The main reason to be interested in GDP, employment and trade is that they are the central drivers of poverty reduction and equity when the right sectors grow. Poverty reduction and equity through growth of GDP, employment and trade have been important elements of the global development agenda for many decades, and reached its peak in 2000 with the Millennium Declaration.

The challenge has been to get the choice of sectors right. Conceptually, we are now on track with this matter of the choice of sectors. Traditionally, countries looked to the manufacturing sector to spur growth, employment and trade. This was largely about structural interdependence and intellectual property in the form of patents.

Concern with structural interdependence came along with concern about the output gap at the national level and at the sector level. And, we knew that there are some sectors, like manufacturing, that better support use of full potential. Even in that framework, copyright sectors were already relevant – as sectors of independent thought in the sense meant by Lloyd Best and as sectors that feature low thresholds of entry capital, thereby allowing large numbers to participate competitively.

Nowadays, countries are looking increasingly to the service sector as well, for productivity growth and expanded trade. Further, there is greater reliance on other forms of (what accountants call) goodwill than patents. Here, copyright and structural capital come into their own. Structural capital combines well with intellectual property and embodies most of the value of, and many of the keys to, innovative capacity.

Think copyright and you also must think about the non-physical supportive infrastructure of the establishments that allow people (employees) to function, and explains much of productive performance:

- organizational capital, including image,
- organization,
- information systems,
- employee loyalty,
- philosophy and methods of leveraging organizational loyalty; and including process capital in the form of methods, procedures and programs to enhance production and delivery of output;
- tacit knowledge, theory and talents that run the establishment;
- relational or networking capital, which is the set of customer relationships, supplier relationships, trademarks and trade names, licenses and franchises that tie to customer
networks, and allow efficient and dynamic production and marketing of goods and services.

The big challenge for T&T is data to prove these kinds of connections, and in particular financing for data collection, to assess the strength of the case for certain industrial policies. We need properly managed and sufficiently large random samples to estimate properly the shares of carnival in consolidated ISIC codes. We need the kind of granularity achieved when we try to do supply and use tables with 100+ activities and more (ISIC codes), and associated products (CPC codes).

The aspect of the estimation that has suffered most is trade. Trinidad and Tobago depends heavily on trade, but I can say straightforwardly that we do not have the kind of comprehensive trade data we need to understand our options in the world. None of the WIPO studies did a good job on trade, in particular trade in services in any mode (Cross border trade, Consumption abroad -tourism; Commercial presence; Presence of natural persons). No one, including the central banks, has the details needed to estimate the impact of carnival on trade.

Estimates
Define the carnival sector by 4 groups of activities:

Core Carnival Industries, comprising:
- a. Steel Orchestras
- b. Carnival music
- c. Creation of works of mas, carnival masquerade and related street theatre
- d. Fetes

Non-dedicated Support Industries
These are beneficiaries of the externalities produced by development of the core industries:
- e. Construction
- f. Transport
- g. ICT
- h. Security
- i. fashion
- j. museums,
- k. jewellery,
- l. architecture,
- m. interior design.
- n. motion picture, video and sound,
- o. Press and literature
- p. radio and television,
- q. photography, visual and graphic arts, related professional and technical services.
r. Software databases and new media,
s. Advertising services,
t. Copyright Collective Management Societies.

The closest approximation to the size of the industry comes from measurement of the copyright sector, much of which is carnival anyway.

In terms of numbers, we have reasonable confidence that:

1. In 2000, copyright contributed approximately TT$1,998 million to the economy –
   a. more than 3 times as much as agriculture (TT$626 million),
   b. 2.8 times as much as hotels and guest houses (TT$710 million),
   c. Nearly 23% of manufacturing (TT$8,700 million).

2. In real terms, the copyright sector contributed TT$3,630 million in 2007 and TT$4,102 in 2011.
   a. The real size of the copyright sector grew at an average rate of 11.7% per year between 2000 and 2007
   b. At a lower but still positive average rate of 3.2% per year between 2007 and 2011.

We picked up the trend relative and absolute decline in press and the trend relative and absolute growth in radio and new media. Radio was somewhat surprising but it makes sense when streaming online and online ads are considered.

- In 2011, within the core copyright sector, there were four dominant sectors, ordered in terms of size:
  o (i) radio and television (TT$666.1 million);
  o (ii) press and literature (inclusive of academic publishing) TT$200.2 million;
  o (iii) advertising services (TT$147.6 million), and
  o (iv) software and databases (TT$90.3 million) (Table 6-8; Figure 6-V). 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).

We have not yet measured fete, which is perhaps as much as half again of the sector. Some estimates put it at TT1.3 billion, which seems relatively small. We have also not measured the contributions of construction, ICT, and many others mentioned above. This is work in progress.

**Underlying Industry Structure**

The share of manufacturing in the economy has grown, primarily as a result of the activities of Atlantic LNG and food and beverage manufacturing with imported inputs. However, manufacturing has very low import productivity, with its mean varying from 0.7 up to 6.7 depending on the subsector (Table).

- In the manufacturing sector production of petrochemical derivatives ranks the highest.
- Import productivity in the mining sector is also moderate, at about 9.
- These estimates compare with 33.5 for the best performing subclasses 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 to an appreciating real exchange rate 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. One way this happens is to suppress investment in capacity-building targeting the high productivity sectors at a sufficient pace to maximize growth of their productivity. This could happen even if the high productivity sectors are growing as a result of private investment.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Import Productivity (2000)$^1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Services (9219,5020,9301,9302,9303)</td>
<td>33.5</td>
</tr>
<tr>
<td>Business Services(7010,7430,7111-7129,7492)</td>
<td>29.8</td>
</tr>
<tr>
<td>Insurance(6601,6603)</td>
<td>27.1</td>
</tr>
<tr>
<td>Oil &amp; Gas Distribution (5050,4020)</td>
<td>20.9</td>
</tr>
<tr>
<td>Restaurants (5520)</td>
<td>20.8</td>
</tr>
<tr>
<td>Hotels &amp; Guest Houses (5510)</td>
<td>17.9</td>
</tr>
<tr>
<td>Finance (6511,6519,6592,6599,7530)</td>
<td>15.3</td>
</tr>
<tr>
<td>Bakeries (1541)</td>
<td>13.6</td>
</tr>
<tr>
<td>W/sale &amp; Retail Distribution (52/51)</td>
<td>13.3</td>
</tr>
<tr>
<td>Quarries &amp; Asphalt (1410.1429)</td>
<td>12.4</td>
</tr>
<tr>
<td>Wood (2010,3610,2029)</td>
<td>11.9</td>
</tr>
<tr>
<td>Fruit &amp; Vegetable processors (1513)</td>
<td>11.5</td>
</tr>
<tr>
<td>Oil &amp; Gas production (1110)</td>
<td>9.0</td>
</tr>
<tr>
<td>Gas Processing (2411)</td>
<td>7.9</td>
</tr>
<tr>
<td>Fish processors (1512)</td>
<td>7.4</td>
</tr>
<tr>
<td>Petroleum &amp; Gas Refineries (2320,2320)</td>
<td>6.7</td>
</tr>
<tr>
<td>Construction Materials(2422,2693,2695,2694,2520,2811)</td>
<td>6.7</td>
</tr>
<tr>
<td>Electricity (4010)</td>
<td>6.6</td>
</tr>
<tr>
<td>Transport(6021,6022,6304,6309,6301,6304,6302,6411,6412)</td>
<td>6.5</td>
</tr>
<tr>
<td>Communication (6420)</td>
<td>5.8</td>
</tr>
<tr>
<td>Construction (4510,4520,4530,4540)</td>
<td>4.3</td>
</tr>
<tr>
<td>Service Contractors (1120)</td>
<td>3.1</td>
</tr>
<tr>
<td>Water (4100)</td>
<td>3.0</td>
</tr>
<tr>
<td>Petrochemicals (2411)</td>
<td>3.0</td>
</tr>
<tr>
<td>Feed &amp; flour mills (1531,1532,1533)</td>
<td>2.9</td>
</tr>
<tr>
<td>H/hold Chemicals (2423,2424)</td>
<td>2.6</td>
</tr>
<tr>
<td>Other Mfng (1911,3691,2519,3699)</td>
<td>2.3</td>
</tr>
<tr>
<td>Sector</td>
<td>Import Productivity (2000)¹</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Alcohol/Soft Drinks / Tobacco (1551,1553,1554,1600)</td>
<td>2.2</td>
</tr>
<tr>
<td>H/hold Appliances(3420,3140,3430,2511,3220,3512,3610,2899)</td>
<td>2.1</td>
</tr>
<tr>
<td>Textiles (1711,1810,1920,1729)</td>
<td>2.0</td>
</tr>
<tr>
<td>Poultry processors (1511)</td>
<td>1.9</td>
</tr>
<tr>
<td>Printing (2212,2211)</td>
<td>1.7</td>
</tr>
<tr>
<td>Meat Processors (1511)</td>
<td>1.5</td>
</tr>
<tr>
<td>Plastic Products (2520)</td>
<td>0.8</td>
</tr>
<tr>
<td>Dairy factories (1520)</td>
<td>0.3</td>
</tr>
<tr>
<td>Misc. Food Mfgrs.(1543,1544,1549)</td>
<td>0.2</td>
</tr>
<tr>
<td>Paper Converters (2109)</td>
<td>0.1</td>
</tr>
</tbody>
</table>

¹Measured as the ratio of value-added to the value of imports used in production.
1. The background of a management framework is the critical need for data to shape industrial policy rooted in the experiences of the actual establishments involved in the industry, national and global contexts.

2. Throughout our measurement experience, this is what people are most interested in – public policies to encourage the development and growth of the industries they invent, partly because they are practical solutions to poverty and inequity, and the lack of democracy too.

3. People want to improve firm, sector and national competitiveness and capabilities and promote structural transformation through what is essentially a private sector of their own creation. We have come up short with manufacturing, but not with copyright.

4. With copyright, we win in the world. And, we have done so with what is largely a domestic private sector, even when government has contributed strategically and significantly.

5. It is worth saying in passing that the copyright sector is no plantation sector and, through its enormous inflow of goodwill, it even thrives in the face of Dutch Disease in a place like Trinidad and Tobago.

6. Much of the measures we have provided so far are too imprecise and policies too vague. The estimates can be made more precise, valid and reliable, but mainly with better data to estimate the copyright factors.

7. However, to make policy, more specificity is required.

8. We still have to get information that measures and explains the efficiency of the establishments in copyright, to whatever degree, against their frontier production functions and in comparison to other types of establishments.
9. We need to know the same for the industries in which copyright is embedded, and for the economies in which they operate. Where we find extremes of efficiency/inefficiency, we need to know why and what to do about them.

10. This is not the kind of work that consultants can do with small budgets and operating from outside the types of national statistical systems we have in the Caribbean. Also, the WIPO strategy has taken us as far as it can. Its real value is that it has indicated that something serious is happening here, even if we do not know exactly what it is and even if it is tough to make policy with the data as collected.

11. Now, the national statistical organisations must take over the measurement process and bring the full weight of their skills, data and the SNA methods to bear, upgrading continually, as was done for agriculture and manufacturing, and as is being done for tourism the satellite sector. We need a measurement project each year for the next 20 years, which can then be integrated fully into the work of the CSO.

12. It will pay us now to spend the money to find out the patterns and prospects, and the right policies implied, by doing proper stakeholder-driven sampling of the kind done for any other satellite accounts that we take seriously.

13. If we put up the money, we are likely to find that, from all indications, sectors producing and using copyright tend to generate so much goodwill as to be among the most productive and internationally competitive activities in our economies. These sectors are game changers that offer comparatively greater prospects of pushing the producing firms and embodying sectors to their efficiency frontiers and in pushing the economy closer to its development potential.

14. However, the sectors rely heavily on the quality of the IP regime in place in the country and the world. Any framework for managing copyright requires recognition of the intricate relationship between carnival as industry and carnival as creator of copyright and other IP.

15. As far as quality is concerned, the first issue is the knowledge of the law and rights among practitioners. No matter how creative the industry, it is necessary to run major parts of it as business and not as social infrastructure, and the business side is deeply affected by the underlying property rights, especially the copyright and related IP rights. The seminar this week clarified that this is considerably about a wide swath of legal issues:
   a. Artist contracts
   b. Recording and publishing agreements under relevant copyright law
   c. Name protection and business organization
   d. Digital rights
   e. Collective management
   f. Branding
   g. Influence of property rights on business financing
14. Carnival operators, individual or institutions, must be broadly educated to recognize that when building their careers, they need to focus on all the important legal changes that are occurring as the industry develops. Not the least of these is the enforceability of the rights themselves.

15. An institution such as NCC must undertake a swath of activities aimed at continuous education of the carnival industry about
   a. The legal issues that its special concern, with particular emphasis on copyright law, recording and music publishing agreements.
   b. Analysis of common contracts, including collaboration agreements, producer, label and distribution agreements and club contracts, and the like.
   c. Contractual relationships between creators and other parties, including managers, agents, producers, club owners, and investors.
   d. The changing business models that work.
   e. The legal and contractual changes that accompany changes in the various aspects of the carnival business.
   f. The need to extend rights tenure

16. The relevant education must always distinguish
   a. Rights preserved for the creator
   b. Commercial rights the creator provides for others

17. We will need to give substantial attention to the idea of giving away rights and the creative commons. The creative commons enables selection of a license type and associate it with anything you want to give away. If anyone can find your work, the creative commons tells what freedoms come with it.

18. In any event, the framework must address other aspects of a copyright regime on which to base a claim that it is a growth enhancer. These go beyond the mere existence or absence of laws to their comparative modalities of enforcement and scale and quality of supporting expenditure for enforcement. These cover
   a. cultivating knowledge and awareness of what constitute infringement;
   b. effectiveness of civil remedies and the extent of their availability;
   c. existence of penalties for criminal infringement, such as fines and forfeiture, and the extent of their enforcement.

19. In this regard, a growing challenge is that digitization is combining with piracy to make many forms of IP rights unenforceable. This is where the UNCTAD issues become helpful.
20. Trinidad and Tobago has been investing increasing resources in the carnival industries. At the same time, the industry outputs are increasingly produced, distributed and consumed with a rapidly changing set of core information and communication technologies, characterized mainly by digitization and open access.

21. The technologies are being developed mainly in the USA, other leading industrial economies, India and China. Caribbean countries operate largely by adopting these technologies, and on the fringes of advanced applications. Their main effect on copyright is, like piracy, to weaken them and turn content into public goods/services.

22. The digital distribution of content has created new business models mastered by new majors, such as iTunes, Spotify (music) and Amazon (books). In this open market process, a major consequence is that the distribution of income along the value chain has moved further against content creators and hence against countries specializing purely in the creation of content. What was already a challenging distribution of income for content creators under the old majors has become worse under the new.

23. In any event, there is a growing trend for the current generation to object to IP altogether, as intellectual monopolies; prone to blocking social progress; or as benefitting the few over the many who are actively sharing in creating the culture being shaped into new expressions.

24. Petra Moser takes this view of patents and we have seen how digital technology undermines respect for copyright. (Moser, Petra. 2013. "Patents and Innovation: Evidence from Economic History." Journal of Economic Perspectives, 27(1): 23-44). This line encourages the view that it is the diffusion of ideas to facilitate entry and encourage competition that is effective in fostering innovation in the long run.

25. These trends raise new challenges for any copyright management framework and for related government intervention with industrial policy design, identified by UNCTAD. Specifically, only countries have the resources and opportunities to correct this growing imbalance. They must now intervene with policy to slow and reverse the trend. New global rules and mechanisms of oversight will be needed addressing how content is handled and distributed, underpinned by registration of rights.

26. New structures of remuneration will have to be introduced at the national level in that context. In this regard, UNCTAD is urging some new guidelines for industrial policy. These recommend focus on:
a. Income security rather than control of income generated along the value chain;
b. revenue augmentation rather than copyright protection;
c. fair remuneration rather than on exclusion (typical of property rights); transparency of value creation and reward along the value chain, not on secrecy and non-disclosure agreements;
d. the challenges and risks of the business model employed by content creators, especially matters such as financing, marketing and risk mitigation.