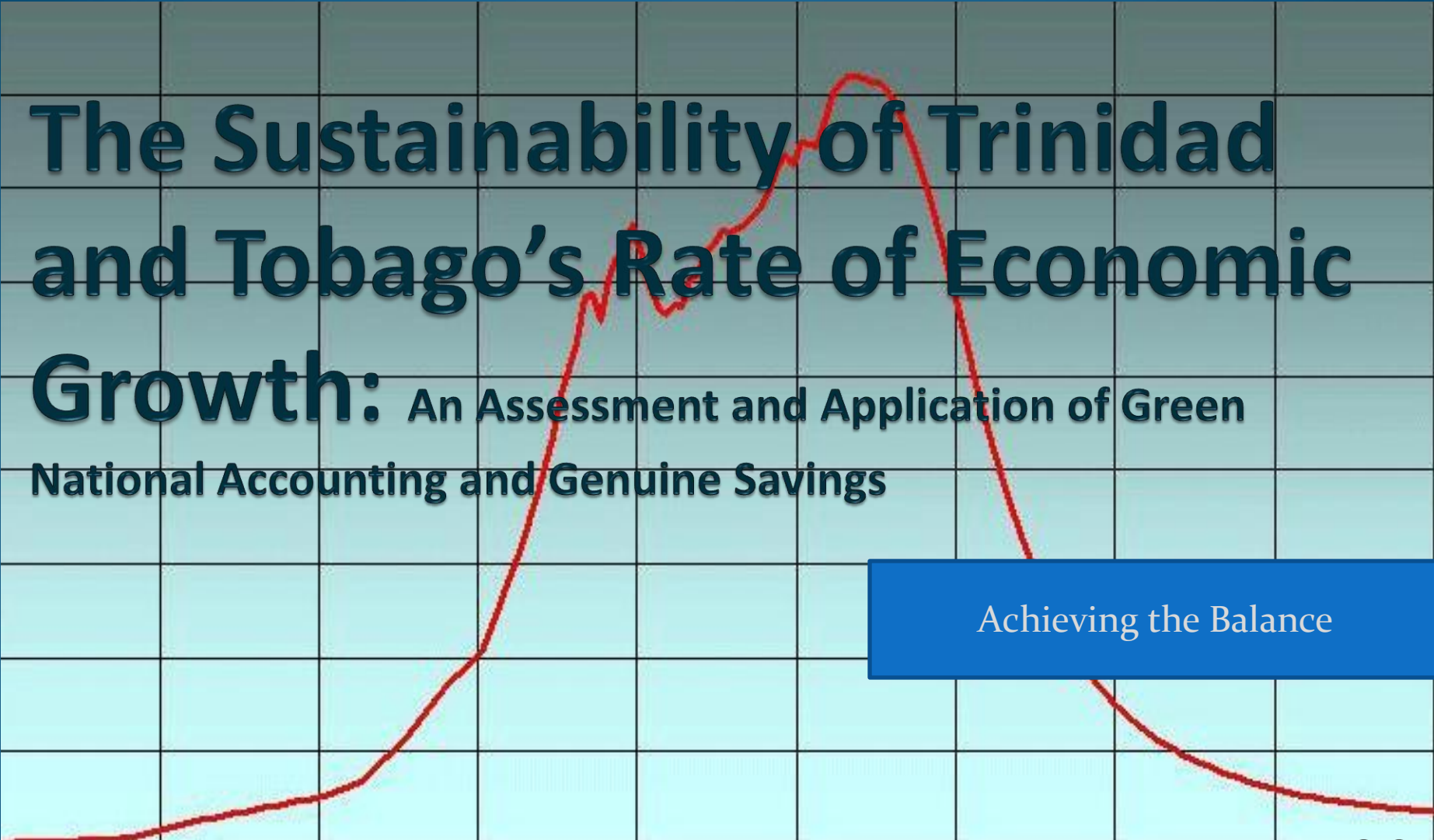


The Sustainability of Trinidad and Tobago's Rate of Economic Growth:

An Assessment and Application of Green National Accounting and Genuine Savings



The graph features a red line on a grid background. The line starts at a low point on the left, rises steadily to a peak in the upper right quadrant, and then drops sharply towards the bottom right. A blue rectangular box with white text is placed at the beginning of the downward slope. The x-axis is labeled '20??' at the far right.

Achieving the Balance

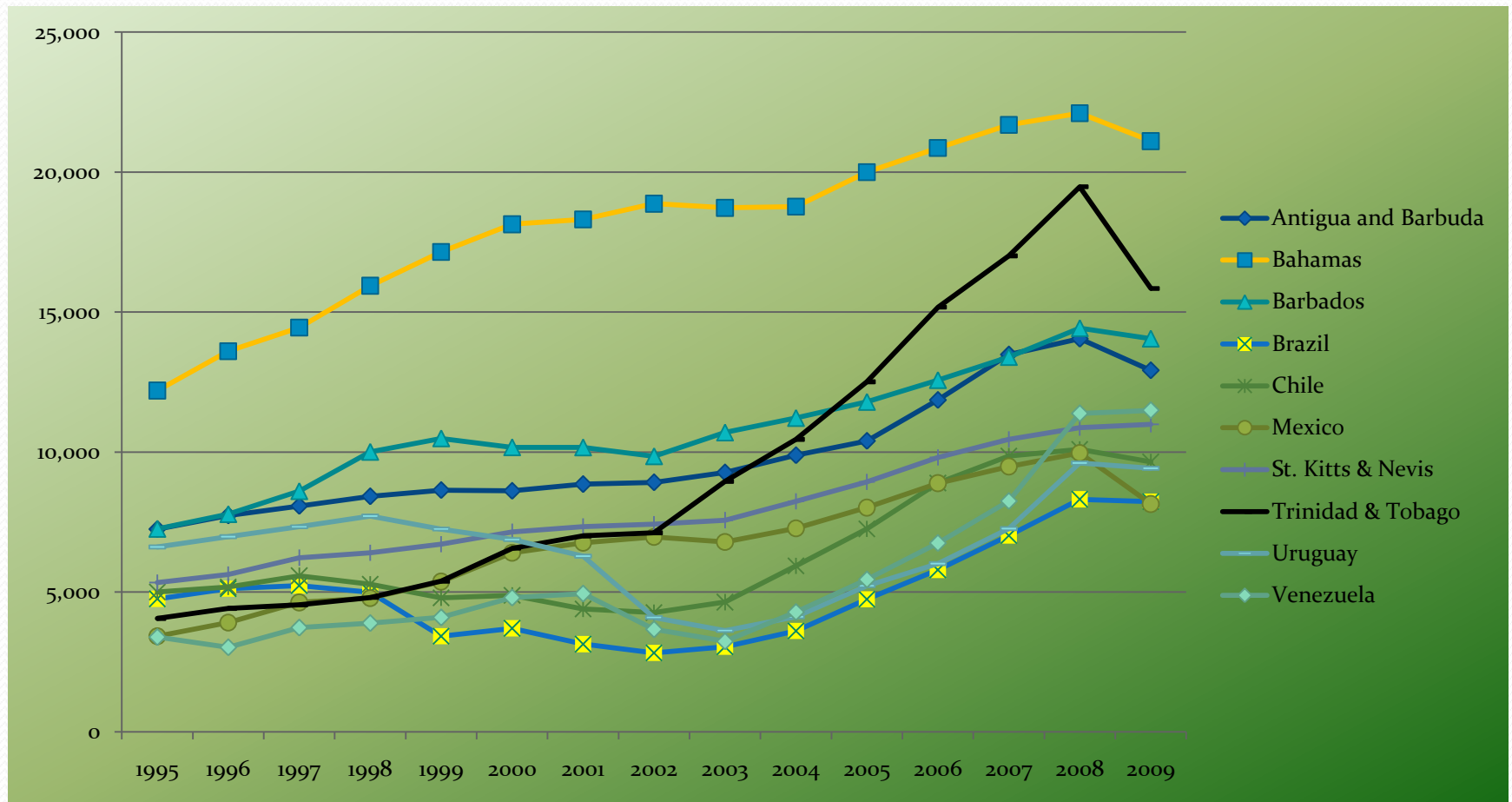
20??

By Trevonne Clarke

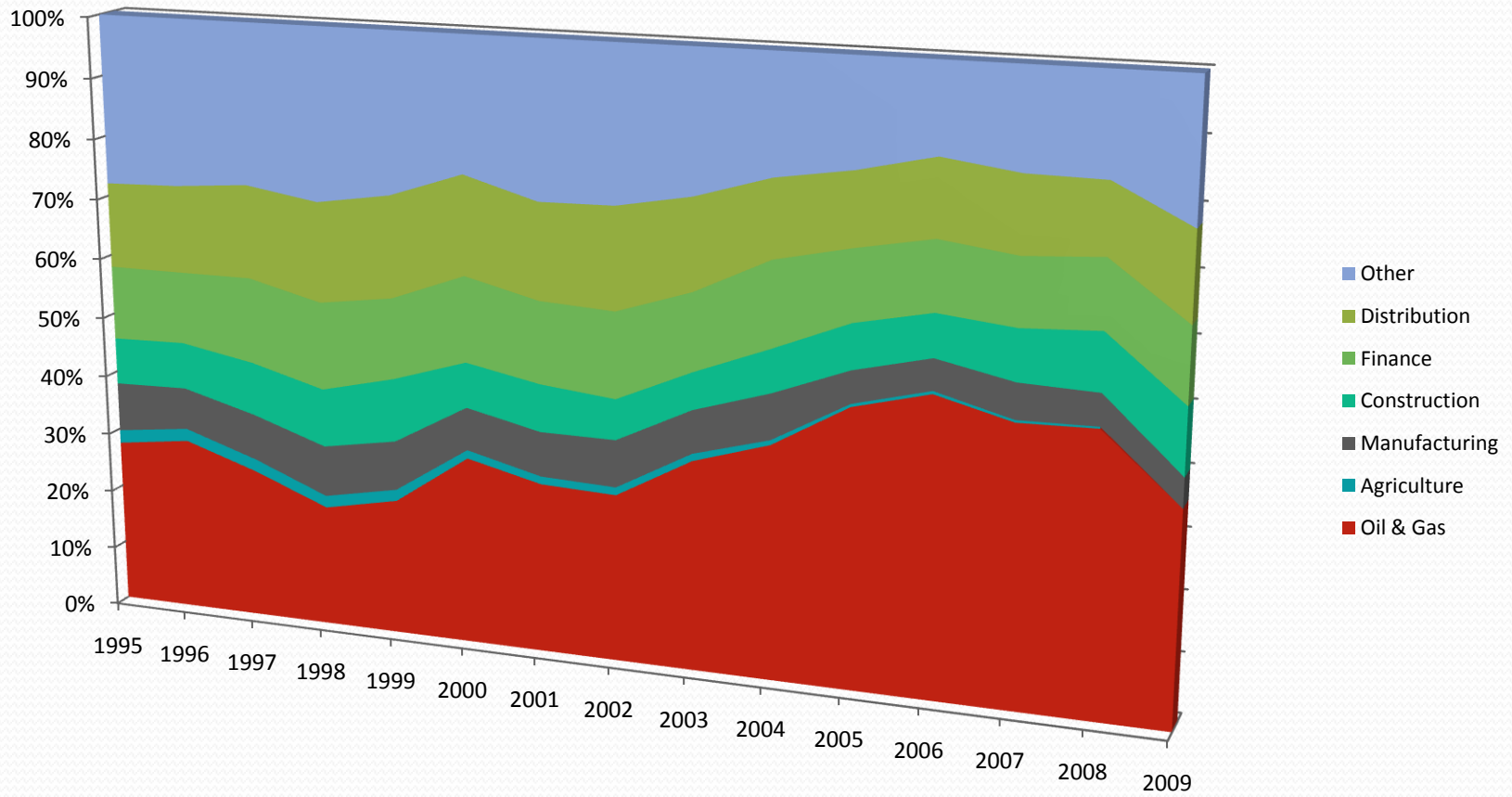
Trinidad and Tobago's Economy

- Typically buoyant fuelled primarily by successful monetization of the country's energy (oil, gas and asphalt) reserves.
- Trinidad and Tobago's growth rate averaged 7.5 % over the five year period 2004-2008. The highest in the hemisphere for the period(Mottley 2008)
- The country's GDP per capita US\$19,475 is the second highest in Latin America and the Caribbean, and has cemented its place as a high income state.
- Possesses one of the lowest Unemployment levels in the region and hemisphere averaging 5% over the last five years

Caribbean and South America top 10 GDP per capita

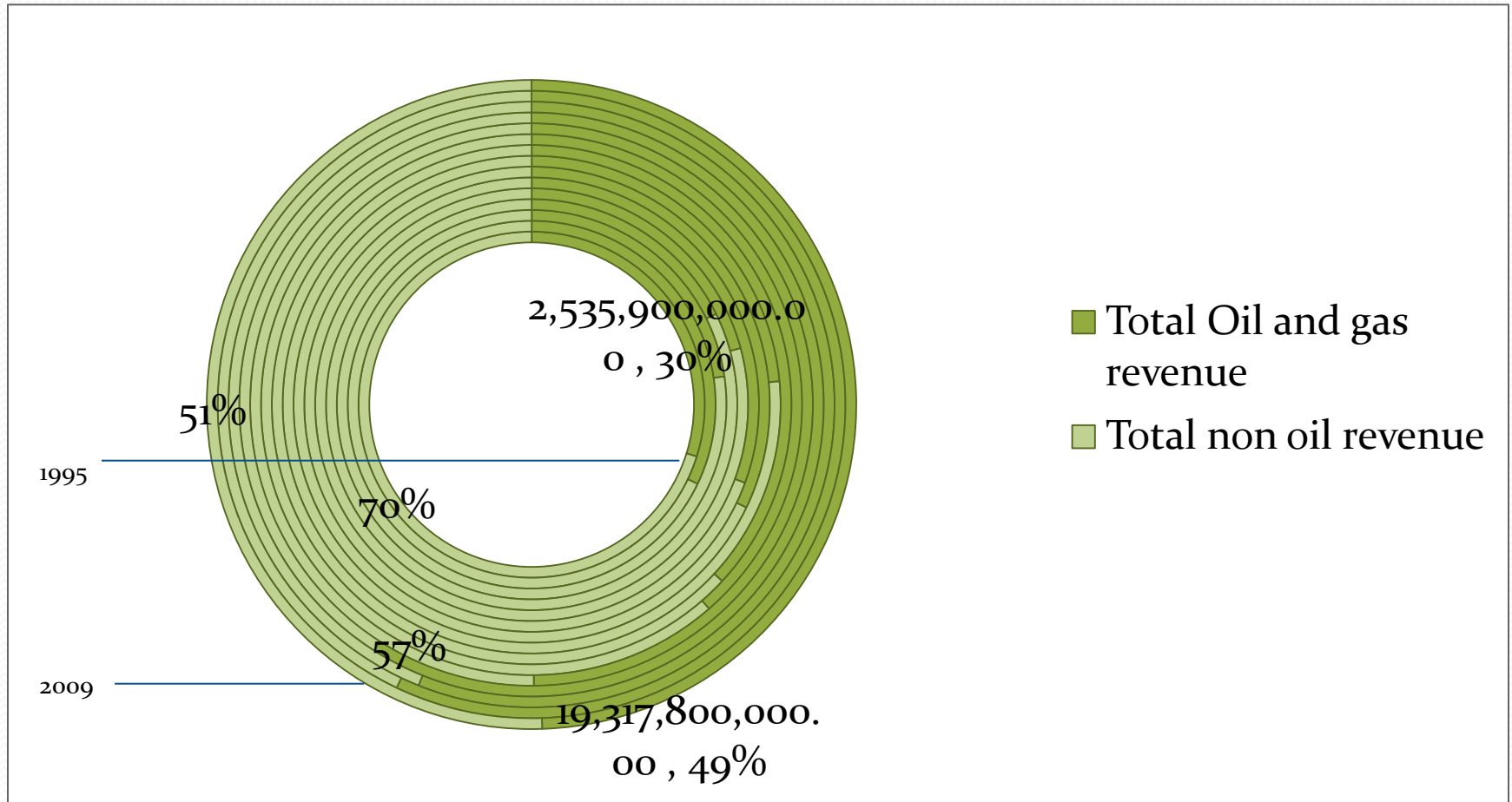


T&T's Economic Geology



Trinidad and Tobago's GDP composition

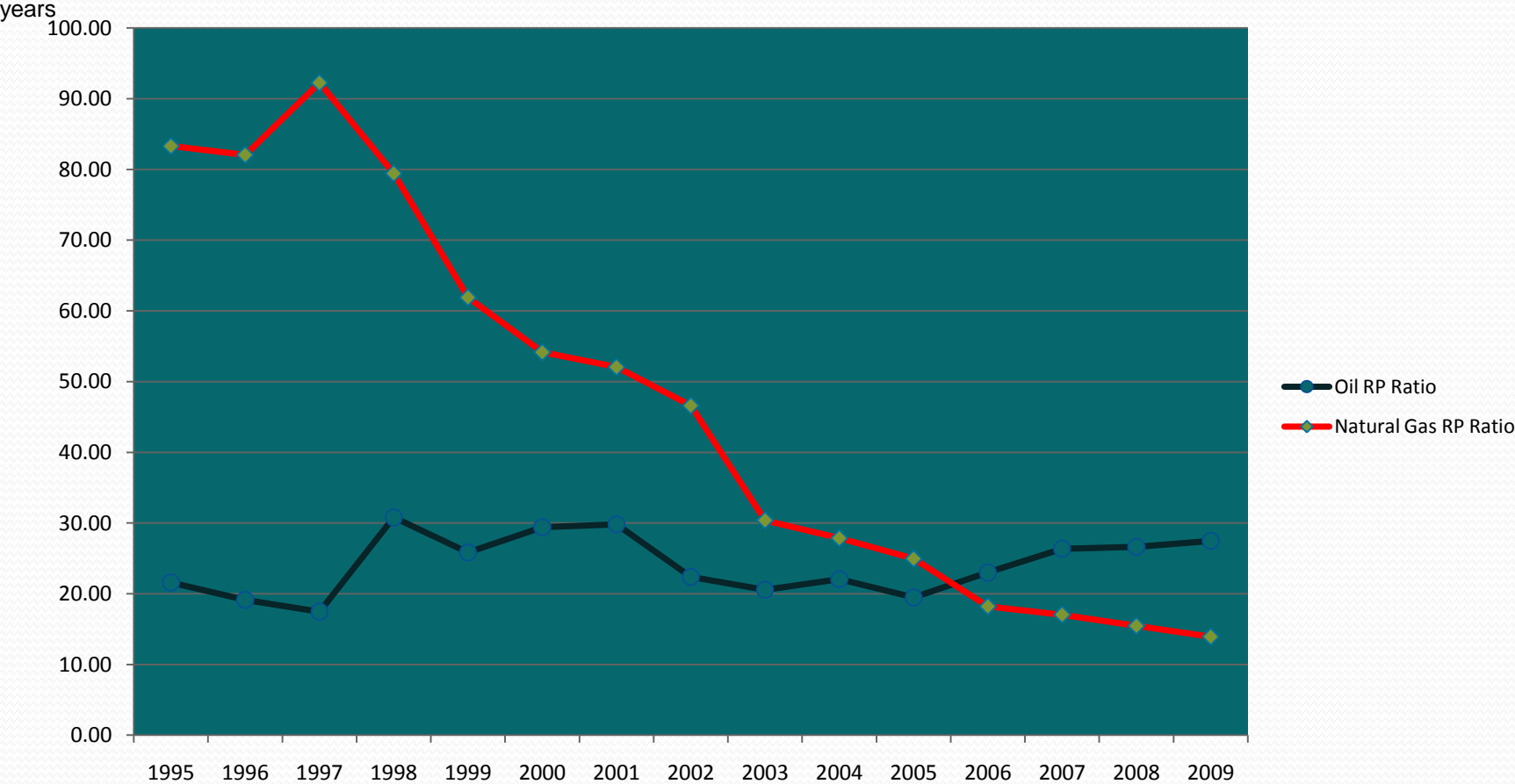
GORTT Revenue Composition



Concerns of T&T's Economic Sustainability

- Robert Riley (2008) then CEO of BPTT publicly stated: “there will be no large oil and gas finds in the T&T's future... T&T has neither stranded gas nor low gas price anymore”
- Ryder Scott 2008 gas audit report, indicated just 12 years of commercial gas resources left at then consumption levels (which have since increased marginally)
- Uncompetitive Bid Rounds throughout 2006-2010

Trends in Reserves to Production



Defining Economic Sustainability

- Solow (1986) Definition: Capital (produce, natural and human forms) inherited by a society can give the same maximum utility achievable by the current.
- “When the potential of the future is at least the same as today's”.

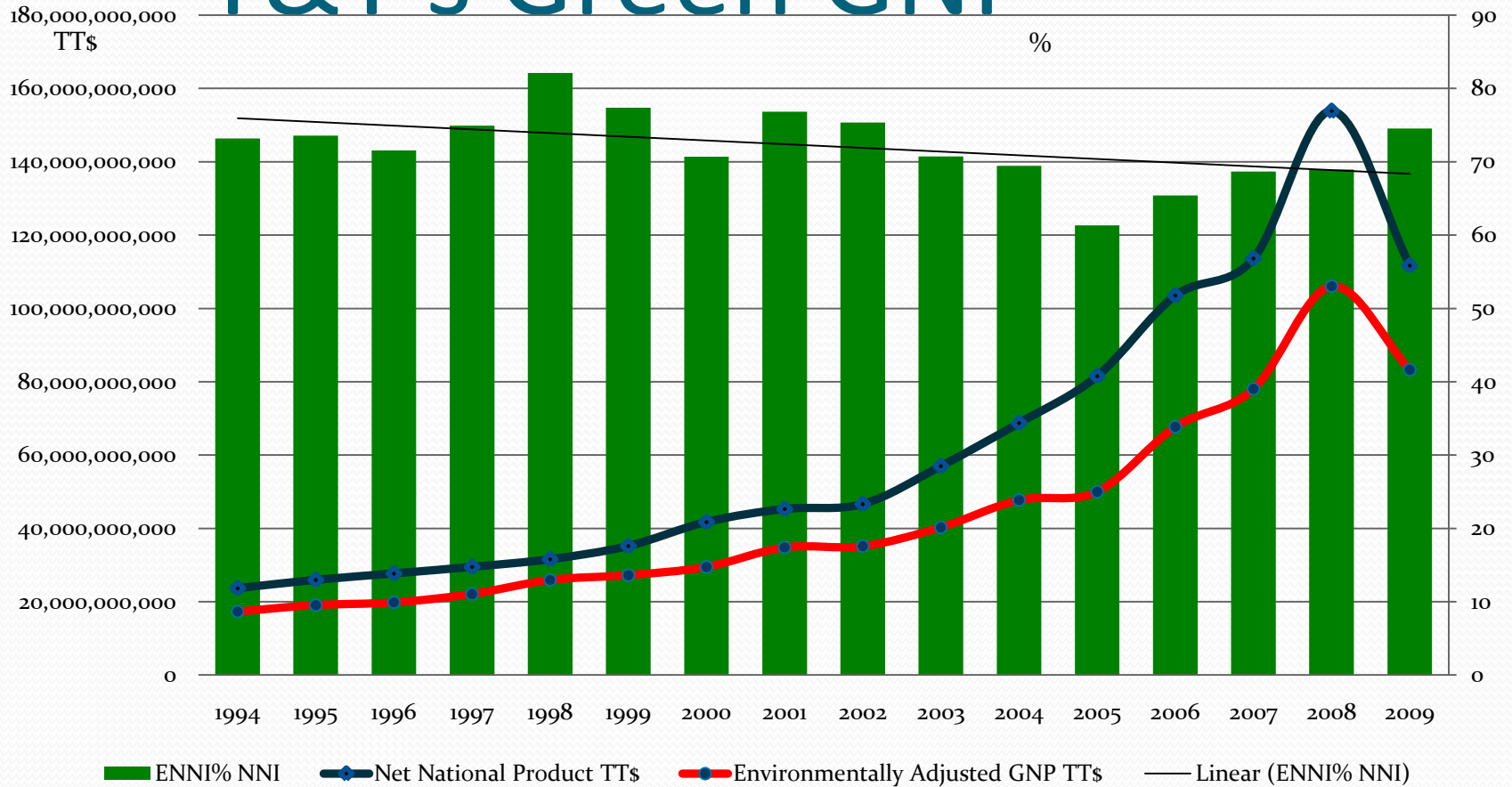
Conventional Measures

- Gross National Product (GNP) is the world's most referenced indicator of economic progress and Net Savings is its preferred sidekick!
- But are they saving our world ?
- GNP per capita and Net Savings excludes changes in Natural and Human Capital via
 - Ignoring growth and depletion of natural resources
 - Ignoring degradation of the environment
 - Treats spending in health and education as consumption items rather than investments
- GNP per capita and Net Savings are lopsided measures of T&T economic performance.

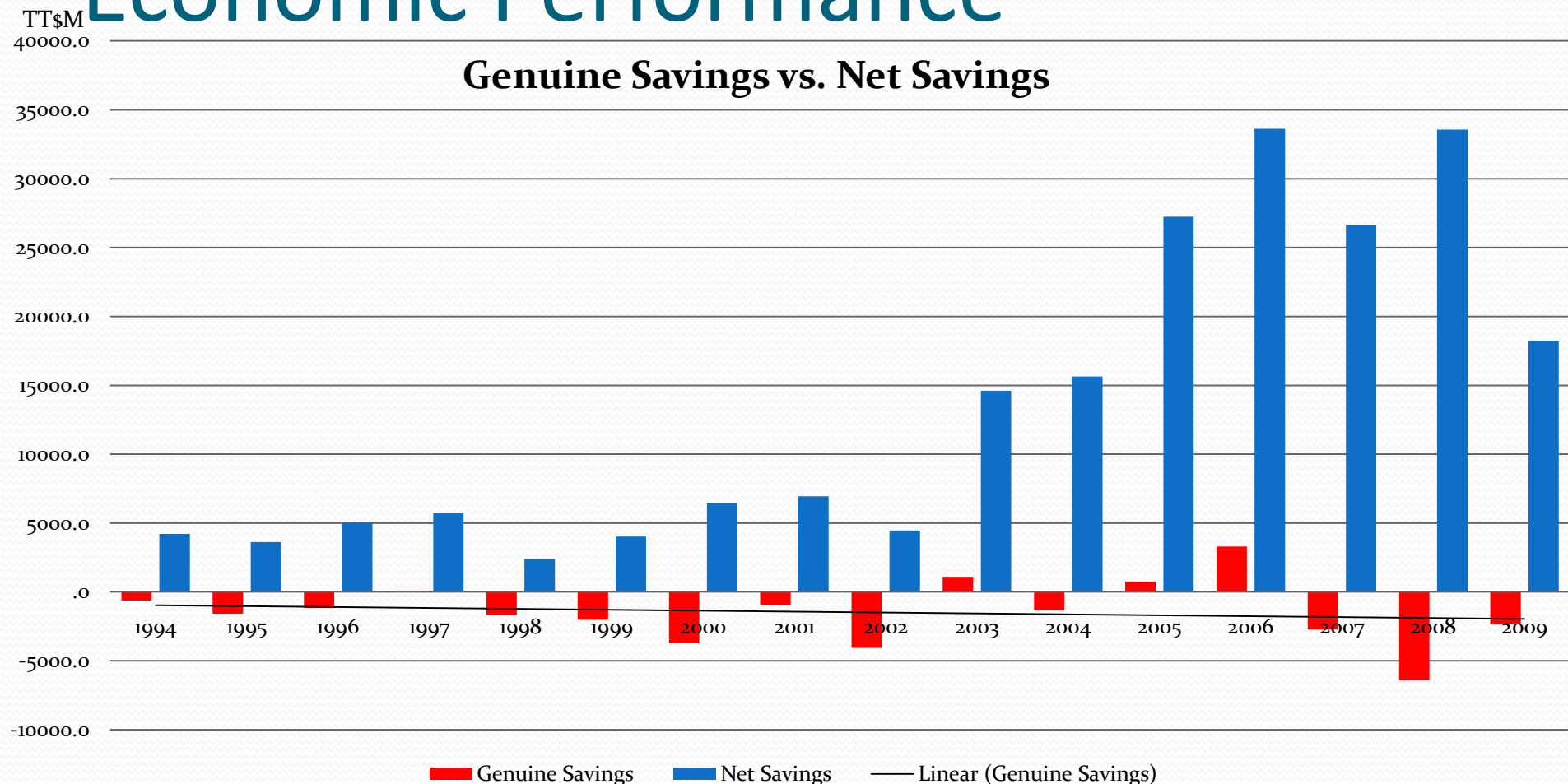
Recommended Measurements

- **Green National Product**= Gross National Product less (+) depletion of resources (-) level of disutility cause by pollution(-) net degradation of the environment . Strong sustainability measurement. (Postulated by Solow, Hartwick, UNSEEA)
 - $EDP(t) = NDP(t) + f^*(R- D) - u^*(A(t)) - (\lambda^*(t) \alpha A(t))$
- **Genuine Saving** = Green National Product(-) ▲ Consumption (+) ▲ Human Capital (+) (▲ Social Capital).
 - (Weak sustainability measure Pearce 1989)
- Present users include Mexico, Canada and EU members.

T&T's Green GNP

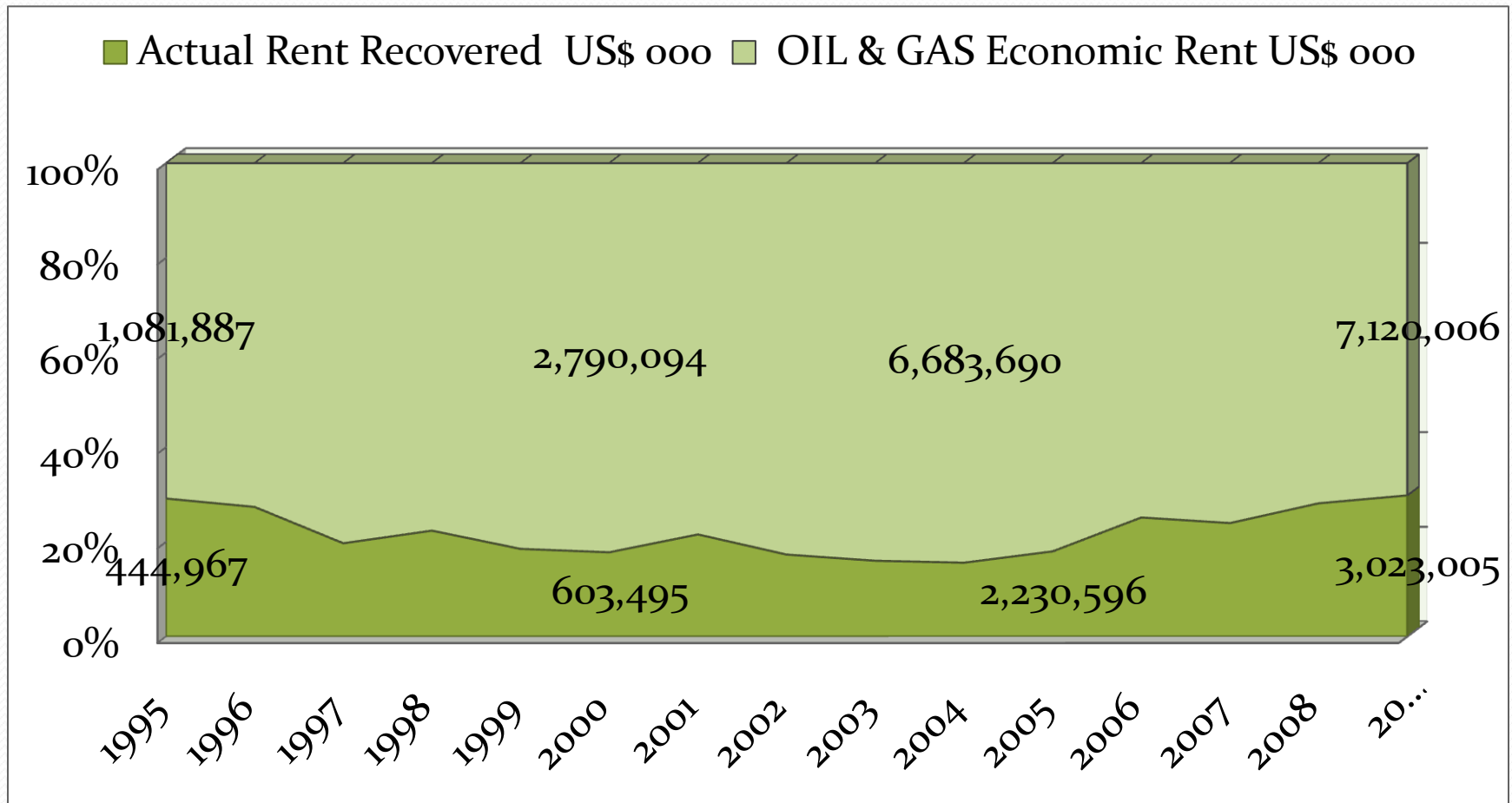


Trinidad and Tobago Genuine Economic Performance



Genuine Savings (UN SEEA recommended) versus Net National Savings (CBTT measure)

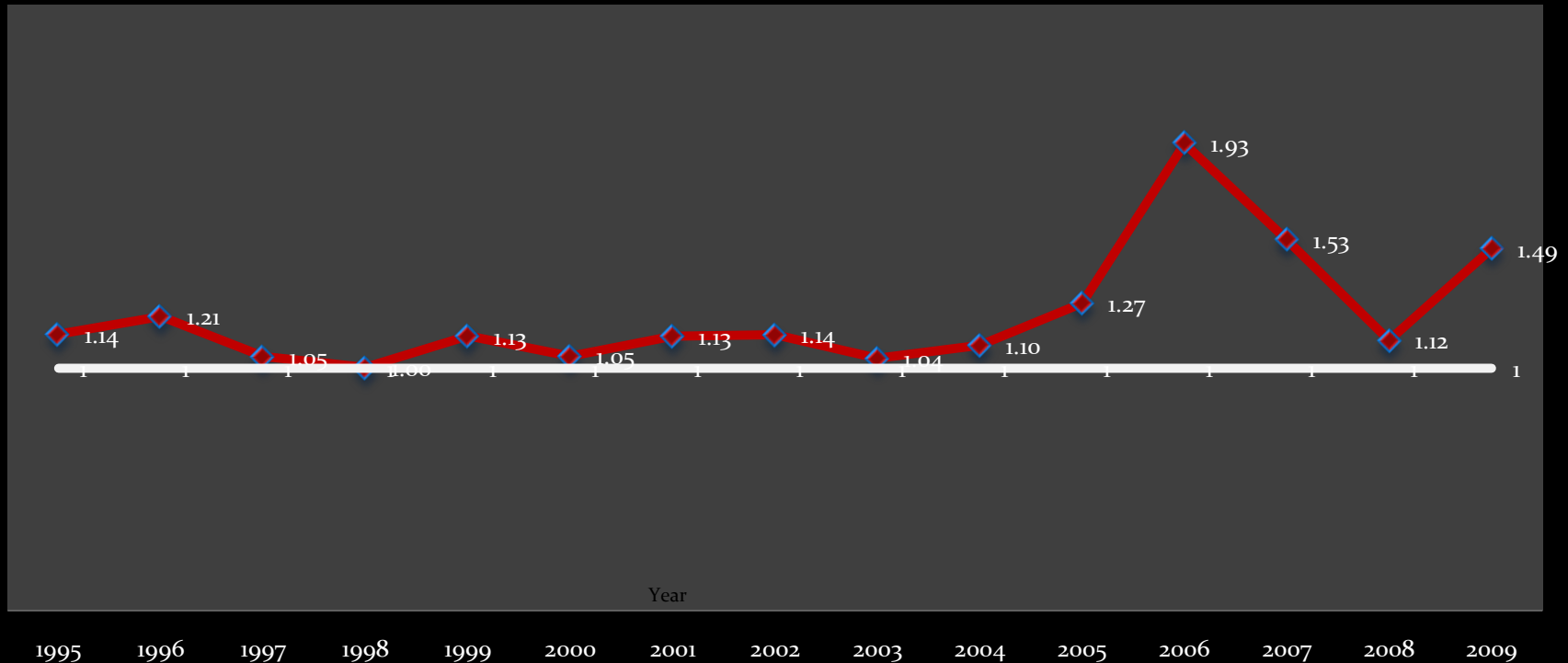
Rent Recovery



Operational Spending

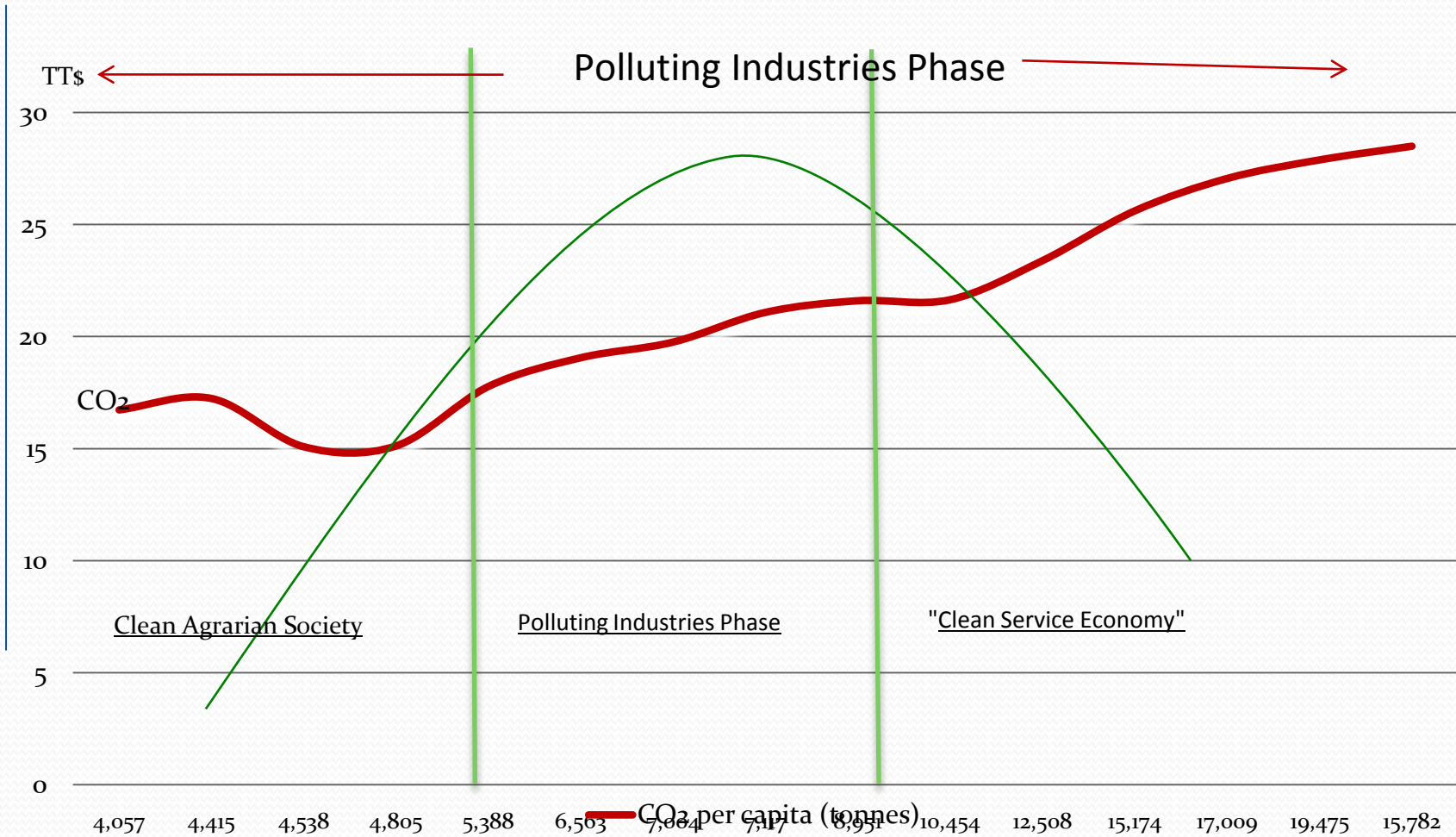
Sustainable Budget Index

◆ T&T SBI — Fiscally Sustainable SBI



Non Energy Recurrent Revenue is consistently inadequate to cover central government operational expenditure. Indicating that T&T is not only environmentally but fiscally unsustainable.

Environmental Kuznets Curve



Recommendations

- Increase Rent Recovery from Oil and Gas
 - Apply new fiscal policies to historical effective contracts
 - Equate Petrochemical and Petroleum Marketing Companies profit based taxes with those of Petroleum Companies (to 50% profit tax throughout the value chain)
 - Replace taxes on gross crude sales with taxes on their economic rent (ease capital outlay recovery)
 - Develop more flexible system of engaging potential investors
 - Establishing and extractive industry transparency initiative can serve to verify agreements are adhered to
- Slow depletion of gas reserves and exhaust exploration possibilities
 - Slow gas production
 - Partner in exploration and consider tax holiday for new efforts
 - Provide advance training opportunities for local engineers to eventually do it ourselves
 - Consider export of energy services to transform the industry from services import and resource export to services export and resource import
 - Expedite Caribbean Renewable Energy Initiatives
- Slow Rent Consumption through prudent Fiscal Management
 - Mandate zero recurrent spending from HSF
 - Set a predetermined minimum nominal price annually to promote annual saving in the HSF and avoid budgetary manipulation
 - Setting up an investment evaluation unit to generate interest on this income can be of even further benefit
- Economic Diversification through increased investment in sustainable fields
 - Take advantage of other competitive advantages (geography –shipping, assembly, business, eco & sports tourism,) other competitive advantages domestic culture, skilled labour force)
 - Small business economy
- Reduce pollution-
 - Remove petroleum subsidy for motorist- the biggest polluters, and use freed funds to subsidize renewable technology exploration and implementation (current petroleum subsidy 2Bn TT\$ per annum 2008).
 - Expand CNG usage
 - Establishing effective Environmental Management Authority
 - Implement adequate self sufficient environmental taxes
- Adopt Green National Accounts in National Economic Performance Measurements to inform domestic policy
If we don't measure the right thing we don't do the right thing! (Stiglitz 2009)

Can T&T Become Economically Sustainable ?

Can a chain smoker avoid Lung Cancer?

1. If it's lucky i.e. T&T Makes significant strategic gas and oil finds eternally!
Or more reasonably
2. If the government stops operational consumption of rents, follows the economic steps laid down for recovery and monitors its progress.



Thank You