



CENTRAL BANK OF
TRINIDAD & TOBAGO

Exploring and Industry Framework to Evaluate Competitiveness in Trinidad and Tobago

Presenter: Joseph Jason Cotton

Presentation to the 15th Annual SALISES Conference Wednesday 23rd, April, 2014
Disclaimer: The views expressed are those of the authors and not necessarily those of the Central Bank.



Outline

I. Motivation

II. Literature review

III. Methodology

IV. Results

V. Conclusions

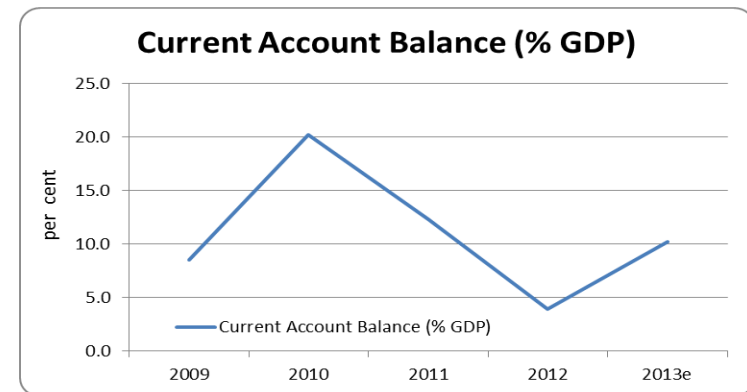
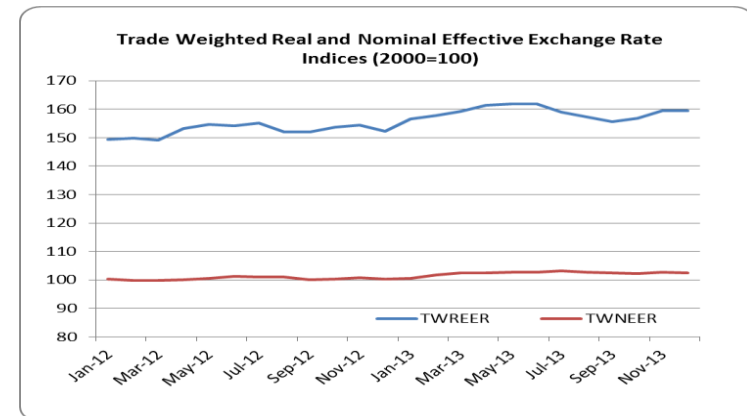
I. Motivation

“The available evidence suggests that there has been a decline in competitiveness in the T&T economy....”

Global Competitiveness Index, 2013-2014

Sub-index/ Pillar	Rank*	Score
Basic Requirements	60	4.7
1. Institutions	94	3.6
2. Infrastructure	52	4.4
3. Macroeconomic environment	52	5.1
4. Health and primary education	63	5.8
Efficiency Enhancers	82	3.9
5. Higher education and training	75	4.2
6. Goods market efficiency	101	4
7. Labour market efficiency	89	4.2
8. Financial market and development	55	4.3
9. Technological readiness	61	3.9
10. Market size	114	2.8
Innovation and sophistication factors	92	3.4
11. Business sophistication	79	3.9
12. Innovation	107	2.9
Overall Rank and Score: 2013-2014 (out of 148)	92	3.9
Overall Rank and Score: 2012-2013 (out of 144)	84	4.0
Overall Rank and Score: 2011-2012 (out of 142)	81	4.0

Source: Global Competitiveness Report, 2013-2014, World Economic Forum.



II. Literature Review

- Competitiveness can be explained as the set of institutions, policies and factors that determine the level of productivity on a country. Porter and Schwab (2008)
- Three Levels of Competitiveness analysis:
 - ✓ National Level – Lipschitz and McDonald (1991); World Economic Forum-GCI
 - ✓ Industry Level – Balassa (1965); O’Mahoney and Van Ark (2005)
 - ✓ Firm Level – Depperu and Cerrato (2008)
- Scope of the Competitiveness analysis:
 - ✓ Competitive Potential
 - ✓ Competitive Process
 - ✓ Competitive Performance

II. Literature Review

Competitiveness in the Financial Services Sector (FSS)

- Financial services can be defined as financial intermediary and support services that are usually provided by banks and other financial intermediaries and auxiliaries.
 - ✓ Examples: services related to deposit taking and lending, letter of credit, credit card services, financial advisory services, financial asset management, stock exchange services, etc.
- Assessing FSS Competitiveness
 - ✓ Performance Indicators (ROA, ROI, etc.)
 - ✓ Panzar Rose method
 - ✓ Performance indicators (UK Competitiveness Tracker)
- Research – Bourne (1998); Guiseppi (2005)

III. Methodology

The T&T Competitiveness Tracker

- ❑ Patterned after the UK Competitiveness Tracker
 - ✓ The drivers of competitiveness were grouped into four categories and consist of twelve performance indicators.
 - ✓ The drivers of competitiveness were as follows: (i) Output and Productivity (ii) Costs (iii) Profitability and (iv) Human Capital according to Martin et. al (1991); Porter (1990).
 - ✓ The proxy indicators focused on measuring the competitive performance of the financial services, energy and manufacturing industries over time.
 - ✓ Data used were solely from secondary sources.
 - ✓ Proxy indicators are weighted equally.

III. Methodology

The T&T Competitiveness Tracker

- ❑ Patterned after the UK Competitiveness Tracker
 - ✓ The T&T Competitiveness Tracker does not quantify or rank the competitive performance of industries but provides a guide of the outcome of its operations over time.
 - ✓ Each indicator can move in any of three directions namely: up, down or flat. The overall movement of the tracker is based on the balance of indicators rising and falling.

III. Methodology

Competitiveness Indicators

UK Competitiveness Tracker Indicators	T&T Competitiveness Tracker Indicators
UK Financial Services Indicators	Output and Productivity
Volume of business	
Employment	Real GDP growth
Trade balance	Labour Productivity
New authorization's of firms	Industry Share of GDP
New authorization's of people	
Financial Market Indicators	Profitability
European IPOs	
European M&A	
European turnover UK equities	Return on Assets;
UK equities FTSE 250	Investment Income (Reinvested Earnings)
Credit availability to corporates	Taxes as % Profits
Derivatives turnover	
Forex turnover	
Central London Indicators	Costs
GFCI	Operating Expenses/Operating Income
New City job vacancies	Interest Rate (US Prime)
Office take up	Unit Labour Cost
Measures of UK Competitiveness	Human Capital
Sovereign risk rating	Graduates- Faculty of Eng. & Social Sc.
Ease of doing business	
Business tax paid % of profits	Costs
FDI inflow	Corporation Tax rate
Corruption perceptions index	Operating Expense/Operating Income

III. Methodology

Drivers of Competitiveness	Sectors and their Interpretation		
I. Output and Productivity	Finance	Manufacturing	Energy
	Real GDP growth (Finance) + 've \uparrow ; - 've \downarrow	Real GDP growth (Manuf.) + 've \uparrow ; - 've \downarrow	Real GDP growth (Energy) + 've \uparrow ; - 've \downarrow
	Finance as % GDP + 've $\Delta \uparrow$; - 've $\Delta \downarrow$	Manuf. as % GDP + 've $\Delta \uparrow$; - 've $\Delta \downarrow$	Energy as % GDP + 've $\Delta \uparrow$; - 've $\Delta \downarrow$
	Output per worker (Finance) + 've $\Delta \uparrow$; - 've $\Delta \downarrow$	Output per worker (Manuf.) + 've $\Delta \uparrow$; - 've $\Delta \downarrow$	Output per worker (Energy) + 've $\Delta \uparrow$; - 've $\Delta \downarrow$
II. Costs	Operating Expense/Operating Income ratio Inverse (+ 've $\Delta \downarrow$; - 've $\Delta \uparrow$)	Unit Labour Cost Index Inverse (+ 've $\Delta \downarrow$; - 've $\Delta \uparrow$)	Interest rate (US prime) Inverse (+ 've $\Delta \downarrow$; - 've $\Delta \uparrow$)
III. Profitability	Return on Assets + 've $\Delta \uparrow$; - 've $\Delta \downarrow$	Manufacturing taxes as % Profits + 've $\Delta \uparrow$; - 've $\Delta \downarrow$	Investment Income (Reinvested Earnings) + 've $\Delta \uparrow$; - 've $\Delta \downarrow$
IV. Human Capital	Graduates Faculty of Social Sciences (First Degree & Higher Degree) + 've $\Delta \uparrow$; - 've $\Delta \downarrow$	Graduates Faculty of Social Sciences (First Degree & Higher Degree) + 've $\Delta \uparrow$; - 've $\Delta \downarrow$	Graduates Faculty of Engineering (First Degree & Higher Degree) + 've $\Delta \uparrow$; - 've $\Delta \downarrow$

III. Methodology

Limitations:

- Data limitations.
- Selection of indicators.
- Lack of industry feedback.
- Neglects strategic planning.

IV. Results

**Table: Performance of the Competitiveness Tracker
(2007-2013)**

	Finance	Manufacturing	Energy
Number of Indicators ↑	25	37	20
Number of Indicators ↓	16	5	18
Unchanged Indicators	1	0	4
Competitive Performance	9	32	2

Note:

The competitive performance of an industry provides an indication of the effect of: (i) the inputs into the firms operations, (ii) government policy and (iii) its strategic management on its output (i.e. value added, productivity, cost and profitability).

IV. Results

Table: Movements in the T&T Competitiveness Tracker (1996-2012)

Competitive Performance	2007	2008	2009	2010	2011	2012	2013e
Finance Industry	Δ	0	∇	Δ	0	Δ	0
Energy Industry	∇	Δ	Δ	Δ	∇	∇	∇
Manufacturing Industry	Δ	Δ	Δ	Δ	Δ	Δ	Δ

V. Preliminary Conclusions

- ✓ The overall competitive performance of the manufacturing sector was the most consistent during the review period (2007-2013).
- ✓ The Energy sector displayed the most volatility.
- ✓ The Finance sector seems to be a suitable sector for the diversification thrust since it performed relatively well in most years that the energy sector showed a decline in competitive performance, except in the year 2009.
- ✓ Further work needs to be done on evaluating the competitiveness of industries.



Thank you for your attention!

Any Questions?

Please feel free to e-mail your comments to jcotton@central-bank.org.tt