the export of steelpans; radio and television; and advertising. Some sub-sectors run a trade deficit: mainly press and literature, paper, and furniture and related design. Interestingly, music and related video and sound are small but positive contributors to both output and the trade surplus.

To meet the requirements of a development planning framework, the policy model took the form of an econometric model of the profits-prices-productivity nexus, rather than an input-output-based model, which is inherently about the cyclical dynamics of variable effective demand, since the inter-industry matrix would be fixed and the role of import productivity in changing these parameters would be difficult to incorporate in the limited scope of this study. The parameter estimates for the policy model, as well as the data on import productivity, show that the main basis on which the sector is likely to be generating its advantages is a rising share of domestic capital in the total capital used, especially through a high ratio of demand for intermediates through the inter-industry system. This ratio has the biggest impact on both the profit share and the productivity of imports, which then transmit positive impacts to labour productivity. The implications are that this should be the focus of policy interventions. As it turned out, the policy suggestions of the successful players in the industry also focused on investment in domestic capital and skills. The general principle into which the copyright sector fits is that competitiveness, industrial restructuring, foreign exchange saving and development are achieved mainly by growing domestic capital faster than other characteristic properties of the economy. A strategy such as this promotes investment in domestic capital as one of the primary instruments to be adjusted in responding to deficiencies in past levels of investment for development.¹ This approach to policy is not strictly consistent with trade-restrictive approaches to support for the copyright sector. The evidence suggests that the copyright sector of Trinidad and Tobago can thrive and grow in a competitive global environment, without trade restrictions, partly by taking advantage of the expanded access to a global market in the relatively free trading context. Moreover, growth of domestic capital investment stimulates growth of productivity and profitability, partly by growing complementary investment in imported capital.

Finally, the results point to the likelihood that a strong push to good governance is a necessary component of the policies required to take advantage of the potential of the copyright sector. There is a sense in which copyright industries are themselves democratising industries, in that a large segment of the industry wields substantial public education power. The presence of highly significant parameters for the quadratic in the domestic capital share of the capital employed, and the general presence of significant non-linearities in the model, point to the existence of multiple optimal policy paths, choice among which requires reliance on the will of the people. This might mean that, in a complex society such as Trinidad and Tobago, the single largest development project needed is one which develops systems of governance that promote reliance on the will of the people.

¹ The main instrument is normally thought to be the rate of interest, but a choice between these two cannot be made in this framework.

2. Introduction

Industries based on copyright and related rights have a considerable impact on national economies. National studies in many countries have revealed that these industries are major players in terms of both their contribution to a country's Gross Domestic Product (GDP) and their contribution to employment and foreign trade. This study will probe the extent to which *a similar claim can be made for the economies of Trinidad and Tobago*, separately and collectively.

However, where possible in the estimation process, light will also be shed on the national and regional market structures of the copyright sector, as well as on: the value chain; demand and supply; the labour market; the policy framework; support from public and civil sector (including the role of collective management organisations and other copyright-related organisations); terms of trade and cross-border issues; financing mechanisms; and implications of the digital environment, among others. Data on these will be used to clarify the meaning of the data on GDP, employment and trade.

The general aim is to update the indicators and framework for policy design, implementation, monitoring, and evaluation that might give the copyright industries an optimal place in transforming the structure, growth performance, and internal and external balances of the economies of Trinidad and Tobago, separately and jointly. The results should also provide a basis for other applications, such as determination of the value of the copyright and other capital assets, and their implications for the extension of the current term of applicable copyright laws.

The measures provided are economic in focus, but it should be noted that copyrighted output such as music and art do have significant non-economic benefits and it is also worthwhile for stakeholders to consider these when making policy.

2.1 Structure of Study

This Interim Report has eight sections, including this Introduction (Section 2). Section 3 provides a review of the copyright regime underlying the copyright-based industries, including an understanding of the law and its relationship to the measurement of the contribution of copyright-based industries to the economy. Section 4 gives a very short summary of the methods used, while Section 5 provides a summary background to the economy, emphasising mainly the link between the balance of trade, the government budget balance and the strategy of measurement and evaluation. Section 6 extracts details from the recently completed profiles survey, carried out to form a picture of the way the copyright sector works. Section 7 documents the estimates of the contribution of copyright to GDP, employment and trade, where employment refers to all broad factors of inputs – labour, capital and imported inputs – as well as intermediate capital.

Section 8 first presents the copyright policy model of the nexus of profits and productivity derived from the Supply and Use Tables (SUT) 2000. In particular, the section uses the SUT 2000 cross-industry accounting details to construct a cross-industry policy model linking a central trade outcome – the rate of foreign exchange savings through the production system – to profits, and also estimates the role of the structure of capital in that context. Thus, it estimates the capital-structure elasticity of foreign exchange savings through the production system. The central finding is an elasticity of 2.02, which is to say that, for each 1% improvement in the structure of capital that policy can engineer through the cross-industry reallocation of resources, the economy will tend to experience a 2% improvement in the rate of foreign exchange savings through the production system. The principal characteristic of the copyright sector turns out to be that it creates capital as intellectual property, and uses this as its main lever to affect competitiveness. In doing so, it transforms the capital structure through inter-industry flows as well as in final form. In particular, it raises the share of domestic capital relative to the total capital used, even if the latter is growing rapidly. This outcome is used to identify the general strategy of development, as well as to interpret and prioritise the policy suggestions of the respondents in the profile survey. Even when viewed in comparison with all sectors of the economy, the results favour giving priority to investment in sectors such as software and databases, the literary arts and new media, works of mas, music, motion picture, video, and such capital-creating arts. Section 9 summarises the findings.

3. Copyright Law and Measurement of the Trinidad and Tobago Copyright-based Industries

In this section, we provide an overview of copyright law that underpins the copyright and related rights-based industries, including their structure, and collective management to enforce the legal provisions.

3.1 Definition of Copyright

Copyright is the legal right associated with the ownership of an intellectual property that gives authors and other creators the exclusive right to print, distribute and copy literary, artistic, musical and dramatic works. The rights are exclusive rights of ownership for a defined period of time and, subject to certain limitations and permitted exceptions, exclusive rights to make, authorise, or prohibit certain uses of their works. Examples of such exclusive rights are: the right to control the making of copies in whatever manner or form of the work ('the right of reproduction'); the right of communication to the public in various ways (public performance, broadcasting, online transmission, etc.); and the right to adapt, arrange, translate or make other modifications to a work. These are basic economic rights: in other words, rights which have a pecuniary value and, when commercially exploited, generate royalties or 'rent'. Copyright laws of some countries (e.g., Trinidad and Tobago) also provide for a right of distribution,² which is the right of the author/creator to make, authorise or prohibit the distribution to the public of copies of her work by sale, rental or lending. Another economic right specifically granted in national copyright laws (e.g., Trinidad and Tobago³) is the right to import copies of a work into the relevant country.

The exclusive rights in a work are automatic. Unlike other areas of intellectual property law (for example, patent or trademark), it is not a condition for protection that the copyright work is registered or that any other act is undertaken. The right arises as soon as the work is created or expressed in some tangible medium. In some countries (for example, the United States of America) copyright registries exist, but they are usually set up for purposes other than for copyright protection (e.g., proof of the existence of specific works, providing a presumption as to the ownership of copyright in the work, or for entitlement to statutory damages in litigation for copyright infringement).

Copyright works can either be original or they can be derivative in the sense of 'second-hand' works. Derivative works consist of two main categories. One category consists of translations, arrangements, adaptations or other transformation of original works, whilst the other category comprises compilations and anthologies. Trinidad and Tobago's copyright law is unique in that it provides for a third category of derivative works, namely 'works of mas'.⁴ In order to be accorded copyright protection, derivative works themselves have to be the results of creative effort. Furthermore, copyright protection of a derivative work is without prejudice to the protection of the works on which the derivations are based.

The term 'related rights' refers to the rights of performers (actors, singers, musicians, dancers, etc., who do not necessarily create but perform copyright-protected works), the producers of phonograms (i.e., sound recordings), and broadcasting organisations. The rights of the beneficiaries of related rights (i.e., performers, record producers and broadcasters) are similar in nature to those granted to creators of literary and artistic works and also last for a limited period of time.

The other set of rights which a rights holder can have are known as 'moral rights'. These rights always belong to the individual creator or author and can never be transferred to a third party. Moral rights are of two sorts: the *right of paternity* and the *right of integrity*. The right of paternity refers to the obligation which a user has to associate the author's name (real or pseudonymous) with her work, while the right of integrity refers to the obligation of users or third parties not to tamper with or mutilate the work, or do anything with it that would bring dishonour to the author.

² Chapter 82:80 of the Laws of Trinidad and Tobago, s.8 (1) (d)

³ *Ibid* s. 8 (1) (e)

⁴ *Ibid* s. 6 (1) (c)

3.1.1 *The History of Copyright Law*

Copyright law had its genesis in 18th century Europe, with the abolition of the system of privileges granted by sovereigns to book publishers, who were given an exclusive right to print books. Copyright law then developed along two separate but similar legal and philosophical approaches: the 'Anglo-American' and the 'Continental European'. The underlying philosophical base for the Anglo-American 'copyright' system was the desire to prevent copying of books and other types of tangible medium in which works were fixed, and to protect the owner of this right against all unauthorised reproduction by others. This philosophy was encapsulated in the first copyright statute in the world, the 'Statute of Anne', in England in 1709. The main purpose of that legislation was to prevent anyone other than the owner of the copyright in the book from printing the book. The commercial or financial rationale for protecting copyright is also found in Article 1, Section 8 of The United States Constitution,⁵ which states that Congress has the power 'to promote Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their Respective Writings and Discoveries.'

The underlying philosophical base for the Continental European 'author's right'/'le droit d'auteur' system is slightly different and has its origins in the French Revolution. During 1791 and 1793, two decrees were issued in France, by virtue of which authors were granted property rights in their intellectual creations in the sense that nobody was allowed to reproduce the works or perform them in public without their authorisation; infringements would result in a claim for financial compensation for the damage caused. The author's right originates in the act of personal creation and is akin to a 'human right'. The right exists regardless of the nature of the work and regardless of whether the work is fixed in material form or not. This concept of author's right is reflected in Article 27(2) of the United Nations' Universal Declaration of Human Rights,⁶ which states that: 'Everyone has the right to protection of moral and material interests resulting from any scientific, literary or artistic production of which he is the author'.

3.1.2 *The Development of Copyright Law in Trinidad and Tobago*

The first national copyright legislation of Trinidad and Tobago was the Copyright Act No. 13 of 1985. Prior to that, the UK Copyright Act of 1911 applied to Trinidad and Tobago. The 1985 Act was modelled on the UK Copyright Act of 1956. The current law of copyright is the Copyright Act Chapter 82:80 of the Laws of Trinidad and Tobago (Act No. 8 of 1997, as amended by Act No. 18 of 2000 and Act No. 5 of 2008); hereinafter collectively referred to as 'the Act'.

In spite of the fact that Trinidad and Tobago is a common law jurisdiction, the Act contains elements of both approaches to creative rights – the Anglo-American copyright system and the Continental European author's right system. In this sense, Trinidad and Tobago is unique compared to its Commonwealth Caribbean neighbours. One such example is Section 5 (2) of the Act, which provides in part as follows: 'Works shall be protected by the sole fact of their creation and irrespective of their mode or form of expression...' (Copyright Act 1997). The protection of works arises immediately upon creation, without the need for the work to be fixed in some tangible medium, which is one of the hallmarks of the author's right system. In most common law jurisdictions, copyright works extend not only to literary and artistic works in the strict sense but also to sound recordings and broadcasts, whilst performers enjoy performers' rights. However, in Trinidad and Tobago, the rights of performers and the rights in sound recordings and broadcasts are protected as 'neighbouring rights' in Part V of the Act.

Another feature of Continental Europe's author's right system which is reflected in the Act is the very narrow scope of limitations and exceptions to economic rights. Common law jurisdictions following the Anglo-American approach to copyright provide for some of the limitations and exceptions in a fairly broad way, with the implementation of concepts like 'fair use' and 'fair dealing'. The United States 'fair use' doctrine, reflected in Section 107 of the US Copyright Act, 1976,⁷ provides that the fair use of a copyrighted work by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement.⁸ Section 107 essentially gives the courts the latitude to decide when use is permissible without the copyright owner's consent and specifies that the determining factors for deciding

⁵ <http://www.usconstitution.net/const.html>.

⁶ <http://www.un.org/en/documents/udhr/>.

⁷ <http://copyright.gov/title17/>.

⁸ See Sterling, J. A. L., *World Copyright Law* (2nd ed., Sweet & Maxwell, 2003).

whether the exploitation is fair use or not are: a) the objective and character of the use; b) the nature of the work; c) the portion of the work that is used, and d) the effects on the potential market.

In the United Kingdom the concept of 'fair dealing' is similar. Sections 29 and 30 of the Copyright, Designs and Patent Act 1988 of the United Kingdom⁹ (UK CDPA) outline the various exceptions as falling into categories very similar to those of the US, namely: non-commercial research and private study; criticism, review and reporting events; teaching in educational establishments; helping visually impaired people; and time-shifting. Although not actually defined as a fair dealing in the UK CDPA, incidental inclusion of a copyrighted work in an artistic work, sound recording, film, broadcast or cable programme is not viewed as infringing copyright. Since there is no strict statutory definition in the UK CDPA on what fair dealing means, it has largely been interpreted by the courts by looking at the economic impact on the copyright owner. Nevertheless, it has been noted that the tendency has been for the UK courts to interpret the fair dealing provisions strictly, with the burden falling on the defendant to show that the actions complained of fall within the exceptions, and there have only been a few cases where the defendant has been able to discharge this burden.¹⁰

In Trinidad and Tobago, the Act only refers to 'fair dealing' in the restrictive limitation which permits the reproduction of a short part of a published work, in the form of a quotation, and even then the Act does not provide any definition of fair dealing in this context. Apart from the incorporation of concepts of the Continental European author's rights system, the Act also has other distinctive provisions. Provision is made for the concept of a 'collective work' (defined in Section 3 of the Act),¹¹ which is to be distinguished from the concept of 'collections of works' (a category of derivative works in Section 6 (1), examples of which include anthologies). The importance of the concept of collective works pertains to the issue of first ownership of copyright. Given that one of the aims of copyright law is to protect literary and artistic creativity, it follows that protection in the first instance is granted to those who carry out the creative act, namely the authors/creators. This general rule is reflected in Section 26 of the Act. However, like other common law jurisdictions, in keeping with the Anglo-American approach to protecting not only creators but investors in creativity, the Act provides for exceptions to this general rule. Consequently, in relation to works created under a contract of employment or a contract of service (as distinct from a contract for services), the first owner of copyright is the employer (unless otherwise provided for in the contract). Under US copyright law this is known as the 'work for hire doctrine'.¹² Trinidad and Tobago's Copyright Act goes further, by making express provision for the possibility of corporate ownership in the first instance in the case of collective works (see Section 26 (3)).¹³

3.1.3 Protection of Works of Mas

Without doubt, the most distinctive feature of the Trinidad and Tobago Copyright Act is the express protection of 'works of mas'. International instruments in the field of copyright law do not provide exhaustive lists of works that are afforded copyright protection, since each contracting state is free to expand the categories of works that it wishes to protect. It is therefore noteworthy that Trinidad and Tobago and Grenada¹⁴ thus far are the only countries in the world that have created a category of works called 'works of mas'. The introduction of this specific category into the national law of Trinidad and Tobago promotes a national asset that contributes to the cultural identity of the country, based on its unique heritage and traditions. The interpretation section, namely Section 3 of the Act, defines works of mas as follows:

'... 'work of mas' is an original production intended to be performed by a person or a group of persons in which an artistic work in the form of an adornment or image presented by the person or persons is the primary element of the production, and in which such adornment or image may be accompanied by words, music, choreography or other works, regardless of whether the production is intended to be performed on stage, platform, street or other venue'.

⁹ <http://www.legislation.gov.uk/ukpga/1988/48/contents>.

¹⁰ See Sterling (2003) *ibid*.

¹¹ 'Collective work' is a work created by two or more natural persons at the initiative and under the direction of a natural person or legal entity, with the understanding that it will be published by the latter person or entity under his or its own name, subject to the moral rights of the contributing natural persons

¹² <http://www.copyright.gov/title17/92chap2.pdf>.

¹³ In respect of a collective work, the natural person or legal entity at the initiative and under the direction of whom or which the work has been created shall be the original owner of copyright.

¹⁴ In Grenada's new law of 2011 these works are referred to as works of Carnival, but the definition is the same as in Trinidad and Tobago.

In order to understand the rationale for the protection of works of mas, it is important to understand the background and prevailing cultural and commercial context which led to the introduction of this unique feature of Trinidad and Tobago's copyright law in 1997.

Trinidad and Tobago's Carnival is an explosion of creativity which encompasses various aspects of artistic, literary and dramatic expression. Traditional mas, comprising traditional characters such as 'Fancy Sailor', 'jab jab', 'Dame Lorraine' and 'Pierrot Grenade' (to name a few) fall outside of copyright protection¹⁵ and should be protected as traditional cultural expressions or folklore. Contemporary designs of Carnival costumes which meet the threshold of originality, albeit low, qualify for protection as artistic works. The first owners of copyright in these artistic works are the (costume) designers. However, the prevailing practice in or around 1996, and indeed the continuing practice to this date, was that the designers were not always the same person or legal entity as the band-leader. Further, where there are separate persons, the band-leader is likely to be the person undertaking the financial investment and making the arrangements necessary for the creation of the work and therefore to also be the 'producer' and owner of the work of mas under the act. However, the law refers to the producer as owner, so in reality the owner could be anyone who, in that production, turned out to be 'the person by whom the arrangements necessary for the creation of the work (of mas) were undertaken'. This is not necessarily the band-leader. Furthermore, band-leaders do not usually formally acquire rights (by assignment or exclusive licence in writing). These distinctions are important and similar issues also show up with the producers and financiers of music, in that the law leaves it to the facts of the case every time to determine who is the 'producer' and therefore the owner.

Also, apart from the artistic work involved in designing costumes, the parading of mas bands through the streets incorporates other elements of creative expression which are protected by copyright. These copyright-protected elements include literary works and music (through live performances of music bands or steel bands or disc jockeys playing on music trucks) as integral elements of mas bands. Added to this sometimes is the dramatic component, with the central theme or underlying message of the mas being depicted through theatrical performances and dance choreography 'on stage' at the important judging points during the two-day 'Parade of Bands', the climax of Trinidad and Tobago's pre-Lenten Carnival.

The purpose of protecting works of mas was twofold. The first rationale was to provide a financial incentive to the band-leaders and thereby ensure some return for their significant investments in the production of mas bands. For this reason, the first owner of copyright in the work of mas is the 'producer',¹⁶ who in essence is the band-leader.¹⁷ The other reason was that it was recognised by the legislative drafters that copyright protection does exist in the various underlying artistic works that make up a mas band: the designs and costumes themselves are protected as artistic works, the accompanying music of live performances by musicians and singers on music trucks or playing of music by disc jockeys are protected as musical works, and effects of drama and/or dance that are sometimes utilised are protected as dramatic and choreographic works respectively. Indeed, for this reason, the 'copyright purists' might argue that there is no need for statutory protection of works of mas. However, the band-leader (except if the same person is the designer) is not the first owner of copyright in the artistic work and is not the owner of rights in the underlying literary, musical, dramatic and choreographic works. In recognition of the fact that works of mas incorporate pre-existing copyright protected works, they are protected as a category of derivative work. Consequently, the protection afforded is without prejudice to the rights in the underlying works or to the authors of the pre-existing works included in the work of mas.¹⁸

One of the other issues in relation to works of mas, which also requires clarification, is that of international protection. Trinidad and Tobago and Grenada are the only countries in the world which have specific protection for works of mas. However, as mentioned previously, the underlying copyright works that are incorporated in works of mas are protected in the Berne Convention¹⁹ member states as artistic and literary works. Consequently, if band-leaders (recognised in the Act as 'producers' of works of mas) want to benefit from the commercial exploitation of works of mas internationally, then by means of contractual arrangements

¹⁵ Under s. 19 (1) of the Act, copyright of the author is protected during the life of the author and for 50 years after his death. Not only are the authors or the designers of the traditional Carnival characters unknown, but their origin dates back to the 18th century during the French occupation of Trinidad.

¹⁶ See s. 26 (5) of the Act.

¹⁷ s. 3 of the Act provides in part that the 'producer' of ...a work of mas...is the natural person or legal entity by whom the arrangements necessary for the making of the...work of mas...are undertaken'.

¹⁸ See s. 6 (1) (2) of the Act.

¹⁹ Berne Convention for the Protection of Literary and Artistic Works, 1886

with right owners in the underlying works they can acquire the rights in those works through assignments or licences. In the case of licence agreements, one of the important contractual provisions would be the definition of the territorial scope of the licence. Once the band-leader/producer of the work of mas has the requisite assignment or extra territorial licence from the rights holders in the underlying works of mas, then the band-leader would in turn be entitled to legitimately license such underlying rights and thereby enjoy the financial benefits of commercial exploitation beyond the territory of Trinidad and Tobago.

It is also instructive to consider the legal position regarding copyright protection of artistic works in two of the major international markets for exports of Trinidad and Tobago-styled Carnivals: the United Kingdom and the United States. Since the United Kingdom does not protect works of mas expressly, the question that needs to be considered with regard to carnival costumes is whether they would be regarded as artistic works worthy of copyright protection or considered as utilitarian and as such protected as registered designs. Copyright protection in the UK has, for many years, been qualified in respect of works of design made for industrial mass production. Subject to novelty and other requirements, such works can be protected as registered designs and, even without registration, as unregistered design rights. However, an important feature of the UK design right is that it is unique to the UK and only available to UK- and EU-based entities. This means that non-EU manufacturers of clothing, toys or costumes of functional design will only have short-term protection for three years as unregistered Community designs, unless they register the designs at the UK or Community level. The application of copyright to designs is governed by the UK CDPA.²⁰ Therefore, to protect a carnival costume as an artistic work under UK copyright law, a case would have to be brought under the tightly construed provision of Section 51 of the UK CDPA. It states that it is not an infringement of copyright in a design or design documents (i.e., drawings recording the design) to make articles according to the design, except where the design is for an 'artistic work'. Further, under Section 52 of the UK CDPA, where an artistic work is exploited in mass production, copyright protection (which would otherwise last for the life of the designer plus 70 years) is limited to 25 years (which is equal to the term of protection of a registered design), except in the case of sculptures not made for mass production.

The law of the United States is similar to that of the United Kingdom in the sense that, traditionally, copyright protection is denied to clothing designs on the ground that garments are 'useful articles', for which the utilitarian aspects cannot be identified separately from the pictorial, graphic or sculptural features that are eligible for copyright protection. The similarity ends with the treatment of costumes, as it seems that there is a more robust support for the treatment of costumes as copyrighted works in the US. In 1991, the US Copyright Office, by virtue of Policy Direction No. 214 of the Federal Register,²¹ clarified its practices regarding the registration of masks and costumes. It explained that costumes are treated as 'useful articles' and are registrable only upon a finding of separable artistic authorship. In fact, there has been substantial case law which elucidates these principles. The test of conceptual separability was raised in *Act Young Imports Inc. v. B & E Sales C. Inc.*, 673 F. Supp. 872 (S.D.N.Y. 1987), a case involving children's backpacks. There, the court upheld copyright in animal-shaped backpacks, because the animal image was separate from the useful function of the backpack. Further, in *National Theme Productions Inc. v. Jerry B. Beck Inc.*, 696 F. Supp. 1348 (S.D. CAL. 1988), the district court held that, while masquerade costumes were useful articles, the costumes involved in the case successfully met the conceptual separability test. The works at issue were elaborate costumes depicting independently recognisable images and were registered by the Copyright Office. The Policy Direction further elucidated that costumes, by their very nature, exist at the boundary between works of imagination and works of utility.

3.2 International Conventions

The Act makes Trinidad and Tobago fully compliant with its obligations under TRIPS²² and the other international conventions with respect to copyright and related rights, to which the country has committed itself. Trinidad and Tobago is a member of the following treaties relating to Copyright and Related Rights:

1. TRIPS
2. Berne Convention for the Protection of Literary and Artistic Works, 1886 (Berne Convention)
3. WIPO Copyright Treaty, 1996 (WCT)

²⁰ See note 8.

²¹ <http://www.copyright.gov/history/mls/ML-435.pdf>.

²² Agreement on Trade-Related Aspects of the Intellectual Property Rights, 1994.

4. WIPO Performances and Phonograms Treaty, 1996 (WPPT)
5. Geneva Convention for the Protection of Producers of Phonograms Against Unauthorised Reproduction of their Phonograms, 1971 (Geneva Convention)
6. Brussels Convention Relating to the Distribution of Programming-Carrying Signals Transmitted by Satellite, 1974.

Notably absent from the list of treaties signed by Trinidad and Tobago is the Rome Convention²³ for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations. Trinidad and Tobago is a member of 17 WIPO-administered treaties in the field of intellectual property, in addition to 26 intellectual property-related multilateral treaties and two regional economic integration treaties. In general, Trinidad and Tobago grants copyright protection as per international standards and this ensures broad possibilities for developing trade and carrying out transactions with copyright goods and services on the same playing field as other countries in the world economy. It is arguable, however, that although the legal infrastructure is in place, Trinidad and Tobago fails to adequately discharge its TRIPS obligations, since the actual enforcement of the laws by the police and customs is weak.

3.3 Enforcement

The enforcement provisions in the copyright law of Trinidad and Tobago are found in Parts VII and VIII of the Act. Part VII of the Act (Sections 30 to 40) covers the civil and criminal liability for infringement of copyright.

Civil Remedies

Section 38 provides civil remedies to right holders. It generally empowers the court to do the following, *inter alia*:

- (a) grant injunctions (Anton Piller/Mareva or interlocutory/permanent) to prohibit the commission of an infringement;
- (b) order the impounding of copies of works suspected of being made or imported without the authorisation of the right holder;
- (c) order the forfeiture and seizure of all copies of works that have infringed;
- (d) order the payment of damages to the person whose rights have been infringed;
- (e) order an account of the infringer's profits attributable to the infringement;
- (f) order the destruction of the infringing copies.

In all the foregoing cases, the right holder is entitled to her legal costs of the action. The standard of proof that the right holder has to discharge, as in all civil matters, is on a balance of probabilities. However, the right to redress under civil proceedings is qualified by the following:

- (i) Where the infringer did not know nor had reasonable reason to know that he was engaged in an infringing activity, the court may limit damages to the profits of the infringer attributable to the infringement.²⁴
- (ii) The restriction on the award of damages and account for profits at the same time.
- (iii) Destruction of the copies under Section 38(1)g shall not be ordered where the copies and packaging were acquired by a third party in good faith.
- (iv) The evidential privilege against self or spouse incrimination is not available in copyright infringement cases.
- (v) Civil proceedings for infringement of copyright or neighbouring rights are subject to the limitation period specified under the Limitation of Certain Actions Act 1997, which disallows proceedings being instituted four years after the infringement has been committed, save for certain instances.
- (vi) Actions for infringement of copyright or neighbouring rights are also subject to the recent decisions in the Court of Appeal relative to implied sanctions/relief from sanctions for failure to keep deadlines under the Civil Proceedings Rules, 1998, as amended. The restriction on the right to amend proceedings once they have been filed is also affected.

²³ The Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations, 1961.

²⁴ See s. 38 (2) of the Act.

Case Law

Since the new Civil Proceedings Rules 1998 were brought into force, there have been few cases in the civil law in Trinidad and Tobago in which enforcement of copyright protection was sought through the civil law. Noteworthy decisions are found in two cases:

Case 1 – *Nation Drivers Co Ltd v. The Attorney General CV 2007/01730 and Copyright Music Organisation of Trinidad and Tobago v. Columbus Communications Trinidad Limited, Trading as 'FLOW' H.C.4722/2009. CV. 2009-04722*

In the **Nation Drivers Case**, the claimant company carried on a business of designing and implementing road traffic studies and developing road use systems. It entered into negotiations with the Ministry of Works and Transport (MOWT), based on which it produced a road safety proposal. A portion of the proposal was utilised by the state in implementing a pilot project on road safety. The court held that the author of the work was the first owner of the copyright in it. The claimant company was thus solely entitled to all rights of intellectual property contained in the road safety programme.

Case 2 – *Copyright Music Organisation of Trinidad and Tobago v. Columbus Communications.*

In this case, the claimant claimed damages or an account of profits for infringement by the defendant of the claimant's copyright in its musical works and/or within the claimant's repertoire from 5 January 2006 up to the period of the commencement of the proceedings in 2011. The defendant denied that the claimant's repertoire constituted a material portion of its programming and asserted that it was authorised by third parties to use and distribute programming. The court held that this defence was not maintainable to the claimant's case of infringement of copyright and the musical work within the claimant's repertoire being *de minimis* was not a defence to a claim of infringement, neither was a bare assertion that the defendant was authorised by third parties to use and distribute the programming material of the defendant. A third party cannot authorise the defendant to use and distribute musical works belonging to the claimant's repertoire unless some arrangement exists amongst the parties for such an eventuality.

Offences

Section 41 of the Act frames the criminal offence committed by a person who infringes a protected right as follows:

1. 'A person who commits an offence who, without the licence of the copyright owner –
 - (a) makes for sale or hire;
 - (b) imports into Trinidad and Tobago otherwise than for private and domestic use;
 - (c) possesses in the course of a business with the intention of infringing the copyright in the work or neighbouring rights in the sound recording or broadcast;
 - (d) in the course of a business-
 - (i) sells or lets for hire;
 - (ii) offers or exposes for sale or hire;
 - (iii) exhibits in public;
 - (iv) distributes; or
 - (e) distributes otherwise than in the course of business in excess of three copies of, an article which is, and which he knows or has reason to believe is, an infringing copy of a copyright work, performance, sound recording or broadcast.'

Under Section 41 (3) the Magistrate is empowered to impose a fine of up to TT\$250,000 and imprisonment for 10 years.

The standard of proof in criminal offences is 'beyond reasonable doubt': thus, the party who claims that the right has been infringed must give direct evidence in person and provide proof of performance, broadcast or copying of his work. However, the enforcement of the copyright law in criminal cases is not as effective as is

expected. Piracy is committed in a blatant manner in open view of the public in the streets, markets and other public places in the main cities and towns in both Trinidad and Tobago, particularly in relation to CDs and DVDs; in fact, sales of pirated CDs and DVDs have displaced the market for the legitimate original products. The existence of extensive powers to 'search, seize and arrest' given to the police,²⁵ as well as the severe penalties for criminal offences provided for in the Act, have little value or effect, given the culture of weak law enforcement as well as the problem of delays in the court system and the attendant backlog of cases in the Magistrates' Courts. Evidence of this weak culture can be found in Table 3.1, which indicates that, for the entire period of 2007 to 2011 (September), there were a total of 55 cases brought before the courts by COTT, of which only 7 ended in a decision and conviction and 48 cases are still pending.

Table 3.1: Cases Brought Before the Magistrates' Courts by COTT over the Period 2007 to September 2011

Island	Total No. of Cases	No. of Convictions	No. of Pending Cases
Trinidad	53	7	46
Tobago	2	0	2

Source: COTT

3.4 Collective Management

Collective management is a major key to ensuring that copyright royalties are negotiated, paid, collected and distributed to the rights owners. It is a crucial element of the copyright infrastructure, without which the rights owners cannot benefit from their works. When rights owners cannot receive their legitimate benefits, the result is significant economic underperformance of the affected sectors.

The section of the Copyright Act which deals with collective management is Part IX, which gives the High Court special jurisdiction to deal with disputes with licensing bodies. A 'licensing body'²⁶ is defined in s. 49 as meaning:

'any society or organisation which has as its main object, or one of its main objects, the negotiation or granting of general licences in respect of protected works, sound recordings or performances either as the owner or prospective owner of copyright or neighbouring rights therein, or as agent for the owners or prospective owners thereof.'

In turn, s. 49 defines a 'general licence' as meaning:

'a licence extending to -

- (a) the works of several authors;*
- (b) the sound recordings or audio-visual works of several producers; or*
- (c) the performances of several performers, and which does not apply different terms and conditions as between the several authors, producers or performers as the case may be.'*

One of the distinctive features of this part of the Act is that, where a dispute arises between any person and a licensing body with respect to either the refusal of the licensing body to grant that person a general licence or the terms and conditions of the licence, either that person or the licensing body may refer the dispute to the Court. In the UK and in other Commonwealth Caribbean countries it is only the 'aggrieved' person and not the licensing body who may initiate such action. Notwithstanding the existence of such a provision, it has only been invoked on two prior occasions: *CCN Television/Prime Radio Ltd v. The Copyright Organisation of Trinidad and Tobago*²⁷ and *Columbus Communications v. Copyright Music Organisation of Trinidad and Tobago*. In both instances, the High Court ruled in favour of the licensing body, COTT.

²⁵ See ss. 45, 46 & 47 of the Act

²⁶ Also described as a Collective Management Organisation (CMO).

²⁷ H.C.A. No 499 of 1993. In this matter, a dispute had arisen between the parties as to the amount of licence fees payable to the respondent for radio and television broadcast respectively of certain copyright musical works. The applicant, Prime Radio, alleged that the fees on advertising revenues were too high, since all of their revenue was not generated from music. Justice Carlton Best held that the rates were applied evenly by the respondent throughout the industry and that the applicant had allowed a debt to accumulate by ignoring the terms of the interim licence that had been issued by the respondent after they became aware of the applicant's unauthorised use of copyrighted material.

3.5 The Digital Environment – Opportunities and Challenges

The Act (particularly the 2008 amendments) makes Trinidad and Tobago compliant with the ‘WIPO Internet Treaties’.²⁸ Consequently, the definition of ‘reproduction’ in s. 3 of the Act includes reference to ‘permanent or temporary storage of the work or sound recording in electronic form’ which, for example, would extend to temporary or cache copies on a computer’s hard drive, whilst the concepts of ‘electronic retrieval systems’ (which is also included in the definition of ‘published’) and ‘rights management information’ are also defined.

One of the exclusive rights granted by the Act to holders of copyright and neighbouring rights is communication to the public,²⁹ an important right for the development of e-commerce in Trinidad and Tobago, specifically in relation to material protected by copyright and neighbouring rights. This right covers both the actual offering of protected material (e.g., uploading of content) and its subsequent transmission to members of the public. It covers digital services which allow only streaming as well as those services which allow consumers to download permanent copies of protected works, sound recordings and broadcasts. The right exists not only to fight piracy but also to recognise that the dissemination of protected material in digital networks such as the internet has become a primary form of commercial exploitation and should be subject to the control of the rights holder.

3.6 Definition of Copyright Industries and Scope of Measurement

The copyright industries are defined as those industries in which ‘copyright plays an identifiable role’ in creating tradable private economic (property) rights and income from use of these economic rights (WIPO, 2003:18, 22). That is, they use the protection of original expression provided by copyright and related rights and in particular, their protection by actual enforcement or threat of it, as the basis for investment, employment and, ultimately, generation of income from sale of a product or service or sale of the economic rights themselves. The definition takes account of the role of government as regulator. The terms ‘copyright-based industries’ and ‘creative industries’ are used interchangeably in this study.

According to WIPO (2003), these industries are appropriately classified for statistical measurement into four broad groups of copyright activities:

1. **Core Copyright Industries**, which exist to create, produce and/or distribute copyright materials. Creation and production include performance, broadcasting, communication and exhibition (WIPO, 2003:28), which themselves sub-categorise into the following products and services:
 - (a) *Press and literature.*
 - (b) *Music, theatrical productions, opera.*
 - (c) *Motion picture, video and sound.*
 - (d) *Radio and television.*
 - (e) *Photography, visual and graphic arts, related professional and technical services.*
 - (f) *Software, databases and new media.*
 - (g) *Advertising services.*
 - (h) *Copyright collective management societies.*

The laws of Trinidad and Tobago provide copyright protection for creative activity, including the entire set of activities listed above and works of mas.

2. **Interdependent Copyright Industries**, which are engaged in the production, manufacture and sale of equipment that facilitate copyright activity (WIPO, 2003:33). Such equipment includes television sets, radios, DVD players, electronic game consoles, computers, musical instruments, photographic instruments, blank recording material, and paper.
3. **Partial Copyright Industries**, whose main activities may not be copyright-based but include a significant component of products and services that are secured by copyright as defined in (1). These include museums, jewellery, coins, architecture, engineering, surveying, interior design, furniture design and fashion design.
4. **Non-dedicated Support Industries**, which are the distribution industries that facilitate broadcasting, communication and distribution or sales of copyright-based activities that are not classified as core copyright activities. These industries serve to measure spill-over effects of the Core, Interdependent and Partial Copyright Industries. They deal in wholesale and retail, general transportation, telephony and the internet.

²⁸ The WIPO Copyright Treaty and The WIPO Phonograms and Performances Treaty.

²⁹ See ss. 8(1) (j), 21 (1) (a), 23(1) and 24(1)(b)

4. Measurement Methods

In general, this study adopted the methods set out in the 'Guide on Surveying the Economic Contribution of the Copyright-based Industries',³⁰ (hereinafter referred to as 'The Guide') published by WIPO in 2003 to provide a methodology for measuring the economic contribution of copyright-based industries to a country's development. The Guide has been used as a methodological tool in over 30 country studies. The intent was to formulate WIPO's implementation of the wider methodology used to prepare satellite accounts, as promoted by the UN Statistics Division (UNSD), which in turn recognises the need for countries to establish a single unified framework of credible and relevant measures highlighting the importance of the targeted sector.

In essence, what has been devised here for the case of Trinidad and Tobago is a separate accounting framework, which draws on and expands the analytical and empirical capacity of the national accounts of Trinidad and Tobago, without disrupting and overburdening the main Trinidad and Tobago System of National Accounts (TTSNA), as developed by the national statistical office, the Central Statistical Office (CSO). This accounting framework for copyright draws on, and recombines or supplements, the accounting details of different industries within the TTSNA, and thereby establishes adequate connections with the SNA of the country, but allows substantially greater flexibility to introduce details and clarify concepts or classification systems appropriate to the copyright sector. The UNSD has not yet prepared a handbook on how to prepare satellite accounts for the copyright sector and copyright is not classified as an 'industrial sector' in the national accounts of Trinidad and Tobago. However, the estimates of copyright-based output, employment and trade were designed to allow comparison with any of the sectors defined in official practice.

In that context, the study consisted of the following steps:

- (a) Identification of the copyright and related rights-based industries to be studied using as reference Annex I of The Guide as well as the selected copyright- and related rights-based industries which will be given more detailed analysis. The categorisation of these industries was in keeping with The Guide – into core, interdependent, partial and non-dedicated copyright industries – but as applied to the industrial classifications used by TTSNA.
- (b) Based on the decisions on item (a) above, collection of data was undertaken. This involved collection of the TTSNA data for 2000 to 2011 from the CSO, which comprised:
 - The Supply and Use Tables for 2000.
 - National accounting aggregates for 2000 to 2011, including the current provisions estimates for 20 sub-sectors. These comprise details as follows:
 - (i) Gross output
 - (ii) Intermediate costs
 - (iii) Value added
 - Wages
 - Consumption of capital
 - Taxes on production.
 - (iv) Operating surplus
- (c) Identification of the copyright factors for disaggregating sector data and isolating the copyright contributions. These factors were obtained from four sources:
 - Industry profile judgement sample surveys of best practice/success cases.
 - A national accounting establishment random sample survey for the update of the Supply and Use Tables to 2010.
 - Copyright sector surveys to collect supporting detail about the supply and demand of copyright-based industries. Results of two concurrent surveys were processed and used: (i) St Lucia, which used the recently completed St Lucia Census as the sampling frame and focused heavily on ensuring adequate coverage of small establishments, many of which are based in the household; and (ii) Trinidad and Tobago.
 - The copyright factors of relevant countries, in particular the Philippines (which relied on Singapore's factors), Brunei and Jamaica (which relied on factors from Mexico and the US).

³⁰ WIPO publication No.893.

- (d) Where necessary, adoption of The Guide's method of adjusting copyright factors to account for difference in economic structure.
- (e) Compilation of the copyright sector accounts by disaggregating the data from the TTSNA details and then recombining it to fit the classifications in The Guide.

4.1 The Profiles Survey

The questions and guidelines for the conduct of the profile survey of success cases in the copyright sector can be made available. The profiles survey approached 72 cases selected by judgement sampling. The cases were recommended by the CSO, the Ministry of Planning, the THA, and by widely known success cases who then recommended others. Of these, 56 cases responded. The data in Chapter 5 documents some of the cases, selected from the respondents because they came in early or featured best practice cases that greatly clarified how the copyright sector works, and assisted in shaping the final design of the copyright and SUT questionnaires seeking financial data. The detailed returns of the profiles survey will be published separately by the CSO. The returns from the profile surveys were also used to facilitate interpretation of the financial data obtained by fielding the SUT and copyright questionnaires.

4.2 The SUT and Copyright Establishment Surveys

These surveys sought financial and related data to be used to estimate directly (i) the subjective opinions of stakeholders about the importance of copyright; (ii) receipts of copyright-based income as a share of the establishment income; and (iii) copyright-based expenditures as a share of gross expenditures. The questionnaires/guidelines for the SUT survey and the copyright survey can also be made available. The questionnaires were designed using the TELEform Designer software.

In relation to the estimation of the copyright factors and the copyright sector accounts, consultations were also held with the relevant industry segments, through their industry associations, and with relevant public sector institutions and/or ministries. These allowed derivation of specific data to develop the accounts for various copyright industries, complemented by administrative records available from the CSO and other relevant governmental sources.

4.2.1 Sampling Methods

Structural differences in the economies of Trinidad and Tobago required that sampling of establishments be handled separately for each island's particular economy. This approach to the establishment survey in Trinidad and Tobago is consistent with the current design of the Continuous Sample Survey of Population-Labour Force Survey. For the island of Trinidad, the plan called for the stratification of establishment, firstly by industrial sectors and secondly, within industrial sectors, the stratification of establishments by employment size-groups. Therefore, for each industrial sector (16 in total), an establishment was assigned to one of four employment size groups according to the number of persons on its payroll. The employment size groups were as follows: small (under 10 employees); medium (10 to 44 employees); large (45 to 100 employees); and mega (over 100 employees). In the case of Tobago, similar employment size-groups were used. However, an additional feature of the Tobago survey design was the initial stratification of establishment by geographic areas, namely parishes or combination of parishes, according to the population size of the parishes.

4.2.1.1 Sample Size

The determination of adequate sample sizes for Trinidad and for Tobago was based on experience, the allocation of funds and time-frame for completing the survey, and on two other important criteria. Firstly, the sample size must be large enough to facilitate the levels of stratification, bearing in mind that at each level of stratification, estimates of statistics would be important. Secondly, the sample size must be adequate enough to compensate for non-response rates which were expected to be high for this kind of economic investigation. Based on the foregoing, it was decided that the sample sizes for Trinidad and Tobago would be 550 and 600 respectively. The larger sample size for Tobago was due to smaller overall population size, the fact that higher levels of stratification were required, and there was some uncertainty with regards to the accuracy of Tobago's sampling frame.

4.2.1.2 Allocation of Samples to Strata

Allocation of samples to strata was based on a proportionate contribution of stratum to total employment. However, since estimates at the levels of the industrial sectors and geographical areas would be equally important, and bearing in mind that the distributions of establishments by employment sizes are usually skewed, strictly proportionate allocation would yield samples in small industrial sectors and geographical areas that are too small to allow for reliable estimates for them. In order to maintain sampling precision based on proportionate allocation, and yet assure adequate samples for estimates in small domains, adjustments were made to the proportionate allocation weights by the compromise allocation (Kish, 2003: 262-3).³¹

4.2.2 Data Management

After completion of the field exercise, the questionnaires were scanned and verified using the TELEform software, after which, the data were extracted and stored in a database created for this purpose. A custom written computer program was prepared for data editing, based on stipulated requirements set by the CSO. The program was executed on the data to ensure that the data quality was acceptable for the next phase of data processing. Analytical tabulation by the CSO was done using the SPSS statistical software package. However, additional data cleaning and analysis for this report was done using the Stata statistical software package.

4.3 Estimating the Interdependent, Partial and Non-dedicated Copyright Factors

The copyright factors for Trinidad and Tobago are based on two main sources. First, from the responses to the random samples of small and micro firms, an estimate was obtained of the subjective assessment of the importance of copyright to each industry. Similarly, an estimate was provided of the share of copyright in the sales of the industry. Heavy emphasis was placed on the St Lucia sample, since this was completed and processed satisfactorily at the time of estimation while data from the Trinidad and Tobago surveys were still being collected and could only be used to adjust the data from other countries. The second source is the set of estimates from a selected set of comparable countries that conducted similar studies using sample surveys as part of the WIPO project. In this case we have chosen Brunei, a small country with a huge energy sector, and thus an economic profile that is broadly similar to Trinidad and Tobago. In particular, its oil and natural gas sector accounts for most of its GDP and its exports. Another country chosen is the Philippines, which has a significant tourism sector. Tourism and related services make up the second major exporting sector of Trinidad and Tobago. The study of the Philippines relied on the Singapore survey estimates in preparing its copyright factors. Finally, the estimates for Jamaica are also used. These relied primarily on factors from the survey-based estimates of Mexico and on factors employed in the US studies.

4.4 The Importance of Copyright

To obtain a qualitative assessment of the significance of copyright to the partial copyright sector, each respondent was asked the following question, 'How important is copyright to the operations of your organisation?' with response options: '[1] very important; [2] important; [3] not important'. The question was posed by a trained interviewer after explaining to the respondent the nature of copyright as a property right. Following the method adopted in the Brunei study, a preliminary numerical index was attached to the responses as follows: [0.9] very important; [0.42] important; [0] not important. The index of 0.42 is the geometric mean of the two Brunei significance factors: significant (0.6) and slightly significant (0.3). Then, the preliminary copyright factor was computed according to the arithmetic mean significance score provided by all respondents in the sector.

³¹ Kish, L. (2003). Selected Papers (Wiley Series in Survey Methodology), New York: Wiley, reference to Multipurpose Sample Designs, reprinted from Survey Methodology, 1988, Vol. 14, No. 1, pages 19-32: Let n be the sample size allocated to stratum h ; W the proportionate allocation weight and H is the number of strata. This procedure utilized at all levels of stratification allocated the number n to stratum, h such that it is proportionate to the root of the sum of the square of the weight (W) of stratum h and

$$n_h \propto \sqrt{w_h^2 + \frac{1}{H^2}} \quad n_h \propto \sqrt{w_h^2 + \frac{1}{H^2}} \quad \text{and therefore,}$$

the square of the inverse of the number (H) of strata. That is,

$$n_h = \alpha \sqrt{w_h^2 + \frac{1}{H^2}} \quad n_h = \alpha \sqrt{w_h^2 + \frac{1}{H^2}}, \quad \text{with} \quad \alpha = \frac{n_h}{\sqrt{w_h^2 + \frac{1}{H^2}}} \quad \text{a constant} \quad \alpha = \frac{n_h}{\sqrt{w_h^2 + \frac{1}{H^2}}} \quad \text{a constant}$$

The resulting estimates are reported in Table 4.1. The prior estimates generated by the Brunei copyright survey are reported for comparison. The highest prior significance weight (0.9) is claimed by producers of paper and related products, followed by design activities (0.54). The lowest significance weight is attached by those involved in the manufacture of jewellery, including costume jewellery (0.21).

In an effort to reduce any bias that might arise from the small number of cases in any group of respondents, the next step was to apply size weights to the significance scores, where the size weights were the number of employees in the firm. Under market pressures to sustain paid employment, firms with more than one employee are likely to pay more attention to all possible sources of earnings, and would accordingly devote more effort to identifying earnings from copyright. Their evaluation of the significance of copyright might be somewhat more in line with commercial practice. The employment-weighted copyright factors are reported in Table 4.2. As expected, they vary substantially for those industries that contain firms which employ more than one person. The highest copyright factor still goes to manufacturing of paper and related products (0.9). However, the next highest copyright factor is now that of manufacturing of textiles (0.6) and the manufacturing of furniture (0.51). The copyright factor claimed by manufacturers of jewellery falls to 0.1.

The above estimates attempt to eliminate bias from the subjective answers provided to the question of the importance of copyright. The copyright factors have also been based on the specific share of the company sales generated by copyright-based activities. The question posed was: 'What percentage of turnover is attributable to copyright related activities in your company?' The estimates are reported in Table 4.2. The data show attributions of turnover to copyright as follows: (i) the manufacture of paper and related products, 50%; glass and related refractory products, including chinaware, 30%; and furniture, 20%. It is also important to note that responding firms attributed to copyright an average of 8.5% of insurance and real-estate sales.

Table 4.1: Prior Copyright Factors Reflecting the Significance Responding Firms Attach to Copyright in their Operations

Industry group	N	Mean (preliminary copyright factor)	Brunei preliminary estimate
Manufacturing of textiles, garments and footwear	13	0.475	0.4874 (average)
Manufacturing of paper and related products	2	0.900	
Manufacturing of glass and related refractory products	1	0.420	0.675 (average)
Manufacturing of furniture	5	0.360	0.38
Manufacturing of jewellery	4	0.210	0.90
Other manufacturing	4	0.330	0.6
Hotel and restaurants	9	0.493	na
Insurance and real estate	25	0.427	na
Design activities	4	0.540	na

Table 4.2: Copyright Factors Weighted by Employment Size

Industry	Employment-weighted copyright factor	Copyright factor based on percentage of sale
Manufacturing of textiles, garments	0.604	0
Manufacturing of paper/related products	0.900	0.500
Manufacturing of glass and related refractory products	0.420	0.300
Manufacturing of furniture	0.514	0.200
Manufacturing of jewellery	0.105	0
Other manufacturing	0.330	0
Hotel and restaurants	0.621	0
Insurance and real estate	0.492	0.085
Design activities	0.489	0

4.5 Final Copyright Factor Estimates

The estimates presented in Tables 4.1 and 4.2 are now used to prepare final copyright factors consistent with The Guide and the practices of other countries. As in The Guide, all identified core copyright industries are assigned a copyright factor equal to 1. Among the interdependent copyright sectors, only steelpan and paper converters are produced in Trinidad and Tobago. In the case of steelpans, this is a single product industry: a drum is purchased and transformed using inputs completely dedicated to this process. Similarly, the only output of the industry is the steelpan, and there are no other by-products. Moreover, the sole purpose of the output is to use or produce copyrighted music. So, in the context of satellite accounting, since the industry exists only in relation to copyright, we assign a copyright factor of 1.

To use these survey estimates in preparing the final copyright factors for the interdependent copyright production of paper and all the other partial and non-dedicated copyright-based sectors in the Trinidad and Tobago accounts, the employment-weighted subjective estimates provide a baseline. However, we assume that where an establishment indicates that it has received a positive share of its *turnover* from copyright, the indicated share must be combined with the employment-weighted subjective assessments. Further, where the responses on the share of the turnover are zero, the subjective responses are used as a valuation method. Finally, the local estimates are reconciled with international standards by computing an appropriate mean of the local employment-weighted subjective estimates, the non-zero turnover shares, and the sales-weighted estimates adopted from the Philippines and Brunei. The next question we address is what constitutes an appropriate mean in this case. In principle, since we are using means of fractions, the harmonic mean is most appropriate from a mathematical standpoint. An additional argument in favour of the harmonic mean is that the subjective estimates appear elevated relative to the share of turnover and the estimates from the Philippines and Brunei. The resulting factors are reported in Table 4.3.

Table 4.3: Copyright Factors for the Core, Interdependent, Partial and Non-dedicated Copyright Industries

	Copyright factors, Philippines	Copyright factors, Brunei	Copyright factors, Jamaica	Preliminary copyright factors, survey of establishments (St Lucia)	Employment-weighted copyright factors, survey of establishments (St Lucia)	Copyright factors estimated from share of turnover (St Lucia)	Copyright factors, Trinidad and Tobago
Copyright Sector							
Core Copyright Industries							
Press and Literature	1	1	1	1	1	1	1
UWI and Other Research Institutions	1	1	1	1	1	1	1
Music Theatrical Production, Opera	1	1	1	1	1	1	1
Steel Bands	1	1	1	1	1	1	1
Motion Picture, Video and Sound	1	1	1	1	1	1	1
Radio and Television	1	1	1	1	1	1	1
Photography, Visual and Graphic arts	1	1	1	1	1	1	1
Software, Databases and New Media	1	1	1	1	1	1	1
Advertising Services	1	1	1	1	1	1	1
Copyright Collective Management Societies	1	1	1	1	1	1	1
Works of Mas	1	1	1	1	1	1	1
Interdependent Copyright Industries							
TVs, Radios, VCR, CD and DVD Players, Electronic Gaming and Equipment	0.350			NA	NA	NA	NA

Table 4.3: Copyright Factors for the Core, Interdependent, Partial and Non-dedicated Copyright Industries (continued)

	Copyright factors, Philippines	Copyright factors, Brunei	Copyright factors, Jamaica	Preliminary copyright factors, survey of establishments (St Lucia)	Employment-weighted copyright factors, survey of establishments (St Lucia)	Copyright factors estimated from share of turnover (St Lucia)	Copyright factors, Trinidad and Tobago
Computers and Equipment	0.350			NA	NA	NA	NA
Pan and Other Musical Instruments	1.000		1.000	1.000			1.000
Photographic and Cinematographic Instruments	0.300			NA	NA	NA	NA
Photocopiers	0.300			NA	NA	NA	NA
Blank Recording Material	1.000			NA	NA	NA	NA
Paper	0.250	1.000		0.900	0.900	0.500	0.493
Partial Copyright Industries							
Tailors, Dressmakers, and Shoe Repair	0.004	0.223	0.005	0.475	0.604	0.000	0.009
Leather and Leather Products	0.420			0.475	0.604	0.000	0.495
Pottery and China	0.006	0.037	0.005	0.420	0.420	0.300	0.013
Museums	0.420	0.500	0.500				0.470
Jewellery, Coins	0.420	0.420	0.250	0.420	0.420		0.359
Architecture, Engineering, and Surveying	0.083	0.290	0.500	0.540	0.489		0.205
Furniture and Related Products	0.017	0.218	0.050	0.360	0.514	0.200	0.055
Interior Design	0.083			0.540	0.489		0.142
Non-dedicated Support Industries							
General Wholesale and Retail	0.058		0.050	0.446	0.660	0.062	0.073
General Transportation	0.058		0.057	0.446	0.660	0.062	0.076
Telephony and Internet	0.058		0.057	0.446	0.660	0.062	0.076

4.6 Other Proportionality Factors

Certain additional proportionality factors have been used in the study, for the purpose of extracting data on key sub-sectors such as the 'works of mas', music and pan manufacture (Table 4.4). The factors were chosen based mainly on the experience and recommendations of the CSO. Specifically, works of mas are treated as 40% of the broad industry 'band masqueraders, calypso tents, music, and theatrical production; independent artistes n.e.c.'; with the remainder assigned to 'music, theatrical productions and opera'. Also, it is known that the steelpan industry is dedicated to supplying the steelbands, other local demand and exports. We adopt the estimate of the CSO that the approximate size of the steelpan manufacturing industry is about one-third of the steelbands industry as a whole.

The CSO's detailed use tables for 54 sectors for the year 2000 can be made available. Where necessary, because of the absence of structural details, these tables provide the basis for estimating proportionality constants that allow projections to more recent years. They were especially useful in estimating the trade flows. These applications are defined in context as the results are presented in Section 6 below.

Table 4.4: Selected Proportionality Factors Used in the Study

Sector Code	Description of sub-sector in the national accounts	Description of embedded or related copyright industry	Sector share based on CSO analyst experience
19-03-06	BAND MASQUERADERS, CALYPSO TENTS, MUSIC AND THEATRICAL PRODUCTIONS, INDEPENDENT ARTISTES, N.E.S.	BAND MASQUERADERS (works of mas)	0.4
19-03-06	BAND MASQUERADERS, CALYPSO TENTS, MUSIC AND THEATRICAL PRODUCTIONS, INDEPENDENT ARTISTES, N.E.S.	CALYPSO TENTS, MUSIC AND THEATRICAL PRODUCTIONS, INDEPENDENT ARTISTES (music, theatrical productions and opera)	0.6
19-03-02	Steelbands and other Orchestras	Pan Manufacture	0.3

Source: estimated

4.7 Application of the National Accounts to Trinidad and Tobago

Even though the primary purpose of the surveys was to obtain copyright factors that could be used to disaggregate the sectors of the SNA and identify the copyright components, much additional information was collected about the characteristics of the sectors, such as gender characteristics, funding sources, pricing strategies and other data that facilitate interpretation of the national and copyright accounts. These details are not reported here, but the datasets are available for further study by interested scholars considering the national accounts of Trinidad and Tobago, and St Lucia.

Estimates are provided for the years 2000, 2007 and 2011. Overall, the national accounting data and copyright factors were used to assess the impact of copyright, measured as follows:

- (a) The direct output effects, as represented by the value added of copyright-based activities.
- (b) Induced impact, evident in the group of non-dedicated support industries.
- (c) The employment impact, covering all the general classes of resources – intermediates, labour, capital, both fixed and financial.
- (d) The foreign trade impact, defined in terms of net exports. Supplementary data were collected from the copyright management services, to estimate the net royalty flows for selected copyright goods and services.

The accounts were designed in full collaboration with the CSO to be fully consistent with its practices and to become a standard annual account that it can prepare in subsequent years. In that regard, the CSO's estimates for 2000 and 2007 are final estimates, while those for 2011 are based on actual accounting data for the first two quarters of 2011, and on the CSO's projections to the full year using their well-established forecasting methods for all relevant variables including prices. These methods are not discussed in detail here. Copyright sector estimates for all years are provisional in the sense meant by national accountants. As is standard for satellite accounting, all estimates will be revised during the normal process of revising the CSO national income estimates during the financial years to September 2012 and finalised by 2013.

Finally, using the data from the SUT 2000, estimates were compiled of the average returns to expenditures on labour and imported inputs by the copyright, and by the sub-sectors for which data are available in the tables. Estimates were also provided of the wage share and the profit share of the sectors. These estimates were then used with the estimates of the efficiency of resource use to provide a general assessment of the relationship between profits, the average returns to expenditure on labour, a proxy for labour productivity, and the average returns to investment in imported capital, a proxy for import productivity. The methods and results of this generalisation are reported appropriately in Chapter 8, along with their implications for policy.

5. Background to the Trinidad and Tobago Economy

This background provides context for the main estimates of the study of the contribution of copyright-based industries to GDP employment and trade in Trinidad and Tobago. It provides historical data on these variables, against which the data on copyright contributions can be assessed. The background analysis also includes data from the SUT, indicating the relative importance of the sectors that supply and use copyright, as well as the outputs that embody copyright.

5.1 Population and Employment

Table 5.1 documents the trends of population, labour force and employment of Trinidad and Tobago since 2000, and Table 5.2 describes corresponding growth patterns. Figure 5.1 graphs the growth patterns. The general tendency is that the rate of population growth is very slow and quite stable, relative to the rate of growth of the labour force and employment. Overall, this has meant falling unemployment, but it is well-known that these employment patterns are highly sensitive to exogenous shocks, especially to oil and gas prices and hence government's net revenues and budget balance. For this study, a central question is whether the copyright sector displays characteristics that offer a long-term promise of moderating the effects of such shocks to the energy sector and the fiscal space.

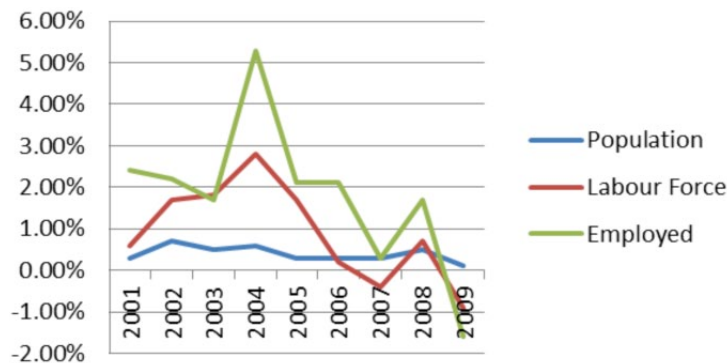
Table 5.1: Population, Labour Force and Employment

Year	Trinidad and Tobago			Tobago		
	POPULATION (000)	Labour Force (000)	Employed (000)	POPULATION (000)	Labour Force (000)	Employed (000)
2000	1,262.40	572.8	502.0	54.1	22.8	21.0
2001	1,266.80	576.4	514.0	54.9	24.8	21.7
2002	1,275.70	586.2	525.1	55.3	25.2	23.0
2003	1,282.40	596.5	534.1	55.6	26.3	24.1
2004	1,290.60	613.4	562.2	56.0	27.0	25.9
2005	1,294.50	623.7	574.0	56.4	29.8	28.4
2006	1,297.90	625.2	586.2	56.8	28.7	27.2
2007	1,302.20	622.4	587.8	57.3	28.7	27.6
2008	1,308.60	626.6	597.7	57.8	30.1	28.8
2009	1,310.10	621.0	588.4	58.4	29.1	27.8

Table 5.2: Growth Patterns of Population, Labour Force and Employment

Year	Trinidad and Tobago			Tobago		
	POPULATION	Labour Force	Employed	POPULATION	Labour Force	Employed
2001	0.3%	0.6%	2.4%	1.6%	8.8%	4%
2002	0.7%	1.7%	2.2%	0.5%	1.6%	6%
2003	0.5%	1.8%	1.7%	0.7%	4.4%	5%
2004	0.6%	2.8%	5.3%	0.7%	2.7%	7%
2005	0.3%	1.7%	2.1%	0.6%	10.4%	10%
2006	0.3%	0.2%	2.1%	0.9%	-3.7%	-4%
2007	0.3%	-0.4%	0.3%	0.8%	0.0%	1%
2008	0.5%	0.7%	1.7%	0.9%	4.9%	4%
2009	0.1%	-0.9%	-1.6%	1.2%	-3.3%	-3%

Figure 5.1: Growth Rates of Population, Labour Force and Employment



5.2 The Government and Trade Balances

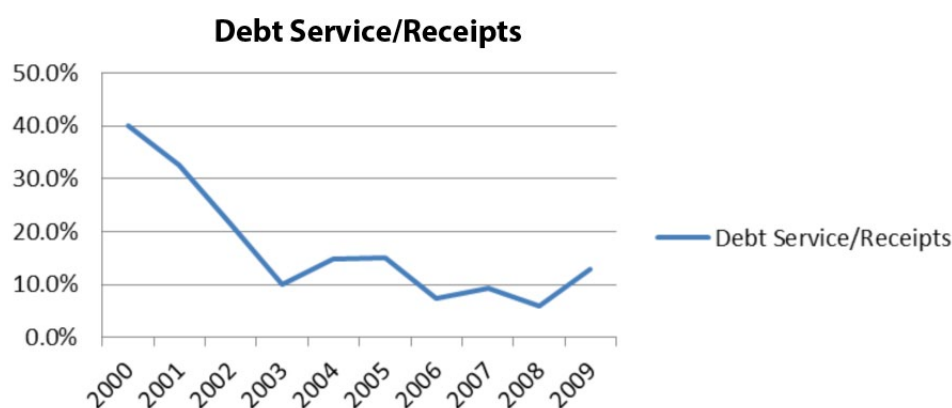
Table 5.3 shows the trend in government expenditures, receipts and debt since 2000, while Table 5.4 shows their growth patterns. The general trend was a positive budget balance up to 2008, but a budget deficit emerged in 2009, and debt and debt-service requirements began to drift upwards. Figure 5.2 illustrates the sharp decline in debt service as a share of budget receipts and the emergence of an upward turn since 2003 and especially in 2009. Table 5.5 shows the state of the balance of trade over the decade since 2000. Here, the evidence is best summarised as indicating that there was a rising positive balance before the Great Recession of 2007/8 and a sharp negative shock thereafter in 2009. Figure 5.3 illustrates trends in the Trinidad and Tobago current account balance 2000-2009. The general recession has continued for the global economy, and output in many leading economies, such as the US, has not yet recovered to the pre-recession peak. It is well-known that the shock to the local economy is linked to the sharp decline in international energy prices and there has been significant recovery since 2008 but, again, not to pre-recession levels. The positive trends have allowed build-up of import cover of up to 14 months. Despite the cushion, it is readily appreciated from the protracted global recession since 2008 that national development policies must address prospective imbalances in the future.

Table 5.3: Selected Government Budget Indicators – Receipts, Expenditure and Debt

Year	Trinidad and Tobago			Tobago		Trinidad and Tobago	
	GDP at Constant 2005 Prices (\$MNTT)	GOV'T RECEIPTS (\$MNTT)	GOV'T EXP. (\$MNTT)	GOV'T RECEIPTS (\$MNTT)	GOV'T EXP. (\$MNTT)	TOTAL DEBT (\$MNTT)	DEBT SERVICE (\$MNTT)
2000	68,246.60	12,199	12,499	93.5	351.9	20,749	4,893
2001	71,096.20	14,381	13,991	97.1	539.5	20,044	4,706
2002	76,733.10	14,122	14,227	106.9	695.9	20,637	3,009
2003	87,814.10	17,366	16,592	114.4	680.7	21,461	1,742
2004	94,795.40	20,885	20,674	128.6	924.3	22,043	3,115
2005	100,682.00	29,648	27,234	168.6	1177.6	22,287	4,449
2006	114,288.50	38,911	37,085	125.4	1097.9	19,510	2,914
2007	119,573.30	40,064	39,796	122.7	1455.8	22,238	3,744
2008	122,316.70	56,848	53,873	150.6	1885.4	23,621	3,341
2009	121,256.50	39,045	45,731	138.2	1874.4	25,278	5,063

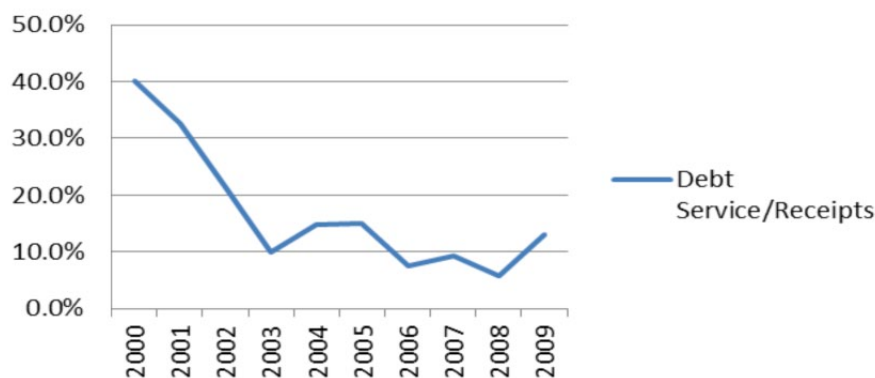
Table 5.4: Growth Trends in Government Budget Indicators- Receipts, Expenditure and Debt

Year	Trinidad and Tobago			Tobago		Trinidad and Tobago	
	GDP	GOV'T RECEIPTS	GOV'T EXP.	GOV'T RECEIPTS	GOV'T EXP.	TOTAL DEBT	DEBT SERVICE
2000							
2001	4.2%	17.9%	11.9%	3.9%	53.3%	-3.4%	-3.8%
2002	7.9%	-1.8%	1.7%	10.1%	29.0%	3.0%	-36.1%
2003	14.4%	23.0%	16.6%	7.0%	-2.2%	4.0%	-42.1%
2004	8.0%	20.3%	24.6%	12.4%	35.8%	2.7%	78.8%
2005	6.2%	42.0%	31.7%	31.1%	27.4%	1.1%	42.8%
2006	13.5%	31.2%	36.2%	-25.6%	-6.8%	-12.5%	-34.5%
2007	4.6%	3.0%	7.3%	-2.2%	32.6%	14.0%	28.5%
2008	2.3%	41.9%	35.4%	22.7%	29.5%	6.2%	-10.8%
2009	-0.9%	-31.3%	-15.1%	-8.2%	-0.6%	7.0%	51.5%

Figure 5.2: Ratio of Debt Service to Government Receipts, Trinidad and Tobago**Table 5.5: The Balance of Trade and FDI**

Year	GDP at constant 2005 prices (\$MNTT)	Current Trade Balance at constant 2005 prices (\$MNUS)	Foreign Direct Investment (\$MNUS)	Investment Income Paid Abroad (\$MNUS)
2000	68,246.60	968.8	679.5	628.5
2001	71,096.20	718.1	834.9	539.3
2002	76,733.10	237.7	790.7	479.8
2003	87,814.10	1293.2	808.3	680.9
2004	94,795.40	1508.7	998.1	397.3
2005	100,682.00	2647.7	939.7	760.3
2006	114,288.50	7700.2	882.7	935.8
2007	119,573.30	5721.4	830	963.7
2008	122,316.70	9064.4	2,800.80	1202.2
2009	121,256.50	2202.1	709.1	996.7

Figure 5.3: Trends in the Trinidad and Tobago Current Account Balance, 2000-2009



5.3 Underlying Industry Structure

Table 5.6 shows that under these patterns there is a certain structure of the GDP by sector. It indicates that mining (which is essentially the energy sector) and manufacturing have been growing relative to all others. The comparative shares are presented in Figure 5.4. Mining is highly vulnerable to exogenous shocks and manufacturing has a very low import productivity signature, with its mean varying from 0.7 up to 6.7 depending on the sub-sector (Table 5.7; Figure 5.5). In the manufacturing sector, production of petrochemical derivatives ranks the highest. It would be interesting to see how the copyright sector stacks up against these two sectors.

Import productivity in the mining sector is also very moderate, at about 9. These estimates compare with 33.5 for the best performing sub-classes of the copyright sector. The fact that the sectors with the highest import efficiency signature are not currently the fastest growing also points to underinvestment in them, when judged against the experience of negative shocks and the need for endogenous responses through the domestic production system. Put differently, by increasingly dominating the economy, the mining and manufacturing sectors are systematically suppressing the productivity of imports, moderating the productivity growth effects of the rest of the economy, and thereby are constraining growth of the capacity of the economy to save foreign exchange through the production system.

In this light, the data in Table 5.8 shows that the economy is becoming increasingly export-dependent, averaging 62.6% over the decade after starting from 56.8% as exports grew at an average rate of 11.1%, mirroring average growth of 10.1% in mining and 11.6% in manufacturing. At the same time, the already low import productivity virtually stagnated, averaging only 2.7 and growing at only 1.6% per annum over the decade. So, as illustrated in Figure 5.6, there was no significant growth in import productivity to match the rising dependence on exports. These data, taken together with the data on the distribution of import productivity by sector in Table 5.7, shed a new light on the performance of the manufacturing sector and the economy as a whole. First, in general, the average import productivity of the economy is very low, weighed down by the relatively large size of the manufacturing and mining. Second, the low average import productivity of manufacturing shows that underlying the growth of manufacturing is a high degree of dependence on the export capacity of the energy sector to afford it relatively cheap financing of imports without producing a compensating growth impact on the economy as a whole, and the domestic economy in particular, either through inter-industry demand or the production of domestic final capital. Third, and even more important, the data really reveal that the growth path is indicative of a high-risk development strategy that leaves the economy vulnerable to potentially significant problems on the balance of payments and government debt, without an adequate response capacity embedded in the production system. In general, these risks have only materialised randomly in the past but, when they do, the result is often significant social and political turmoil. Policy-makers are aware of the need to address the identified risks and one benefit of this study is that it identifies the full spectrum of alternatives using rankings on import productivity and labour productivity. In particular, it highlights the relative share of copyright-based sectors and clarifies more fully the extent of underinvestment in them, using more updated information that would also exhibit the share of the copyright sector in output.

Table 5.6: Structure of GDP by Sector

Year	Agric	Mining	Mfg	Const	Distrib Trade	Trans	Other
2000	1.1%	39.9%	17.2%	6.7%	20.3%	6.2%	25.1%
2001	1.0%	41.2%	17.6%	7.1%	19.2%	6.4%	24.3%
2002	1.0%	42.9%	18.4%	6.3%	18.2%	6.5%	24.4%
2003	0.7%	47.9%	20.7%	6.7%	16.1%	6.0%	22.4%
2004	0.5%	48.0%	20.8%	6.8%	15.5%	5.5%	23.6%
2005	0.5%	49.3%	21.3%	7.4%	15.3%	5.6%	21.9%
2006	0.4%	52.7%	23.8%	7.0%	15.4%	5.3%	19.7%
2007	0.4%	52.1%	24.0%	7.3%	15.2%	5.3%	20.2%
2008	0.3%	51.4%	24.4%	7.3%	16.1%	5.0%	20.3%
2009	0.3%	53.7%	26.1%	6.4%	14.6%	4.8%	20.9%

Figure 5.4: Trends in Trinidad and Tobago Sector Shares, 2000-2009

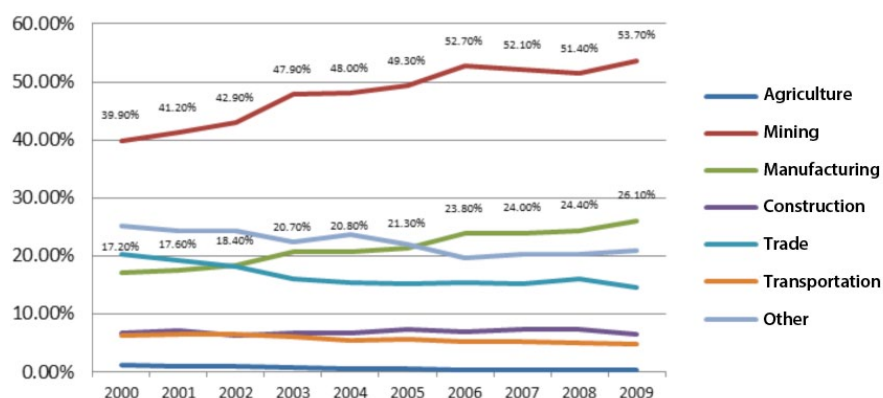


Table 5.7: Import Productivity by Sector, Ranked from Highest to Lowest

Sector	Import Productivity (2000)!
Personal Services (9219,5020,9301,9302,9303)	33.492339
Business Services (7010,7430,7111-7129,7492)	29.768229
Insurance (6601,6603)	27.103633
Oil & Gas Distribution (5050,4020)	20.940705
Restaurants (5520)	20.828189
Hotels & Guest Houses (5510)	17.880639
Finance (6511,6519,6592,6599,7530)	15.262967
Bakeries (1541)	13.644154
Wholesale & Retail Distribution (52/51)	13.277597
Quarries & Asphalt (1410,1429)	12.434453
Wood (2010,3610,2029)	11.864589
Fruit & Vegetable Processors (1513)	11.507031
Oil & Gas Production (1110)	9.0388074
Gas Processing (2411)	7.9142516
Fish Processors (1512)	7.3948833
Petroleum & Gas Refineries (2320,2320)	6.7164837
Construction Materials (2422,2693,2695,2694,2520,2811)	6.6657235
Electricity (4010)	6.600988
Transport (6021,6022,6304,6309,6301,6304,6302,6411,6412)	6.5313467

Table 5.7: Import Productivity by Sector, Ranked from Highest to Lowest (continued)

Communication (6420)	5.8068363
Construction (4510,4520,4530,4540)	4.2685919
Service Contractors (1120)	3.0621891
Water (4100)	2.9888228
Petrochemicals (2411)	2.988569
Feed & Flour Mills (1531,1532,1533)	2.9022502
H/hold Chemicals (2423,2424)	2.6277929
Other Manufacturing (1911,3691,2519,3699)	2.2911555
Alcohol/Soft Drinks/Tobacco (1551,1553,1554,1600)	2.2171287
H/hold Appliances (3420,3140,3430,2511,3220,3512,3610,2899)	2.0731369
Textiles (1711,1810,1920,1729)	2.0260475
Poultry Processors (1511)	1.9099062
Printing (2212,2211)	1.7038119
Meat Processors (1511)	1.4639555
Plastic Products (2520)	0.8373983
Dairy Factories (1520)	0.3395678
Miscellaneous Food Manufacturers (1543,1544,1549)	0.2473748
Paper Converters (2109)	0.0731115

!Measured as the ratio of value added to the value of imports used in production

Figure 5.5: Import Productivity by Sector, 2000

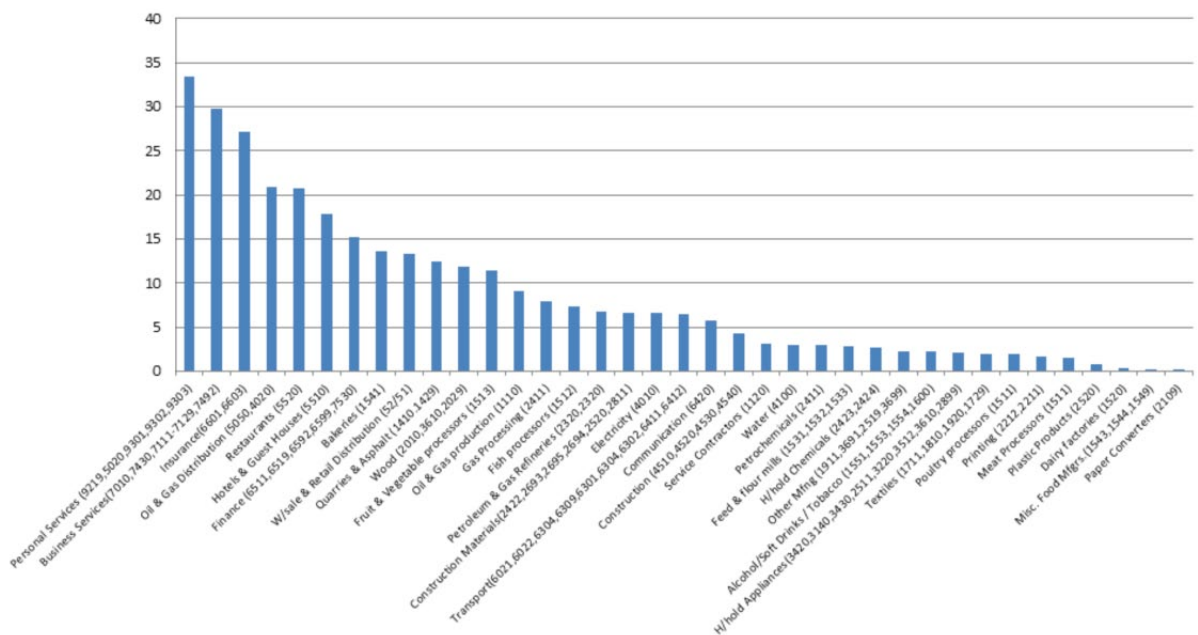
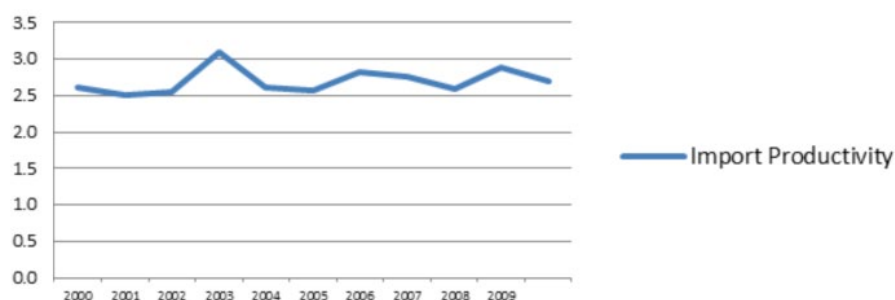


Table 5.8: Import Productivity Performance and Sector Growth

Year	Growth of Real Exports	Growth of Real Imports	GDP Growth	Import Productivity	Import Productivity Growth	Export Share of GDP	Growth of the Share of Exports	Growth of the Share of Mining	Growth of the Share of Mfg
2000				2.61901		56.8%			
2001	0.19%	8.8%	4.2%	2.506689	-4.3%	54.6%	-3.8%	6.9%	6.1%
2002	-8.93%	6.1%	7.9%	2.549375	1.7%	46.1%	-15.6%	12.2%	12.6%
2003	28.80%	-5.9%	14.4%	3.100893	21.6%	51.9%	12.6%	28.2%	29.2%
2004	13.41%	27.7%	8.0%	2.62109	-15.5%	54.5%	5.1%	7.8%	8.0%
2005	28.29%	8.6%	6.2%	2.562992	-2.2%	65.8%	20.8%	9.0%	9.1%
2006	22.23%	3.2%	13.5%	2.820385	10.0%	70.9%	7.7%	20.4%	25.4%
2007	-4.76%	7.2%	4.6%	2.751683	-2.4%	64.5%	-9.0%	3.6%	5.8%
2008	24.63%	8.6%	2.3%	2.592027	-5.8%	78.6%	21.8%	0.7%	3.7%
2009	-3.57%	-11.1%	-0.9%	2.889172	11.5%	76.5%	-2.7%	1.9%	4.4%
Average	11.1%	5.9%	6.7%	2.7	1.6%	62.6%	4.1%	10.1%	11.6%

Figure 5.6: Trend in Import Productivity in Trinidad and Tobago, 2000-2009



6. The Copyright Sector Profile: SUT 2000 Baseline Data on Contributions of the Copyright-based Industries to GDP, Employment and Trade

The balanced Supply and Use Table (SUT) for Trinidad and Tobago, 2000, provides data on the suppliers and users of 98 sub-classes of commodities defined under the Central Product Classification (CPC) system of the UNSD, covering both goods and services. The suppliers and users are defined under the International Standard Industrial Classification of All Economic Activities (ISIC) system used by the SNA Rev 3.1, which also correspond to the categories used by WIPO (2003) to define the copyright-based industries. The CPC covers both goods and services, and each CPC sub-class consists of goods or services that are predominantly produced by a specific ISIC industry in the SNA Rev 3.1.

Similarly, the associated ISIC industry will normally produce most of the goods and services defined by the CPC sub-class. Thus, by organising the product classes according to the ISIC reference industries, one is identifying the main goods and services produced by these industries. However, there is no one-to-one correspondence between the CPC and the ISIC, so the details of the SUT provide additional information as to which other industries contribute to the production of the referenced goods or service group, even if only as a secondary or tertiary product. In that light, the following points are noted regarding copyright-bearing products or services and their corresponding ISIC supplying and using sectors.

6.1 Press and Literature

In most countries, press and literature is the largest core copyright industry, contributing an average of 40% of the GDP of the core sector and generating 44% of the employment³². Within the wider sub-class, there are printers and publishers delivering the goods and services in certain categories. Table 6.1 reports the numbers in operation in Trinidad and Tobago. In Tobago, there one newspaper publisher and six printers supply a mixed set of goods and services. In Trinidad, there are four newspaper publishers and 169 printers, of which 87 supply a mix of products, 27 specialise in graphic design, four in greeting cards, 34 in screen printing and 17 in labels.

Table 6.1: Printers and Publishers in Tobago and Trinidad

Category	Tobago	Trinidad	T&T
	No.	No.	No.
Newspaper Publishers	1	4	5
Printers	6	169	175
of which			
Labels		17	17
Screen Printing		34	34
Greeting Cards		4	4
Graphic Design		27	27
Mixed	6	87	93

Source: computed

The outputs of the sector commodities are the main goods and services produced by ISIC activities (2211, 2212, 2221) in the Trinidad and Tobago SUT, as listed in Table 6.2. The industry, especially its publishing component, depends heavily on copyright. Of the general classes and sub-classes in Table 6.2, the SUT 2000 records data for only the following:

³² Based on the results of WIPO-sponsored studies in various countries.

- CPC 3221 (sub-class 1) – Printed books, brochures, leaflets and similar printed matter, in single sheets other than advertising material;
- CPC 3230 (sub-class 7) – Newspapers, journals and periodicals appearing at least four times a week;
- CPC 3240 (sub-class 8) – Newspapers, journals and periodicals appearing less than four times a week;
- CPC 3259 (sub-class 15) – Other printed matter.

All other commodities are not measured in the SUT 2000. While not in the core copyright sector, the following are interdependent activities that facilitate the production and use of copyrighted activity as specified above:

- Registers, account books, notebooks, letter pads, diaries and similar articles, blotting-pads, binders, file covers, forms and other articles of stationery, of paper or paperboard (ISIC 2221).
- Composed type, prepared printing plates or cylinders, impressed lithographic stones or other impressed media for use in printing (ISIC 2222).

Table 6.2: The General Classification of Press and Literature

SUT Code	ISIC Code	CPC Code	General Class	Sub-class	TT SUT Sub-class	WIPO (2003) Classification
27-01	2211	3221	Books, brochures and leaflets (except advertising material) printed, printed maps; music, printed or in manuscript	1. Printed books, brochures, leaflets and similar printed matter, in single sheets, other than advertising material	Printed books, brochures leaflets and similar printed matter, in single sheets other than advertising material	Core
		3222		2. Dictionaries and encyclopaedias, and serial instalments thereof	NA	Core
		3223		3. Printed books (except dictionaries and encyclopaedias and serial instalments thereof), brochures, leaflets and similar printed matter, other than advertising material, not in single sheets; children's picture, drawing or colouring books		Core
		3225		4. Other books of maps or charts	NA	Core
		3225		5. Maps and hydrographic or similar charts (including wall maps, topographical plans and globes), printed, other than in book-form	NA	Core
	2213	3226		6. Music, printed or in manuscript	NA	Core
	2212	3230	Newspapers, journals and periodicals, appearing at least four times a week	7. Newspapers, journals and periodicals, appearing at least four times a week	Newspapers, journals and periodicals, appearing at least four times a week	Core
		3240	Newspapers, journals and periodicals, appearing less than four times a week	8. Newspapers, journals and periodicals, appearing less than four times a week	Newspapers, journals and periodicals, appearing less than four times a week	Core
	2219	3251	Stamps, cheque forms, banknotes, stock certificates, postcards, greeting cards, advertising material, pictures and other printed matter	9. Unused postage, revenue or similar stamps; stamp-impressed paper; cheque forms; banknotes, stock, share or bond certificates and similar documents of title		Core

Table 6.2: The General Classification of Press and Literature (continued)

	2219	3252		10. Printed or illustrated postcards; printed cards bearing personal greetings or messages, with or without envelopes or trimmings		Core
	221	8911	Publishing, on a fee or contract basis	1. Publishing, on a fee or contract basis	Not documented	Core
				2. Printing services and service related to printing on a fee or contract basis		
	2221	3253		11. Trade advertising material, commercial catalogues and the like		Core
	2219	3254		12. Printed pictures, designs and photographs		Core
	7421	3255		13. Plans and drawings for architectural, engineering, industrial, commercial, topographical or similar purposes, being originals drawn by hand; hand-written texts; photographic reproductions and carbon copies of the foregoing		Core
	2219	3256		14. Transfers (decalcomanias = transferred engravings) and printed calendars		Core
	2221	3259		15. Other printed matter	Other printed matter	Core

Source: TTSNA and SUT; WIPO (2003)

Apart from delivering final goods and services to the public, the sub-class provides goods and services to other sectors. Specifically, there are linkages between press and literature and sectors such as tourism, education, and entertainment. On this basis, it could be expected that a significant share of the industry's output potential would take the form of *preparation* of products related to the major sectors of the economy, such as tourism (e.g., books, magazines and brochures, guides for hotels and lodging, maps, address books, timetables), advertising (e.g., advertising products, publication and printing of advertising for retail products, shows and parties), music, transportation (e.g., printed timetables and maps for all types of means of transportation), the education sector (e.g., books and non-magnetically encoded identity cards), insurance industry (e.g., contracts and reports), and general engineering (e.g., architectural and engineering drawings). None of these are covered in the baseline data provided in the SUT 2000, so the indicators of performance must be interpreted in this light.

The empirical evidence from the SUT suggests that the press and literature sector is of major importance in the cultural landscape of Trinidad and Tobago. SUT data show that the sub-class defined in the wider industrial grouping in the ISIC used TT\$255 million of intermediates in 2000, generated wages and emoluments of TT\$164.9 million, paid TT\$700,000 of taxes on production, received no subsidies, used up TT\$39.8 million of fixed capital in generating the output and produced TT\$119.1 million of operating surplus from which retained earnings and the cost of capital were met. The industry produced 0.655% of GDP, 0.52% of operating surplus and 0.8% of the domestic wage bill. It generated exports of TT\$79 million, which amounted to 24.3% of total industry value added. The industry contributed 0.262% of total exports and achieved import productivity of 1.7 (value added per dollar of imported inputs used), which is very low among the core copyright sectors, primarily because of the low share, 39%, of domestic capital in its total (fixed and circulating) capital consumed in the production process. Matters are likely to be quite different in the components of press and literature not yet measured.

6.1.1 *Lessons from the Profiles Survey*

The survey of prominent players in the local industry provides significant insights into how the press and literature sector works in Trinidad and Tobago. A general observation among the leading players is that the local cultural sphere, being multicultural, is rich and provides a strong foundation for development of a significant industry in press and literature. The development and exploitation of Caribbean literature can bring numerous benefits to the entire region, not least as a basis for the development of films based on the unique perspective of the country and the region. Yet there are major challenges. Earl Lovelace, an internationally famous Trinidadian writer, observes that, 'it is unfortunate that quite often it is the people overseas who see you as a valuable commodity, so many writers do not reside here. I know first-hand the vexations and difficulties of building a profession here.'

6.1.1.1 *Trinidad*

Trinidad is the source culture for the development of two prominent Nobel Prize-winning authors, V.S. Naipaul and Derek Walcott, yet the publishing industry in Trinidad operates in a relatively limited local market, with local demand inadequate to drive widespread and increasingly successful content creation on the scale needed to be a significant player in the global industry. As was the case with both Naipaul and Walcott, local authors tend to achieve success by making a breakthrough in foreign markets and getting international kudos before they gain local respect. The income streams of the most popular writers come mainly from sales abroad and from royalties channelled to them through the distribution systems maintained by foreign collecting societies, such as the PRS, of which they are members.

The general feeling among the players interviewed was that, in Trinidad, investment in the arts and literature in general is not viewed as a major investment opportunity and that, as a consequence, authors feel undervalued. Some suggested that this is now increasingly changing, especially in the field of journalism and the print media, taking into account the vast opportunities opened up by the internet. It was suggested that the sector faces major problems, such as piracy and poor enforcement of rights. The developing local infrastructure of copyright protection is weak and results in poor remuneration, lack of opportunities, job insecurity and inefficient exploitation of copyright, conditions which are widely perceived as discouraging authors from pursuing professional careers in content development.

6.1.1.2 *Tobago*

Locally and internationally, Tobago does not have as much of a presence in the press and literature industry and all respondents pointed to the need for many of Tobago's authors and other industry players to reside abroad, mostly in Trinidad. They observed that newspapers had limited circulation and they suggested that there was a vast but untapped potential in Tobago's culture for the development of literary works and a functioning press, especially in the current digital age, but that economic conditions in the island had discouraged widespread interest and initiative until now. They specifically commented on the potential for a robust collaboration between the Tobago House of Assembly and writers, to publish online far more information on Tobago, given the island's focus on tourism.

The Tobago News weekly is Tobago's main newspaper; it has a circulation of approximately 5000, while other daily newspapers from Trinidad have a daily circulation ranging between 800 and 2000. The main source of newspaper revenue is advertising, which presently accounts for about 80% to 85% of the revenue in the case of *The Tobago News*. A linear relationship exists between the size of the newspaper (i.e., the amount of news available for printing and thus the number of pages to be printed) and the number of advertisements that can be placed in a particular issue. Revenue is, therefore, more dependent on the amount of news available for printing than on circulation. The contribution of circulation to revenue currently approximates 15% to 20%. The cost to produce the newspaper is a relatively small share of revenues, so the profits are a relatively high share of revenues, with the resulting payment of high dividends.

The Tobago News performs the important functions of informing society about news, social events, and life-enhancing opportunities and providing support for social programmes, in particular those that are focused on the younger generation. Opportunities for reaching Tobagonians living in Trinidad are being considered, but no feasibility study has yet been undertaken to determine the market characteristics of that demographic. The

changing technology makes vertical integration unlikely. World news is now available instantaneously and *The Tobago News* is therefore looking at initiatives in horizontal integration, such as real estate investments and acquisition of shares in other companies.

Among the major problems of the industry are the lack of direct support for the private sector's initiatives in the arts and the absence of promotion of creative work, for example, through the education system. Most respondents believed that the local industry suffers from the crowding-out effect of government and claimed that the government inappropriately functions as an enterprise operating within this sector, rather than as a facilitator and regulator of private entrepreneurs who develop and manage the commercial prospects of the sector.

6.2 Music, Theatrical Productions, Opera

In Trinidad and Tobago, music is the flagship component of the copyright sector generally, and of the sub-class of 'music, theatrical productions and opera' in particular. The industry is vibrant and closely associated with the national identity; indeed, it is a key means of disseminating local culture to the rest of the world. It is comprised of numerous musical styles and instruments, such as calypso, soca, chutney, chutney soca, pantar, rapso, ragga, extempo and others, most of which are truly unique, and all of which developed against the background of home grown creativity and talent. Theatrical productions and opera, while much less prominent, have their own major achievements, prominent among which is the development of Derek Walcott into the 1992 winner of the Nobel Prize for Literature including his plays. Its modern prominence is achieved mostly in the rich exhibition of comedy on stage and television.

There are two segments of music activity considered in the CPC. One of these is covered in the sub-class of Press and Literature as *printed music* – in the component described as 'music, printed or in manuscript' in the ISIC sub-class 2213 but not measured in the TT SUT 2000. This is certain to be a very important underpinning of the music industry that was neglected by the baseline estimates. The second segment falls into the sub-groups listed in Table 6.3. Once again, most of the activities of the sub-class are not covered by the SUT 2000, and the covered activity 'performing arts and event promotion and organisation services' is deeply embedded in a very broad class of activities in the Personal and Miscellaneous Services sector. The important elements that will be added to, and separated in, the updated SUT and copyright satellite account include all the items listed as 'not documented', including important segments such as 'performing arts and live entertainment services', 'services of performing artists', and 'services of authors, composers, sculptors and other artists, except performing artists', all of which play pivotal roles in the development of the copyright-based industries in Trinidad and Tobago. In Trinidad, these would include the very popular year-round comedy acts and, in Tobago, the acts of the Tobago Heritage Festival, both sets of which could readily develop into substantive foundations for other copyright productive sectors such as film and literature. Related to all of these is a class of linked publishing and recording activities that can be summarised as 'publishing, on a fee or contract basis' [ISIC 221], 'printing and reproduction of recorded media, on a fee or contract basis' [ISI 221], 'printing services and services related to printing, on a fee or contract basis' [ISIC 222], 'reproduction services of recorded media, on a fee or contract basis' [ISIC 223], none of which have been covered in the SUT 2000.

Nevertheless, a substantial, if incomplete, preliminary picture of the contribution of the music, theatrical productions and opera sub-class can be obtained from the economic performance of the sub-class in which the activity is embedded. The SUT data show that the sub-class, defined in the wider industrial grouping defined as class *Personal and Misc. services – Rec and Cultural, Rep to MIV, Laundries, Barbers, Beauty Salons, Funeral Parlours, Photo Studios, Tailors, dressmakers (9219,5020,9301,9302,9303)*, used TT\$53.2 million of intermediates in 2000, generated TT\$1,029.3 million in wages and emoluments, paid TT\$500,000 of taxes on production, received no subsidies, used up TT\$129.5 million of fixed capital in generating the output and produced TT\$254.0 million of operating surplus from which retained earnings and the cost of capital could be met. Accordingly, gross value added amounted to TT\$1413.3 million, or about 2.85% of GDP, 1.11% of operating surplus, and 5.2% of the domestic wage bill. The high share of wages suggests a highly labour-intensive sector. It generated exports of TT\$255.6 million, which amounted to 18.1% of total industry value added. The consolidated industry contributed 0.85% of total exports and achieved a very high import productivity signature of 33.5 (value added per dollar of imported inputs used), which is among the highest of all sectors in the economy, making it an attractive target for national development programming. The performance is closely related to the extraordinarily high share, 79%, of domestic capital in the **total**

(fixed and circulating) capital consumed in the industry's production process. It would be interesting to see how substantially matters change when the components of the music industry are properly measured.

Notwithstanding the fact that the following activities of instrument production are not in the core of 'music, theatrical productions and opera', it is not reasonable to consider the music industry in Trinidad and Tobago without addressing them:

- Pianos and other keyboard stringed musical instruments
- Other string musical instruments
- Wind musical instruments organs, accordions and brass-wind instruments
- Musical instruments, the sound of which is produced, or must be amplified, electrically
- Other musical instruments (including percussion instruments, musical boxes and fairground organs)
- Decoy calls, whistles, call horns and other mouth-blown, sound-signalling instruments
- Parts and accessories of musical instruments
- Metronomes, tuning forks, and pitch pipes.

In Trinidad and Tobago, the important activity in this sub-class is 'pan', supporting pan-related performances, one of the prominent creative activities within the flagship sub-class of music – 'steelband, calypso and carnival'. These activities of pan production are a substantial and internationally famous aspect of the music industry, broadly conceived, but will be measured as part of the interdependent copyright sectors.

Table 6.3: Music, Theatrical Productions, Opera

SUT Code	ISIC Code	CPC Code	General Class	Sub-class	TT SUT Sub-class	WIPO (2003) Classification
	2221 2213 2230 7221 7229	4752	Audio and video records and tapes	1. Records, tapes and other recorded media for sound or other similarly recorded phenomena (except cinematographic film and cards with magnetic strip); computer software	Not documented	Core
	9211	9611	Audiovisual and related services	2. Sound recording services; audio post-production services	Not documented	Core
						Core
54-01	9214 9219	9621; 9622	Performing arts event promotion and organisation services	3. Performing arts event promotion and organisation services; Performing arts event production and presentation services	Included in the broad class <i>[Personal and misc. services – Rec and Cultural, Rep to M/V, Laundries, Barbers, Beauty Salons, Funeral Parlours, Photo Studios, Tailors, dressmakers (9219,5020,9301,9302,9303,)]</i>	Core
	9214 9219	9623		4. Performing arts facility operation services	Not documented	Core
	9214	9629		5. Other performing arts and live entertainment services	Not documented	Core
	9214	9631		6. Services of performing artists	Not documented	Core
	9214	9632		Services of authors, composers, sculptors and other artists, except performing artists	Not documented	Core

Table 6.3: Music, Theatrical Productions, Opera (continued)

SUT Code	ISIC Code	CPC Code	General Class	Sub-class	TT SUT Sub-class	WIPO (2003) Classification
	221	8911	Publishing, on a fee or contract basis	7. Publishing, on a fee or contract basis	Not documented	Core
	222			8. Printing and reproduction of recorded media, on a fee or contract basis		
	223	8911		9. Printing services and services related to printing on a fee or contract basis		
				10. Reproduction services of recorded media, on a fee or contract basis		Core

Source: TTSNA, SUT (2000), WIPO (2003)

6.2.1 Lessons from the Profile Survey of Leading Players in Music, Theatrical Productions, Opera

6.2.1.1 Steelpan/Steelband Music in Trinidad

The experts responding in this segment observe that steelband music is deeply rooted in the national cultural identity of Trinidad. It emerged from popular roots in community culture and in close association with the popular rhythms of calypso and the works of mas in the Trinidad Carnival – famously described as the trinity of ‘steelband, calypso and carnival’.

The steelpan being a musical instrument that was only invented in the 20th century, no major take-off of this segment has taken place as yet, in significant contrast to Carnival and the transformation of calypso.

Panadigm

Panadigm was established in May 2006 as an attempt in the first instance to find a space to lodge the intellectual property coming from the Steelpan Initiative Project (SIP). Panadigm was formed to file for trademarks for the PHI (Percussive Harmonic Instrument) and for the G-Pan. The Steelpan Initiative Project (SIP), which has been funded through a Government grant, has been involved in research over a period of time and intends to take the research to market. The flagship product of the company is the Percussive Harmonic Instrument, more popularly called the PHI (pronounced ‘FY’). The musical instruments used in steelpan music have been granted patents in various markets.

The industry leaders interviewed observed that the industry nevertheless has great industrial potential in the following areas:

- Tuning of pans as a specialisation.
- Teaching the playing and tuning of the instrument.
- Production and sale of tuned pans.
- Concerts where artistes utilise variations beyond calypso.

Some leaders pointed somewhat optimistically to the ‘virtue’ of having large numbers of people who, being unable to read music, committed entire scores of music to memory. Indeed, they suggested that this extraordinary human achievement was one aspect that could be marketed and used to ensure that the local pan players reaped the benefits of international performances.

Birdsong Music Academy

In 2004, Birdsong took the innovative step of establishing the Birdsong Music Academy to address, inter alia, music literacy, development of musicians and general artistic expression. The Academy is accessible to all. With the help of the University of T&T, it develops community engagement and undertakes social work. Nationally recognized and applauded, it organises music literacy training camps and has created a network of friends. Its business model is considered by the Ministry of National Security as an input into crime prevention programmes in high risk areas.

PANTAR

The music of Pantar is the widely recognized rich legacy created by Mungal Patasar. The music of Pantar brings together a fusion of Indian, calypso (folk) and jazz music. Pantar originates from the two leading instruments of the ensemble: the 'pan' from 'steelpan', and the 'tar' from 'sitar'. The concept was founded in the philosophy that music is a universal language that eclipses mundane physical and ethnic boundaries. The music of Pantar aims to express this ideal. It is the convergence of Europe, Africa, the Americas and the Orient. This remarkable ensemble has achieved considerable international success and, in 2000, the group was signed to Virgin Records in France. Pantar is financially independent because of its many performances locally, regionally and internationally, and sales of the group's CDs over the years has averaged 5000 per year. Live performances and touring are major sources of income, although ensuring financial assistance for touring and recording is an area of concern. The band has maintained steady and secure employment practices paying monthly salaries, negotiating fees for performances and making concessions for charity shows. Turnover of personnel in the band has been minimal.

Exploitation of the possibilities of the industry is still hugely challenging. Promotion is the key to earning money in copyright but there are not many professional music promoters in Trinidad and Tobago who promote pan. The experts interviewed observe that steelband members and players still have considerable difficulty in finding financial assistance for recording and touring for regional and international exposure. Many of the musicians are not professionally educated in music and launching a '*local professional*' career in music groups and moving towards '*true professional*' is often an insurmountable challenge for the individual, if viewed only from the standpoint of their inability to read music.

Further, as one put it: 'steelpan performances remain a charity'. Beyond that, the critical challenge that pan musicians face is to find regular means of survival while playing music full-time. Older artistes who do not perform have no steady income, even though they might be holders of national awards. The contribution of the pioneers is not routinely catalogued and their memory is not being preserved in ways that could provide an adequate platform for the development of the next generation of pannists. Government and corporate structures have not yet invested adequately in the efforts to develop and promote the pan music industry internationally. The pan as an instrument is still confined to seasonal application and there is little radio airplay for the many incarnations of pan music outside the Carnival season.'

6.2.1.1.1 *Pan Music in Tobago*

All of the above considerations arise in Tobago, which boasts a few of the leading and prize-winning bands in the country. Two key issues for steelbands in Tobago, however, are i) the right of ownership of the properties in respect of which they have had long tenure, and ii) attracting larger numbers of young people to the segment.

6.2.1.1.2 *Calypso and Chutney – Trinidad*

Calypso is the oldest of Trinidad's musical art forms, with a history that is well-documented in Gordon Rohlehr's book *Calypso and Society in Pre-Independence Trinidad*.³³ In essence, this is an art form built on social commentary and commanding a broad social appeal in an era when the other media of public education were underdeveloped and inaccessible to the general public. The art form is still very much alive even though it appears to be losing its cultural and economic appeal, but it has given rise to soca, an art form that has a livelier beat, is more economically viable, and so provides very promising opportunities for professional practice.

Chutney, on the other hand, emerged in Trinidad in association with soca as an art form based on local Indian musical traditions and catering to local Indian musical tastes. The leading players interviewed suggested that the prospects for the industry were good and that more and more artists are able to make a professional career out of chutney. The chutney art form is presently taught in Hindu primary schools via the Baal Vikaas programme and there is also strong demand in other communities in the Indian diaspora.

³³ Rohlehr, G. (1990), *Calypso and Society in Pre-Independence Trinidad*. Rohlehr: St Augustine, Trinidad.

The evolution of digital technology has brought positive benefits to professionals in calypso, chutney and soca, in terms of falling recording costs (except with respect to the use of live musicians) and less complex recording technologies, which have led to greater access to the recording of material.

Digital technology and the internet have also allowed a rapid growth of the market for music, and enabled marketing, broadcasting and distribution from the local base. Further, tourists are also increasingly placing a priority on local music.

The industry leaders indicated that there was a reasonable institutional basis for development of these art forms, but much progress was still needed in this area, partly because of the ethnic flavour of the organisational structure. One such institution is the Trinbago Unified Calypsonians Organization (TUCO) formed in 1992 to drive the development of calypso, and recognised as a national body incorporated by an Act of Parliament No.33 of 1998. Funded mainly by the government of Trinidad and Tobago, TUCO is officially the bargaining body for the rights and cultural interests of all calypsonians and calypso singers as well as to promote and market the calypso art form globally. It also seeks to assure the welfare of its members. Currently, it has over 1000 members, which provides some basic indication of the size of the industry. TUCO also has strong international collaboration with the Association of British Calypsonians (ABC); the Organisation of Calypso Performing Artists, Toronto, Canada; the New York West Indian/American Labour Day personnel, and the California Carnival body.

Copyright is of great importance to music professionals in Trinidad and Tobago, especially to composers, and has been treated as important ever since the famous victory of Lord Invader and Lionel Velasco in the US courts over their rights for the famous song 'Rum and Coca-Cola' performed by the Andrew Sisters. Singers are also beneficiaries of neighbouring rights, but observation of practice shows that their major income comes from fees negotiated for performances.

Notwithstanding favourable prospects, there are significant challenges ahead. The main challenges identified by the leading players are:

- Lack of professional management of musicians;
- Lack of training on a regional basis to:
 - develop technical skills and adopt new technologies;
 - access financing and develop marketing strategies;
- Lack of easily accessible advice on copyright;
- A low level of knowledge on copyright by creators, performers and sponsors, which results in missed opportunities for economic exploitation of existing rights;
- Underdeveloped copyright infrastructure, especially the capacity of functioning collecting societies, resulting in affiliation with foreign societies at the expense of improving and developing the local infrastructure for collections and the enforcement capacity of police and the judiciary;
- Piracy and inadequate copyright enforcement;
- The policy of local music stores not to promote local music effectively;
- Distrust and conflict within the industry;
- Fragmentation of the industry between traditional and modern music and excessive fragmentation along ethnic lines;
- Lack of a repository of traditional music;
- Inadequate spread of chutney musical forms beyond the Hindu primary schools and inadequate teaching of all local forms throughout the school system at all levels;
- Inadequate spread of the demand for chutney beyond its ethnic boundaries;
- Lack of infrastructure and training at the community level;
- Excessive taxation, especially of equipment via VAT on instruments;
- Insufficient public support in the form of music scholarships to major markets and traditional music centres;
- A music business model and branding strategy that is inadequate to accelerate access to national, regional and global markets, and excessive market closure on the investment side of the industry;
- The weak capital base of local promoters, and inadequate trade promotion and investment programming by the public sector;
- A non-existent or weak incentive package for the music industry; and
- Poor institutional structure, in the sense of absence of a strong business association to support the musical tradition.

Bindley Benjamin

Bindley Benjamin is a prominent musician who in 1990 was responsible for introducing the following three classifications of calypso entered in Carnival competitions in Tobago and judged accordingly: Social Commentary, Political Commentary and Humour. He was also instrumental in having calypso judges paid for their services. He observed that a more direct approach is needed when promoting local music and culture internationally, of going into universities and promoting their art-form through concerts where the school takes a percentage. He also felt that a quota system should be instituted by the government to ensure that local music gets a fair percentage of airtime, and therefore becomes more appealing.

Calypso Rose

Calypso Rose, Tobago's most prominent and successful player in the entire copyright sector, started writing and singing calypso at the age of 15 in 1955, in Bethel, Tobago. She won the Calypso Queen title from 1974 to 1978, motivating a change in the labelling of the local Calypso Finals from 'Calypso King' to 'Calypso Monarch'. Internationally, she won the Calypso King and the Road March titles in St Thomas, singing 'Cooperation'. With all the major calypso titles in hand, Rose retired from competition to export her music. Calypso Rose has been a member of the Performing Right Society (PRS) for Music since 1966. She currently receives royalties when her music is played worldwide in Russia, Iceland, Greenland, Poland, France and the former Czechoslovakia. She sees the role of the government as partially that of developing more young trained musicians, for example, trumpeters and trombonists. She said: 'It is obvious that some money is spent on the steelpan, but more money should be spent on the other segments of the entertainment industries. In addition, more resources need to be expended on marketing the local entertainers on the international scene.' The government 'may also be included in the promotion efforts.' Rose lamented the threat posed by 'rampant local piracy which is vivid at every city street corner, with some artists unconcerned in a bid to acquire larger listenership and popularity.'

6.2.1.2 Tobago

The leading players in Tobago are of the view that the future of the music, theatre and opera industry is bright, if the resident population can adapt to ongoing technological and organisational changes and allow the benefits of the performing arts to outshine any negativity attached to them. The population is already well conditioned for the outward-looking view demanded of local populations competing in the current global environment enabled by the digital revolution. Related to this, there is a significant tourism focus in the economy, which provides wide-ranging options for the interface between community and rural tourism and this segment, especially using a model that exploits synergies with the popular Heritage Festival of Tobago. Further, as industry leader John Arnold observed, Tobago has kept a very broad focus in its musical tradition, with many of its local acts playing a leading role on the national calypso and soca scene while developing other copyright forms in other aspects of music, supported by 'poems, heritage scripts, superstitious stories and knowledge of herbs for medicinal purposes.' Arnold himself led a lot of school-based activity in the industry but admitted that it was unequal to the challenges of the current period.

Tobagonian musicians face the same challenges as Trinidadians, as documented above, only to a much greater extent. One especially important challenge is that internet technologies are much weaker than in Trinidad; there are many areas of Tobago where rich talent resides and there is simply no internet access at all. Incomes from the sector are also substantially more irregular for the typical participant, even though Tobago boasts many of the nation's leading artists in many aspects of this segment. Local industry infrastructure is poor and there is a great need for formal training in the arts, including playing, arranging and drama/film scoring. Some industry leaders also hold the view that a major deficiency is the absence of a strong union of musicians, which weakens the bargaining position of musicians in Tobago, and in Trinidad for that matter.

The Tobago Academy of Performing Arts (TAPA) is one of the outstanding institutions supporting the sub-class in Tobago. Established in October 1983, it is also one of Tobago's successful non-profit organisations. Its principal activity is dance: ballet, tap, jazz, modern, and folk. In 2001, TAPA brought international recognition to Tobago when they participated in the highly competitive Llangollen International Eisteddfod in Wales and won first place. TAPA is the first and only Caribbean group to win this prestigious competition. TAPA leader, Annette Alfred, said that copyright know-how is a serious issue faced by the NGO, as a number of their choreographed dances have been taped and are lodged and used at the Culture Department, Division

of Community Development and Culture, which, over the years, has distributed them to a number of dance groups based both inside and outside Tobago without the permission of the organisation.

Mrs Alfred believed that Tobago's future was bright if the people could adapt to the changing global challenges. Such adaptation, she said, starts with specific education about the benefits of participatory social and cultural activities in the communities. The obstacles to commercialisation would also have to be addressed with 'financing, training, physical infrastructure, and personal drive.' She further noted: 'Public awareness will help lighten the load by showcasing all that the performing arts have to offer', and, 'Tobago is a tourist destination and as such we should have our talents showcased at a moment's notice.'

Policy-makers would have to make a bigger input here: 'Performing arts should be mandatory as any other subject, then students can decide if they want to further their studies or not. This would provide a basic understanding of the field and those who want to continue may do so with confidence having firm foundations, including a basic understanding of their history.'

In Trinidad and Tobago, there are four major **commercial theatre** companies, one being RR Productions, owned by Richard Ragoobarsingh and another, RS Productions. The industry has existed for a long time, with Derek Walcott's Little Carib Theatre among its prominent pioneers, and with acclaimed authors such as Earl Lovelace providing distinguished scripts; yet it has found development a substantial challenge, even after Walcott's major successes. Industry leaders blame elitism, problems of marketing, high production costs (including copyright costs), and unavailability of space, among other concerns. In fact, this rich cultural environment for the production of attractive scripts is one of the factors that suggest a feasible and bright future for theatre in Trinidad and Tobago. A good example of how success can be achieved is the business model adopted by the Heritage Festival in Tobago, which is theatre sponsored by the Tobago House of Assembly. To grasp a full picture of the challenges of theatrical development despite such foundations, it is worth fully reporting the interview with Mr Ragoobarsingh and resulting profile of the industry here:

On RR Productions and cooperation with other players: RR Productions also collaborates with other commercial entities, particularly RS Productions, in the production of theatrical performances.

On prospects: Mr Ragoobarsingh observed that, in Trinidad and Tobago, theatre was on a developmental curve but was still considered to be rather elitist. 'Theatre in Trinidad and Tobago therefore has to fight that public relations battle that London and New York theatre does not have ... to hard sell. More young people have been coming to the theatres within the last few years, but theatre is still morphing into being part of the cultural landscape of Trinidad and Tobago. It is ahead in terms of some of the performing arts such as dance... and visual arts such as paintings. In Jamaica, a lot of people see theatre as an entertainment alternative and it is a vibrant industry that fills their halls during performances. Marketing is a challenge and also very costly.' To survive, 'theatre houses depend on corporate clients to assist in advertising costs for television or newspaper advertisements. Each production company maintains a relationship with their clientele; however, corporate clients cannot always assist. The production company then needs to develop a backup system for getting promotional activity.'

On Costs of Production: 'Besides rental cost of theatre spaces, there are lots of ancillary costs such as costuming, make-up artists, photographers, graphic artists, stage managers, lighting, etc., that is required. The availability of theatre spaces is another area of concern. Infrastructure development for theatres throughout the country is not considered a major priority by the government. Concerns regarding copyright in theatre spaces arise when spaces are not licensed for COTT (Copyright Music Organisation of Trinidad and Tobago), thereby leaving the burden of payment with the producer of the play.'

'Conflicts arise, as some of the music played in theatres does not even last 20 seconds and billing is calculated similar to a restaurant playing a full 3-5 minute song. These challenges were subsequently addressed by COTT. Many people ask how to get involved in being an actor as we are not taught in primary school the value of performing arts in any tangible way.'

On policy-makers' priorities and theatre: 'Trinidad and Tobago has never prioritised art as intrinsic to the growth and development of the society. In interaction with the decision-makers, one has to understand that there may be a level of ignorance in terms of their appreciation and respect for what theatre does. This is compounded when they don't attend local plays. They may attend plays when they travel abroad, but it then becomes a condescending attitude in Trinidad and Tobago as local plays are seen as mediocre by the general public. An intrinsic aspect of being an actor is having an appreciation of the movies.'

On the outlook for the future: ‘In reviewing the outlook for the future, it is to be noted that the movies started out of a feed from the theatrical community. Theatre is an untapped resource because it is a feeder to many other performing arts in terms of film, television and movies. There are no theatre festivals in Trinidad and Tobago while they are found all over the world. Trinidad and Tobago is strategically positioned in the Caribbean to conduct performances and be the centre of the theatre festivals. The state has to decide that the performing arts are important and provide financial assistance for Trinidad and Tobago representation of the performing arts in different parts of the world. Plans for the future include taking productions further north – to New York, Canada and London. To undertake this exercise, other factors come into play such as financial assistance, as for theatres abroad you need to obtain insurance, which costs millions, and unionisation comes into focus in the dynamics of what works internationally.’

TVP

Leaders at Total Video Productions Ltd (TVP) in Tobago point out that it is also useful to observe that, even as they face the challenge of investing in expensive professional equipment, in particular for broadcasting and training of professional staff, video production companies in Trinidad and Tobago mostly thrive by covering private and public events and producing promotional material. The chances are very low that such a company can compete successfully in the international market. (TVP) “was established in 2004 as a major contender in the audio visual industry in the twin island Republic of Trinidad and Tobago”. The future in Tobago anticipated by small video production companies such as TVP appears to be in providing services to the hotels, restaurants, and the secretaries and managers of the Tobago House of Assembly. Companies of that scale and with that business model ‘are not very familiar with competition and copyright and need to invest more time to get this specific knowledge’. Tourism also plays a vital role in the growth of a profitable exchange for both producer and consumer, and ‘here is where strict regulations should be put into place ensuring quality and value’. An unwillingness to learn is also pervasive but, ‘for overall development of the industry and ultimately our people, greater emphasis needs to be placed on public awareness. Respect for each other, appreciation for the industry and honesty as a people should be paramount. As the old adage goes, ‘knowledge is contagious!’”

6.3 Motion Picture, Video and Sound

Motion Picture, Video and Sound is a major sub-class of activities in the global copyright-based sector and a sub-class of considerable significance in Trinidad and Tobago. It is generally difficult to separate from the sub-class Television and Radio, mainly because the latter employs many of the outputs of the former. We classify in Table 6.4 following the CPC/ISIC, but estimates relate to the captioned items.

Regarding the current profile, at <http://www.trinidadandtobagofilm.com/filmindustry.asp>, the Trinidad and Tobago Film Company observes that ‘Trinidad and Tobago’s film sector began emerging in the late 1950s to early ‘60s and by the late ‘70s, there were a handful of local productions, both feature film and television.’ As of January 2007, the industry ‘consisted of 12 production companies; 33 companies offering production support services; nine television stations,’ employing 900 persons altogether. Industry components and occupations cover the usual range:

- o Creators – screenwriters, film directors, art directors, actors, directors of photography, animators, music composers, editors;
- o Production – acquiring the rights for a property, assembling the creative team, securing financing, developing the property and arranging distribution;
- o Distribution – local, regional and international;
- o Exhibition – theatrical (cinemas, DVD/video outlets) and non-theatrical (schools, government, and other institutions);
- o Broadcasting – television, direct television, cable, pay-per-view, specialty and conventional channels.

None of the listed activities are documented and incorporated into the SUT 2000, despite the fact that, even before 2000, at least a fledgling industry was emerging rapidly in both film and video. Indeed, the Trinidad and Tobago Film Company (TFFC), itself founded in 2007, reports that in 2000, one ‘international feature film’ was produced, ‘The Mystic Masseur’ (a Merchant/Ivory production, 2000), and another film, ‘Calypso Dreams’ was delivered only two years later in 2002 (<http://www.trinidadandtobagofilm.com/filmindustry.asp>).

Moreover, before 2000, up to 15 films were produced in the country, some in Tobago. The TTFC is optimistic about the future of film in Trinidad and Tobago, and it would be interesting to upgrade the record and see what the performance prospects might be from the standpoint of the fundamental problems of development of the Trinidad and Tobago economy. However, an important lesson already to be learned here is that in determining what is to be monitored, significantly greater weight must be given to the speed of emergence of the activity and the degree of reliance on intellectual property (hence domestic capital), than is given to industry size.

Table 6.4: Motion Picture, Video and Sound

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
9211	9611	Audiovisual and related services	1. Sound recording services; audio post-production services	Core
9211	9612		2. Motion picture, video tape, and television production services	Core
9211	9613		3. Audiovisual production support services	Core
9211	9614		4. Services related to the production of motion pictures and television and radio programmes	Core
9211			5. Motion picture and television programme distribution services	Core
9211			6. Film and video post-production services	Core
9211			7. Other services related to the production of motion pictures and television and radio programmes	Core
9212	9615		8. Motion picture projection services	Core
9212			9. Video tape projection services	Core
9214	9631		10. Services of performing artists	Core
9214	9632		11. Services of authors, composers, sculptors and other artists, except performing artists	Core

Source: TTSNA, WIPO (2003)

6.4 Radio and Television

The sub-class of Radio and Television is one of the most vibrant in the copyright-based industries of Trinidad and Tobago. There are 30 radio stations and 11 television stations supplying content and broadcasting services in Trinidad and Tobago. Of these, two radio stations and one television station operate out of Tobago, but typically do not broadcast content to Trinidad (Table 6.5). Stations in Trinidad generally broadcast content across the nation and sometimes well into the Eastern Caribbean island chain.

The CPC/ISIC product and industry classifications are as documented in Table 6.6. As indicated above, in practical calculations these would have to be read as specific to the activities supplied by Radio and Television. Further, as in the case of the other segments of the audiovisual sector, no data are supplied on Radio and Television in the SUT 2000, notwithstanding the high visibility and rapid growth of these activities in the economy well before the year 2000. However, significant information can be gleaned from the profiles survey.

Table 6.5: Radio and Television in Trinidad and Tobago

CATEGORIES	TRINIDAD	TOBAGO	T&T
RADIO	28	2	30
TELEVISION	10	1	11

Source: computed

Table 6.6: Radio and Television Broadcasting

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
9211	9611	Audiovisual and related services	1. Sound recording services; audio post-production services	Core
9211	9612		2. Motion picture, video tape, and television production services	Core
9211	9613		3. Audiovisual production support services	Core
9211	9614		4. Services related to the production of motion pictures and television and radio programmes	Core
9211			5. Motion picture and television programme distribution services	Core
9211			6. Film and video post-production services	Core
9211			7. Other services related to the production of motion pictures and television and radio programmes	Core
9214	9631		8. Services of performing artists	Core
9214	9632		9. Services of authors, composers, sculptors and other artists, except performing artists	Core

Source: TTSNA, WIPO (2003)

6.4.1 Local Content on Television

The 11 television stations are important for many reasons, but the most important of these is the production of local content and marketable style, including news, that has the potential to profitably penetrate the regional and international market for information. Both radio and television provide marketable content that has as one of its attractive features the immediacy of communication to the end-user. The advantage of television is the power of visual graphics, dramatisation, light and sound, combined with effective interpretation. However, since a key to success is the uniqueness in the way these attractive combinations are put together and marketed, stations in a country like Trinidad and Tobago have an excellent chance of succeeding on the global market if they can define styles that are attractive to audiences beyond the nation's boundaries.

In the case of Tobago, that same principle applies to the island's borders. Ultimately, this is achievable only with high levels of investment in information production, editing, and sharing by local professionals and actors, backed by careful market research, since the skills of the reporter, editor, and producer must define jointly what the audience wants to know, see, and hear first, as well as know, see and hear most. All of this is standard fare. What must be added, in the light of the estimates generated from the baseline SUT model, is that it is the reusable content, in the sense of content produced and used as input by other content developers and suppliers to the end-user, which must be the primary target – content that serves as capital, so to speak.

While all local television stations have addressed some aspects of these initiatives, it is Gayelle that appears to have gone farthest along the correct path in confronting the challenges of focusing primarily on local content creation, guided by a judgement about what is important to local audiences. However, knowledge of what local audiences want to see and hear is less important than knowledge of what the regional and international audiences want to see and hear, and knowledge of what these audiences and regional television and radio houses will repeatedly reuse in their own production systems. The interview with leaders in this copyright segment is accordingly reproduced here extensively.

6.5 Radio

What is said about television is applicable to radio, except for the visual implications. Further, radio has the advantage over television of being much more mobile and distractive, demanding only attention by hearing. Radio also has its own advantageous versatility; there can be talk radio, news radio, music radio and so on, all of which can deliver effective content, given reliable information about audience interest and in accordance with the skills of the news and information editor. In that light, and according to industry leaders who were interviewed in the profile surveys, radio generally and talk radio in particular has hit on a strong

On Gayelle: Local television production houses were established due to the paucity of local content available on television stations. The television house Gayelle (founded in 2004) is one such local house. Content is 'king' in radio and television and, together with Banyan, one of its shareholders, Gayelle has created the largest repertoire of locally created programming in the Caribbean industry.

On key challenges: Nevertheless there are many challenges to be addressed if this is to be the path to the future. Dwayne Cambridge, current CEO, contends that many of the challenges of developing local content 'could be overcome if there was real support for local culture at the governmental level.' He asserts that the introduction of local content quotas, which would mandate that a certain percentage of indigenous programming be aired on television, and related incentives such as tax breaks, would go a long way in preventing the norm of foreign indoctrination and make it more attractive for advertisers to sponsor programming: 'If local legislation doesn't change to demand that a certain percentage of local content be aired, then people will always be fed foreign programming much to the demise of our local industry.'

The cost barrier: Another challenge is the very high cost to produce top quality local shows, Cambridge observed: 'Very few high quality players exist so the price for local production is very high; it costs around TT\$50, 000 to produce one show so, if the market was opened up and more people felt it worthwhile to properly train, as cameramen etc., then the quality of programming would increase and market receptivity would also increase.'

Mr Harris's view: Mr Harris, for his part, suggested that: 'one way to improve the current situation would be for the government's broadcast network Caribbean New Media Group (CNMG) to adopt a free market position and make their studios available for independent producers to produce their shows. New business models are being developed to sell content to the Caribbean Diaspora and the wider world. Already, strong links are established with the European market through Sky TV, which can distribute local programming to an estimated audience of 28 million people. There are also talks with countries such as Nigeria and Ghana to enter into distribution deals. Further plans also surround the creation of new ways to monetise content online, whereby consumers can pay to download or subscribe to content.'

business model in Trinidad and Tobago, and is growing rapidly, based heavily on profitable delivery of local content. The experience and trajectory of Radio Tambrin in Tobago is a good example of how to get onto this general development path and stay on it, whatever the home base of the station.

The experience of the radio stations suggests that an immediate challenge is the limitation of bandwidth, as radio is moving in the direction of telephony and the internet. This is technology-driven change, and as it occurs there will be a growing need to understand and deploy the value of copyright created in the process. In that light, industry leaders are seeking to have the Trinidad and Tobago Broadcasters and Publishers Association (TTBPA), the industry's umbrella organisation, assist in positioning the industry and its members to grapple with, and take advantage of, these developments.

6.5.1 A Profile from Tobago – Radio Tambrin

Radio Tambrin, a radio station broadcasting out of Tobago, commenced operations on the 8th of June 1998. It was founded by Mr and Mrs George Leacock, two visionary Tobagonians who recognised that it was difficult for people in Tobago to find out what was actually happening in Tobago. Radio Tambrin is a community-based radio station whose mission was, and still is, to bridge the communication gap that exists within Tobago.

The fact that Radio Tambrin was a new business concept on the Tobago landscape created a challenge for the founders to attract capital funding from financial institutions. They were able to attract venture capital funding from the Venture Capital Incentive Programme (VCIP), a programme set up only two years earlier in 1996 by the government of Trinidad and Tobago to bring investors and entrepreneurs together in an arm's length equity investment relationship. To date, Tambrin remains the only Radio Station to be owned by a Tobagonian, wholly operating out of Tobago and the first and only Tobago-based business to successfully attract venture capital funding.

The station operates 24 hours a day, 7 days a week, providing news broadcasts, call-in and discussion programmes, sports reports and music. Similar to other radio stations, it generates revenue from its sales of advertising spots. The nature of its business requires that it interacts with COTT. The station is required to pay copyright fees to COTT annually for the use of music from local and international artists. This arrangement is seen as necessary so that artistes can be compensated for their works; however, it is considered that COTT's method of calculating artist fees leaves the less popular artists undercompensated for their music.

Radio Tambrin has been meeting its objective as a community-based radio station, as it is able to adequately provide information to residents and visitors to Tobago. Due to changes in regulations, the station took a decision to apply for a National Licence, which required it to broadcast/transmit to 90% of the country; because of the topography of the country, an additional capital investment was needed to allow it to procure equipment necessary for the station's signal to reach Trinidad and Charlotteville, using a single frequency. The application process was both long and complicated and, on its completion, Radio Tambrin lost its frequency, which had a serious impact on the station as its brand was inextricably linked to its broadcast frequency. However, despite this challenge, Radio Tambrin was able to successfully navigate this hurdle and today has an even stronger brand identity as it has a dedicated listenership in Tobago and Trinidad.

The strength of the Radio Tambrin brand is so great that it has allowed the station to successfully migrate into other areas. For example, during the Carnival season, each year for the last 12 years Radio Tambrin has been able to host the biggest Carnival event in Tobago, called *Tambrin Soca under the Samaan Tree*. Radio Tambrin has become a household name among citizens of all ages, not only in Tobago but also in Trinidad. The station's local success has created a demand from locals residing abroad for it to have a presence beyond the shores of Tobago and Trinidad. This demand is met via the internet: Radio Tambrin can be listened to on www.tambrintobago.com. The presence of its international listenership is evident when persons from other Caribbean territories, Germany, Switzerland, etc., participate in the station's call-in programmes.

The major challenge Radio Tambrin saw facing the sector was the way the broadcast industry was regulated and managed by the TATT. The opening up of the telecommunications sector resulted in a number of individuals and firms obtaining radio licences though the size of the advertising pie remained constant. Today, a number of the smaller radio stations have gone out of business, or have brokered relationships with larger players in the sector. This has created an artificial monopoly, as advertisers are now looking for firms that have multiple stations on which to purchase advertising spots. Further, the internet has changed the nature of competition in the sector. Traditionally, an individual or a firm wishing to participate in the radio broadcasting sector had to apply for a radio licence, pay a number of fees and invest in broadcast equipment. Today, anyone can simply set up a broadcast entity using the internet and establish a global presence without a substantial business investment. Despite these challenges, Radio Tambrin continues to forge ahead with a brand presence that can only get stronger given its mission.

6.6 Photography, Visual and Graphic Arts, Related Professional and Technical Services

The component Photographic Services, Visual and Graphic Arts and Related Professional and Technical Services forms part of the Personal Services sub-class documented above. The relevant ISIC codes are reported in Table 6.7. The component represents an industry into which the primary initial cost of entry is the cost of obtaining adequate education about the technologies of the industry and in the skills to use them, along with the cost of acquiring related skills in financing, marketing, management and social relations.

Much of the basic cost is borne by government, since art has long been a significant subject in the secondary school system since the 1960s. Thus, there is fairly widespread participation and correspondingly wide sociological variety in the industry; there are participants who work from home and those who establish storefronts and studios complete with labs.

There is also a wide range of specialisations such as: part-time and full-time artists and photojournalists; freelancing persons whose only additional capital outlay is a digital camera or a carving knife; and persons specialising in a wide range of subjects – portraits, fashions, weddings, underwater scenes, products for display in a digital environment, and the like. As virtual mall environments take over the marketing of products, the illustrative capacity of the industry is becoming increasingly important. Correspondingly, there is a fairly wide fee structure, including fees for creativity and pure usage fees tied to how photographs and other art will be used, both of which allow pricing by product differentiation and the extent of transfer of copyright.

Table 6.7: Photography, Visual and Graphic Arts, and Related Professional and Technical Services

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
7494	8381	Photographic services and photography processing services	1. Photographic services	Core
7494			2. Portrait photography services	Core
7494			3. Advertising and related photography services	Core
7494			4. Action photography services	Core
7494			5. Speciality photography services	Core
7494			6. Restoration and retouching services of photography	Core
7494			7. Other photographic services	Core
7494			8. Photography processing services	Core

Source: TTSNA

Spatially, the profile is as follows:

Tobago

In Tobago, the industry is quite small with two established photo studios, one company specialising in event photography, one finishing lab and two established integrated art galleries, dealers and studios. The art industry is not well-established in Tobago, but there is a growing local supply of carvings and paintings. None of the country's prominent professionals operate from Tobago.

Trinidad

It is in Trinidad that a truly viable industry has been established. The establishment count is as follows – 36 Photo Studios; 18 established businesses providing an integrated service in commercial, industrial, portrait and events photography; 17 specialising in photocopying and scanning; 15 photo finishers (retail); 15 art galleries, dealers & studios; eight picture frame dealers; and one commercial artist. Some reasonable sense of the scale of the industry can also be obtained from the fact that, for visual artists (who produce paintings and photography as well as sculpture and ceramics), institutional organisation is provided by the Art Society of Trinidad and Tobago established in 2004, which has approximately 400 members on roll, of which 200 are financial members.

The Art Society does not represent all the artists in Trinidad and Tobago, as there are a few other conglomerations or organisations of artists in the country. However, there are very few artists recognised at the top of their field who were not part of the Society at some period of their development. The typical artist has basic secondary education but many have pursued tertiary education in areas other than art, and a few have formal education leading to a degree in the arts or special programmes in their preferred art form.

In the sub-class, success typically depends on access and exposure to the foreign market since the local market for these products is small. A few Trinidad and Tobago artists have gained international recognition and have established a footprint in the international arena. The most prominent operating strictly from home are LeRoy Clarke, whose 'Douens' masterpiece has been acclaimed internationally for many decades, and Peter Minshall, who has won similar international acclaim for his works in the Carnival Arts. Notable among those achieving acclaim from abroad are Michel Jean Cazabon, James Isaiah Boodhoo, Boscoe Holder, Geoffrey Holder, Carlisle Chang and Wendy Nanan. Other artists have relationships with foreign galleries and regularly have pieces at exhibitions in Canada, Maryland, Atlanta and Barbados. Some, like Peter Minshall, have a cross-sectoral approach in that they draw, paint and design for the Carnival industry.

Besides Carnival, there are few opportunities for local artists to present their work. However, there is some opportunity to display work in the hotels and guest houses of Trinidad and Tobago. The Art Society building has an exhibition gallery, where non-commercial exhibitions are held and artists get a chance to receive a small commission, which makes it more accessible to start-ups. Tourism offers significant potential, much

of which is linked to Carnival. The Art Society observed that 'the Trinidad Hilton has an excellent collection of local art and its management has historically supported local art. By contrast, the Hyatt hotel reflects its international connections and local art is not present.' Some smaller hotels did portray local art and commission murals from artists for murals. However hotels and guest houses were a significant untapped resource that was accessible to the sector. A major drawback was that neither Tobago nor Trinidad had a substantial investment in public art statues, murals or carvings; and going to the gallery and museum might not be on the agenda for most people. The Art Society maintained that a substantial market could arise from recognition that 'the creative sector can help with problem communities so that the government would have to spend less in communities.'

In respect of the future, it observed:

'The Art Society is seeking to enhance collaboration with the private and public sectors in their future work. There are proposed workshops on art appreciation and the target groups are the diplomatic corps, core Ministries, and media houses. Seminars on copyright are proposed for various regions in Trinidad and Tobago. The target audience is expected to include corporate T&T, individuals with interests in the art, and persons peripheral to the Art Society with cross-sectoral involvement.'

With respect to the challenges facing the industry, the Art Society observed that they were both institutional constraints and business-related concerns. At the institutional level, the picture was not bright because of the 'voluntary nature and the lack of a secretariat in the Society to interface with persons who have issues', and because 'the work of changing the public perspective requires management capability and funds, which the society does not have'. So, there was no umbrella programme of timely education, training and marketing for entrants into the professions. At the level of professional practice, the Art Society was of the view that 'as a general position artists are not aware of their rights.' Concerns regarding copyright abounded and artists were not aware of their individual responsibility to protect their rights, looking instead to 'mediation services for copyright issues within the Ministry of Legal Affairs.' Further, as art had attracted an image of elitism, there was little public support for the industry beyond what was provided for Carnival, and 'the Art Society receives an annual stipend of TT\$20,000 from government', which was a measure of the fact that 'the creative arts is not a policy priority when compared to what decision-makers decide they would spend resources on. There is a provision in the corporation tax act of 150% tax relief from which no one has benefited as yet. The Ministries of Culture and Finance have just prepared the framework for operationalising this incentive.' Government was pursuing the idea of an artist registry and of undertaking the assessment of the value of the work at galleries.

6.7 Software, Databases and New Media

This sub-class of activities focuses on a broad set of products and services related to methods of gaining access to information, storing and using it. The class is growing in importance in all economies across the globe. It includes computer software, relational and other databases, and a range of digital and online supply media that feature interactive access and have come to be called *new media*. New media includes intangible and virtual reality environments such as the internet, websites, streaming of audio and video content, chat rooms, online communities, computer multimedia, computer games, CD-ROMS, DVDs, USB keys, web advertising and, more recently, the 'cloud'. Included too are the interface between the telephone and digital content that is 'voice over the internet protocols' (VoIP), the contents of digital cameras, mobile computing, and a rapidly growing set of information communication technologies that provide the basis for the link between computers, handhelds, cell phones and other digital instruments. New media contrasts with older analogue access technology, such as television and radio access or print and other static representations and modes of access to information.

Table 6.8 documents how the sub-class is coded in the CPC and ISIC. However, no estimates are as yet available at this industry level since the category does not even appear in the classifications of the SUT2000.

Table 6.8: Software and Databases, New Media

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
7221	831	Computer consultancy services	1. Software publishing	Core
7229			2. Other software consultancy and supply	Core
7240		Database activities and online distribution of electronic content	3. Assembly of compilations of data from one or more sources 4. Provision of online access to proprietary databases 5. Online database publishing 6. Online directory and mailing list publishing 7. Other online publishing, including e-books 8. Web search portals 9. Internet search sites, internet game sites, internet entertainment sites	Core

Source: TTSNA, WIPO (2003)

A number of companies have performed extremely well in this industry. Profiles of two standouts are presented here to give a sense of how the industry works and its perspectives going forward.

The Inspired by God (IBG) Phonic Programme

IBG centres its activities on the usage of phonics-based exercises and is an educational product developed in the Republic of Trinidad and Tobago by IBG Educational Products. In 1994, its creator, Mrs Olive Reyes, observed the need to develop programmes to stimulate literacy, develop numerical skills and writing skills, and also develop critical thinking skills in students. The results of the project were astounding and strategies to reach a wider audience were conceived. The journey to market was not as smooth and involved a cost of TT\$5000 for the actual production. Financial institutions were unwilling to offer financial assistance and other sources for seed capital were sought.

Today, this business venture has advanced its output from cassette tapes to CDs and DVDs and has registered businesses in Barbados, the United States of America and the United Kingdom. The anticipated support from government and educators was not forthcoming. It was recognised that an alternative market had to be created. The first classroom package was actually purchased by a school in the US and not in the country of origin as was expected. A pilot project was conducted in November 2003 with two junior secondary schools and another one was also conducted with the Youth Training Centre (YTC). The worst-performing students were selected to participate in the project. Within one week, tremendous improvement was evident in the students' performance.

One of the company's goals is to 'capture' Trinidad and Tobago and eradicate illiteracy by having the IBG phonics programme in every school. Achieving this would involve overcoming simultaneously the 'foreign is better' mentality and the learnt beliefs on issues relating to learning disabilities, including 'dyslexia' and the notion 'academically challenged'.

Although IBG Educational Products continues to receive accolades from users, its goal of partnering with the education authorities in Trinidad and Tobago to assist with illiteracy eradication remains elusive. The inability to secure overdraft facilities from the company's banker is testimony to the inefficiencies of the system. The research for the new writing programme took three weeks but the development took three years. The refusal of the commercial banks to provide financial products such as overdraft facilities is contributing to the added pressures of operating in an unstable economy. The organisation recently approached and received favourable feedback from the Export/Import Bank (EXIM Bank) to secure funds for the acquisition of equipment that is needed to increase production levels and satisfy the forecasted increased demands, expected from entry and expansion into new markets.

Under the Protection against Unfair Competition legislation, any act or practice in the course of industrial or commercial activities that causes or is likely to cause confusion with respect to another's enterprise, activities, products or services shall constitute an act of unfair competition. Currently, the company is facing difficulties on that front in order to sustain its business. A clear comprehensive competition policy supported by enforcement of the law is critical. The policy should address unacceptable business practices that nullify the essence of competition. Further, incentives for research and development to produce innovative products and strategies in the education sector are essential for the country's social and economic development. Seed capital must be sufficient to chart the company through all stages of the development process. The 'foreign is better' mindset has to be changed to allow local products to grow and contribute socially and economically to the local communities.

Teleios

The software development and mobile solutions company, Teleios Systems Ltd, was founded in 1997 and today is one of the region's most innovative and pioneering technology services firms and, in addition, the first Microsoft-Certified Independent Software Vendor in the English-speaking Caribbean. The business branched from pension software into corporate websites and the emerging Trinidad and Tobago mobile phone marketplace, providing SMS-delivered content and services to users across the country's cell networks.

Teleios serves a wide range of clients spanning industries such as finance, telecommunications, manufacturing, education and government, providing services that assist its clients to quickly and effectively deploy business solutions that leverage the power of the internet and mobile communications technologies. Services include website and electronic commerce solutions, interactive media, custom software and mobile telecommunications solutions based on its flagship Message Central Mobility Suite.

Teleios' strategy is built upon the following elements:

- A focus on 'thinking' underpins the professional successes the company has achieved. Innovation and creativity often come because the environment allows or encourages it to happen rather than plans for it to happen.
- Fortunately for Teleios, this ideology was known to, and accepted by, the then Telecommunication Services of Trinidad and Tobago (TSTT) Executive Vice President for Mobile Services, Michael Barrow, who provided the opportunity for Teleios to 'plant a seed.' Mr Barrow, who is described by the Chairman of Teleios as a man 'who I have not quite met one like him in Trinidad and Tobago', understood that innovation is a long-term process, requiring consistent, long-term enduring support.
- The 'seed' in question was an idea to distribute information using SMS, which Mr Hinds initially thought was original but subsequently found out was not. TSTT was approached with the idea that a solution could be built to disseminate information. Teleios was presented with an opportunity that far too often will not be allowed in Trinidad. That opportunity was the planting of a seed, with time to nurture and perfect.
- The results of that 'opportunity' was the formation of a partnership between Teleios and TSTT in 2003 that allowed for an SMS-based content solution called Message Central to be provided to TSTT's subscribers. Message Central is the service delivery engine behind value-added SMS services on the mobile network in Trinidad and Tobago.
- Recognising system inefficiencies in Trinidad and Tobago, Teleios has taken a keen interest in the education system, not just from the standpoint of facilitating delivery of the curriculum but from the perspective of changing inefficient mindsets. Teleios devised strategies and products to overcome such thinking, such as the Code Jam programme. Code Jam is a competition to build programmes in which students compete in teams to build real world solutions under particular time constraints. The Code Jam Programme has created a platform for seeds to be planted. For the first time in years, local teams participated in the Imagine Cup – the world's premier student technology competition, hosted by Microsoft. This year five teams participated and every single team used Teleios technology to help with their competitive efforts.

The outlook for the industry and Teleios is bright. That notwithstanding, the industry has built-in challenges. In small countries, innovators operate in an environment where most of the persons they interact with,

from government to private businesses, implicitly assume that software solutions should be imported. Unfortunately, in Trinidad' foreignness' is a qualification: even if a local business had a similar history and growth pattern that essentially was no different from that of the foreign company, the local company would have to climb a steeper hill. Initially, Message Central provided service to fewer than 200 subscribers. The service was provided from a clone PC. Commercialisation required the use of servers, so the company's banker was approached for financing. The negotiation process took more than a year and the loan still was not granted. It became necessary to seek funding from another bank, at which the negotiation process also took another year, but the finance was granted.

The future strategy of the company includes the development of information technology clusters and provision of opportunities for talent development.

6.8 Advertising Services

The sub-class Advertising Services is best described as a set of cross-cutting activities that affect all other aspects of the political economy in some measure. A typical full-service advertising agency would provide a range of products as listed in Table 6.9, which defines various aspects of the creative promotion and advertising process:

- Planning, creating and placement services of advertising;
- Purchase or sale of advertising space or time, on commission; and
- Sale of advertising space or time in various media, with or without commissions.

The underpinnings of such services include marketing research and consultations to carry out appropriate design and placement, then consequent public relations and promotions, branding and definition (or creation of identity), and goodwill. Media strategy must be designed, related scripts have to be written, and pictographs and productions have to be prepared for relevant media such as audio, video and print. These activities translate into the visible practices in television, radio and print advertising. The internet is continually opening up a new world in the social networking space, one that involves full-service digital direct mailing with digital images that are fast replacing the older, print-based direct mailing services. A wide spectrum of professional skills is involved in delivering such services, including crisis management, planning, designing, branding, script writing, photography and art (both manual and digital), acting, comedy, music making, computer programming, graphic design, web designing, video and audio engineering, traditional management, podcasting and marketing.

The activities, classified and coded in Table 6.9, are measured in the SUT 2000 in the wide sub-class of services described as Business Services (7010, 7430, 7111-7129, 7492). Only the 7430 activities in the table are measured. The services are:

- Sale of other advertising space or time (except on commission);
- Planning, creating and placement services of advertising;
- Purchase or sale of advertising space or time, on commission;
- Sale of advertising space or time (except on commission).

Still, consideration of certain aspects of the performance of the Business Services sub-class can give a reasonable estimate of the type, if not the size, of the contribution of the advertising industries. This sub-class used TT\$1637.2 million of intermediates in 2000, generated TT\$683.9 million in wages and emoluments, shows no record of taxes on production, received no subsidies, used up TT\$145.8 million of fixed capital in generating the output and produced TT\$2244.3 million of operating surplus from which retained earnings and the cost of capital could be met. Accordingly, gross value added amounted to TT\$3074 million, or about 6.2% of GDP, 9.82% of operating surplus, and 3.5% of the domestic wage bill. The relatively low share of wages points to a skill-intensive rather than a labour-intensive sector. It generated very few exports and achieved a very high import productivity signature of 29.8 (value added per dollar of imported inputs used), which is also among the highest of all sectors in the economy. This high foreign exchange saving capacity is closely related to the extraordinarily high share, 96%, of domestic capital in the *total* (fixed and circulating) capital consumed in the industry's production process.

The performance path of this sector as a whole, and advertising services in particular, makes it an attractive target for national development programming, including expansion as service exports, using the internet.

The guidance from the international data is that, in many countries where WIPO-sponsored surveys have been carried out, the advertising industry has proven to be the largest or fastest-growing creative industry in the core group, but to be relatively small in it, providing an average of 7% of the core copyright GDP and employment. The rate of growth is linked to the fact that the advertising industry provides services to many other industries. The dynamics of this industry reflects this level of connectedness, as it often follows general trends in major demand sectors, such as finance, insurance and construction.

Table 6.9: Advertising Services

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
7430	8361	Advertising services	1. Planning, creating and placement services of advertising	Core
7430	8362		2. Purchase or sale of advertising space or time, on commission	Core
7430	8363		3. Sale of advertising space or time (except on commission)	Core
2211; 2212; 2219			4. Sale of advertising space in print media (except on commission)	Core
9213			5. Sale of TV/radio advertising time (except on commission)	Core
7230; 7240			6. Sale of internet advertising space (except on commission)	Core
7430			7. Sale of other advertising space or time (except on commission)	Core
8369			8. Other advertising services	Core

Source: TTSNA, WIPO (2003)

The high level of economic performance of the advertising sub-class was delivered by many outstanding firms. Here are some profiles:

Trinidad

All Media Projects Ltd

Led by Alfred Aguiton, and better known in the local advertising industry as Ample, All Media has been one of the most successful names in the advertising and public relations sector since 1974. Through its extensive portfolio of services, it has demonstrated a unique ability, not only to offer the core services of an advertising agency, but to continuously modernise and update its services. Apart from magazine advertisements, television commercials, posters and brochures, Ample has undertaken to keep updating its operation, and assists clients in both the public and private fields in the realm of social media, powerpoint presentations and website design, to name just a few.

One of the organisation's key ingredients to success is hiring personnel with proven track records and knowledge of global cutting-edge standards. The company considers that university training would be more useful if students graduated with a skill set more pertinent to the advertising and public relations sector and if the value of hard work and self-sacrifice was more deeply ingrained. One of the challenges in the industry is an unsophisticated clientele who are at times unsure of the importance that effective marketing can play in their organisation's success. Mr Aguiton contends, 'Clients must themselves be familiar with international standards of the profession and be able to appreciate that advertising and proper public relations are an indispensable component in the private and public sector matrix'.

The sector operates quite well under the umbrella of its Advertising Agencies Association, which has drafted policies and guidelines on intellectual property and, as a result, Ample has adopted the policy whereby it retains all of its intellectual property unless otherwise negotiated. However, Mr Aguiton admits that the sector would 'welcome governmental assistance on matters such as general legislation that sets and enforces standards, an adjustment of a recent policy that has the Government Information Services (GISL) handling the media bookings of government advertisements and an adjustment of rules regarding tendering for government matters.'

Collier, Morrison and Belgrave (CMB)

CMB has been operational for over 40 years. It is a full-service advertising agency engaged in all aspects of communication and providing creative solutions to clients. CMB considers itself as being in the business of crisis management in advertising and communications; radio and television production; media management (including placement of advertisements in the newspapers) on behalf of clients; and event coordination/execution.

On Integrity: CMB has received several local, regional and international awards and is serving both the government and the private sector. Nonetheless, it stresses that more important than the awards are values such as integrity and consistent high-quality work. As a result, the company will not entertain jobs based on political climate. The company's development issues heavily inform its work, so its staff is exposed to sociology, politics and economics (including the Millennium Development Goals (MDGs) on poverty) for the purpose of adding substantive content to its designs and other creative work. In keeping with this, CMB recently completed a *pro bono* project with the Trinidad and Tobago Beverage Alcohol Alliance, whose objective was to encourage a code of conduct towards alcohol, alcohol consumption, and the use and overuse of alcohol among young people.

The Value of Copyright: CMB is a member of the Advertising Agency Association of Trinidad and Tobago. As is often the case in advertising, CMB resorts to different types of intellectual property protection and protected products and services. CMB operates in an audio and visual communication environment, as well as in the print and electronic media where print media includes press, posters and billboards, while electronic media includes radio, television, social media and digital (screens).

Challenges: Due to the world financial crisis, companies have been cutting their advertising budgets to enable them to spend less and show more profits on their books. The lack of education on design is a challenge for developing design capacity. CMB addresses the changes in the advertising/communication landscape and seeks to adapt accordingly. It also recognises the absolute need for continuous learning for all staff members and believes that the intellectual capacity of each member of staff must grow almost daily. In the meantime, it faces the challenge of clients who automatically cut their budgets when things are not going well, when all the evidence suggests that they should be increasing spending on advertising. Advertising is an industry that is linked directly to return on investment.

Copyright Challenges: Copyrighting is a serious challenge in the industry. There are no policies in place to protect copyrighting for advertising agencies in Trinidad and Tobago. Advertising agencies are only able to charge clients for the use of imagery, not for the ideation behind the creation. COTT needs to engage in the protection of the rights of advertising agencies as well.

On Exporting: CMB is already a global player. It books media regionally, handles regional clients, and has done projects internationally (e.g., in Europe and the US). The industry is changing in such a way that advertising agencies are seen as very expensive and parasitic, and the 'value' conversation is no longer there. The rise of social media will change how work is being done in the industry. There is therefore need for serious discussion on the implications for the future of the industry.

On Use of Domestic Capital: CMB works with active contemporary artists in Trinidad and Tobago. The industry hires 85% of the graphic design/visual communication practitioners coming out of educational institutions in Trinidad, especially from the John Donaldson campus of the University of Trinidad and Tobago, The University of the West Indies, and foreign universities operating in Trinidad. There is an urgent need for creative industries organisations in Trinidad and Tobago that would teach and train persons to become professional designers. As it stands, there are no advertising schools in Trinidad and Tobago, unlike the case in developed countries. As a result, there is no real understanding of the levels of professional aspiration or of job roles needed in the industry.

Looking Ahead: In terms of future prospects, the company considers that the Tourism Development Company should facilitate the process and play a significant role to become a global player operating out of Trinidad and Tobago; there needs to be the opportunity to meet and greet clients. The Telecommunications Services of Trinidad and Tobago should be a partner to the advertising industry, not only as client, but also as facilitator of visits to technology conferences, which can assist in marketing, trade promotion, and regional and foreign investment.

Tobago

StoneCold

StoneCold has been in the radio-announcing business for the last 26 years. Tambrin, the sole Tobago radio station, has under 5% of the Tobago market and an even lower share of the national market. Therefore, it is almost impossible to pay each employee a good salary. StoneCold has been able to make additional money by marketing his shows and, as a result, he gets a 10% commission associated with advertising sales. Additionally, he has successfully carried out private voicing for advertisements.

StoneCold uses the traditional method of copyrighting: writing the intellectual property entity with descriptions and samples where applicable, mailing that information to yourself, and keeping the unopened letter for presentation in court, if necessary. Initially, StoneCold did not see the benefit of copyrighting entities like words and phrases, but after some consideration he agreed that it would expand the industry and provide additional sources of income and, therefore, inspiration for creativity. He stresses, though, that the copyright organisations need to find a mechanism to accurately capture what is being played on the air. This would ensure that musicians are appropriately compensated based on airplay.

Nu Impact Solutions

Mr Jones, the entrepreneur behind Nu Impact Solutions, says that this is a unique advertising business launched in 2010. The business provides affordable advertising possibilities to its clients via an eBillboard. It offers advertisement display as well as design services to its clients. Nu Impact Solutions has experienced challenges such as cash flow, competition, staffing, training and location. However, the pace of the business thus far and its potential for the future outweigh any challenges that have arisen or may arise.

When the company introduced it, the concept of the eBillboard was new to Tobago and, as a result, individuals who had sufficient understanding of the concept to sell the product to potential customers/clients were in short supply. Therefore, training of staff had to be arranged. Training was made available for the technical operation, management and maintenance of the eBillboard from the company where it was sourced.

In addition to adding more eBillboards locally, Nu Impact Solutions Advertising went on to create the *Island Link*, a full-gloss magazine that promotes Tobago businesses while highlighting what is happening on the island. Mr Jones is also exploring the possibility of reaching into the regional market on a franchise basis.

The company is not fully aware of the opportunities presented by copyright for the business.

6.9 Copyright Collective Management Societies

As indicated in Chapter 3, collective management is an important activity in the core copyright sector, complementing whatever efforts are undertaken by individuals to protect their intellectual property. Table 6.10 lists the coded activities under which collective management will normally be coded in the ISIC.

Table 6.10: Copyright Collective Management

ISIC Code	CPC Code	General Class	Sub-class	WIPO (2003) Classification
9211; 9213; 9214	7332	Licensing services for the right to use non-financial intangible assets	1. Licensing services for the right to use entertainment, literary or acoustic originals	Core
7221	7331	Licensing services for the right to use nonfinancial intangible assets	1. Licensing services for the right to use computer software	Core

Source: TTSNA

The following collective management organisations are operational in Trinidad and Tobago:

- Advancing Writers Entertainers Singers on Music Endeavours Ltd (Awesome Ltd) – administering performing and reproduction rights.
- Copyright Music Organisation of Trinidad and Tobago (COTT) – administering performing and reproduction rights.
- Trinidad and Tobago Copyright Organisation (TTCO) – administering performing and reproduction rights.
- Trinidad and Tobago Reprographic Rights Organisation (TTRRO) – administering reprographic rights of authors and publishers.

COTT was the first to begin operations in January 1985 as a non-profit-making organisation of song writers, composers, lyricists and music publishers. It administers the public performance, broadcasting, communication to the public, mechanical reproduction and synchronisation rights granted by law to the creators and owners of original music. COTT has about 2500 members. It also has reciprocal agreements with all the major overseas societies and is a member of the International Confederation of Societies of Authors, Composers, Composers and Publishers (CISAC). Thus, it represents the worldwide repertoire of copyright music in Trinidad and Tobago. Both TTCO and Awesome Ltd have smaller memberships and a much more limited, essentially local repertoire, especially as they do not represent the international repertoire from Trinidad and Tobago's major trading partners such as the United States, the European Union, India and China and CARICOM.

In addition to the collective management organisations in music, there is also the Trinidad and Tobago Reprographic Rights Organisation (TTRRO) which was incorporated as a non-profit organisation on May 12, 2003. The members of TTRRO include publishers, authors, photographers, cartographers and composers (sheet music only). The current membership is 35, made up of five publishers and 30 authors. The organisation has been slow in getting off the ground in terms of issuing licenses to users, preferring to concentrate its first efforts on a membership drive and building public awareness in the country of its existence and its mandate. Of particular interest to the members of the TTRRO are the granting of licences to users in respect of photographic works, literary works and cartographic works. The work and mandate of the organisation have been endorsed by the Ministry of Legal Affairs and Book Industry Association of Trinidad and Tobago. The Ministry of Education and the National Library and Information Systems Authority (NALIS) have expressed their willingness to sign the appropriate licence agreements. The organisation is presently negotiating with the 3 major universities and several other tertiary education institutions, including the UTT and University of the Southern Caribbean (USC) to take out licenses. The International Federation of Reprographic Right Organisations (IFRRO), of which TTRRO is a member, has been instrumental in getting the organisation up and running by providing training and funding by way of a grant and loan. As of 5th March 2011, TTRRO has signed bilateral agreements with 17 sister societies including JAMCOPY of Jamaica and Bcopy of Barbados. With the increasing commercialisation of text and graphic works in digital form, the quantum of micropayments is expected to increase and the role of RROs will be increasingly important in ensuring that publishers and authors are rewarded for their investment of money and creativity. The existence of TTRRO at the beginning of the switch of commercial exploitation of textual and graphic works from paper to electronic format should ensure that authors and publishers in Trinidad and Tobago benefit from these new modes of consumption.

Great strides have been made in the collection of licence fees on behalf of rights holders. This is partly because of attitudinal changes of consumers, who are beginning to have a greater appreciation for intellectual property rights, and, in the area of music, partly because of the implementation of new software which makes it easier to monitor the music that is actually being broadcast as well as the accuracy of the logs of music played. Nevertheless, COTT contends that enforcement of intellectual property rights remains challenging, that professional organisations such as the Musician's Union and the Songwriters' Guild have important roles to play, and that government must recognise that it has the overall responsibility for law enforcement and has to deal more actively with piracy as well as public education about intellectual property rights.

6.10 Works of Mas

Works of mas is a growing and competitive business in Trinidad in which numerous Carnival bands, musicians, designers and promoters participate. Major investments are made yearly in the Carnival business. They spur economic effect in many related creative areas such as music, textiles, design, advertising, publishing, graphic and visual art, photography and others. Such investments are of utmost importance for the country, as they preserve traditional and indigenous art forms; are appealing to citizens, tourists and foreigners; and have great potential to generate jobs and value throughout the year. While Trinidad and Tobago's works of mas are protected under copyright law in Trinidad and Tobago, they are not in international copyright legislation and in most countries.

The National Carnival Bands Association (NCBA):

This Association was formed in 1958 and now represents the needs of designers, craftsmen, costume builders, wire benders, kings, queens, masqueraders and other persons involved in Carnival activity. Though the NCBA has been championing the causes of the Carnival fraternity for decades, it is constantly looking for new ways to engage with its members and the public at large and has recently employed an advertising agency to launch its social media marketing campaign. Secretary Wrenwick Brown contends that, 'Carnival on the whole is not marketed well; the industry has so much untapped potential. Many of us after Carnival remain just satisfied but at the NCBA we are aiming to really brand Carnival as a product of Trinidad and Tobago and through Twitter and Facebook we are aiming to tap into new markets.'

The Association has recently launched a Mas Academy, which is dedicated to preserving the indigenous art forms within Carnival, as well as to teaching the fundamentals of business. Graduates are capable of educating children in the art of sewing, designing, and band management. The Academy's global outlook is already reaping rewards as one of its graduates will be designing costumes for Toronto's Carnival later this year and another will be designing costumes for a local production of *The Lion King*.

The Mas Academy is dealing with challenges in terms of space and support from the government. The organisation contributes to employment year round, by supplying costumes, masqueraders and other Carnival characters when the Ministry of Tourism requests them for cruise ships and for various cultural festivals, but it believes that more revenue would be generated from Carnival if the bigger bands did not import readymade costumes from India, China, Pakistan and other countries. It employs locals to actually create costumes.

The NCBA has also highlighted Intellectual Property law as an area which needs to be addressed. Brown observed: 'Back in the day when tourists came, everyone used to allow their picture to be taken but now people are realising that these pictures have some worth'. It is considered that the Ministry of Legal Affairs needs to distribute more information to shed light on issues of copyright, particularly when designers infringe each other's costume designs.

Island People:

The Carnival band *Island People* is one of the largest in terms of the number of younger masqueraders. One of the key ingredients to its success is the utilisation of young, dynamic and creative minds in all aspects of its organisation structure. The Carnival's potential to generate employment and secure revenue is not yet fully exploited. Band manager, Mr Lewis, observed: 'The government needs to see Carnival as an industry. There is no collective national effort to improve its value as a business product. It's only seen as fun, like some type of circus. But Cirque du Soleil is a big business.'

Lewis acknowledges that an aspect of contention between bandleaders and the government is the viewpoint that modern-day bandleaders like him are destroying the indigenous heritage of Carnival through their portrayal of what is popularly known as 'bikini and beads mas', as opposed to traditional characters. He believes that the government needs to change its outlook in this regard if Carnival is to survive in years to come.

He proposes that 'a permanent centre be erected where drummers, steelpan players, wire benders, and Carnival historians are employed year round so that the history of Carnival can be preserved. It should be mandatory for kids to attend so that they can understand Carnival from a holistic perspective.'

The imposition of tariffs has recently become a source of tension between bandleaders and government as the government has suggested that the importation of costumes is denying local citizens job opportunities. Lewis was vehemently opposed to this viewpoint, as he viewed the tariffs as nothing other than 'killing the industry, since the price of costumes will be sure to rise.' He suggested instead the implementation of 'a training programme during a five-to-seven-year period when young people are taught the intricate arts of wire bending, dyeing fabrics, etc., which would serve to generate revenue and employment over a much longer period, as opposed to the immediate imposition of heavy tariffs on the importation of costumes.' He further stressed that 40 to 60% of their headpieces and most of the costumes for male masqueraders were already being made locally.

Bands like *Island People* provide year-round employment. For events like Carnival band launches, they employ models, makeup artists, hairstylists, set designers, graphic and visual artists, special effects companies, bar services, cleaning crews, food service companies, security companies, and sound and light companies. *Island People* believe that the band can become a global player and compete internationally: it performs in many of the major Carnivals in the West Indian diaspora. The band has already registered *Island People Mas* as a trademark in Barbados, Jamaica, Canada, Spain and Italy and is now approaching Japan and the UK.

Extensive assistance is needed to shed light on intellectual property issues that arise every Carnival where the protection of works of mas is concerned.

7. Estimates of the Contribution of Copyright to the Trinidad and Tobago Economy

Using the system of national accounts for Trinidad and Tobago for 2000, 2007 and 2011, and the copyright factors estimated in Section 3, a satellite account for the copyright sector was prepared for the same years. As detailed in Section 3, the estimates of the copyright factors adopted for this study are based on preliminary responses to two surveys carried out in Trinidad and Tobago and one carried out in St Lucia, calibrated by considering the copyright factors used by studies made for other countries around the world following the methodology set out in WIPO (2003). Special attention was given to countries that appear to have an economic structure similar to that of Trinidad and Tobago – in particular, the Philippines, Brunei and Jamaica. The resulting copyright factors are reported in Table 3.11. Copyright factors for the core copyright sector, including works of mas, are all assumed to be 1. The estimates for the interdependent, partial and non-dedicated industries are broadly similar to those in most of the copyright sector studies conducted under the leadership of WIPO. The resulting details of the copyright satellite accounts for 2000, 2007 and 2011 include a listing of the items measured and the match-up of their TTSNA codes and their WIPO (2003) classifications and can be made available.

Regarding the analysis of estimates presented in this section, Trinidad and Tobago has no significant interdependent copyright activity, except for the production of steelbands and paper: that is, there are no significant activities producing televisions, radios, photographic equipment, photocopiers and blank recording materials. Some of the paper produced is intended only for the production and use of copyright activity, and some for packaging and purposes unrelated to copyright. In the core copyright sector estimates for Trinidad and Tobago, we distinguish the contributions of steelbands from the rest of ‘music, theatrical productions and opera’ because of their national significance as well as their institutional structure. Steelbands are mainly run as large community-based NGOs. In the ‘interdependent’ sector estimates, the musical instrument that is manufactured in Trinidad and Tobago is the steelpan. All of this manufacturing activity is treated as a copyright output and given a factor of 1. An aggregate music industry for Trinidad and Tobago is computed and reported as the sum of these parts plus the activities of the business associations PanTrinbago and TUCO and of the collective management organisations. Further, an even more inclusive industry labelled ‘steelband, music, carnival and culture’ is defined that includes the works of mas and the activities of all related business associations, including TUCO and PanTrinbago.

7.1 Contribution of Copyright to GDP

The data in Table 7.1 show the trend in the aggregate contribution of copyright to GDP at market prices in 2000, 2007 and 2011. In 2000, copyright contributed approximately TT\$1,998 million to the economy – more than 3 times as much as agriculture (TT\$626 million), 2.8 times as much as hotels and guesthouses (TT\$710 million), and nearly 23% of manufacturing (TT\$8,700 million). This contribution of copyright-based activity grew to TT\$4,351 million in 2007 and to TT\$4,292 million in 2011. Table 7.2 provides similar information in constant (2000) prices and Figure 7.1 provides bar graphs for easy comparison of sector performance. Relevant sector deflators and the deflators for the copyright sector as a whole are reported in Table 7.3. In real terms, the copyright sector contributed TT\$3,630 million in 2007 and TT\$4,102 in 2011. Thus, the real size of the copyright sector grew at an average rate of 11.7% per year between 2000 and 2007 and at a lower but still positive average rate of 3.2% per year between 2007 and 2011 (Table 7.4).

Table 7.1: GDP at Market Prices by Selected Sectors, including Copyright, Trinidad and Tobago 2000-2011 (TT\$ million)

Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000	626	23,283	8,700	3,760	9,990	710	4,316	13,508	51,371	1,998
2007	509	61,634	7,217	11,310	16,925	461	7,642	31,255	136,953	4,351
2011	853	56,557	6,209	11,874	20,862	380	6,647	35,512	134,307	4,292

Source: Computed from CSO SNA and copyright surveys

Table 7.2: GDP at Constant (2000) Prices by Selected Sectors, including Copyright, Trinidad and Tobago 2000-2011 (TT\$ million)

Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000	626	23,283	8,700	3,760	9,990	710	4,316	13,508	51,371	1,998
2007	475	36,710	7,326	7,069	10,829	258	6,503	20,511	89,874	3,630
2011	479	33,878	8,327	6,094	11,345	210	6,427	22,696	85,838	4,102
GDP Deflators										
Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2007	1.07	1.68	0.99	1.60	1.56	1.79	1.18	1.52	1.52	1.20
2011	1.78	1.67	0.75	1.95	1.84	1.81	1.03	1.56	1.56	1.05

Source: Computed from CSO SNA and copyright surveys

Table 7.3: Deflators of the Copyright-based and General Copyright Sectors

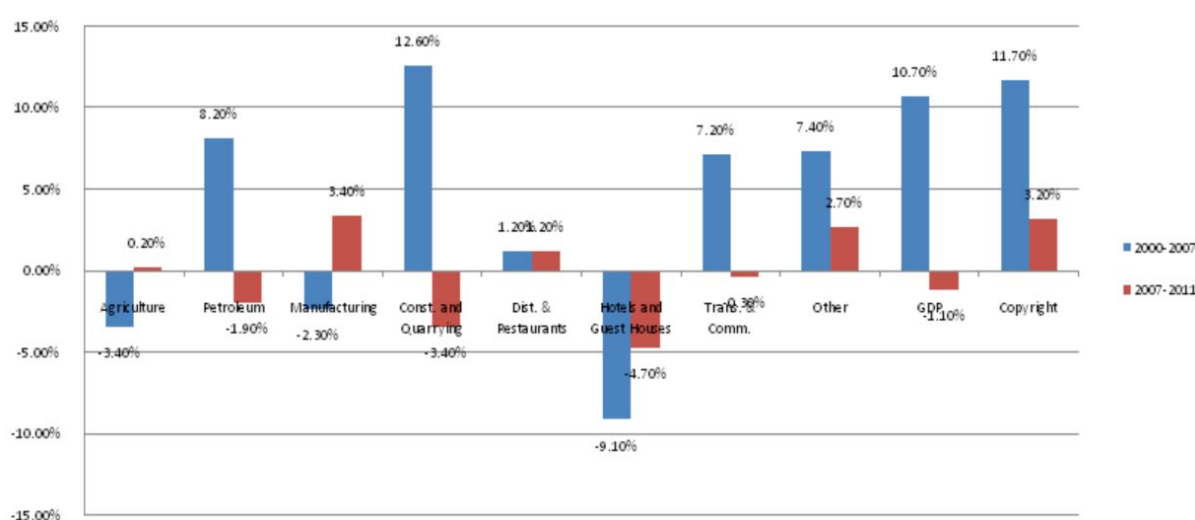
Industry	2007a	2011p
Textile, Garments and Footwear	1.013	0.281
Printing, Publishing	0.922	0.531
Wood and Related Products	1.105	1.257
Assembly Type and Related Industries	1.071	1.037
Miscellaneous Manufacturing	1.057	1.051
Distribution and Restaurants	1.563	1.839
Transport, Storage and Communication	1.175	1.034
Finance, Insurance, Real Estate, etc.	1.334	1.241
Education and Cultural Services	1.688	2.192
Personal Services	1.266	1.488
Copyright sector!	1.198	1.046
!Calculated as the geometric mean of the sub-sector deflators.		

Table 7.4: Growth of GDP at Constant (2000) Prices by Selected Sectors, including Copyright, Trinidad and Tobago 2000-2011 (%)

Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000-2007	-3.4%	8.2%	-2.3%	12.6%	1.2%	-9.1%	7.2%	7.4%	10.7%	11.7%
2007-2011	0.2%	-1.9%	3.4%	-3.4%	1.2%	-4.7%	-0.3%	2.7%	-1.1%	3.2%

Source: Computed from CSO SNA and copyright surveys

Figure 7.1: Bar Graphs of Sector Growth Performance, 2000-2007 and 2007-2011



The real GDP of Trinidad and Tobago grew by 10.7% per year from 2000 to 2007 and declined by 1.1% per year from 2007 to 2011, the decline reflecting negative petroleum sector shocks.³⁴ Figure 7.2 graphs the resulting sector shares in the GDP. Taking into account the fact that the petroleum sector experienced wide performance swings due to exogenous positive and negative price shocks, the copyright sector accounted for 3.9% of real GDP in 2000. By 2007, the share had increased to 4%; it then grew further to account for 4.8% in 2011, the latter rate partly on account of the relatively high average real growth rate sustained by the sector after the global recession, during which GDP as a whole declined somewhat (Table 7.5). By comparison, agriculture supplied 1.2%, 0.5%, and 0.6% of the real GDP in corresponding years, despite being a beneficiary of sustained debt and grant financing by the Agricultural Development Bank, as well as sustained ministerial attention from the Ministry of Agriculture. Further, in 2000, manufacturing, a major beneficiary of public policy supports and financing, accounted for 16.9% of the real GDP; but that share declined to 8.2% in 2007 and recovered to 9.7% in 2011. The copyright sector also contributed more to the economy than hotels and guest houses, which contributed 1.4% in 2000, 0.3% in 2007, and 0.2% in 2011 – again, despite considerable large-scale national financial and ministerial support.

The robust growth and restructuring performance of the copyright sector compares with that of agriculture and manufacturing, both of which declined in nominal as well as real terms from 2000. It also compares favourably with tourism, to which government has generally tended to look to as the main basis for restructuring the Trinidad and Tobago economy in general and the Tobago economy in particular. Between 2000 and 2007, the real value of the output of hotels and guest houses declined by 9.1% annually and, between 2007 and 2011, by 4.7% each year (see Table 7.4 above). These data suggest that the copyright sector has been a significant source of sustainable economic restructuring since 2000, and they may point to underinvestment in the sector because of inadequate financial and policy supports to exploit the potential on which it relies to achieve this strong growth performance.

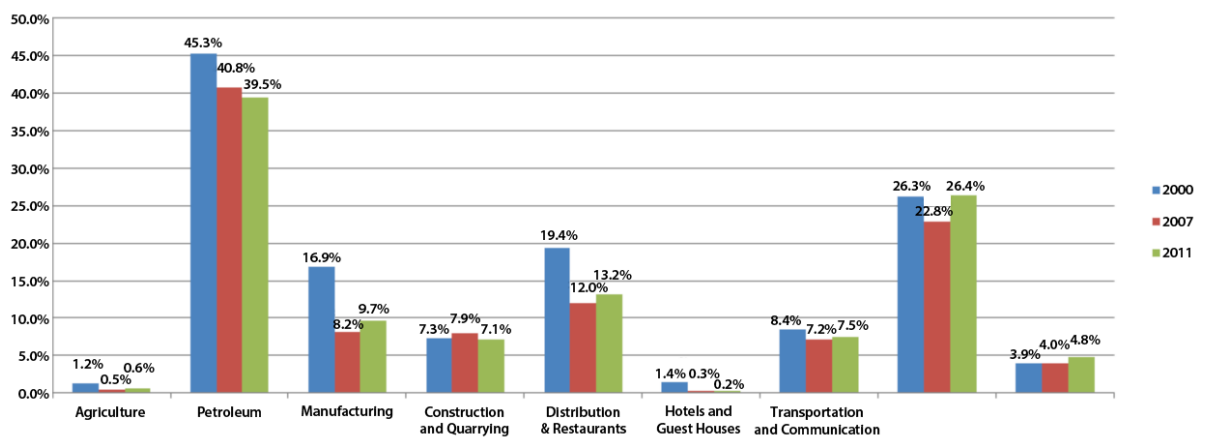
³⁴ Relevant deflators are reported in Table 7.3.

Table 7.5: Structure of GDP at Constant (2000) Prices by Selected Sectors, including Copyright, Trinidad and Tobago 2000-2011 (%)

Year	Agriculture	Petroleum	Manufacturing	Const. and Quarrying	Dist. & Restaurants	Hotels and Guest Houses	Trans. & Comm.	Other	GDP	Copyright
2000	1.2%	45.3%	16.9%	7.3%	19.4%	1.4%	8.4%	26.3%	100.0%	3.9%
2007	0.5%	40.8%	8.2%	7.9%	12.0%	0.3%	7.2%	22.8%	100.0%	4.0%
2011	0.6%	39.5%	9.7%	7.1%	13.2%	0.2%	7.5%	26.4%	100.0%	4.8%

Source: Computed from CSO SNA and copyright surveys

Figure 7.2: Shares of Industrial Sectors in GDP, including Copyright, 2000, 2007 and 2011



7.2 Structure of Copyright Sector

Table 7.6 shows the value added of the copyright sector for 2000 to 2011 in terms of the contributions of the core, interdependent, partial and non-dedicated support sub-sectors, while Figure 7.3 illustrates the contribution of the main copyright sub-sectors in 2000, 2007 and 2011. Within the copyright sector, some sectors grew and some declined after 2007. The core copyright was the most volatile, falling by 3.9% per year in real terms between 2007 and 2011 after growing by 5.8% per year between 2000 and 2007 (Table 7.7; Figure 7.4). Most of the decline since 2007 has been the result of rapid restructuring of press and literature, as digital media and the internet services replaced paper and news stand distributions, while the revenues from internet-based activities became more opaque to national statistical and revenue authorities. Overall, the core copyright sector experienced net trend growth of 4.8% per year over the whole decade. Some other components of the copyright sector sectors have grown significantly faster.

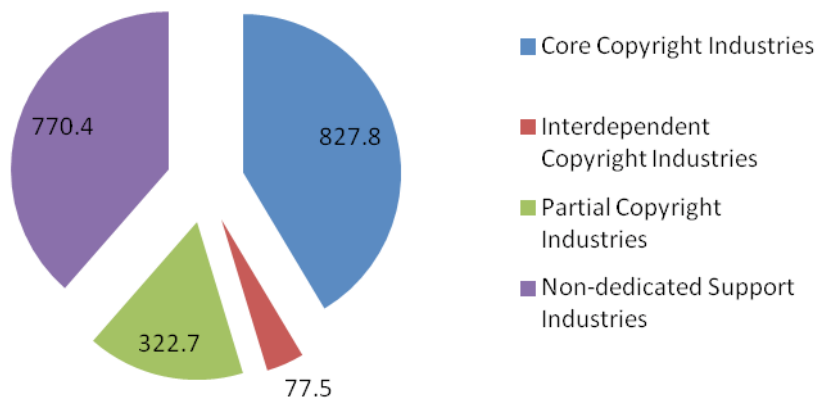
Table 7.6: Value added of the Copyright Sector, 2000, 2007 and 2011

	Core Copyright Industries	Interdependent Copyright Industries	Partial Copyright Industries	Non-dedicated Support Industries	Copyright Sector
Market Prices					
2000	827.8	77.5	322.7	770.4	1,998.4
2007	1,674.3	125.7	875.0	1,675.6	4,350.6
2011	1,265.1	118.1	869.2	2,039.6	4,292.0
Constant (2000) Prices					
2000	827.8	77.5	322.7	770.4	1,998.4
2007	1,397.2	104.9	730.1	1,398.2	3,630.4
2011	1,209.2	112.8	830.8	1,949.4	4,102.1

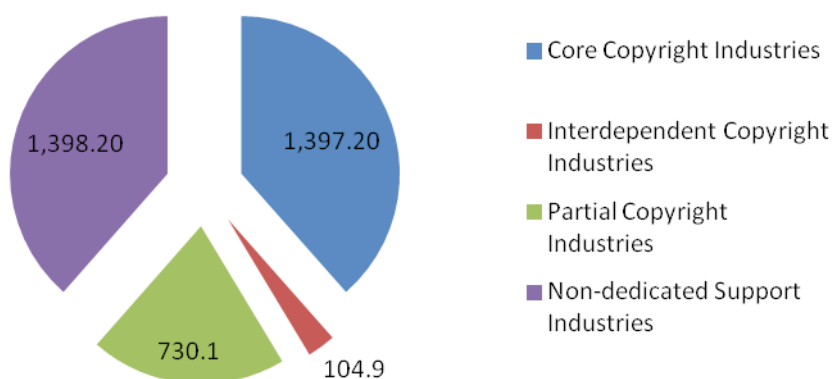
Source: Computed from TTSNA and copyright surveys

Figure 7.3: Contribution of Main Copyright Sub-sectors, 2000, 2007, 2011

2000



2007



2011

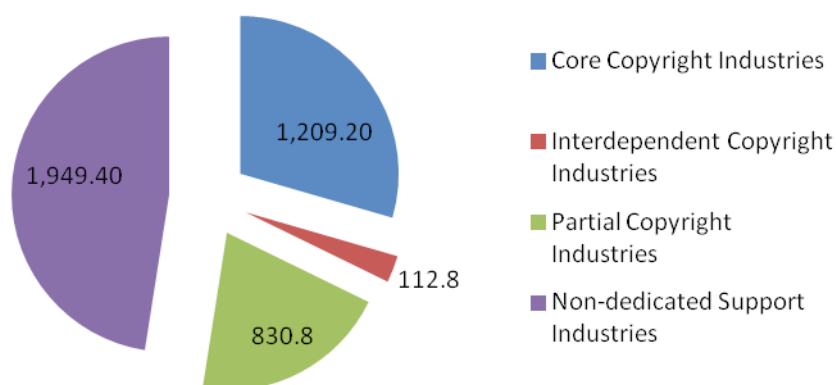
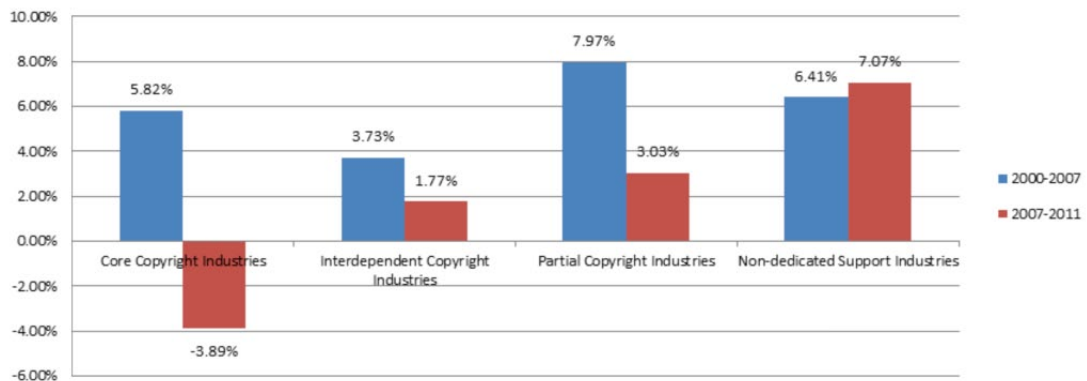


Table 7.7: Average Annual Growth of Components of the Real Copyright Sector, 2000- 2007 and 2007-2011

Years	Core Copyright Industries	Interdependent Copyright Industries	Partial Copyright Industries	Non-dedicated Support Industries	Copyright Sector
2000-2007	5.82%	3.73%	7.97%	6.41%	6.42%
2007-2011	-3.89%	1.77%	3.03%	7.07%	2.88%

Source: Computed from TTSNA and copyright surveys

Figure 7.4: Comparative Growth of the Main Copyright Sub-sectors, 2000-2007 and 2007-2011

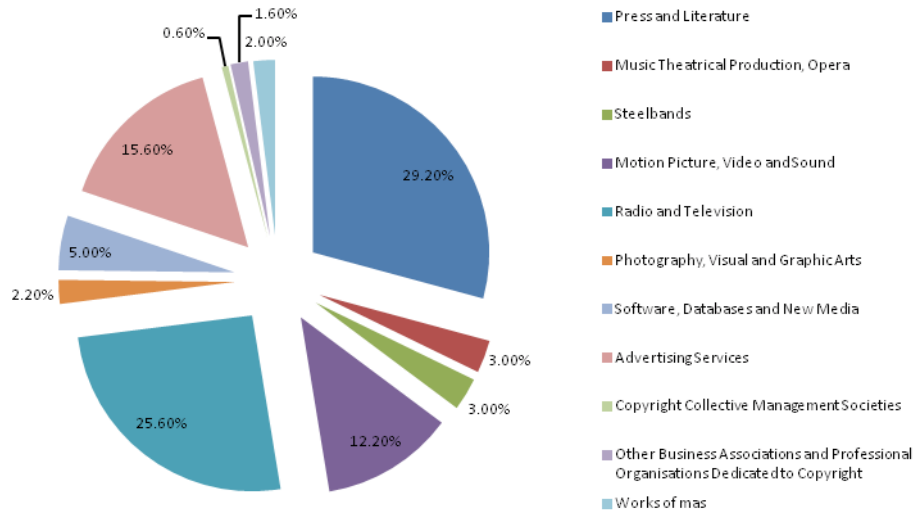


7.2.1 The Core Copyright Sector

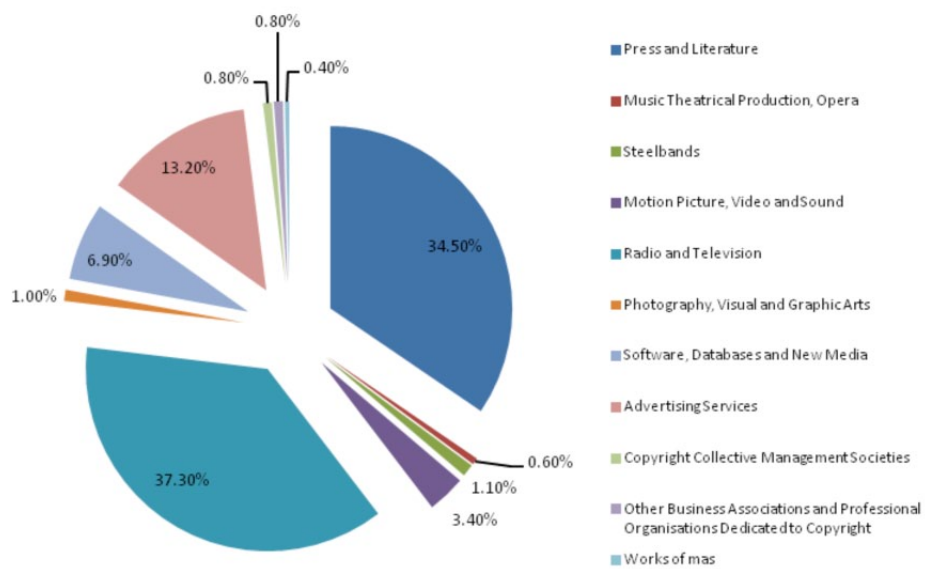
Within the core copyright sector, there are now four dominant sectors, ordered in terms of size in the 2011 as: (i) radio and television (**TT\$666.1 million**); (ii) press and literature (inclusive of academic publishing) **TT\$200.0 million**; (iii) advertising services (**TT\$147.6 million**), and (iv) software and databases (**TT\$90.3 million**) (Table 7.8; Figure 7.5). Other significant sectors are motion picture, video and sound (**TT\$69 million**), and the organisational and advocacy services provided by the professional organisations that are dedicated to promoting and protecting the interests of the copyright sector (**TT\$25.2 million**). The contributions of academic press and production of published research by the academic and research institutions to overall press and literature development – summarily labelled as ‘press and literature’ – is nontrivial (**TT\$82.4 million**). Primarily because of the rapid expansion of radio, the share of radio and television grew from 26% of the core copyright sector in 2000 to 37.3% in 2007, before expanding dramatically to 52.7% of the core copyright sector in 2011. This industry displaced several previously dominant ones (Table 7.9). Press and literature, including academic publishers (such as UWI), accounted for the largest share (29.2%) of the core copyright sector in 2000. Its share increased to 34.5% in 2007, but thereafter declined to only 16% in 2011. The share of advertising decreased from 15.6% in 2000 to 13.2% in 2007, and then to 11.7% in 2011. Of considerable interest in the light of the expansion of digital industries globally, is the growth of software, databases and new media – from only 5% of the copyright sector in 2000 to 6.9% in 2007 and 7.1% in 2011. Motion picture, video, and sound – linked mainly to the music industry – accounted for 12.2% of the core in 2000, but this share declined to 5.5% in 2011. Iconic sectors such as works of mas and core music (including the steelbands) are small in comparison to these dominant sectors, perhaps mainly because of their seasonal characteristics. The main feature of these sectors to be noted by the policy-maker is that they tended to grow in nominal and real terms during the period 2007-2011, a period of the persistent global recession. In Section 8 of the report, it will be shown that this performance might be traced to their local and global competitiveness.

Figure 7.5: Structure of the Core Copyright Sector, 2000-2011

2000



2007



2011

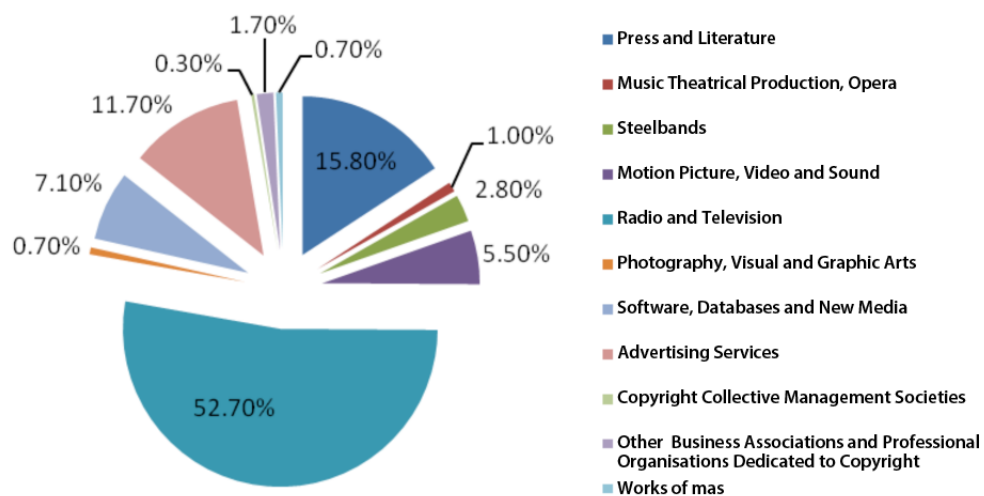


Table 7.8: Value Added of Core Copyright Sub-sectors, Market Prices, TT\$ Million, 2000, 2007, 2011

Components	Year		
	2000	2007	2011
Press and Literature	241.76	576.86	199.16
Music, Theatrical Production, Opera	24.71	10.22	13.11
Steel Bands	25.19	19.09	35.58
Motion Picture, Video and Sound	101.18	57.38	69.01
Radio and Television	212.07	624.63	666.10
Photography, Visual and Graphic Arts	18.46	16.12	9.40
Software, Databases and New Media	41.37	114.93	90.27
Advertising Services	128.74	221.80	147.56
Copyright Collective Management Societies	4.63	13.07	3.67
Other Business Associations and Professional Organisations Dedicated to Copyright	13.26	13.44	21.52
Works of Mas	16.47	6.81	8.74
Total	827.83	1,674.34	1,265.13

Source: Computed from TTSNA and copyright surveys

Table 7.9: Share of Output of Core Copyright Sub-sector GDP (%), Market Prices, TT\$ Million, 2000, 2007, 2011

Components	Year		
	2000	2007	2011
Press and Literature	29.2%	34.5%	15.8%
Music, Theatrical Production, Opera	3.0%	0.6%	1.0%
Steelbands	3.0%	1.1%	2.8%
Motion Picture, Video and Sound	12.2%	3.4%	5.5%
Radio and Television	25.6%	37.3%	52.7%
Photography, Visual and Graphic Arts	2.2%	1.0%	0.7%
Software, Databases and New Media	5.0%	6.9%	7.1%
Advertising Services	15.6%	13.2%	11.7%
Copyright Collective Management Societies	0.6%	0.8%	0.3%
Other Business Associations and Professional Organisations Dedicated to Copyright	1.6%	0.8%	1.7%
Works of Mas	2.0%	0.4%	0.7%
Total	100%	100%	100%

Source: Computed from TTSNA and copyright surveys

7.2.2 The Interdependent Copyright Sector

In WIPO (2003), the interdependent copyright sector includes any activity dedicated mainly to the production, manufacture and sale of equipment that facilitates copyright activity. Only two such activities are represented as generating output in the Trinidad and Tobago national accounts and in the survey of firms conducted for this study. In real terms, these interdependent activities jointly grew moderately after 2000 – at an approximate rate of 3.7% per year from 2000 to 2007, and at 1.8% from 2007 to 2011 (Table 7.7). However, the two activities performed differently. In nominal terms, the paper production industry grew between 2000 and 2007 at 10.2% per year, consistent with corresponding growth in press and literature, but declined between 2007 and 2011 at 2.6% per year. This is also a result of two factors: i) the rapid technological change that is affecting press and literature generally, and ii) related loss of price competitiveness. By contrast, pan production, the main source of demand for output from steelbands, declined by 3.5% annually between 2000 and 2007 but grew by 21.6% annually between 2007 and 2011 (Table 7.10). What is to be noted by the policy-maker is the relatively strong growth performance of pan production in the recessionary period.

Table 7.10: Value Added, Growth and Structure of the Interdependent Copyright Sector 2000, 2007, 2011

Value added (TT\$ millions, market prices)			
	2000	2007	2011
Pan and Other Musical Instruments	7.6	5.7	10.7
Paper	69.9	120.0	107.4
Interdependent Copyright Industries	77.5	125.7	118.1
Average annual growth rates (%)			
	2000/2007	2007/2011	
Pan and Other Musical Instruments	-3.46%	21.59%	
Paper	10.22%	-2.62%	
Interdependent Copyright Industries	8.89%	-1.52%	
Structure (%)			
	2000	2007	2011
Pan and Other Musical Instruments	9.8%	4.6%	9.0%
Paper	90.2%	95.4%	91.0%
Interdependent Copyright Industries	100.0%	100.0%	100.0%

Source: computed from TTSNA and copyright surveys

Figure 7.6: Structure of Interdependent Copyright Sector



7.2.3 The Partial Copyright Sector

Overall, the partial copyright sector experienced growth in real and nominal terms over the period 2000 to 2011. However, there was a distinct declining trend after 2007, perhaps as a result of the effects of the ongoing global recession. The sector grew by approximately 15.3% annually over the whole period. Between 2000 and 2007, it grew by 24.45% per year, but declined marginally by 0.16% per year between 2007 and 2011 (Table 7.11; Figure 7.7). The overall strong growth performance was mainly because of the persistent growth, in each of these periods, of furniture and related products, interior design, and museums. Furniture and related products expanded by 29.14% in nominal terms in 2000-2007, and again by about 10.2% in 2007-2011. Interior design kept pace with furniture and related products somewhat, growing by 28% in 2000-2007 and at a slower rate of 6.9% in 2007-2011. Activities such as architecture, engineering, and surveying also performed well in the pre-recession period, growing by 25.4% annually, but could not resist the effects of the recessionary period and declined by 5.4% in 2007-2011. The reason might be their close links to the construction sector, which is well known to be a 'leading' sector – among the first to be affected by recessionary conditions in an economy and among the first to lead the way out of such conditions.

The dominant partial copyright sub-sector is now interior design: it accounts for 50.6% of the sector in 2011. The overall performance of architecture, engineering, and surveying was strong, but its share of the partial copyright market fell from 52.9% in 2000 to 42.5% in 2011. Once again, policy-makers could improve resource allocation by understanding the factors driving the robust performance of these segments of the partial copyright sector.

Figure 7.7: Structure of the Partial Copyright Sector



Table 7.11: Value Added, Growth and Structure of the Partial Copyright Industries, 2000, 2007, 2011

Value added (TTS millions, market prices)			
	2000	2007	2011
Tailors, Dressmakers and Shoe Repair	0.3	0.2	0.2
Leather and Leather Products	7.5	14.8	0.9
Pottery and China	0.1	0.1	0.1
Museums	17.2	31.0	40.1
Jewellery, Coins	9.0	5.1	5.9
Architecture, Engineering and Surveying	169.3	470.5	369.5
Furniture and Related products	3.0	9.1	12.8
Interior Design	116.2	344.2	439.7
Partial Copyright Industries	322.7	875.0	869.2
Average annual growth rates (%)			
	2000/2007	2007/2011	
Tailors, Dressmakers and Shoe Repair	-6.44%	1.93%	
Leather and Leather Products	13.85%	-23.53%	
Pottery and China	2.74%	-7.76%	
Museums	11.47%	7.34%	
Jewellery, Coins	-6.24%	4.16%	
Architecture, Engineering and Surveying	25.40%	-5.36%	
Furniture and Related Products	29.14%	10.23%	
Interior Design	28.03%	6.93%	
Partial Copyright Industries	24.45%	-0.16%	
Structure (%)			
	2000	2007	2011
Tailors, Dressmakers and Shoe Repair	0.10%	0.02%	0.02%
Leather and Leather Products	2.33%	1.69%	0.10%
Pottery and China	0.03%	0.01%	0.01%
Museums	5.33%	3.55%	4.62%
Jewellery, Coins	2.78%	0.58%	0.68%
Architecture, Engineering and Surveying	52.49%	53.77%	42.51%
Furniture and Related Products	0.93%	1.04%	1.48%
Interior Design	36.02%	39.34%	50.58%
Partial Copyright Industries	100.00%	100.00%	100.00%

Source: Computed from TTSNA and copyright surveys

7.2.4 The Non-dedicated Copyright Sector

In the TTSNA, the non-dedicated activities covered the full range of general wholesale and retail, general transportation, and telephony and the internet. Growth of the non-dedicated support sector as identified was robust over the whole period, both in real terms (Table 7.7) and nominal terms (Table 7.12; Figure 7.8). In nominal terms, all three segments grew overall, but non-dedicated general transportation experienced decline by 3.7% in the period 2007-2011. Further, both non-dedicated wholesale/retail and telephony and the internet grew more rapidly in the boom conditions of 2000-2007 but experienced slower growth in the recessionary period of 2007-2011. An interesting fallout of the differential growth performance is that the share of both general transportation and telephony and the internet declined over the whole period while that of general wholesale and retail grew substantially from 66.7% in 2000 to 76.5% in 2011.

Figure 7.8: Structure of Non-dedicated Support Copyright Sector from 2000 to 2011

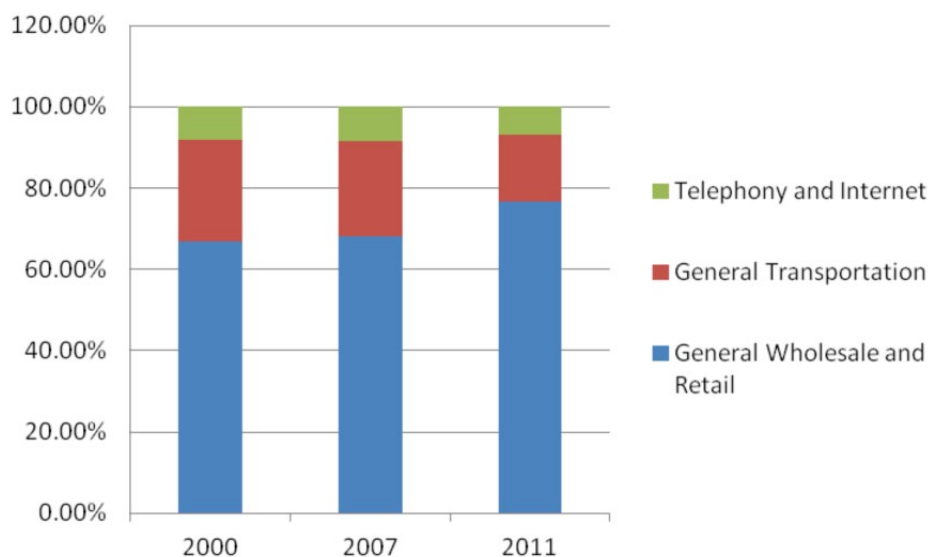


Table 7.12: Value Added, Growth and Structure of the Non-dedicated Support Industries, 2000, 2007, 2011

Value added (TTS millions, market prices)			
	2000	2007	2011
General Wholesale and Retail	514.2	1,140.3	1,561.0
General Transportation	192.4	394.2	335.6
Telephony and Internet	63.8	141.2	143.0
Non-dedicated Support Industries	770.4	1,675.6	2,039.6
Average annual growth rates (%)			
	2000/2007	2007/2011	
General Wholesale and Retail	17.39%	9.23%	
General Transportation	14.98%	-3.71%	
Telephony and Internet	17.33%	0.31%	
Non-dedicated Support Industries	16.78%	5.43%	
Structure (%)			
	2000	2007	2011
General Wholesale and Retail	66.74%	68.05%	76.54%
General Transportation	24.98%	23.52%	16.45%
Telephony and Internet	8.28%	8.43%	7.01%
Non-dedicated Support Industries	100.00%	100.00%	100.00%

Source: Computed from TTSNA and copyright surveys

7.2.5 General Patterns of Sector Restructuring

These differential growth patterns led to an overall restructuring of the copyright sector. Core copyright lost its dominant role in the copyright sector, as its share declined from 41.4% to 29.5% in 2011. It was displaced by non-dedicated support activity (47.5%) in 2011. Partial copyright also gained ground relative to the core –from 16.1% in 2000 to 20.1% in 2011 – a trend which might reflect the consistency in achieving viability and competitiveness by such joint-production processes (Figure 7.9; Table 7.13). The phenomenon points to a higher rate of creation of externalities, perhaps related to the widening options for secondary applications of the output of the core sector and for final demand to the extent that this is captured by the growing contributions of the non-dedicated support industries.

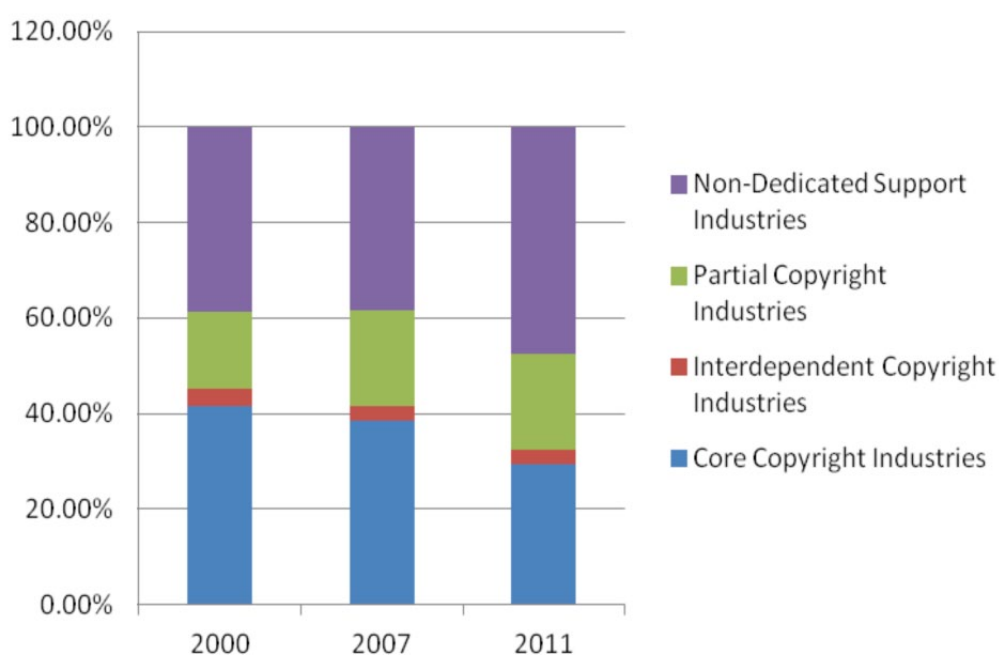
The overall trend appears to signal persistent underinvestment in developing the considerable competitive capacity of the core, interdependent, and partial copyright sectors. Overall, one of the striking features of the copyright sector that should be of interest to the policy-maker is that, partly as a result of its high degree of diversity, the sector (especially some of its key components) is remarkably resilient in the face of recessionary conditions in the global economy. This performance is not unlike that of internet-based industries in the global economy: the common characteristic they share is a high degree of competitiveness rooted partly in their capacity to innovate, which also translates into improved performance in labour productivity, import productivity, and profitability.

Table 7.13: Structure of the Copyright Sector, 2000, 2007 and 2011

	Core Copyright Industries	Interdependent Copyright Industries	Partial Copyright Industries	Non-dedicated Support Industries	Copyright Sector
2000	41.4%	3.9%	16.1%	38.6%	100.0%
2007	38.5%	2.9%	20.1%	38.5%	100.0%
2011	29.5%	2.8%	20.3%	47.5%	100.0%

Source: Computed from TTSNA and copyright surveys

Figure 7.9: Restructuring of the Copyright Sector, 2000-2011



7.3 Contribution to Employment

In this study, we use a broad concept of 'employment' to refer to all types of resources used in the production process of a sector: capital, labour, and intermediates (goods and services). It is worth noting that intermediates are themselves a form of capital, being output produced and reused as inputs. Further, an important aspect of the contribution to employment is the capacity of the sector to generate operating surplus to cover the cost of employing money capital (interest and dividends) and yield retained earnings that can finance expansion of resource use.

7.3.1 Labour

The copyright sector is a strong creator of jobs. In 2000, the copyright sector contributed 3.6% or 18,304 of the 502,000 jobs in the Trinidad and Tobago economy at a real annual average wage of approximately TT\$44,962. By 2007, the sector had contributed 29,758 jobs or 5.1% of the jobs in Trinidad and Tobago, and

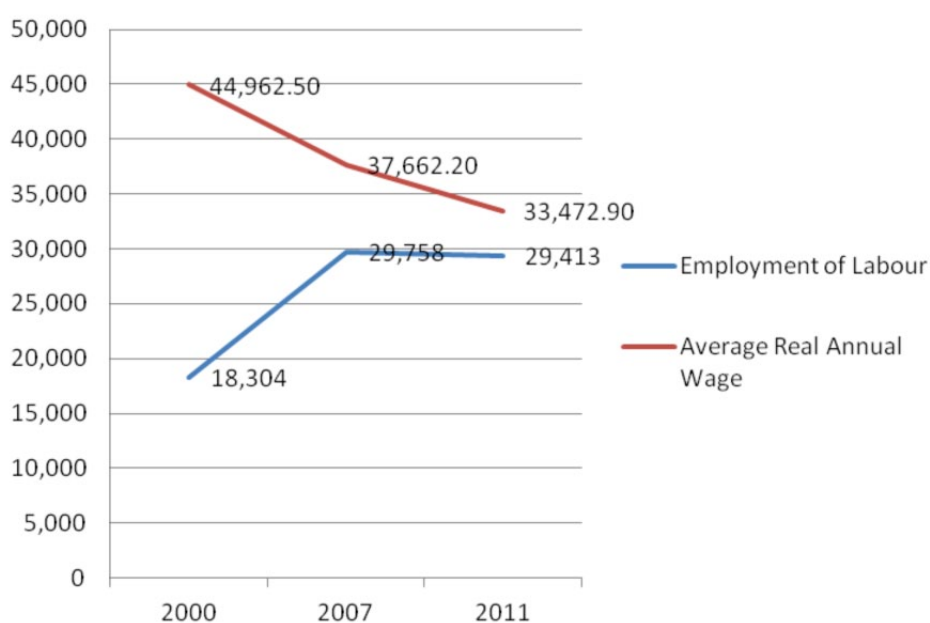
so had created an additional 10,401 jobs over the period, at a lower real annual average wage of TT\$37,662. The employment contribution declined somewhat to 29,413 jobs or 5% of total employment in Trinidad and Tobago in 2011 –a loss of 346 jobs by the sector –even as output was growing and the sector’s real wage fell further to TT\$33,473 (Table 7.14). Figure 7.10 exhibits a tendency for the wage to fall as employment rises. The stagnation in job creation could be mainly a reflection of the recessionary forces that slowed the growth of the sector after 2007, along with the technological forces that led to the restructuring of press and literature.

Table 7.14: Employment of Labour and Real Wages by the Copyright Sector 2000, 2007, 2011

	Year		
	2000	2007	2011
Employment of Labour	18,304	29,758	29,413
Employment of Trinidad and Tobago	502,000	587,800	590,000
Compensation of Employees Copyright (TT\$ million)	823.0	1,647.5	1,545.7
Average Real Annual Wage	44,962.5	37,662.2	33,472.9
Copyright Share of Total Employment	3.6%	5.1%	5.0%

Source: Computed from CSO SNA and Copyright Survey

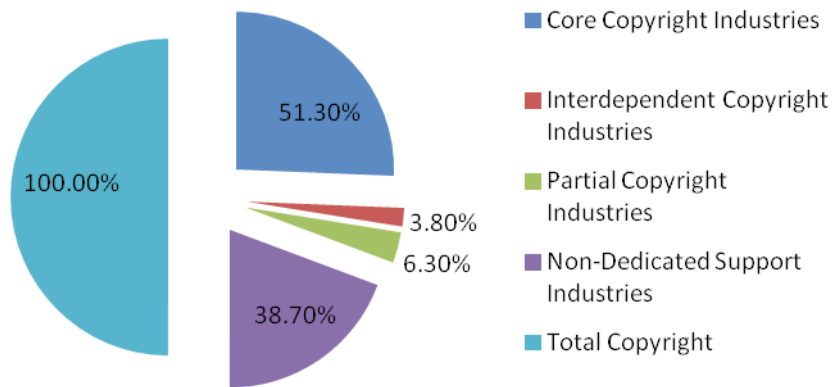
Figure 7.10: Trends in the Average Wage and the Level of Employment by the Copyright Sector, 2000-2011



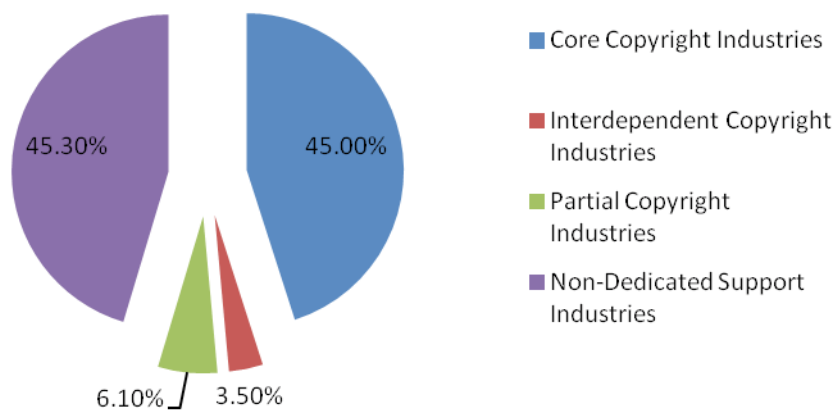
Of the total number of jobs in the sector in 2000, 51.3% were created in the core copyright sector, compared to 42.4% of the total income of the sector. The second highest share of the jobs, 38.7%, came from the non-dedicated support sector, which supplied 38.6% of the income in the sector. By 2007, the share of core copyright sector jobs had fallen to 45% of the total and, in 2011, by only 34.6%. By 2011, the main job-creating activities in copyright were those providing non-dedicated support, providing 53.4% of the jobs (Table 7.15). Notwithstanding the importance of the general slowdown in activity in the recession, the main reason for the loss of job-creating capacity was the radical change in the technology of press and literature, which correspondingly experienced substantial job losses: the number of jobs in the sector fell to 2,458, from as many as 6,693 jobs in 2007 – a loss of 4,235 jobs. The more skill-intensive sectors of radio and television; advertising; architecture, engineering, and surveying; and other construction-related skills did not create sufficient jobs to replace those lost by press and literature.

Figure 7.11: Employment by Copyright Sub-sectors, 2000-2011

2000



2007



2011

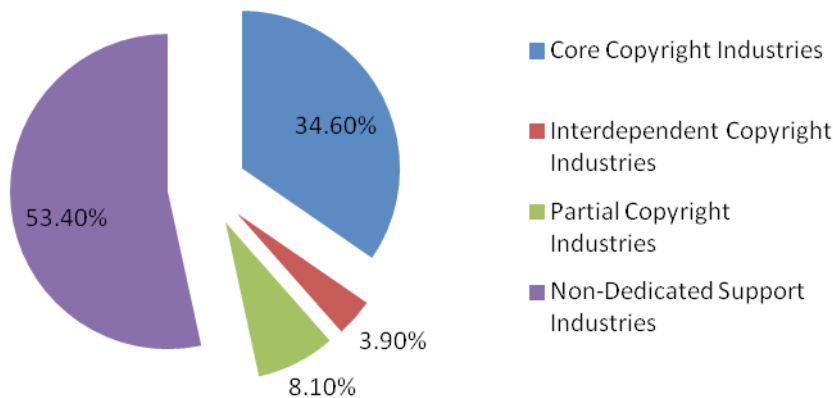


Table 7.15: Employment of Labour by the Copyright Sector, T&T, 2000, 2007, 2011

	Employment					
	2000		2007		2011	
	Nos.	% Copyright	Nos.	% Copyright	Nos.	% Copyright
Core Copyright Industries	9,394	51.3%	13,397	45.0%	10,184	34.6%
Press and Literature (including Academic press)	2,444	13.4%	6,693	22.5%	2,458	8.4%
Radio and Television	1,647	9.0%	3,634	12.2%	3,448	11.7%
Interdependent Copyright Industries	689	3.8%	1,050	3.5%	1140.524976	3.9%
Partial Copyright Industries	1,146	6.3%	1,824	6.1%	2,377	8.1%
Non-dedicated Support Industries	7,075	38.7%	13,488	45.3%	15,712	53.4%
Total Copyright	18,304	100.0%	29,758	100.0%	29,413	100.0%
Total Trinidad and Tobago	502,000		587,800		590,000	
Copyright Share of T&T Employment of Labour	3.65%		5.06%		4.99%	

Source: Computed from CSO SNA and Copyright Survey

7.3.2 Employment of Intermediates and Fixed Capital

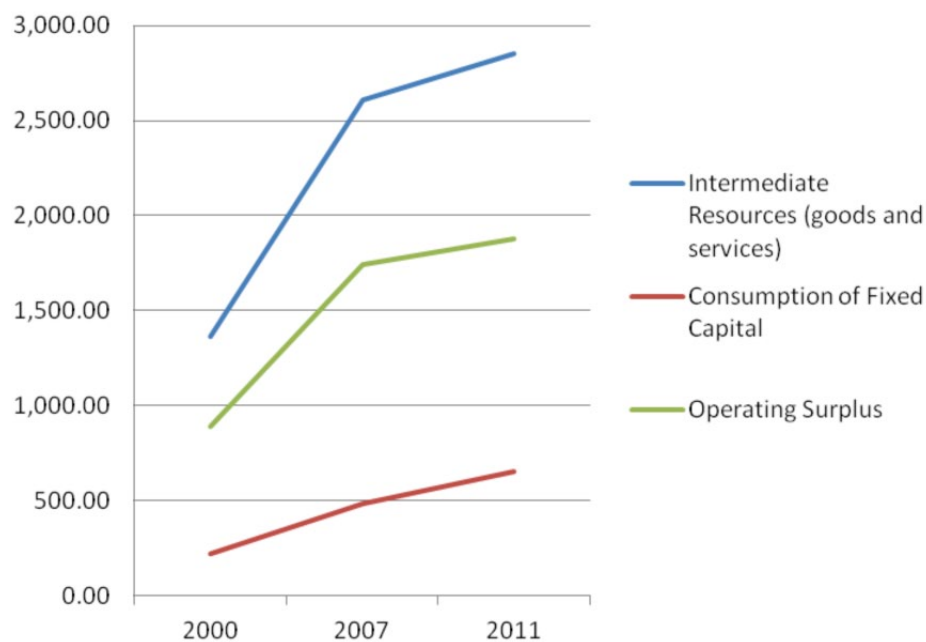
The data in Table 7.16 reports on the employment of intermediate and fixed capital. Figure 7.12 illustrates that all resources exhibit trend increases in their use rates. In particular, the principal lesson from the data is there is a growing employment of real capital, as well as a rising capacity to employ financial capital. In 2000, the copyright sector employed TT\$1,364.8 million of intermediate capital and used TT\$223 million of fixed capital services from its stock of fixed capital. By 2007, this rate of employment had grown to a real value (at 2000 prices) of TT\$2,606 million of intermediate capital and TT\$486.4 million worth of services from its fixed capital stock. The rate of employment continued to grow over the decade, reaching a real value of TT\$2,853.9 million of intermediates and consumption of TT\$665 million of fixed capital services. The data available in the SUT suggest that the rate of growth of employment of intermediates by the copyright sector is a strong measure of its growing tendency and capacity to generate externalities by employing a variety of forms of domestic capital. Taking into account the patterns of employment of labour reported in Tables 7.14 and 7.15, the result was growth of real operating surplus – from TT\$889.1 million in 2000 to TT\$1,744.6 million in 2007, and to TT\$1,877.7 million in 2011. This means that the internal capacity of the sector to finance capital expansion grew along with the general employment of real resources. An important additional gauge of the strength of this economic performance is that not only did operating surplus grow in real terms over the decade to 2011, but the share of operating surplus in value added also grew from 44% in 2000 to 48% in 2007. It was 46% in 2011 –still 2 percentage points above the 2000 rate –even as the global economy was undergoing a general recession from 2008 to the present, some effects of which were transmitted to the Trinidad and Tobago economy through both import and export price shocks. As indicated above, the growth in the profit share was engineered partly by a falling average annual real wage in the sector. A fuller understanding of this trend would require information about the ownership structure of the sector and, in particular, the extent of self-employment and worker-ownership of the industry's enterprises. This is a fruitful area for further study.

Table 7.16: Employment of Intermediates and Capital by the Copyright Sector, 2000, 2007, 2011

	Year		
	2000	2007	2011
Intermediate Resources (goods and services)	1,364.8	2,606.3	2,853.8
Consumption of Fixed Capital	223.0	486.4	655.2
Operating Surplus	889.1	1,744.6	1,877.7
Value-added Copyright (constant 2000 prices)	1,998.4	3,630.4	4,102.1
Profit Share of Value added	0.44	0.48	0.46
	1	1.198	1.046

Source: Computed from TTSNA and Copyright Survey

Figure 7.12: Trends in the Use of Intermediate Resources and Capital, 2000-2011

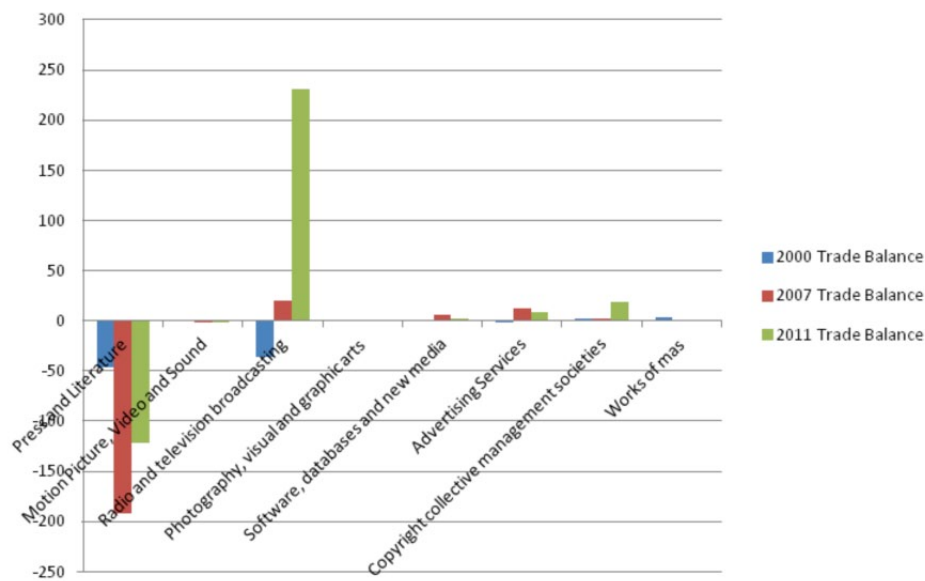


7.4 Contribution to Trade

In an economy characterised by a high degree of dependence on exports and by frequent recurrence of foreign exchange shortages, one of the important questions confronting any economic sector is how it contributes to the balance of trade (and payments) and, in particular, whether it relies on the net foreign exchange earnings of other sectors or provides an opening on which others can draw. Using data made available by the CSO from their SUT and ASYCUDA database, as well as data made available by the ICT from COMTRADE, selective but extensive details of the contribution of copyright-based sectors to the current account balance for 2000, 2007, and 2011 are reported in Annex I. Figure 6.13 isolates the patterns for the core copyright sector for the same years.

The data show that many elements of the core copyright sector were net positive contributors to foreign exchange earnings. The main positive contributors were in radio and television broadcasting, which relied on the developing internet technologies to emerge from a trade deficit of TT\$35.7 million in 2000 to register a trade surplus of about TT\$20.1 million in 2007 and TT\$21.5 million in 2011. Advertising services also generated a net positive trade balance (TT\$12.18 million) in 2007 and TT\$8.1 million in 2011, after suffering a deficit of TT\$0.02 million in 2000. Largely because of an unrecorded deficit in the trade in music, collective management organisations ran a trade surplus of TT\$2.4 million in 2000, TT\$1.69 million in 2007, and TT\$1.57 million in 2011. It is important to observe that these organisations deliver the bulk of their services to foreign artistes seeking payment for use of their copyright in the local market; which in turn implies a service trade deficit in music. *Works of mas* similarly achieved a small but positive trade balance in 2007 (TT\$0.1 million) and 2011 (TT\$1.51 million).

Figure 7.13: Patterns of Trade of the Core Copyright Sector, 2000 to 2011



The data for the interdependent copyright sector show the expected substantial trade deficit in musical instruments generally and in electronic equipment (such as televisions and radios) as well as in paper and other interdependent industries that produce no output in Trinidad and Tobago. However, the steelpan industry recorded a positive but reducing trade balance in all three years, 2000 (TT\$3.16 million), 2007 (TT\$3.04 million) and 2011 (TT\$0.81 million). A broadly similar pattern is found among the partial copyright industries, in which the majority (tailors, dressmakers and shoe repair; leather and leather products; pottery and china, glass and glass products; jewellery and coins; furniture design and production; and interior design) registered trade deficits. But architecture, engineering and surveying registered a trade surplus in 2007 and 2011. Moreover, in this case, the trade surplus appears to be growing.

7.4.1 Output of the Carnival and Cultural Industries

As indicated above, the music industry for Trinidad and Tobago is defined as steelband, music, theatricals and opera; steelpan production; and the music associations PanTrinbago, TUCO, and the collective management organisations. Further, this industry is incorporated into a larger industry that we refer to as 'steelband, music, Carnival and other culture', which includes the works of mas and the activities of other related business associations. The data in Table 7.17 present the aggregates for these industry groups for 2000, 2007, and 2011. The music industry accounted for about 3.44% of the whole copyright sector and 7.7% of its employees in 2000, producing TT\$68.7 million of the sector's TT\$1,998 million. The broader grouping of steelband, music, carnival and other culture produced TT\$129.5 million or 4.59% of the copyright sector's output and employed 10.5% of its workers. The output of these industries fell over the 7 years from 2000 to 2007, but recovered with moderate strength in the subsequent 4 years, while other sectors (such as radio) grew rapidly. Thus, in 2011, the music industry accounted for TT\$49.6 million or 1.21% of the total TT\$4,102 million (in 2000 prices) and 5.8% of the jobs. The broader aggregate of steelband, music, carnival and other commercialised culture accounted for 1.53% of the copyright sectors' real output and 6.9% of the jobs. Reliable trade estimates are not available for these aggregate sectors.

Table 7.17: Steel Band, Music, Carnival and Other Culture

ITEMS	2000		2007		2011	
	Music Industry	Steel Band, Music, Carnival and Culture	Music Industry	Steel Band, Music, Carnival and Culture	Music Industry	Steel Band, Music, Carnival and Culture
TOTAL GROSS OUTPUT	135.8	210.8	153.5	232.6	192.2	302.3
TOTAL INTERMEDIATE COSTS COPYRIGHT	67.1	119.0	98.7	164.2	118.4	209.0
VALUE ADDED (mp) Copyright	68.7	91.8	54.8	68.4	73.8	93.3
Compensation of Employees Copyright	37.5	67.1	24.5	34.1	48.1	61.0
Consumption of Fixed Capital Copyright	16.9	39.1	14.5	16.2	12.3	15.8
OPERATING SURPLUS Copyright	13.9	23.3	15.8	18.0	13.4	16.5
Deflators	1.0	1.0	1.3	1.3	1.5	1.5
VALUE ADDED at Constant Prices Copyright	68.7	91.8	43.3	54.0	49.6	62.7
Value-added Share of Gross Copyright	3.44%	4.59%	1.19%	1.49%	1.21%	1.53%
Average Wage	26,663.1	35,039.4	31,445.4	33,297.2	28,363.1	30,198.9
Number of employees, copyright	1,405	1,916	780	1,025	1,697	2,019
Per cent of copyright employees	7.7%	10.5%	2.6%	3.4%	5.8%	6.9%

Source: TTSNA

7.5 Comparison with Other Countries

The estimates are broadly in line with estimates of the contribution of copyright to GDP in other countries. In those countries around the world in which WIPO-sponsored studies have been conducted, it has been found that the contributions of copyright industries to GDP ranged from 11.12% in the US to a low of 2.0% in Brunei, and averaged 5.53% (Table 7.18). In 2011, the contribution of copyright to GDP in Trinidad and Tobago was 4.8%. Similarly, in the international community, the contribution of copyright to employment of labour ranged from a low of 1.91% in Ukraine to 11.1% in the Philippines, with an average of 5.81%. In the case of Trinidad and Tobago, the estimated contribution to employment was 5% in 2011.

Table 7.18: Contribution of Copyright Sector by Country Conducting WIPO-Sponsored Studies

No.	Baseline Year	Country	Contribution to GDP (%)	% of Employment
	2011	Trinidad and Tobago	4.8	5.0
1	2007	US	11.12	8.49
2	2007	Australia	10.30	8.00
3	2005	Korea	8.67	4.31
4	2009	Hungary	7.40	7.20
5	2006	Panama	6.95	6.35
6	2006	China	6.41	6.50
7	2004	Russia	6.06	7.30
8	2005	Netherlands	5.90	8.80
9	2005	Malaysia	5.80	7.50
10	2004	Singapore	5.80	5.90
11	2005	Romania	5.54	4.17
12	2007	Kenya	5.32	3.26
13	2007	Slovenia	5.10	6.80
14	2000	Philippines	4.92	11.10
15	2005	Jamaica	4.80	3.03
16	2003	Mexico	4.77	11.01
17	2005	Lebanon	4.75	4.49
18	2008	Bulgaria	4.54	4.92
19	2004	Canada	4.50	5.55
20	2006	Pakistan	4.45	3.71
21	2004	Croatia	4.42	4.64
22	2000	Latvia	4.00	4.50
23	2005	Peru	3.60	2.51
24	2005	Colombia	3.30	5.80
25	2005	Ukraine	3.47	1.91
26	2005	Brunei	2.00	3.30
		Average	5.53	5.81

8. Designing Effective Development Policy: Contributions from the Copyright Sector

Apart from motion induced by perturbations from a fixed point, economic motion is also induced by deliberate strategy and policy. The core concern of economic strategy design is to find an optimum level and to take steps to get the economy onto it or as close to it as possible. Investment analysis provides an ideal framework for considering how this works. Firm foundations for reconsidering the investment policy support given to the copyright sector are provided by the arithmetic of Section 6. Even as the petroleum sector was experiencing wide performance swings due to exogenous positive and negative price shocks, the copyright sector increased its share of real GDP from 3.9% in 2000 to 4.0% in 2007 and then to 4.8% in 2011. It also increased its share of employment from 3.6% to 5% over the same period. This was done in the absence of dedicated ministerial systems that provide targeted programme support. By contrast, agriculture supplied 1.2%, 0.5%, and 0.6% of the real GDP in corresponding years, while hotels and guest houses, the core of the tourism sector, contributed 1.4% in 2000, 0.3% in 2007, and 0.2% in 2011. Both tourism and agriculture are beneficiaries of dedicated ministerial support; and agriculture is also a beneficiary of sustained debt and grant financing by the Agricultural Development Bank. Just as important, while the copyright sector was delivering robust growth in its share of real GDP from 2000 to 2011, the manufacturing sector, a major beneficiary of public policy support and financing, experienced a declining share from 16.9% of the real GDP in 2011 to 8.1% in 2007, with recovery to 9.4% in 2011. However, the case for stronger and more dedicated support for the copyright sector rests on a more general observation – the copyright sector is a strong contributor to the development of industrial competitiveness in an increasingly open world economy in which trade is governed by the rules of the World Trade Organisation. This section sheds light on the determinants of competitiveness and the role of the copyright sector in the process.

In the previous section, evidence was also provided that the trend growth of the copyright sector was financed in large measure by growth in its profitability, as indicated by both the growth of its operating surplus and profit share. This section uses the cross-industry details available in the SUT of Trinidad and Tobago to identify a crucial nexus underlying the cyclical dynamics of the economy – the nexus between profits, the productivity of labour, and the productivity of imported inputs. The productivity of imported inputs is referred to as import productivity. The latter is also a measure of the efficiency of foreign exchange use, and the growth of import productivity increases the capacity of the economy to save foreign exchange through its production system. The parameters of the nexus are estimated, using the profit share as the measured endogenous variable. Since wages and profits sum to value added, and the sum defines one of the fundamental identities of national accounts, this amounts to an update of an aspect of the traditional wage-price-profit-labour productivity nexus that is widely understood to drive a typical economy.³⁵ Some case studies of the nexus have been done for Caribbean countries.³⁶ Either profits or wages can be used in empirical analysis of the nexus.

This section also uses canonical correlations to demonstrate that import productivity and labour productivity form a common conceptual framework for evaluating a country's competitiveness and for shaping the development path. Further, it is shown that the structure of capital is a vital factor influencing the identified nexus. We do not address the issues of countercyclical (monetary or fiscal) policy here, but it is worth observing that the results also imply that, in contrast to labour productivity, import productivity is embedded in the short-run dynamics of the economy – in the Keynesian multiplier. That is, in contrast to labour productivity, it holds significance for both cyclical and development dynamics; the parameters of the nexus of wages, profits, import productivity, and labour productivity are the parameters of a generalised long-run development process that shapes the specific cyclical dynamics of the economy and could guide effective countercyclical policy as well as define the optimal short-run adjustment of the economy. In other words, the strategic management of the long-term path of import productivity can play a crucial role in determining how an economy can adapt competitiveness and profitability to meet development needs in the long run, while at the same time be optimised to yield the best approach to investment for cyclical management in the short run. In traditional

³⁵ Bodkin, R.G. (1966), *The Wage-Price-Productivity Nexus*, Philadelphia: University of Pennsylvania Press.

³⁶ Brewster, H. (1968), Wage, Price & Productivity Relations in Jamaica, 1957-1962, *Social and Economic Studies*, 17(2), June: 107-132; Downes, A., Holder, C., and Leon, H. (1990), The Wage-Price-Productivity Relationship in a Small Developing Country: The Case of Barbados, *Social and Economic Studies*, 29(2), June: 49-77; Hamilton, R. (1994), Analyzing Real Wages, Prices & Productivity in the Caribbean: An Econometric Analysis, *Social & Economic Studies*, Vol.3 (March).

analysis of optimal economic management, much of that role was assigned to management of the interest rate instrument in achieving investment targets. This approach was adopted with minimal attention to the instrumental role of certain real sector variables, mainly because of lack of appreciation of how this crucial nexus of profits and competitiveness governs the cycles of the economy and can provide a key set of target instruments to be used to define the path of investment as a target variable.³⁷

The findings are important for copyright-sector policy-makers and other stakeholders particularly, and for sector-specific analysis generally. In the normal course of long-term and cyclical economic management, a major objective of the policy-maker is to minimise the deviation between the current rate of investment and the target investment necessary to solve development problems. It is widely understood that in this endeavour, investment performance in one period affects investment in the next. This goal can be advanced by using the profits-productivity nexus, since investment is the major determinant of the performance of the nexus – an observation that is not controversial in the way that the investment-interest rate relationship has proven to be. The worse the investment performance of the economy in the previous period, the higher the import and labour productivity government will have to pursue in the current period in order to boost current investment. In respect of this agenda, policy-makers must be concerned with whether and how the firms and sectors of the economy can sell commodities in the global marketplace and enable the economy to earn its way in a competitive global environment characterised by the trade rules that have been engineered under the WTO trade agreements. One of the most important aspects of the contribution of the copyright sector to the economy is its contribution to this profit-competitiveness nexus and hence to development, as well as to the specific size and dynamics of the short-run investment impact multiplier. In the context of the above parameter estimates, this section of the report therefore also sheds new light on the meaning of the estimates of import productivity in Section 4. It estimates the wage share, which depends on labour productivity, for all sectors, using the data from the SUT 2000, and aligns their ranking with that of the import productivity of sectors. The findings can then be used to pick winners, in the sense of identifying the greatest underutilised potential for improving competitiveness, lowering unit production costs in the economy, and growing net exports. Sectors with high import productivity, such as copyright-based sectors, must be given priority in the drive to optimise the short-run path of the economy. The related implications for the design of optimal copyright sector policies are then extracted. The content of the policies recommended is informed by the results of the policy-related profiles survey in which practicing and successful stakeholders in the copyright sector reported the types of policies they judge to be optimal if the copyright sector is to exploit its potential and expand the prospects for output growth, employment and trade. The sector-specific data assembled from the SUT and the sector profiles provide a basis for this evaluation, based on both wage share (and hence labour productivity) and the productivity of use of imported capital goods and services.

8.1 Labour Productivity and Profits – Analytical Considerations

The decomposition of per capita income is well-known and is elegantly formulated by ul Haque (1995)³⁸ in a way that takes account of price, output, employment, productivity of labour, the cost of living deflator, the size of the labour force and population size. The cost of living deflator takes account of the exchange rate. The productivity of labour inherent in this decomposition has been the focus of an analytical industry, famously led in mainstream economics by Solow (1956)³⁹ and in econometrics by Mankiw, Romer and Weil (1992).⁴⁰ In a world where labour is scarce, this decomposition makes perfect sense. Its most important property is that it is a measure of *absolute advantage*, i.e., *the ability to extract value from the inputs used*, and the consensus of the entire analytical industry is that this form of advantage depends primarily on the ability of the country to use and upgrade advanced technologies. It has long been argued by Shaikh (1980: 225-232),⁴¹ and repeated by ul Haque (1995: 12), that whatever its disposition towards respecting its comparative advantage in the world system, a country must pay close attention to enhancing its absolute

³⁷ When first posed by Theil (1964), this approach to policy used a *structural model of the economic system* to express the role of constraint on the achievement of maximum social welfare, hence on achievement of the smallest gap between the target variables and the targets. This idea is still relevant here. See, Theil, H. (1964). *Optimal Decision Rules for Government and Industry*. Amsterdam: North-Holland.

³⁸ ul Haque, I. (1995). *Trade, Technology and International Competitiveness*. Washington, D.C.: The World Bank.

³⁹ Solow, R. (1956). A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics*, 70: 65-94.

⁴⁰ Mankiw, G., Romer, D., and Weil, D. (1992). A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economic Growth*, 107: 408-437.

⁴¹ Shaikh, A. (1980). The laws of international exchange. In E.J. Nell (1980), *Growth Profits and Property: Essays on the revival of political economy*. New York: Cambridge University Press., pp. 204-235.

advantage; and successful countries tend to do so. The core reason, as Shaikh (1980: 205) observes, is that, ultimately, firms engage in trade for profit.

To the extent that a country's markets lend themselves to a high degree of monopoly, or to the extent that the creative impulses create intellectual property and hence monopolistic competition as the basis for engagement in the market, commodity pricing will tend to be on the basis of a mark-up over cost (Kalecki (1939),⁴² Pentecost (2000: 262),⁴³ Romer (2001: 240-241, 308),⁴⁴ Bowen, *et al.*, (1998).⁴⁵)

A detailed analysis of the tendency and ability of firms to set price based on the mark-up rate can be found in Martin (1993).⁴⁶ Indeed, there is now a well-established methodology for understanding the mark-up share in value added in the presence of market imperfections, where the extent of imperfections is measured by the Herfindahl index of concentration; the other important explanatory variable is the elasticity of demand for the product of the firm or industry. A special case of this analysis is the Kalecki (1939) mark-up theory. A typically authoritative study of this kind is Jacquemin *et al.* (1980),⁴⁷ which is specifically interested in 'small' economies, such as Trinidad and Tobago. In the general case, the explanatory variables in the extent of the mark-up pricing principle will be the elasticity of demand faced by the industry and the degree of concentration of the industry. This is a well-established principle in trade analysis where the issue comes up routinely; it is well documented in Bowen *et al.* (1998: 360-362). Where these variables cannot be measured, as is often the case with existing data limitations, there are acceptable proxies such as the extent of increasing returns or economies of scale, capital-intensity and product differentiation.

In the light of these considerations, a policy model was built to guide the integration of suggestions from stakeholders into the substance of this report, set in the context of the fundamental outlines of policies implied by the data at hand. The model and parameter estimates are presented in detail in Annex II. The model estimates the parameters of the nexus of the profit share, the productivity of labour, and the productivity of imported inputs (or the efficiency of foreign exchange use), which are its dependent variables. The explanatory variables of the model are extracted from underlying production functions and from the principles of distribution, as well as of mark-up pricing and its links to trade. The selected variables are: (i) **the structure of capital**, measured as the ratio of domestic capital consumption in total capital consumption; (ii) **the mark-up rate**, which enters as a quadratic; (iii) **the capital-labour ratio**, measured as gross capital consumption divided by employment, where gross capital consumption includes both fixed and circulating capital; (iv) the rate of **employment per unit of domestic capital**, measured as employment divided by the consumption of domestic capital; (v) the **wage share**, measured as the ratio of compensation of employees to value added; (vi) the rate of **import penetration**, measured as the ratio of consumer imports to domestic shipments; (vii) the **export-imported inputs ratio**, measured as exports divided by imported inputs; and (viii) the export share of value added. The wage-share is treated as an endogenous variable as a result of its link to the share of profits through an identity.

Canonical correlations of the right-side linear combinations of the estimated import productivity and labour productivity equations of the model, reported in Annex II, indicate that one might think of import productivity and labour productivity as comprising a unified conceptual framework for the evaluation of competitiveness driving the mark-up of the sectors, and hence the core capacity to finance development from retained earnings, in that the two views are closely correlated. That is, when linear combinations of the arguments in each of the structural equations are sought that maximise the correlation of the linear combinations, the result is a near-perfect correlation of 0.96 between the best linear combination of the labour productivity factors and the best linear combination of the import productivity factors. Moreover, all of the test statistics are highly significant.

The coefficient estimates reveal that, as expected from the literature, labour productivity (**ln labprod**) is a fundamental factor underlying the availability of retained earnings to finance competitiveness in the form of import productivity. Importantly too, as import penetration grows, the mark-up rate tends to fall, while

⁴² Kalecki, M. (1939). *Essays in the Theory of Economic Fluctuations*. London: Allen & Unwin.

⁴³ Pentecost, E. (2000). *Macroeconomics: An open economy approach*. New York: St Martin's Press.

⁴⁴ Romer, D. (2001). *Advanced Macroeconomics* (2nd Edition). New York: McGraw-Hill.

⁴⁵ Bowen, H.P., Hollander, A., and Viaene, J-M. (1998). *Applied International Trade Analysis*. Ann Arbor: University of Michigan Press.

⁴⁶ Martin, S. (1993). *Advanced Industrial Economics*. Cambridge, Mass. & Oxford: Blackwell.

⁴⁷ Jacquemin, A., De Ghellinck, E., and Huveneers, C. (1980). 'Concentration and Profitability in a Small Open Economy', *Journal of Industrial Economics*, 29(2): 131-144.

a rising capital-import ratio will favour growth of the mark-up rate. A rising share of domestic capital in the capital pool will also have a substantial positive effect on the mark-up rate.

More striking here is that the coefficient estimates also reveal that, indeed, labour productivity and import productivity are mutually reinforcing. Considering only the productivity equations, a 1% increase in labour productivity would lead to a 0.56% growth of import productivity. The estimates also show that a 1% increase in the wage share of value added would lower labour productivity by 0.41%, causing a corresponding and reinforcing 0.23% reduction in import productivity, then a further 0.05% reduction in labour productivity, and so on, *ad infinitum*. The process is convergent. The largest of the elasticities (2.02) is the coefficient of **lnshdcap**, and it indicates that this is the variable that should receive priority attention from policy-makers seeking to promote development. One finds similar reinforcement in the quadratic of the **opsurps** equation.

8.2 Implications of Policy Model

The powerful lesson of the parameter estimates is that, in order to transform the competitiveness of the economy, priority attention should go to an investment programme that grows domestic capital faster than all the other variables of the model. Examination of the Supply and Use Tables indicates that this also means accepting Demas' (1965)⁴⁸ propositions to find policies that grow inter-industry linkages in order to expand employment of constant capital.

Practically, these are very strong empirical findings, and they demonstrate many advantages of growing the domestic capital ratio. In particular,

1. It follows that growth of the domestic capital component at a faster rate than the total capital stock is good for the programme of foreign exchange saving, and hence ultimately good for the development of the economy, even as the total stock is encouraged to grow at its optimal rate.
2. It also follows that the development of the inter-industry system (intermediates) and the production final capital are good targets for the strategy to attain an optimal long-term development path for the economy.
3. Development policy can rationally pick winners, in the sense of engineering a relative growth of the sectors that show high foreign exchange saving potential, even as all viable sectors are pushed to grow at their highest possible rate.

These results do not promote any form of economic closure; indeed, free movement of people and capital might be the primary mechanism by which the accumulation of domestic capital relative to total capital can be achieved. In general, the policy implication is to promote investment and trade, in relative terms, in those sectors that use technologies which tend to grow domestic capital faster than imported capital, and thus tend to have the highest import productivity. The ordering of sectors for this purpose is documented in Table 5.7.

It is in this light that the policy-maker should consider the suggestions of the leaders in the copyright sector and, indeed, the wider economy. Specifically, their suggestions would be disciplined by the above finding, in that allocations to implement them could be governed by the comparative import productivities of the sectors involved, in the knowledge that one effect would be to also grow both labour productivity and profitability. As matters stand with the relationship of import productivity and sector growth extracted from SUT 2000 data and assembled in Table 5.8, this means giving relative priority to the sectors ordered as follows:

1. Group A: [music, theatrical productions, opera; motion picture, video and sound; software, databases and new media; literature; works of mas]
2. Group B [radio and television; advertising services; copyright collective management societies; photography, visual and graphic arts, and related professional and technical services]
3. Group C: [press]

The implications for policy are immediate. The biggest impact variable is the share of domestic capital in gross consumption of capital, with an elasticity of 2.02. Thus, the best policies would be those that focus on growing domestic capital faster than all other factors in the economy. From the perspective of sector-specific targeting, the first practical consideration is to use the wage share to put pure government employment –

⁴⁸ Demas, W. (1965). *The Economics of Development in Small Countries*, with special reference to the Caribbean. McGill: McGill University Press.

public administration – in perspective. Table 8.1 reports the wage share by sector. Table 8.2 illustrates the trend for the share of government in employment in Trinidad and Tobago. In Tobago, the share of administrative government has been growing steadily and rapidly since 2000, from 40% in 2000 to 49% in 2009. This rapid growth of the share of government in the Tobago economy contrasts with the slow upward drift in Trinidad. Government in the sense of pure public administration does not operate to generate an operating surplus and its wage share is virtually 1. As its share of the economy increases, it will create a ‘government disease’ by raising the wage share dramatically and by stimulating both a rising wage share and a fall in productivity in other sectors of the economy. The multiplier effects of the wage share follow, as demonstrated above. So, funded by buoyant prices in the energy sector, the trend increase in the share of government in the economy has been setting up a process of perpetual stagnation of both labour productivity and import productivity – the most fundamental joint indicators of competitiveness and determinants of future investment. It is this type of stagnation, an ultra-high-risk strategy of growth without development, which has been the underlying threat to the development prospects of Tobago since 2000 and, indeed, throughout the history of the island. The same threat is evident in Trinidad, but to a much lesser extent.

From the perspective of sound policy, the estimated policy model also suggests that such threats need not be halted by a battle with workers to lower the wage share, especially if a rising wage share is likely to produce stimulus to growth from the side of real consumption. Instead, they can be effectively counteracted and corrected by exogenous investment shocks to the capital-labour ratio and, better still, by improving the structure of capital and the level of employment of the skills of the labour force relative to the capital employed. Once again, this analysis, in combination with the data on import productivity (Table 5.7) and the wage share (Table 8.1), suggests that the optimal strategy would be to reallocate and order the necessary investment interventions to favour the sectors that raise import productivity. As the data show, the leading sectors among these are the copyright sectors.

Finally, the presence of highly significant parameters for the quadratic in the domestic capital share of the capital employed and the general presence of significant nonlinearities in the model point to the likelihood of multiple solutions and optimal development paths. This might ultimately point to the need for significant investment in good governance to support the drive to competitiveness and development. Indeed, this might be the single largest development project needed in Trinidad and Tobago.

Table 8.1: Wage Share by SUT Sector, Trinidad and Tobago

Sector Code	Sector description	Wage Share	Import Productivity
51	Government (75)	1.00	NA
52	Education (8010,8021,8022,8030)	0.9	NA
41	Construction (4510,4520,4530,4540)	0.99	4.3
54	Personal Services (9219,5020,9301,9302,9303)	0.7	33.5
24	Miscellaneous Food Manufacturers (1543,1544,1549)	0.7	0.2
19	Dairy Factories (1520)	0.7	0.3
01	Poultry Farms (0122)	0.6	0.2
14	Service Contractors (1120)	0.6	3.1
23	Bakeries (1541)	0.6	13.6
26	Textiles (1711,1810,1920,1729)	0.6	2.0
20	Fruit & Vegetable Processors (1513)	0.6	11.5
15	Quarries & Asphalt (1410,1429)	0.6	12.4
45	Hotels & Guest Houses (5510)	0.6	17.9
29	Wood (2010,3610,2029)	0.5	11.9
33	Iron & Steel (2710)	0.5	0.1
27	Printing (2212,2211)	0.5	1.7
17	Meat Processors (1511)	0.5	1.5
39	Electricity (4010)	0.4	6.6
43	Wholesale & Retail Distribution (52/51)	0.4	13.3
47	Communication (6420)	0.4	5.8
46	Transport (6021,6022,6304,6309,6301,6304,6302,6411,6412)	0.4	6.5
30	Construction Materials (2422,2693,2695,2694,2520,2811)	0.4	6.7
32	H/hold Appliances (3420,3140,3430,2511,3220,3512,3610,2899)	0.4	2.1
21	Fish Processors (1512)	0.3	7.4
28	Paper Converters (2109)	0.3	0.1
53	Health (8512,8520,8519,8511,9142,9112,9191,9120)	0.3	10.0
48	Finance (6511,6519,6592,6599,7530)	0.3	15.3
44	Restaurants (5520)	0.2	20.8
50	Business Services (7010,7430,7111-7129,7492)	0.2	29.8
34	Petroleum & Gas Refineries (2320,2320)	0.2	6.7
25	Alcohol/Soft Drinks/Tobacco (1551,1553,1554,1600)	0.2	2.2
49	Insurance (6601,6603)	0.2	27.1
42	Oil & Gas Distribution (5050,4020)	0.1	20.9
13	Oil & Gas Production (1110)	0.1	9.0
22	Feed & Flour Mills (1531,1532,1533)	0.1	2.9
36	Petrochemicals (2411)	0.1	3.0
31	H/hold Chemicals (2423,2424)	0.1	2.6
35	Gas Processing (2411)	0.0	7.9

Table 8.2: Employment by Type, Trinidad and Tobago, 2000-2009

	Employment Type	Employed									
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Trinidad	Statutory Board	2.4%	3.0%	2.6%	2.9%	3.1%	3.3%	3.2%	3.1%	3.5%	3.2%
	Gov't State Enterprise	5.0%	5.3%	5.4%	4.7%	3.5%	3.6%	3.7%	3.5%	3.4%	3.3%
	Central and Local Gov't	17.4%	17.6%	18.6%	18.6%	19.1%	19.5%	19.9%	18.8%	19.6%	19.3%
	Private Enterprise	52.0%	50.5%	50.6%	51.9%	53.0%	52.7%	52.9%	52.7%	52.5%	52.2%
	Unpaid Worker	1.4%	1.1%	1.0%	1.0%	0.9%	0.9%	0.6%	0.8%	0.8%	0.7%
	Learner/Apprentice	0.7%	0.7%	0.8%	0.7%	0.9%	0.8%	0.9%	1.1%	1.0%	1.1%
	Own Account Worker	16.3%	16.5%	15.8%	15.5%	15.0%	14.8%	14.2%	14.9%	14.6%	15.3%
	Employer	4.7%	5.2%	4.9%	4.7%	4.4%	4.4%	4.5%	4.9%	4.6%	4.7%
	Not Applicable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Not Stated	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tobago	Statutory Board	3.2%	2.6%	2.9%	4.0%	3.2%	3.0%	3.5%	2.9%	3.0%	5.1%
	Gov't State Enterprise	1.7%	1.5%	2.2%	1.2%	1.6%	1.7%	1.1%	1.5%	1.6%	3.0%
	Central and Local Gov't	39.8%	41.7%	40.6%	38.1%	41.7%	44.7%	46.4%	46.2%	50.9%	48.6%
	Private Enterprise	39.8%	38.6%	39.9%	39.9%	39.7%	36.2%	36.8%	35.4%	29.5%	32.1%
	Unpaid Worker	0.5%	0.3%	0.4%	0.1%	0.5%	0.1%	0.3%	0.5%	0.1%	0.0%
	Learner/Apprentice	1.2%	0.5%	0.3%	0.3%	0.9%	0.5%	0.5%	0.4%	0.3%	0.0%
	Own Account Worker	9.2%	11.1%	10.5%	13.8%	10.8%	12.4%	9.0%	9.7%	10.8%	8.2%
	Employer	4.5%	3.4%	3.3%	2.6%	1.6%	1.5%	2.3%	3.3%	3.7%	2.9%
	Not Applicable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Not Stated	0.1%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	All Government Tobago	44.7%	45.9%	45.7%	43.3%	46.5%	49.4%	51.0%	50.6%	55.6%	56.7%
	All Government Trinidad	24.8%	25.9%	26.7%	26.2%	25.7%	26.4%	26.8%	25.4%	26.5%	25.8%

8.3 Selected Policy Suggestions from the Industry Leaders and Lessons from International Best Practice

The policy suggestions from the industry profile survey are broadly consistent with the implications of the policy model discussed above, with details reported in II. All of the proposals seek to increase investment consistent with the structural interpretation of the policy model. Exceptions are noted.

8.3.1 General Suggestions from Profile Survey

The profile survey suggests that we should:

1. Improve education for the sector participants, by:
 - (a) Fully integrating it into the school system in the long-term to address general and specific literacy skills and technological creativity.
 - (b) Targeting the current skills deficit of professionals in the medium term, with a view to boosting creativity.
2. Improve access to financing in the form of ultra-low-cost financing and insurance for all forms of capital formation, including working capital.
3. Improve management and marketing, with significant priority given to:
 - (a) Support for development of the business model.
 - (b) Investment promotion and international marketing and brand development.

4. Upgrade risk management and strengthen entrepreneurial initiatives through the representative business associations of the relevant sectors, with a strong emphasis on developing capacity to deliver incubation and transformative technical support in collaboration with the various academies in the country. In this regard, a representative institution should be developed to unify the efforts of the business associations and the delivery of business support, as well as risk measurement and monitoring for improved financing.
5. Upgrade implementation of the copyright laws.
6. Make community-based interventions.
7. Improve tax incentives.

8.3.1.1 Notable Specifics – Group A

As regards what should be done specifically in relation to the sectors in Group A, the survey suggests the following initiatives:

1. Establish a pan factory to facilitate pan research and exporting, as well as to enable more festivals and shows.
2. Provide more and improved museums, statues, and related displays for public education.
3. Promote and brand Trinidad and Tobago’s music internationally.
4. Move beyond ethnicity in the development of the segments of the copyright sector.
5. Strengthen the technical and financial capacity of promoters.
6. Guarantee at least 50% local airplay on television and radio.
7. Join the Rome Convention for the protection of performers, producers of phonograms, and broadcasting organisations.

The proposal to guarantee a 50% local airplay on television and radio (6) is not strictly consistent with the model results of this section, or with the performance estimates of Section 6. These estimates suggest that the copyright sector of Trinidad and Tobago can thrive and grow in a competitive global environment, even under recessionary conditions, without imposing the suggested restrictions, partly by taking advantage of the expanded access to a global market in the relatively free trading context. For this reason, it might be better to look to more positive approaches to policy on trade in services, including improved trade promotion.

The stakeholder recommendation to join the Rome Convention is inconsistent with the stance of the Intellectual Property Office of Trinidad and Tobago, which holds that by virtue of membership in WPPT and WCT, membership of the Rome Convention appears to be unnecessary. However, in terms of the trajectory of the development of the economy and the use of copyright in that process, there are two important countries in CARICOM that are significant users of TT sound recordings but are not signatories to WPPT (Table 8.3): these are Barbados and Dominica. Owners of TT sound recordings are not protected in those countries, which however, are signatories of Rome. To gain protection for the owners of such neighbouring rights, a proactive stance by Trinidad and Tobago would be to sign the Rome Convention and gain that protection, at no significant cost to the country.

Table 8.3: CARICOM Signatories to Copyright Conventions and Treaties

Country	Convention / Treaty					
	Rome	Berne	WPPT	WCT	GENEVA	BRUSSELS
Anguilla	Yes	Yes	Yes	Yes	Yes	No
Antigua and Barbuda	No	Yes	No	No	No	No
Bahamas	No	Yes	No	No	No	No
Barbados	Yes	Yes	No	No	Yes	No
British Virgin Islands	Yes	Yes	Yes	Yes	Yes	No
Dominica!	Yes	Yes	No	No	No	No
Grenada	No	Yes	No	No	No	No
Guyana	No	Yes	No	No	No	No
Jamaica	Yes	Yes	Yes	Yes	Yes	Yes
Montserrat	Yes	Yes	Yes	Yes	Yes	No
Saint Kitts and Nevis	No	Yes	No	No	No	No
Saint Lucia!	Yes	Yes	No	Yes	Yes	No
Saint Vincent/Grenadines	No	Yes	Yes	No	No	No
Suriname	No	Yes	No	No	No	No
Trinidad and Tobago	No	Yes	Yes	Yes	Yes	Yes
Total Signatories Worldwide	91	165	89	89	77	35
Berne Convention	Protection of literary and artistic works					
Rome Convention	Protection of performances of performers in phonograms, phonograms of producers of phonograms, and broadcasts of broadcasting organisations. Also includes protection for phonogram producers against unauthorised reproduction of their phonograms					
Geneva Convention	Protection of phonogram producers against unauthorised duplication of their phonograms					
Brussels Convention	Protection of unauthorised transmission of programme carrying satellite signals except direct broadcast transmissions					
WPPT	Protection of performances fixed in phonograms granted to performers – the right of reproduction; ii) the right of distribution, (iii) the right of rental, and (iv) the right of making available; Moral Rights (the right of broadcasting, except in the case of rebroadcasting), (ii) the right of communication to the public (except where the performance is a broadcast performance), and (iii) the right of fixation. Grants to producers of phonograms (i) the right of reproduction, (ii) the right of distribution, (iii) the right of rental, and (iv) the right of making available					
WCT	Protection of computer programs and databases					

Source: WIPO

8.3.1.2 Notable Suggestions – Group B

In respect of the sectors in Group B, the survey suggests that government should:

1. Establish broadcasting standards and facilitate training of announcers.
2. Provide incentives for research into audience preferences and into the content needs of radio and television stations.

8.4 Other Specific Projects Suggested by Profile Survey

Notably, the survey also suggests that, while relying on private entrepreneurship to lead development, the government should establish a multi-dimensional system for the development of the copyright sector by:

1. Creating a single, robust, and independent Copyright Sector Development Division and Ministry.
2. Establishing a College of Copyright, Heritage Industries and Law (Tobago).
3. Introducing a system of merit scholarships and internships to enable individuals to pursue higher studies in the copyright sector.

4. Establishing a Copyright Research Institute that conducts capacity-building and policy research to provide direct technical support to enterprises and individuals in the copyright sector in, for example, the form of:
 - a Copyright Studies & Research Bulletin
 - an annual Copyright Communities Research Conference.
5. Establishing a Heritage Industry and Copyright Development Fund and Collateralisation Programme.
6. Rewarding copyright sector performance by district with trophies and other incentives (this is especially applicable to the Heritage Festival).
7. Establishing a Copyright Claims Court for the prevention of piracy.

8.4.1 Financing Measures for Promoting Entrepreneurship in Copyright-based Sectors

Government should stimulate copyright-related entrepreneurship and investment, via:

- A business start-up financing programme for persons with certified skills in any area that potentially yields copyright. Such a programme should include a copyright business support programme that seeks to improve management and employee skills.
- A special microcredit facility for micro working capital, with a presence in every community, designed to upgrade traditional rotating savings programmes, foster participation, and keep interest rates low, as well as make credit available in manageable amounts under manageable repayment arrangements.
- Increased participation by the copyright sector in international trade missions.
- Creation of a Register of Copyright.

Stakeholder recommendations that a Register of Copyright be created are not consistent with the position adopted by the TTIPO. The TTIPO generally observes that, after more than a decade of considering the merits, the general international consensus is that the establishment of a Register appears to create more problems than it solves with respect to certification that a registered claimant indeed is the legitimate holder of the rights claimed. This is reflected in the absence of such a requirement in the administration of any of the international conventions and treaties listed in Table 8.3.

8.4.1.1 The Gender Focus of Policy

In relation to gender, policy should focus on:

1. Providing special incentive packages for women.
2. Encouraging women and men to combine family and work by fostering cooperation between labour-related organisations such as musicians' unions, copyright collective management agencies, employers' associations, state employment agencies, and research agencies.

8.4.1.2 The Community Focus of Policy

Within a framework of economic renewal programming at the community level, policy should focus on:

- Establishment of a community-based education programme designed to raise awareness and change attitudes towards employment and wealth creation, as well as piracy in the copyright sector.
- Expansion of community-based training programmes to improve the skills, knowledge and confidence of investors in the copyright sector (current and potential leaders, civic educators, media professionals, electoral observers, and other key stakeholders in electoral processes).
- Promotion of necessary economic investments, as well as constitutional and legal amendments (by, *inter alia*, supporting temporary affirmative actions towards the relevant goals of community-based leadership of copyright sector development).

8.4.1.3 Legal Issues, International Conventions and Implementation of Law

Works of Mas: Trinidad and Tobago delegations to various international forums, most notably in the ongoing negotiations in WIPO, have tirelessly lobbied for the protection and recognition of works of mas in member states. Those efforts have concentrated on protecting works of mas internationally, not as copyright, but as a traditional cultural expression. One result of this continuing effort by the Government of Trinidad and

Tobago is that the current draft international instrument on the protection of traditional cultural expressions, developed in the WIPO Intergovernmental Committee on the Protection of Traditional Knowledge, Cultural Expressions and Genetic Resources, contains references to works of mas, for example, in its Article 1(d), which specifically mentions: ‘... tangible expressions, such as material expressions of art [handicrafts,] [*works of mas*,] [architecture,] and tangible [spiritual forms], and sacred places’.⁴⁹ International consensus building in this regard continues and it is of the utmost importance to keep the issue under careful scrutiny and control, and to report sound data on it.

Implementation of the Copyright Law: The copyright laws of Trinidad and Tobago are not well-enforced. One important manifestation of this is the failure of most holders of copyright to actively challenge the licensing bodies to secure their rights. The paucity of licensing disputes with licensing bodies that are referred to the High Court is probably attributable to two factors. The first is lack of knowledge or awareness of this provision by persons who have disputes with licensing bodies, and the second is the expense and inordinate delays of High Court litigation in Trinidad and Tobago. In the circumstances, consideration should be given to the implementation of alternate dispute resolution (ADR) mechanisms as a less expensive and speedier option for determining licensing disputes with CMOs.

The Copyright Act provides civil remedies for infringement of copyright. Licensing bodies/collective management organisations usually administer thousands of copyright works or sound recordings and, in cases of infringement, it would be virtually impossible for such entities to prove infringement of each work or sound recording in their extensive repertoire. The effect of Section 39 of the Act, which makes ‘wide injunctions’ available to licensing bodies, is that, once infringement is proved or admitted, the Court may grant an injunction to the entire repertoire of the licensing body although the infringement only related to one or some of the works or recordings.

In order to facilitate the collective licensing and royalty collection process of collective management organisations in Trinidad and Tobago, it has been recommended by some stakeholders that amendments be made to liquor licensing legislation and similar legislation⁵⁰ whereby a condition for the grant of such licences is that the applicant be in possession of a copyright and/or neighbouring rights licence from the relevant CMO. Such statutory measures would increase royalty collections and the attendant quantum of royalties distributed by CMOs in Trinidad and Tobago, which would ultimately redound to the benefit of right owners. However, it should be noted that this approach to policy is only one of many options promoted by collective management organisations that are also the likely beneficiaries of the policy. To minimise the moral hazard in policy-making, finalisation of the policy design should be accomplished by bringing all stakeholders into a sector-wide and multi-sector joint decision-making framework with which to address how the intellectual property of producers of copyright could best be respected and rewarded.

Copyright Law and Business Practice: In music, movies, works of mas and other such areas of copyright-based production, the underlying copyright is always owned by the authors. Consequently, the producer of the work, be it a work of mas or some other work, would be well-advised to employ the same informed business tactic of having written agreements with the authors of the copyright involved in the creation of the work, in order to really have control over its complete exploitation. The practice in movie production, where the norm is that every party involved in the production is engaged contractually, is perhaps the best practice in this respect. Thus, at the end of the production, there is no question as to who the owner of the final product is (however the law defines it). From a policy standpoint, the lack of that type of business and legal shrewdness in works of mas and other types of copyright-based production in Trinidad and Tobago appears to be the ultimate issue. The law is a living breathing thing that will evolve over time. Legal practitioners and policy-makers, while in the trenches lobbying, seem to have an important responsibility to promote the practice that industry clients operate their business within the realities of current laws and social conditions. In the case of policy-makers and related institutions, this is perhaps best treated as an overriding responsibility as the copyright sector evolves.

⁴⁹ Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Seventeenth Session, December 6 to 10, 2010, Geneva, WIPO GRTKF, IC /17/12, Annex II, p. 5.

⁵⁰ Liquor Licences Act Chapter 84:10 ; Cinematograph Act Chapter 20:10; Theatres and Dance Halls Act Chapter 21:03

8.4.1.4 Addressing digitisation

With the advent of digitisation and the availability of copyright products without physical media, the processes that linked the creator to the final consumer have been radically changed. This change has largely been in the processes of reproduction and distribution. The cost of producing the first copy of a copyright work such as a book remains quite high for the author and publisher and is not much affected by digitisation. However, in the digital domain, the cost of producing the second and subsequent units fall precipitously close to zero and remains at this low level indefinitely no matter how many copies are produced. With the advent of the internet, not only is the cost of production of copyright products in digital form perceived to be zero, but this digital network practically eliminates most costs of distribution. From the point of view of the consumer and some firms that use copyright output as inputs, copyright works in digital form have become free and there is increasing resistance to paying for digitised copyright output. However, no rational economic agent pursuing profit would produce any output if the price of her product were zero. There must be a reward for producing the first copy as well as subsequent copies. The author or other copyright producer must have a reasonable prospect of selling sufficient copies at a price that is sufficiently above zero, or of receiving adequate compensation in some other form (such as royalties) to allow her to recover the initial high cost of producing the copyright work. The new methods of reproduction and distribution of works in digital form have therefore created a great danger that the quality and quantity of copyright output will diminish because there will be less investment of financial and mental resources in the production of these products. This is already evident in the recorded music industry, where the major record-producing firms have been curtailing investment in new artists. In order to restore the balance between the interests of creators and users and to give creators the incentive to produce copyright works, new approaches to managing the production and distribution of copyright products in digital form are needed, including new legal means of redress, as well as technological measures such as various forms of legally sanctioned digital rights management systems.

The Internet as Global Market: The internet is a growing global market for copyright-based products and it is subject to the same patterns of market domination that characterise all markets. The evidence indicates that, in the value chain created by producing and distributing copyright goods over the internet, a form of centralisation and control is developing. Already, Apple iTunes dominates the legal distribution of recorded music. According to the New Music Express (online version), 80% of legal downloads of recorded music were from the iTunes platform.⁵¹ Thus, many owners of what is left of the recorded music industry in Trinidad and Tobago are turning increasingly to this platform to sell their products. Similarly, the sale of e-books is rapidly being dominated worldwide by a few firms located in the north Atlantic.⁵² According to CNet, in the 3rd quarter of 2010, one firm, Amazon, controlled 70 to 80% of the e-book market in the US.

The inexorable trajectory of the digitisation and distribution of copyright products will lead to the elimination of many jobs associated with the traditional production and distribution of these products in Trinidad and Tobago, as in the rest of the world. The bricks-and-mortar stores are being replaced by digital aggregators and retailers located overseas in the north Atlantic, and local authors and publishers are already turning to these firms to distribute their works even to consumers in the local market.

The challenge for Trinidad and Tobago is to find a profitable space in the new environment in order to manage the growing risk of finding itself participating in the value chain of the digital economy mainly as consumers or mere bit players on the edge of the digital stage. As the profiles of IBG and Teleios show, there are already some firms that are prepared to embrace digitisation as an opportunity to produce new and innovative products. These recommended policy initiatives point to a need to adjust the education system as well as the trade and commerce stance of the country. The general recommendation is accelerated development of skills and business practices to participate in the digital economy as *producers* of digital goods. Policies in the copyright sector should be deliberately geared to increasing the incentives for new firms in the establishment, innovation, and growth stages of their development.

8.5 Copyright Law and Public Policy in Tobago

The law pertaining to copyright of works created in Tobago is governed by the national Copyright Act Chapter 82:80 and its amendments. However, residents of Tobago have to look to the Tobago House of Assembly for policy making and representation at the governmental level on matters to do with copyright.

⁵¹ http://www.nme.com/blog/index.php?blog=10&title=who_will_break_itunes_monopoly&more=1&c=1&tb=1&pb=1

⁵² http://reviews.cnet.com/8301-18438_7-20012381-82.html

The 5th Schedule of the Tobago House of Assembly Act, 1996 contains all the areas for which the Tobago House of Assembly has responsibility. It does not specifically include the term 'copyright' or 'intellectual property', but it confers responsibility on the THA for a host of areas, many of which are related to, or have the potential to impact, copyright protection issues. Thus, it is suggested that, although not specifically stated in the 5th Schedule, the responsibility for the management and development of copyright in Tobago and for making policy as it relates to copyright resides with the Tobago House of Assembly. Accordingly, the thrust for copyright protection and enforcement of the copyright law in Tobago should come from the THA.

The areas for which the THA is given responsibility in the 5th Schedule of the Act that have implications for copyright are as follows:

1. State (Lands)
2. Land and Marine Parks
3. Archives
4. Tourism
5. Sports
6. Culture and the Arts
7. Community Development
8. Cooperatives
9. Fisheries.

The relevance of the foregoing lies in their potential to generate creative works and thus to contribute to the economy of Tobago through copyright more than obtains at present. In discharging its responsibility for these areas, the THA can formulate and implement a dynamic vision for harnessing the creative spirit of citizens of Tobago in every area of endeavour. Some of the trends and possibilities are worth mentioning:

- State lands in Tobago have been distributed by the THA to low-income and disadvantaged persons for the construction of their homes. Some extraordinary designs of low-cost houses have been an outcome of this programme. The production of CDs and booklets containing these creative and functional designs can be used to market and export/market these home designs to other places.
- Similarly, a vibrant boat-building industry can be developed for the construction of pirogues and other fishing vessels. It is widely known among fisher folk that particular types of fishing activity require vessels specially designed for that purpose. In metropolitan countries, vessel design is copyrighted and cannot be replicated at will as is done in the Caribbean. A vibrant boat-building industry can thus be encouraged by the THA and marketed to fisher folk in other counties with interest in particular types of fishing.
- As the governmental body that has responsibility for archives, culture, and the arts, the THA can devise projects that would encourage historians and writers to produce works that capture the true history of the island. There is at present a paucity of material that collates Tobago's history and cultural past in an authentic manner. A huge body of folklore and community knowledge in villages goes unexplored or is diminished with the passing of older folk. This is mainly because there is no mechanism for capturing or preserving the information that reposes in a community. Again, villagers can be encouraged to record and preserve their knowledge of the island's history and culture. In this way, the community would be in control of what is disseminated as its history. Another issue is the vehicle or community entity by which such community knowledge can be extracted, packaged, and disseminated and, in this regard, the idea of cooperatives and non-profit entities becomes relevant. The THA could move to guide villagers on how they can set up the community entity and pursue the objective of collating information on community history and culture in an authentic manner. The THA's role in this regard would be in keeping with its responsibilities under the THA Act.

The Heritage Festivals: The THA has a current vested interest in copyright protection and enforcement by virtue of the fact that it is the organiser and/or producer of several annual festivals which involve the production of original intellectual creations of musical, artistic, literary and dramatic works, as well as their reproduction, translation, adaptation or modification. The THA should be vigilant to ensure that it complies with copyright laws by obtaining the necessary licences and paying for the use of copyright works and neighbouring rights, thereby rewarding right holders and providing a financial incentive to encourage creativity and investment in creativity. The THA should also ensure that the copyright protection provided under the Act is enforced, and should collaborate with national bodies and agencies to formulate amendments to the law to protect

other categories of deserving works that are not now protected, but which, if protected, would stimulate development of the copyright-based activities.

Some of the major festivals which the THA has produced, sponsored, or had an interest in are:

- Carnival (involving, e.g., works of mas, speech bands, robbers, wild Indians)
- The Tobago Heritage Festival (which includes folk festivals; cultural and dramatic productions, most of which are created by various communities; speech band presentations; folktales and folklore; wedding speeches; proverbs and riddles; harvest choir festivals)
- The Music and Arts Festival
- The Jazz Festival
- The Blue Food Festival
- The Sea Food Festival
- The Goat Race Festival
- Fisherman's Day.

The works involved in these festivals are both original and derivative. They include poetry, recipes, booklets, dramatic productions and re-enactments, speeches, dances and musicals, fiddle and tambourine tunes, costume designs, and boat design and boat-building.

An issue of concern is that some domestic and international tourists who attend these festivals video-tape the productions without any restrictions. Many have been known to exploit these presentations commercially through the production of videotapes and postcards, with hardly any returns for the local creator or producer. Thus, a local individual, a group, community, or even the THA itself is deprived of the revenue from the exploitation of their work. The THA has a special responsibility to ensure that the communities and local producers derive economic benefits from their creations and must therefore put in place the necessary mechanism to achieve this.

Copyright has the potential to make a much greater contribution to the economy of the island of Tobago than it is currently making. The THA is regarded as the body best positioned to ensure that this is addressed expeditiously. It needs to focus more attention on securing protection for the works—original, derivative, and folkloric—produced at its highly-patronised festivals in the different communities of Tobago. Accordingly, it should seek amendments to the existing law or to have the Government of Trinidad and Tobago create and enact new legislation to include protection for work produced for these festivals.

The THA also has a vested interest in ensuring that the Copyright Act provides optimum protection to its artistes and other creative citizens. A significant course of action would be to set up a Committee constituted of persons with the appropriate expertise to study the Act and make recommendations for how it can be amended to meet the needs that are not now being met. Critically, the Committee should also review the Act to determine whether the THA now has the power to formulate and implement the necessary measures on its own. Finally, the THA needs to ensure that proposals to amend the constitution of Trinidad and Tobago would confer on it powers to design and implement policies and measures that would achieve the policy changes identified above.

Annexes

Annex I: Contribution of Copyright to Trade

Table A-1.1: The Contribution of Copyright to Trade in Trinidad and Tobago, 2000, 2007, 2011 Selected Industries

	2000			2007			2011		
	Exports Copyright	Imports Copyright	Trade Balance	Exports Copyright	Imports Copyright	Trade Balance	Exports Copyright	Imports Copyright	Trade Balance
Core Copyright Industries									
Press and Literature	52.08	98.63	-46.56	63.12	254.59	-191.46	34.53	155.97	-121.44
Motion Picture, Video and Sound	0.00	0.00	0.00	0.00	0.72	-0.72	0.00	1.23	-1.23
Radio and Television Broadcasting	30.99	66.66	-35.67	216.44	196.32	20.11	230.81	0.00	230.81
Photography, Visual and Graphic Arts	3.34	2.34	0.99	2.23	2.05	0.19	1.30	0.00	1.30
Software, Databases and New Media	0.00	0.00	0.00	6.32	0.01	6.31	2.48	0.00	2.48
Advertising Services	0.00	0.02	-0.02	12.21	0.03	12.18	8.12	0.00	8.12
Copyright Collective Management Societies	2.61	0.25	2.36	20.25	18.56	1.69	18.85	0.00	18.85
Works of Mas	2.98	0.00	2.98	1.18	1.08	0.10	1.51	0.00	1.51
Interdependent Copyright Industries									
TVs, Radios, VCR, CD and DVD Players, Electronic Gaming and Equipment	0.05	26.15	-26.11	0.01	127.13	-127.12	0.01	113.72	-113.71
Pan	3.64	0.47	3.16	3.19	0.15	3.04	1.21	0.40	0.81
Other Musical Instruments	3.94	3.37	0.57	3.59	5.42	-1.82	1.29	8.94	-7.65
Photographic and Cinematographic Instruments	0.00	3.07	-3.07	0.00	4.95	-4.95	0.00	5.16	-5.16
Photocopiers	0.00	0.00	0.00	0.00	0.88	-0.87	0.00	0.37	-0.37
Blank Recording Material	0.00	0.00	0.00	0.01	9.98	-9.97	0.00	7.17	-7.17
Paper	381.40	529.78	-148.37	487.40	715.85	-228.44	319.65	680.04	-360.39
Partial Copyright Industries									
Tailors, Dressmakers and Shoe Repair	0.04	0.04	0.00	0.01	0.01	0.00	0.01	0.00	0.01
Leather and Leather Products	0.18	5.07	-4.89	0.08	11.23	-11.15	0.02	11.50	-11.48
Pottery and China, Glass and Glass Products	6.90	112.82	-105.92	6.95	251.61	-244.67	4.09	211.82	-207.73
Jewellery, Coins	4.80	14.17	-9.37	3.82	46.72	-42.91	1.15	34.53	-33.38
Architecture, Engineering and Surveying	0.00	0.00	0.00	10.50	0.02	10.48	41.73	0.00	41.73
Furniture Design and Production	51.03	102.32	-51.29	76.94	347.06	-270.13	45.10	290.12	-245.02
Interior Design	0.00	0.00	0.00	11.08	0.02	11.06	14.15	0.00	14.15
Non-dedicated Support Industries									
General Transportation	4.84	909.67	-904.83	8.94	2667.97	-2659.04	10.26	2036.75	-2026.49
Telephony and Internet	0.07	41.55	-41.49	0.99	741.53	-740.54	0.19	923.24	-923.05

Annex II: A Framework for the Design of Copyright Policy in Trinidad and Tobago

Introduction

One of the central contributions of the copyright sector is to improve competitiveness in the Trinidad and Tobago economy. This Annex provides a framework for copyright policy in the form of an estimated nexus of profitability and competitiveness. Competitiveness is defined in terms of labour productivity and import productivity, with the latter defined to include the exchange rate.

Basic Empirics of Labour Productivity

The traditional linear relationship is between the logarithm of labour productivity (**labprod**) and the logarithm of the capita-labour ratio (**caplabr**), which is the typical Cobb-Douglas functional form. If, instead of labour productivity, we use a proxy in the form of the average returns to outlays of work and skill, then the variables are directly comparable and their joint contribution to competitiveness can be analysed. The first question is; what are the parameters of the nexus? The second is; do import productivity and labour productivity, coming from such different perspectives, form an integrated conceptual framework for the analysis of the competitiveness of countries? The third question is; what are the policy implications of the results and, in particular, the implications for copyright policy?

On the basis of a correlation of 0.71, the log-linear regression relationship is,

$$1. \ln \widehat{\text{labprod}} = -0.70_{(0.000)} + 0.54_{(0.003)} \ln \text{caplabr} \quad (\text{Adj}R^2 = 0.48; \text{RMSE} = 0.91)$$

In this equation (1), the measure of labour productivity is output per worker, not output per hour worked, but the results are still a good basis for policy design. After all, workers are hired, and output from effective hours worked has to be elicited through managerial efficiency, with effects that show up in the output per worker over a longer period than an hour. In a cross-sectoral setting, this is a very strong relationship, accounting for about 48% of the variation in labour productivity. It indicates that a 10% increase in the capital-labour ratio would increase labour productivity by about 5.4%. The practical implication for policy design is to promote growth of the capital-labour ratio, subject to the condition of equation (1), which is that the domestic capital share of the investment grows faster than the overall investment, hence faster than the imported capital to be consumed.

Basic Empirics of Import Productivity

However, if the overriding social burden is the scarcity of foreign exchange, then the affected society must explore the options for saving foreign exchange through its production system – enter import productivity. It can be shown that the balance of payment is a function of the productivity of imports, and that, consequently, the productivity of imports is a function of the export-import ratio, the export-output ratio, and the structure of imports. Import productivity contributes to the measurement of the capacity to sell in global markets.

The model of import productivity is driven by the additional claim that it is a function of the structure of capital. The basic computation underlying the claim is a correlation of 0.77 between the logarithms of the variables, i.e., (**ln(impprod)** and **ln(shdcap)**). So, there is a strong linear relationship between **ln(impprod)** and **ln(shdcap)**, and the associated (regression) line is estimated as:

$$2. \ln \widehat{\text{impprod}} = 2.48_{(0.000)} + 2.11_{(0.000)} \ln \text{shdcap} \quad (\text{Adj}R^2 = 0.58; \text{RMSE} = 0.99)$$

The coefficient estimates mean that a 1% growth in the share of domestic capital to total capital would cause import productivity to grow by about 2.1%. Both model coefficients have a very low probability of being false positives. Moreover, the explanatory power of the model is quite strong, especially when one takes account of the fact that it is based on cross-sectoral (SUT) data.

Exogenous Variables and Model Specification Issues

From an econometric standpoint, one would expect interdependence of the residuals of equations that explains profits, import productivity, and labour productivity. So, a system of equations must be considered, whose parameters are estimated with a system estimator. In this report, we use (3SLS) since specification tests with two-stage least-squares suggest that there is no significant heteroscedasticity in the residuals that would invalidate the use of this method.

Apart from the variables in the decompositions, I use the following explanatory variables, some of which could be extracted from underlying production functions and some from the principles of distribution, as well as of mark-up pricing and its links to trade:

- (a) **The structure of capital (*shdcap*)** – measured as the ratio of domestic capital consumption to total capital consumption. In the model of the mark-up rate, the variable enters as the quadratic (*shdcap2*).
- (b) **The capital-labour ratio (*caplabr*)** – measured as gross capital consumption divided by employment. Gross capital consumption includes both fixed and circulating capital.
- (c) **Employment per unit of domestic capital (*skildcap*)** – measured as employment divided by the consumption of domestic capital.
- (d) **The wage share (*wagshar*)** – measured as the ratio of compensation to value added.
- (e) **Import penetration (*cimppen*)** – measured as the ratio of consumer imports to domestic shipments.
- (f) **The export-imported inputs ratio (*expimpr*)** – measured as exports divided by imported inputs.

The variables (*shdcap*), (*caplabr*), and (*skildcap*) measure different aspects of the capacity to absorb, adopt, and adapt international technology. The export share of value added is labelled *expout*.

Specification checks using a multivariate regression (**Annex 2 Table 1**), with *ln labprod* and *ln impprod* as the two dependent variables and using the full list of exogenous variables, indicate that *ln shdcap* is not a significant contributor to *ln labprod*.⁵³ In as much as *skildcap* is a component of the reciprocal of *caplabr*, the core identifier of *ln labprod* is *ln wagshar*, while *ln shdcap* plays a similar role in the *ln impprod* equation. Further, since we treat *ln labprod* as endogenous, it transmits the influence of the *ln wagshar* variable to *ln impprod*. Thus, we choose to exclude *ln wagshar* from the *ln impprod* equation.

⁵³ The multivariate regression uses a joint estimator and also estimates the between-equation covariances.

Table A-2.1: Estimated Coefficients of Multivariate Regression with Labour and Import Productivity

Equation	Obs	Parms	RMSE	"R-sq"	F	P
limpprod	38	7	.5976251	0.8689	34.25254	0.0000
llabprod	38	7	.7015805	0.7412	14.79607	0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
limpprod					
lshdcap	1.910408	.1983946	9.63	0.000	1.50578 2.315036
lskildcap	.4252435	.0736723	5.77	0.000	.2749879 .5754991
expimpr	.0365608	.0124091	2.95	0.006	.0112523 .0618693
cimppen	-.4474663	.2043248	-2.19	0.036	-.8641896 -.0307431
expout	-.154859	.0540816	-2.86	0.007	-.2651591 -.044559
lwagshar	-.4614134	.1430252	-3.23	0.003	-.7531153 -.1697114
_cons	1.057059	.3454407	3.06	0.005	.3525284 1.76159
llabprod					
lshdcap	-.116912	.2329049	-0.50	0.619	-.5919246 .3581007
lskildcap	-.5076328	.0864874	-5.87	0.000	-.684025 -.3312406
expimpr	.0049775	.0145676	0.34	0.735	-.0247333 .0346884
cimppen	-.0817807	.2398666	-0.34	0.735	-.5709919 .4074305
expout	-.1659122	.0634889	-2.61	0.014	-.2953986 -.0364257
lwagshar	-.4630286	.1679041	-2.76	0.010	-.8054713 -.1205858
_cons	-.888999	.4055293	-2.19	0.036	-1.716081 -.0619167

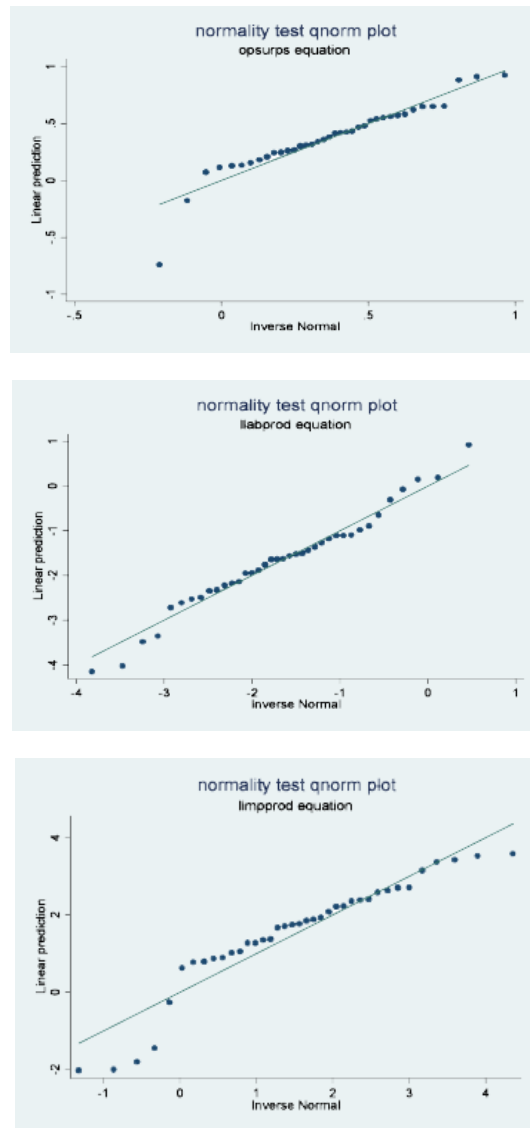
The Estimated Parameters of the Policy Model

The resulting estimated system is:

$$\Delta(\text{opsurps}) = 0.387 \Delta(\text{op}) + 0.14 \Delta(\text{im}) - 2.197 \Delta(\text{shdrcap}) + 2.157 \Delta(\text{shdrcap})^2 + 0.711 \Delta(\text{caprcmp}) - 0.411 \Delta(\text{caprcmp})^2 + 0.007 \Delta(\text{caprcmp})^3 + 0.57 \Delta(\text{chdrcap}) + 0.65109 \Delta(\text{im}) + 0.1123 \Delta(\text{op})$$

The reported Chi-squared statistics indicate that the equations are strong representations of the behaviour of the dependent variables (*opsurps*, *lnimpprod* and *lnlabprod*). Further, all model coefficients are statistically significant at the 10% level or better, and most are statistically significant at the 1% level or better. The main thing to look for in judging these regressions is whether the residuals are normally distributed. In that regard, the q-norm plots (q-qplots) in Figure 7.1 look quite favourable for each equation, bearing in mind that we are working with sector aggregates (that are not strictly independent).

Figure A-2.1: Plots of Regression Residuals



The Case for the Unified Conceptual Framework for Understanding Competitiveness

Canonical correlations of the right-side linear combinations, reported in Table A-2.2, indicate that one might think of import productivity and labour productivity as comprising a unified conceptual framework for the evaluation of competitiveness driving the mark-up of the sectors and, hence, the core capacity to finance development from retained earnings, in that the two views are closely correlated. That is, when linear combinations of the arguments in each of the structural equations in (11) are sought that maximise the correlation of the linear combinations, the result is a near-perfect correlation of 0.96 between the best linear combination of the labour productivity factors and the best linear combination of the import productivity factors. Moreover, all of the test statistics are highly significant.

Table A-2.2: Raw Coefficients and Canonical Correlations for the Arguments of Import and Labour Productivity

Canonical correlation analysis Number of obs = 38

Raw coefficients for the first variable set

	1	2	3	4
llabprod	0.4065	0.4052	0.0958	-0.5877
lshdcap	1.3953	-0.0122	-0.2532	-0.2546
lskildcap	0.5360	-0.0450	0.5184	-0.0605
expimpr	0.0240	0.0128	-0.0585	0.0657
opsurps	0.3465	1.4291	1.6264	2.4074
cimppen	-0.2635	-0.1612	0.3002	0.8365

Raw coefficients for the second variable set

	1	2	3	4
limpprod	0.6709	-0.0402	-0.2211	0.1589
caplabr	-0.0321	0.1698	-0.5964	-0.3450
lwagshar	0.0180	-1.0272	-0.6282	-0.3434
expout	0.0267	-0.0789	-0.1733	0.4822

Canonical correlations:

0.9592 0.8538 0.6373 0.5448

Tests of significance of all canonical correlations

	Statistic	df1	df2	F	Prob>F
Wilks' lambda	.00905476	24	98.8904	11.7505	0.0000 a
Pillai's trace	2.35184	24	124	7.3726	0.0000 a
Lawley-Hotelling trace	15.2975	24	106	16.8910	0.0000 a
Roy's largest root	11.5027	6	31	59.4307	0.0000 u

e = exact, a = approximate, u = upper bound on F

For more information contact WIPO at www.wipo.int

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