Analyzing the Sustainability of Public Sector Debt in Trinidad and Tobago

CENTRAL BANK OF TRINIDAD & TOBAGO

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OUTLINE

- Review of Fiscal Performance
- Methodology
- Results
- Risks/Vulnerabilities
- Recommendations
- Conclusion

Review of Fiscal Performance

- Since 2009, Government expenditure has exceeded its revenues.
- Spending over the last 5 years (2009-2013) has been 40.1 per cent higher when compared to 5 years prior (2004-2008).

Table 1: Trinidad and Tobago Fiscal Indicators (2004-2013)

	2004	2005	2006	2007	2008	TOTAL	2009	2010	2011	2012	2013	TOTAL
	(In TT$ Billions)											
Revenue	20.6	29.6	38.9	40.1	56.8	**186.1**	39.0	43.9	47.5	49.3	53.0	**232.7**
Expenditure	19.1	24.6	31.2	37.8	44.7	**157.4**	45.7	43.7	48.6	51.5	59.2	**248.7**
Sup/Def	1.5	5.0	7.7	2.3	12.1	**28.6**	-6.7	0.2	-1.1	-2.2	-6.2	**-16.0**
Primary Bal	3.9	7.5	10.2	5.0	15.1	**41.7**	-3.2	3.5	1.8	0.7	-3.2	**-0.4**

Central Bank of Trinidad and Tobago (CBTT) and the Ministry of Finance and the Economy (MOFE).

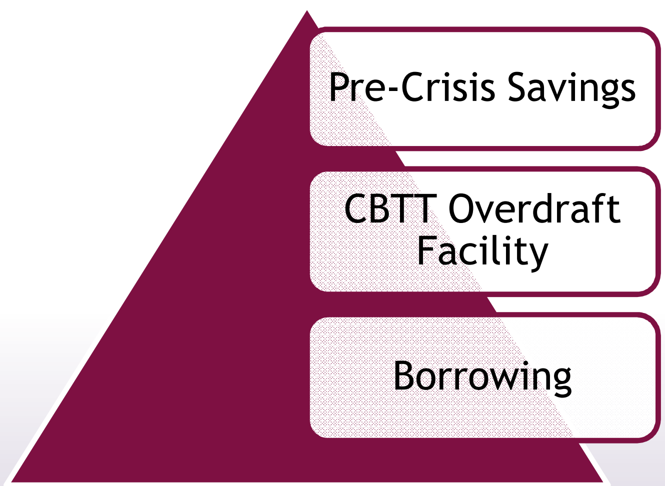
Objective: Fiscal stimulus & Financial Bailout

Table 2: Fiscal Balances (Per cent of GDP)

	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013p
	(In Per cent of GDP)				
Non-Energy Balance	-19.3	-16.6	-19.5	-19.3	-21.5
Primary Balance	-2.4	2.7	1.2	0.5	-2.2
Overall Balance (exclud. CLICO Support)	-5.0	0.2	-0.8	-1.5	-4.0
CLICO Support	1.4	2.7	0.6	2.7	7.0
Overall Balance (includ. CLICO Support)	-6.4	-2.9	-1.4	-4.2	-11.1

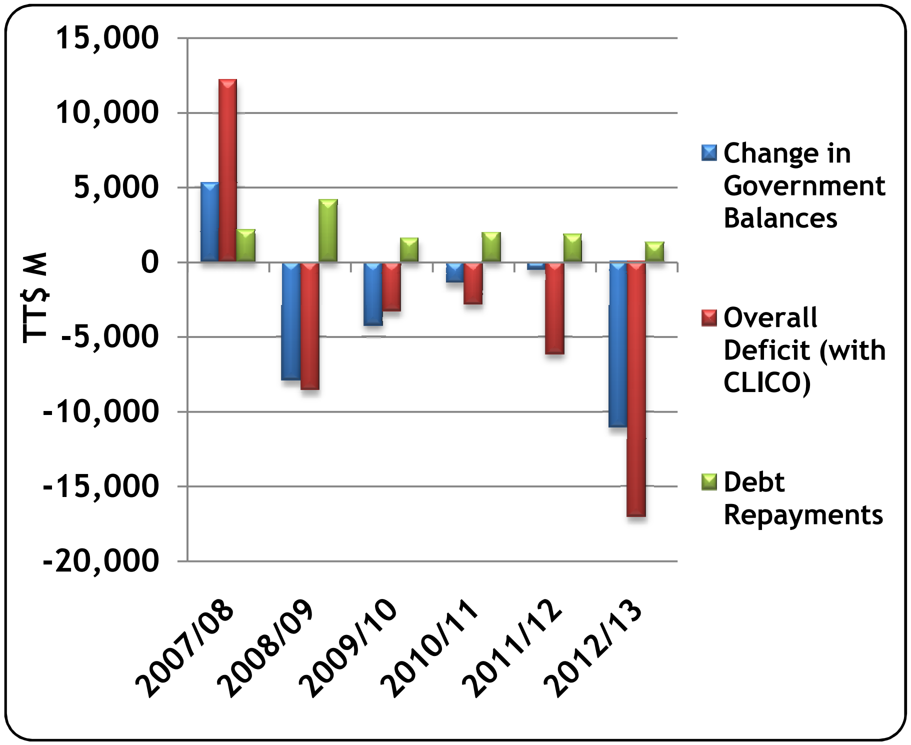
Central Bank of Trinidad and Tobago (CBTT) and the Ministry of Finance and the Economy (MOFE).

Financing



Impact on Government's Cash Balances & Public Sector Debt

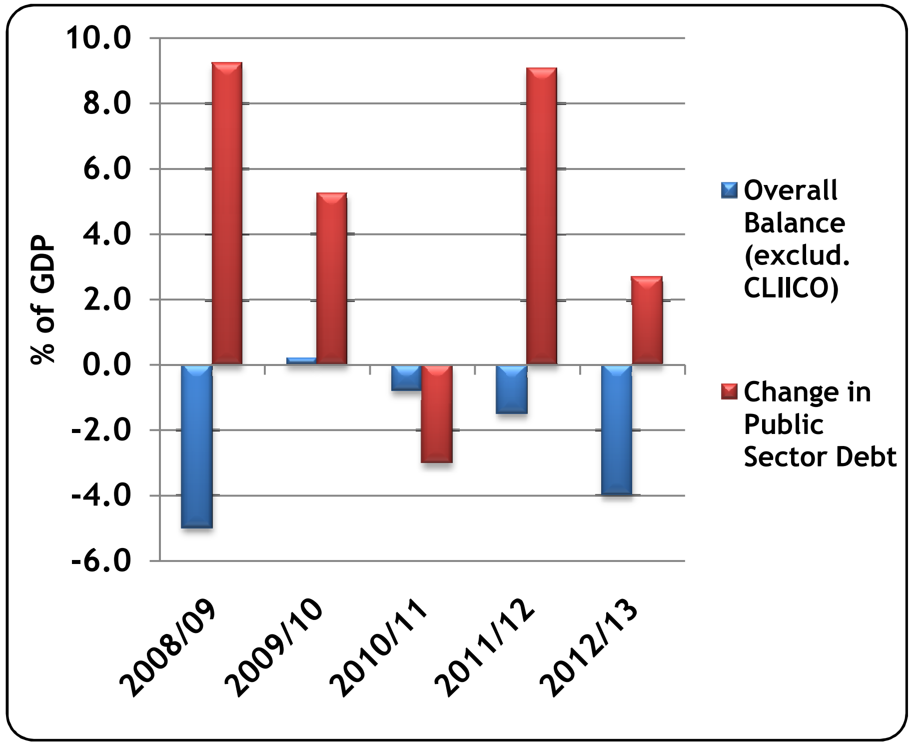
Figure 1a: Change in Government's Cash Balances[1]



Source: Author's calculation using data from CBTT.

[1] Refers to the Government' s daily cash balances at the Central Bank derived from pre-crisis fiscal surpluses and does not include funds such as the HSF and IDF.

Figure 1b: Change in Public Sector Debt[2]

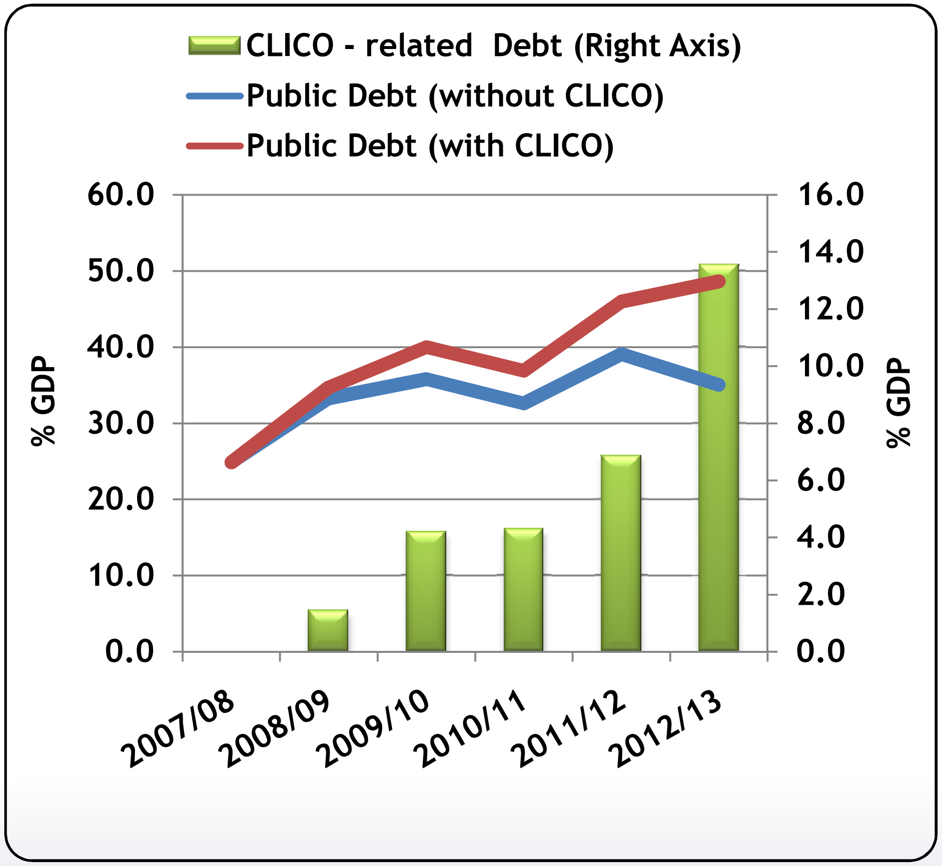


Source: Author's calculation using data from MOFE & CBTT.

[2] Comprises Central Government debt and Contingent Liabilities.

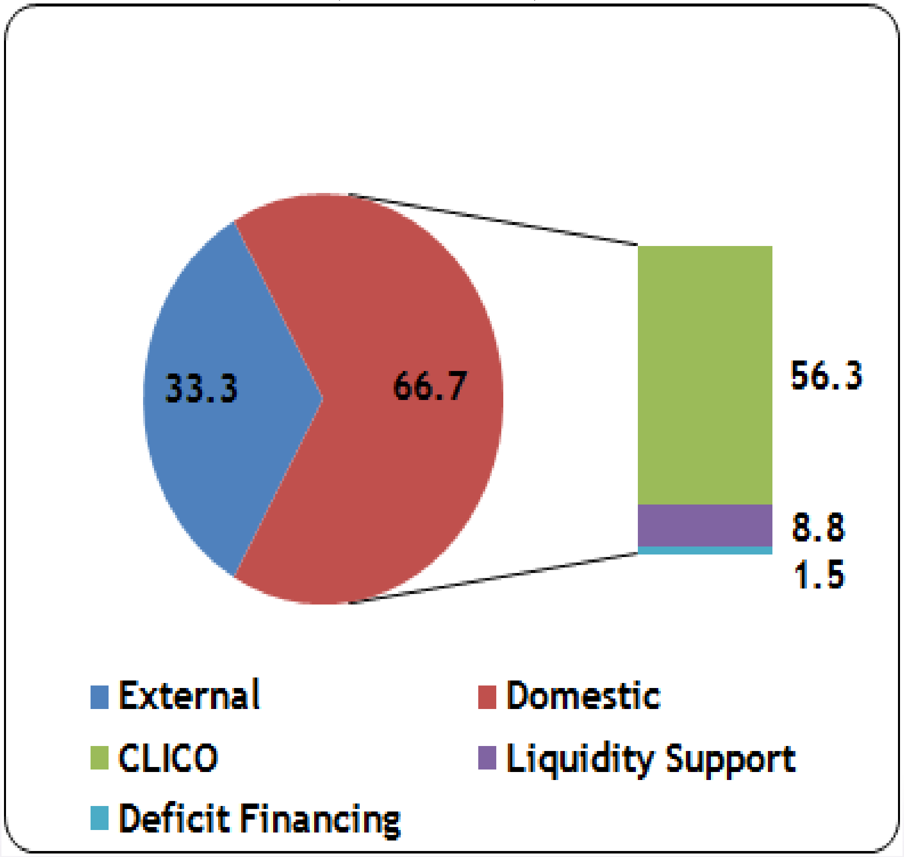
Impact on Public Debt

Figure 2a:
Impact of CLICO Bailout on Public Debt (% of GDP)



Source: MOFE & CBTT.

Figure 2b:
Composition of Central Government Borrowing (2009-2013) (Per cent)



Source: Author's calculation using data from CBTT.

Debt Sustainability Analysis

What is debt sustainability?

A country's capacity to finance its policy agenda and service the ensuing debt without unduly large adjustments that may compromise its macroeconomic stability and/or that of its economic partners.

Why is it important? – High debt levels create problems:

- ❑ Constrains Government's expenditure on social programs & infrastructure
- ❑ Reduces a country's ability to withstand economic & financial shocks
- ❑ High debt levels are associated with lower economic growth
- ❑ Threatens Investment Grade Ratings which increases borrowing costs
- ❑ Increases the likelihood for painful austerity and adjustment measures (e.g. Jamaica, St. Kitts & Nevis, Antigua Barbuda)
- ❑ High debt levels require continuous large primary balances just to stabilize it much less to lower it

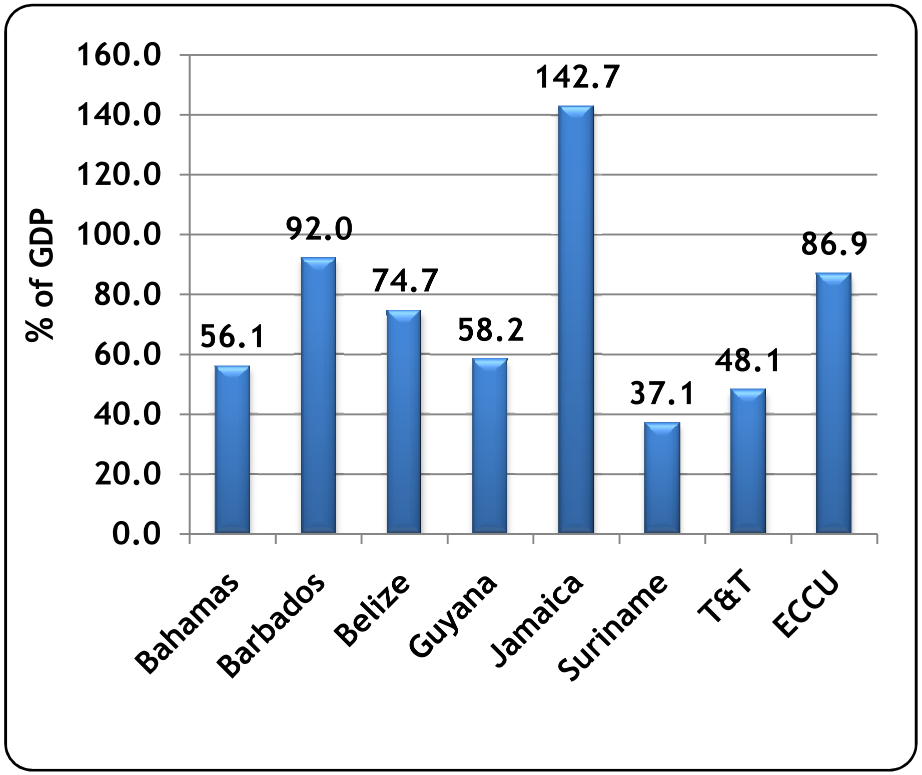
Current Debt Situation

Table 3: Fiscal & Debt Indicators for T&T

INDICATOR	FY2012/13e (Per cent)
Fiscal Balance/GDP	-4.0
Public Debt/GDP (excl. OMOs)	48.1
Public Debt Service/Revenue	14.8
Central Government Domestic Debt/GDP (excl.OMOs)	21.9
Central Government External Debt/GDP	6.8
Contingent Liabilities/GDP	19.4
Domestic Debt/Total Debt	45.5
Contingent liabilities/Total Debt	40.4
External Debt/Total Debt	14.1
External Debt/Reserves	22.8
External Debt Service/Exports	1.0
Average Time to Maturity (Years)	7.6

Source: Author's calculations using data from MOFE & CBTT.
e Estimate

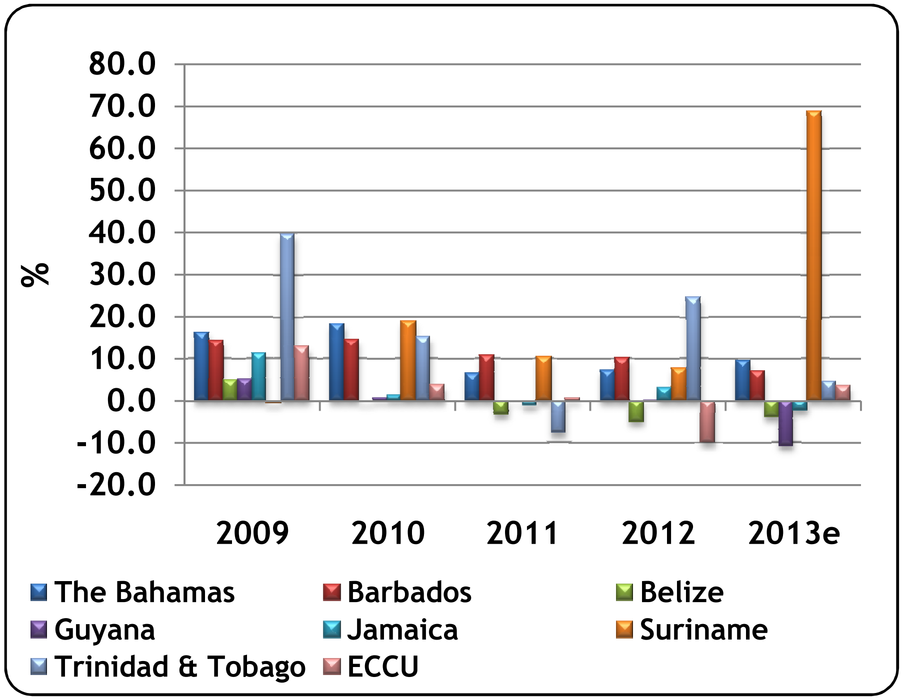
Figure 3: CARICOM Countries Public Debt (2013e)



Source: World Economic Outlook, IMF & CBTT.

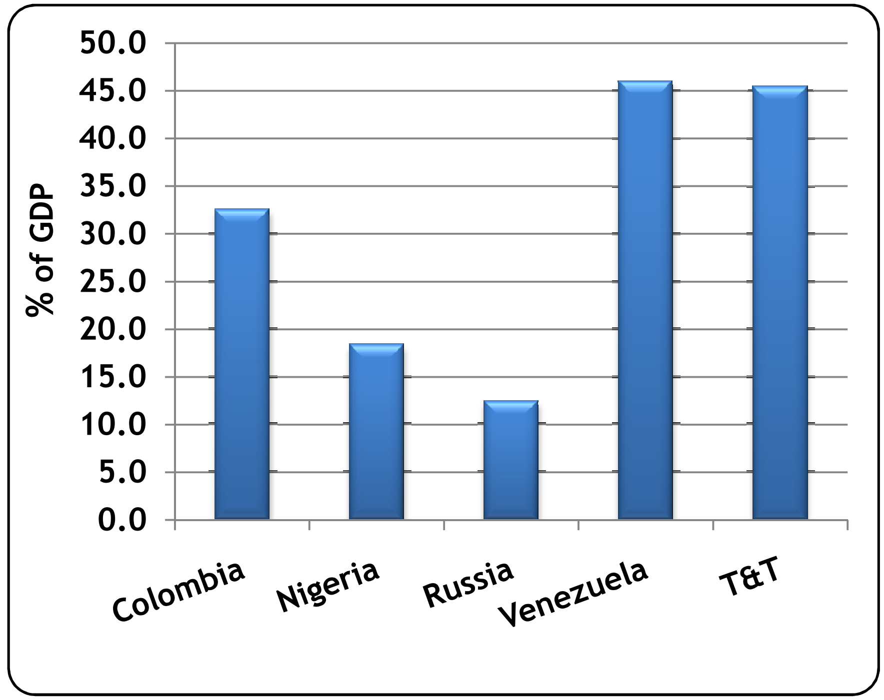
Comparison with CARICOM & Other Gas Exporters

Figure 4a: Growth in Public Debt in CARICOM Countries



Source: World Economic Outlook, IMF.

Figure 4b: Public Debt in Gas Exporting Countries



Source: World Economic Outlook, IMF & CBTT.

Methodology

IMF Debt Sustainability Framework for Market Access Countries (MACs)

- One of several tools available for undertaking public debt sustainability analyses (DSAs).
- Decomposes the change in public debt by looking at the debt dynamics.
- Calculates the gross financing requirements of the Government (deficit financing + debt service payments).
- Identifies the primary balance required to stabilize the debt to GDP ratio.
- Examines the impact of macroeconomic shocks on the debt to GDP ratio.

Methodology

$$D_{t-1} - d_t = \frac{1}{(1+g+\pi+g\pi)}(\acute{r} - \pi\ (1+g) - g + e\alpha(1+r)d_t - pb_{t+1} \quad \text{.......}\ \mathbf{(1)}$$

i.e. **Δ Debt = PB+ Endogenous factors**

pb_{t+1} → **Primary Balance effect**

$$\frac{(\acute{r} - \pi\ (1+g)}{(1+g+\pi+g\pi)} d_t \quad \text{............}\ \mathbf{(2)}$$ **Real Interest rate effect**

$$\frac{g}{(1+g+\pi+g\pi)} \quad \text{............}\ \mathbf{(3)}$$ **Real GDP Growth effect**

$$\frac{e\alpha(1+\acute{r})}{(1+g+\pi+g\pi)} d_t \quad \text{............}\ \mathbf{(4)}$$ **Exchange rate effect**

Endogenous/ automatic factors

Focus of this Study

❑ 3 Scenarios Examined:

I. Baseline (balanced budget by FY2018)

II. Unchanged Primary Deficit (passive scenario) - primary balance (FY2013) held constant until FY2018

III. Balanced Budget in FY2016 (active scenario)

❑ Stress Tests:

- Lower real GDP growth
- Larger primary deficit
- Increase in real interest rate
- 10% increase in contingent liabilities
- Combination shock (GDP growth, primary balance & real interest rate)
- Negative commodity Price Shock (Oil & Gas)*

❑ Coverage of Public Sector Debt:

- Includes Central Government, statutory bodies & SOEs
- Excludes debt issued for sterilization purposes (OMOs, Treasury Bonds)

* WTO Crude Oil price assumed to fall by US$10 p/b from an estimated US$80 p/b & HH Natural Gas price assumed to fall by US$0.65 p/mmbtu from an estimated US$2.65 p/mmbtu in FY2014 & FY 2015.

Baseline Fiscal Framework

Table 4: Fiscal Framework for Baseline Scenario

	2011/ 2012	2012/ 2013	2013/ 2014[b]	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018
	In per cent of GDP (Fiscal Year)						
Revenue	32.7	34.2	33.6	32.6	33.6	33.8	34.1
Energy	17.7	16.5	17.8	17.1	17.1	17.1	17.1
Non-Energy	14.9	16.2	15.9	15.5	16.5	16.7	17.0
Expenditure	33.9	38.4	37.5	35.7	35.6	34.8	34.1
Current	29.3	33.0	32.6	30.8	30.7	29.9	29.2
Wages & Salaries	4.9	6.2	5.5	5.1	5.7	5.6	5.8
Goods & Services	4.7	5.1	5.4	5.1	5.3	5.2	5.1
Interest Payments	1.8	2.0	1.8	1.8	1.9	1.9	1.9
Transfers & Subsidies (excl. HSF)	17.9	19.7	19.9	18.7	17.9	17.3	16.3
Capital	4.6	5.3	4.9	4.9	4.9	4.9	4.9
Primary Balance	**0.6**	**-2.2**	**-1.9**	**-1.2**	**-0.1**	**0.9**	**1.9**
Non-energy balance	**-18.9**	**-38.4**	**-20.1**	**-20.1**	**-19.1**	**-18.1**	**-17.1**
Overall balance (incl. CLICO)	**-1.2**	**-4.0**	**-3.6**	**-3.0**	**-2.0**	**-1.0**	**0.0**

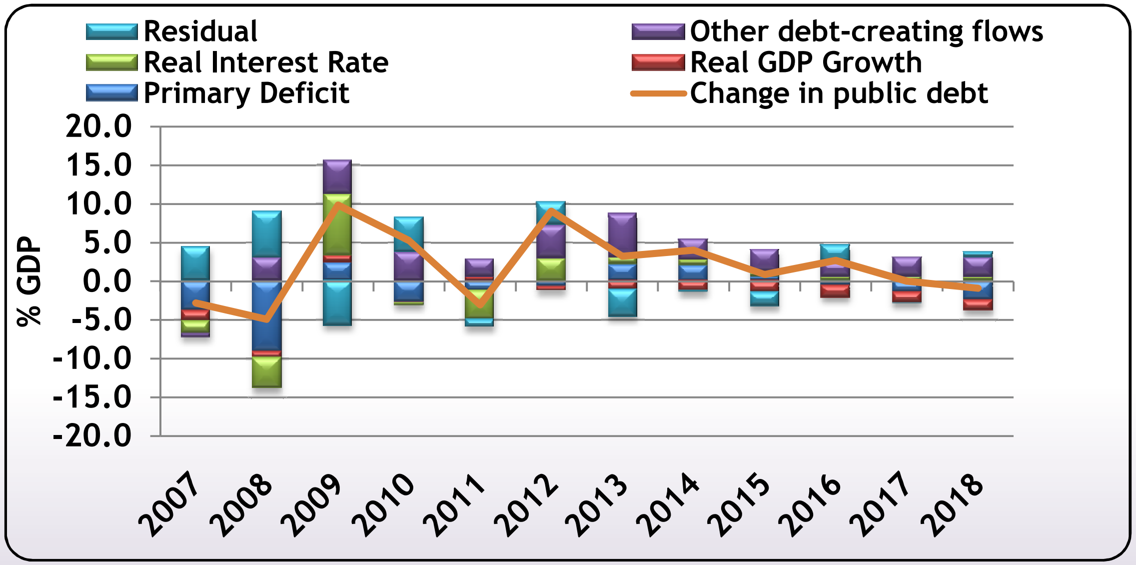
Source: MOFE and Author's Calculations.
b Budgeted.

Public Debt - Baseline scenario

Table 5: Baseline DSA Results

	Debt, Economic and Market Indicators								Debt Stabilizing Primary Balance	Primary Balance (2011-2013)
	Actual		Projections							
	2003-2011	2012	2013	2014	2015	2016	2017	2018		
	(In per cent of GDP)								1.8	-0.1
Gross Public Debt	37.0	46.0	48.1	53.3	54.2	56.7	56.9	57.0		
Gross Public Financing Needs	6.1	13.4	16.8	16.9	13.1	12.7	11.1	9.6		
	(In Per cent)									
Real GDP Growth	4.8	1.5	2.5	2.6	2.9	3.2	2.5	2.5		
GDP Deflator	7.7	-2.5	2.6	2.5	3.0	3.5	3.7	4.0		
Nominal GDP Growth	11.4	2.6	4.8	5.5	10.7	2.3	6.4	6.5		
Effective interest rate	7.6	5.5	5.0	4.5	4.6	4.7	5.0	5.2		

Figure 5: Debt Creating Flows (Per cent of GDP)



Other debt creating flows accounts for the largest increase in public debt in the medium-term on account of an increase in contingent liabilities which accounts for the largest share of public debt.

Balanced Budget Fiscal Framework

Table 6: Fiscal Framework for Balanced Budget Scenario

	2011/ 2012	2012/ 2013	2013/ 2014[b]	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018
	In per cent of GDP (Fiscal Year)						
Revenue	32.7	34.2	33.6	32.6	33.6	33.8	34.1
Energy	17.7	16.5	17.8	17.1	17.1	17.1	17.1
Non-Energy	14.9	16.2	15.9	15.5	16.5	16.7	17.0
Expenditure	33.9	38.4	37.5	34.7	33.7	33.0	32.5
Current	29.3	33.0	32.6	29.8	28.8	28.1	27.6
Wages & Salaries	4.9	6.2	5.5	5.1	5.7	5.6	5.8
Goods & Services	4.7	5.1	5.4	5.0	4.9	4.8	4.7
Interest Payments	1.8	2.0	1.8	1.8	1.8	1.8	1.8
Transfers & Subsidies (excl. HSF)	17.9	19.7	19.9	17.8	16.4	15.9	15.5
Capital	4.6	5.3	4.9	4.9	4.9	4.9	4.9
Primary Balance	**0.6**	**-2.2**	**-2.1**	**-0.2**	**1.8**	**2.8**	**3.4**
Non-energy balance	**-18.9**	**-38.4**	**-21.7**	**-20.1**	**-19.1**	**-18.1**	**-17.1**
Overall balance (incl. CLICO)	**-1.2**	**-4.0**	**-3.9**	**-2.0**	**-0.0**	**0.9**	**1.6**

Source: MOFE and Author's Calculations.
b Budgeted .

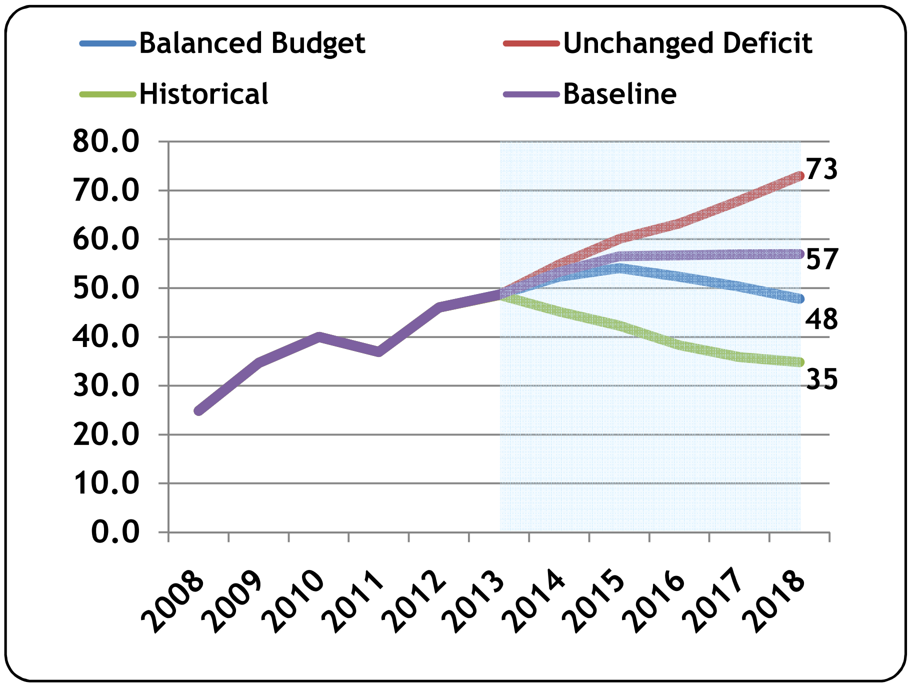
Assumptions for Alternative Scenarios

Table 7: Medium-Term Assumptions for Alternative Scenarios

Unchanged Deficit	Balanced Budget
FY2013 primary deficit (2.2% of GDP) stays unchanged until FY2018	Expenditure envelope leads to fiscal balance by FY2015/2016
No restriction in growth of spending on goods & services	Limiting growth in spending on Goods & Services
Payments of subsidy arrears owed to Petrotrin but no further reductions in the fuel subsidy	Payments of subsidy arrears owed to Petrotrin and gradual removal of fuel subsidy by FY2018
Other transfers & subsidies growing by the inflation rate	Growth in other transfers does not exceed 3.0% in any given year
Capital spending remains at FY2014 budget (4.9% of GDP)	Capital expenditure kept at FY2014 budgeted (4.9% of GDP)

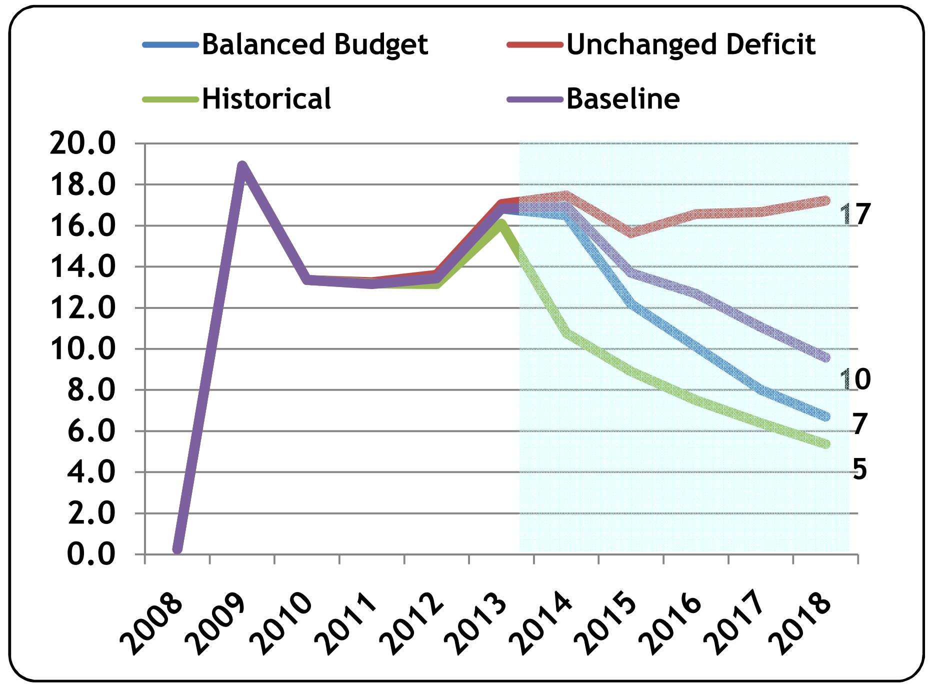
Alternative Scenarios

Figure 6a
Public Debt
(Per cent of GDP)



Source: Author's own calculation.

Figure 6b
Gross Financing Needs
(Per cent of GDP)



Source: Author's own calculation.

Stress Tests Results

Figure 7: Debt/GDP (%)

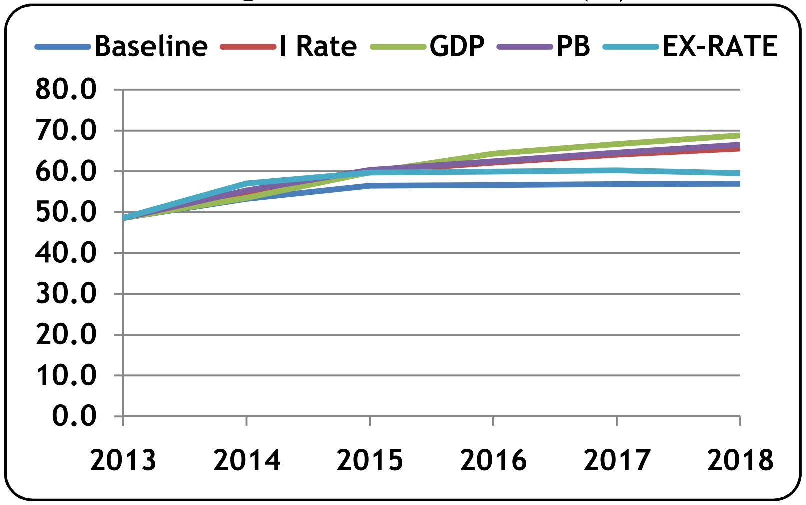
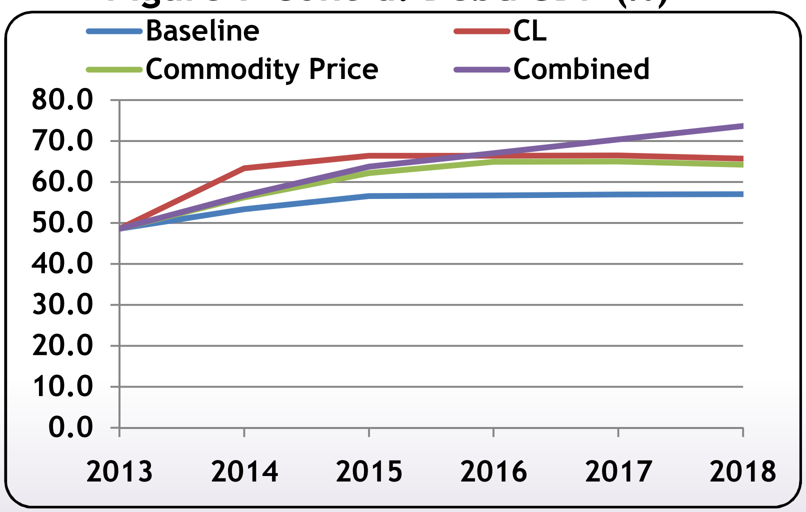


Figure 7 Cont'd: Debt/GDP (%)



Source: Author's own calculations.

- ❑ The Chart shows the impact of various shocks which is measured by the deviation of the debt to GDP ratio from the baseline level.
- ❑ All shocks (except the exchange rate shock) results in an increase in debt by 10% of GDP or more relative to the baseline.
- ❑ Shocks carry the debt to GDP ratio in excess of 60% which is generally regarded as the sustainability benchmark.

Stress Tests Results Continued

Figure 8: Financing Needs/GDP (%)

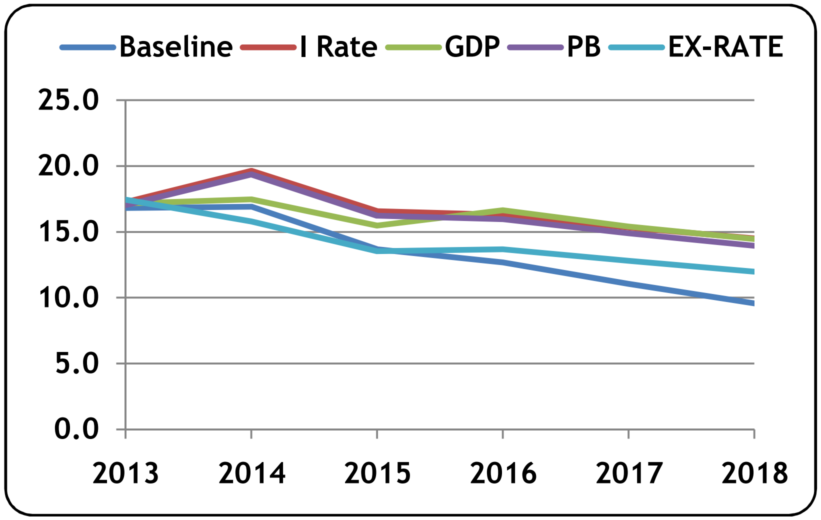
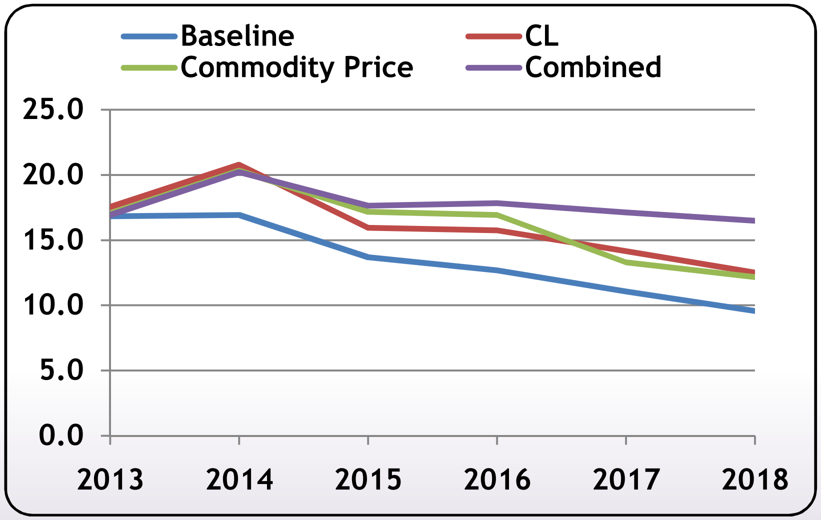


Figure 8 Cont'd: Financing Needs/GDP (%)



Source: Author's own calculations.

❑ The Chart shows the impact of various shocks on the gross financing needs of the Government (deficit + debt service).

❑ All shocks (except the exchange rate shock) results in an increase in financing requirements by 5% of GDP or more relative to the baseline.

Projected Debt by FY2018

Table 8: Key DSA Ratios under all 3 Scenarios

Scenario/Shock	Debt/GDP FY2018	Gross Financing Needs	DSPB* Required
	(Per cent of GDP)		
Baseline	57.0	9.6	1.8
Unchanged PB	73.0	17.2	2.8
Balanced Budget in FY2016	47.8	6.7	1.6

Source: Author's own calculation.
* Debt Stabilizing Primary Balance

Debt Thresholds

- Reinhart & Rogoff (2009 & 2011) define debt thresholds into four(4) brackets:
  - 0% to 30% (low)
  - 30% to 60% (moderate)
  - 60% to 90% (high)
  - Over 90% (very high)

RR Intervals	WB Income Group	Main Economic Activity
0-30% Low		
Suriname	Upp-middle	Commodity Exporter
30-60% Moderate		
The Bahamas	High	Tourism
Trinidad &Tobago	High	Commodity Exporter
60-90% High		
Barbados	High	Tourism
Belize	Low-middle	Tourism
Dominica	Upp-middle	Tourism
Guyana	Low-middle	Commodity Exporter
St. Lucia	Upp-middle	Tourism
St. Vincent/Gren.	Upp-middle	Tourism
> 90% Very High		
Antigua/Barbuda	Upp-middle	Tourism
Grenada	Upp-middle	Tourism
Jamaica	Upp-middle	Tourism
St. kitts/Nevis	Upp-middle	Tourism

Analysis of Results

- In the most realistic scenario, the debt to GDP ratio reaches a high of 57% in FY2018 which is within the moderate debt threshold but a primary balance of 1.8% is required for debt stabilization.

- Given the recent fiscal stance (2011-2013 average primary balance) a fiscal adjustment of about 1.9 percentage point of GDP will be required to stabilize the debt at 57% of GDP.

- When standard and customized shocks are considered the debt to GDP ratio goes into the RR high level category (over 60%)

- The no-policy change scenario leads to debt ratios in excess of 60% as early as in FY2015 even without the consideration of any shock.

- In the balanced budget scenario, public debt remains within the moderate RR interval and declines after FY2015.

Debt Manageable but Fiscal Risks Exists

- The economy is vulnerable to shocks
  - Financial sector crises (associated with costly government bailouts)
  - Natural disasters

- Growth is hinged on the execution of Government Capital Projects (recent experience point to a slower than expected implementation rate e.g. Point Fortin Highway).

- Volatility in Government Revenues (energy revenues fell by 60% in FY2009 due to a fall in oil & gas prices).

- Rapid growth in transfers & subsidies (average annual growth is 9% over the last 5 years & accounts for more than 50% of total spending).

- Contingent Liability risks (contingent debt accounts for over 40% of total public sector debt).

Debt Portfolio Risks

Figure 9a

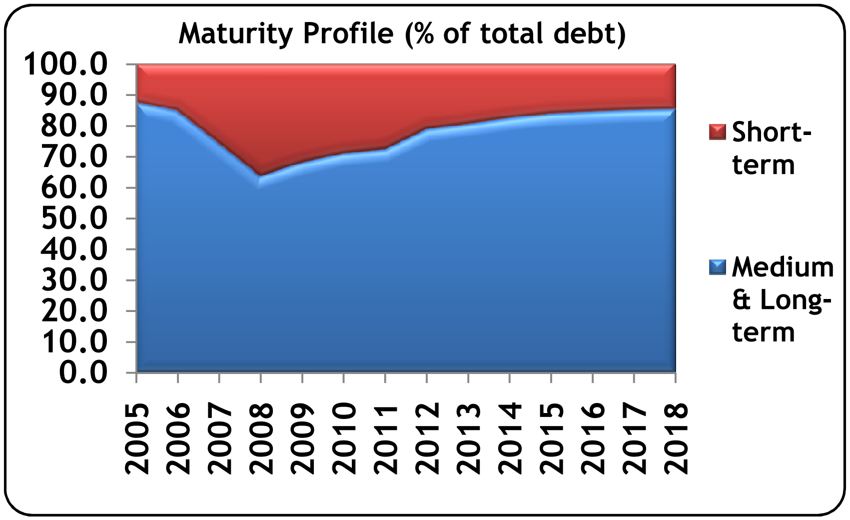


Figure 9b

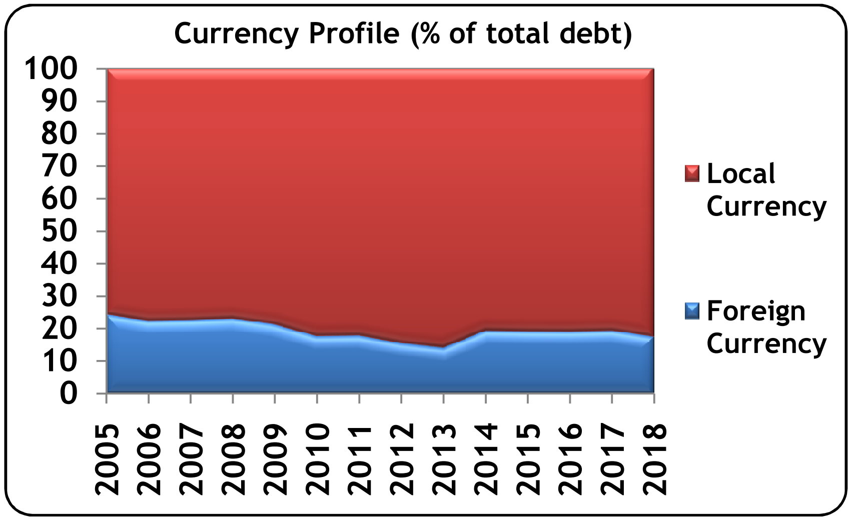


Figure 9c - Interest Rate Composition (2013)

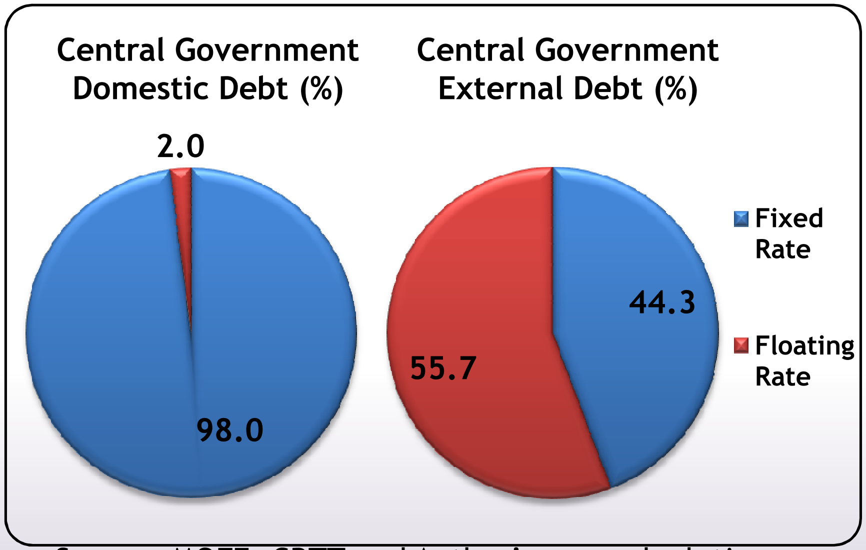
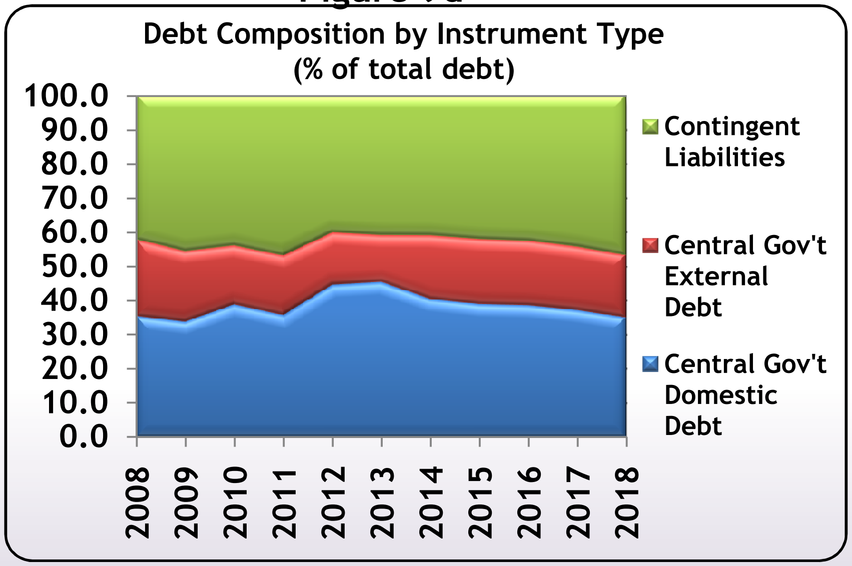


Figure 9d



Source: MOFE, CBTT and Author's own calculations.

Institutional Risks

- No formal Debt Management Strategy exist (no defined targets for either the optimal debt to GDP ratio or debt composition).
- No Annual Borrowing Plan/Bond Issuance Calendar exist(prohibits investment planning by the private sector which can potentially affect financing through local borrowing).
- Financing decisions made opportunistically without reference to Debt Strategy, Borrowing Plan.
- Guaranteed borrowings are mostly driven by SOEs and Line Ministries themselves (could result in high cost & risky debt).
- Borrowing decisions made without reference to debt maturity profile or Borrowing Limits.

Recommendations

- ✓ Fiscal rules for expenditure management (to create buffers against shocks).
- ✓ Greater risk analysis of Government's debt portfolio (to avoid risky debt portfolio structures).
- ✓ Formulate & implement a debt management strategy and develop an Annual borrowing plan.
- ✓ Consider Liability Management Operations (refinancing of high cost debt given the current low interest rate environment).
- ✓ Improvements in Debt recording (data is critical for risk analysis, DSAs etc.)
- ✓ Consider on-lending to the public sector (will give MOFE greater control over SOE borrowings & help mitigate against debt portfolio risks).
- ✓ Reduce volatility in fiscal revenues (greater diversification efforts).
- ✓ Explore possible use of innovative financing instruments (Diaspora bonds, counter-cyclical loans etc).

Conclusion

- The current fiscal policy stance if left unchanged in the medium- term can result in public sector debt taking an explosive path reaching in excess of 70 per cent.

- The policy of gradual fiscal adjustment (1% p.a.) would result in the public debt remaining within manageable levels barring exogenous shocks. However, stabilizing the debt would require significantly larger primary balances than recorded in the last 3 years. Further, shocks can result in the debt exceeding 60% by FY2016.

- Given the vulnerability of the economy to external shocks, a more aggressive fiscal adjustment (such as achieving balanced budget by FY2016) would create the fiscal space to respond to shocks and minimize the impact on the debt.

- Given that T&T is in a recovery phase, now may be the right time to address institutional risks inherent in its debt management operations so as to be able to effectively manage its debt.

Thank you for your attention!