
The Great Deceleration and the Caribbean: Challenges and Solutions

Francisco Galvão Carneiro
Lead Economist and Program Leader

Strengthening Public Financial Reporting and Accountability Roundtable

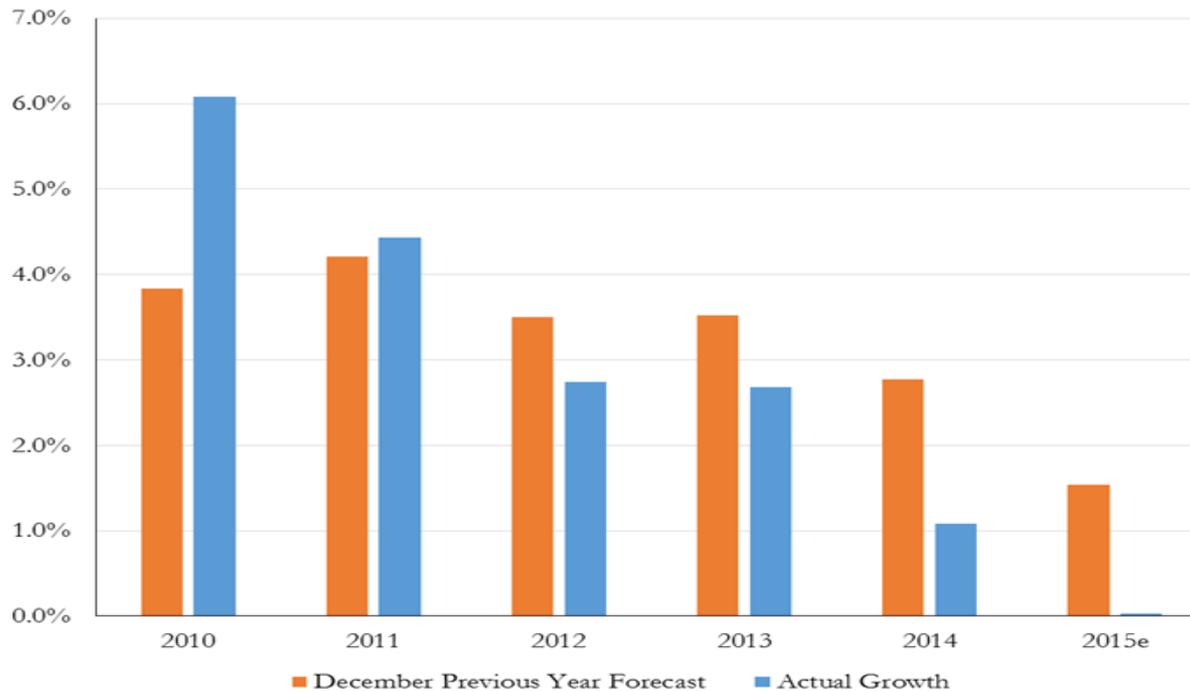
The Bahamas
April 2016

Presentation's Main Questions

- Impacts of commodity price shock in Latin America
- How have the Caribbean countries been affected?
- Policy challenges and solutions for the Caribbean
- Why focusing on fiscal rules could pay off?

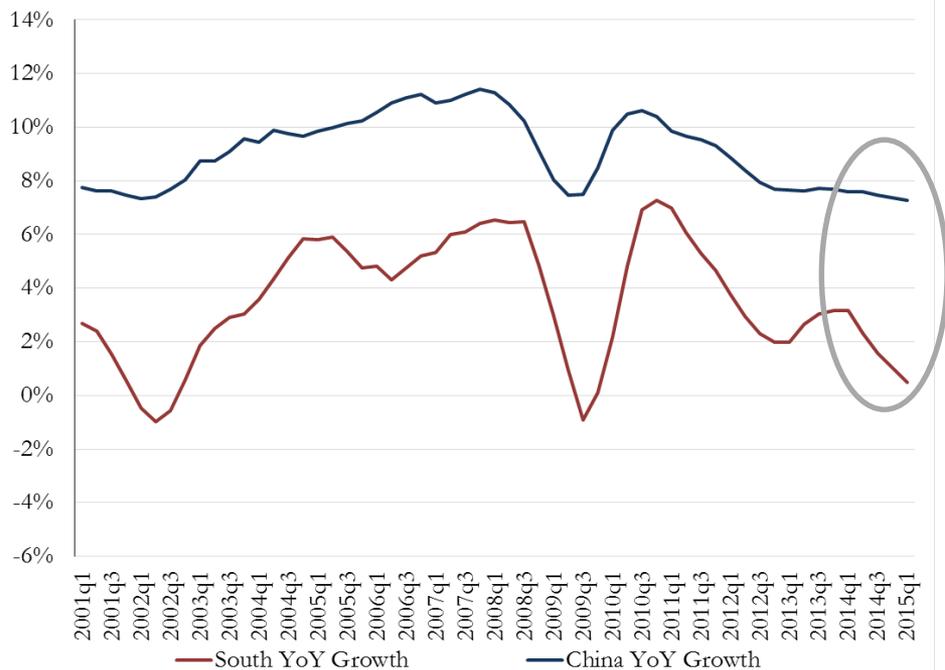
The slowdown has surprised on the downside for four consecutive years, with growth stalling in 2015

GDP Growth for LAC: Forecasts vs Actual
(Weighted Averages)

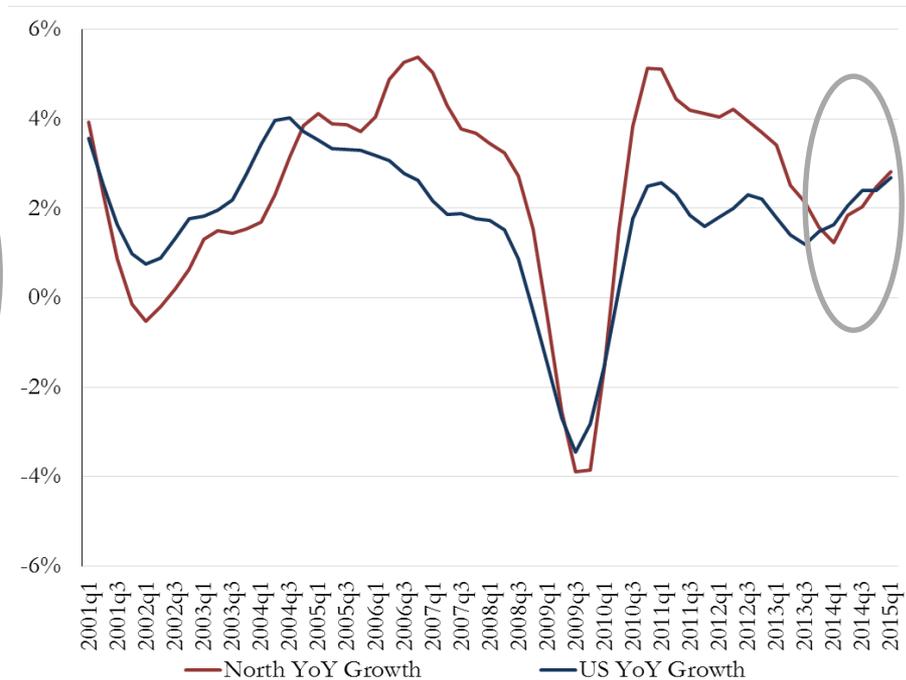


Heterogeneity within LAC is high, as the region's *south* and *north* have followed different cycles...

The South Cycle



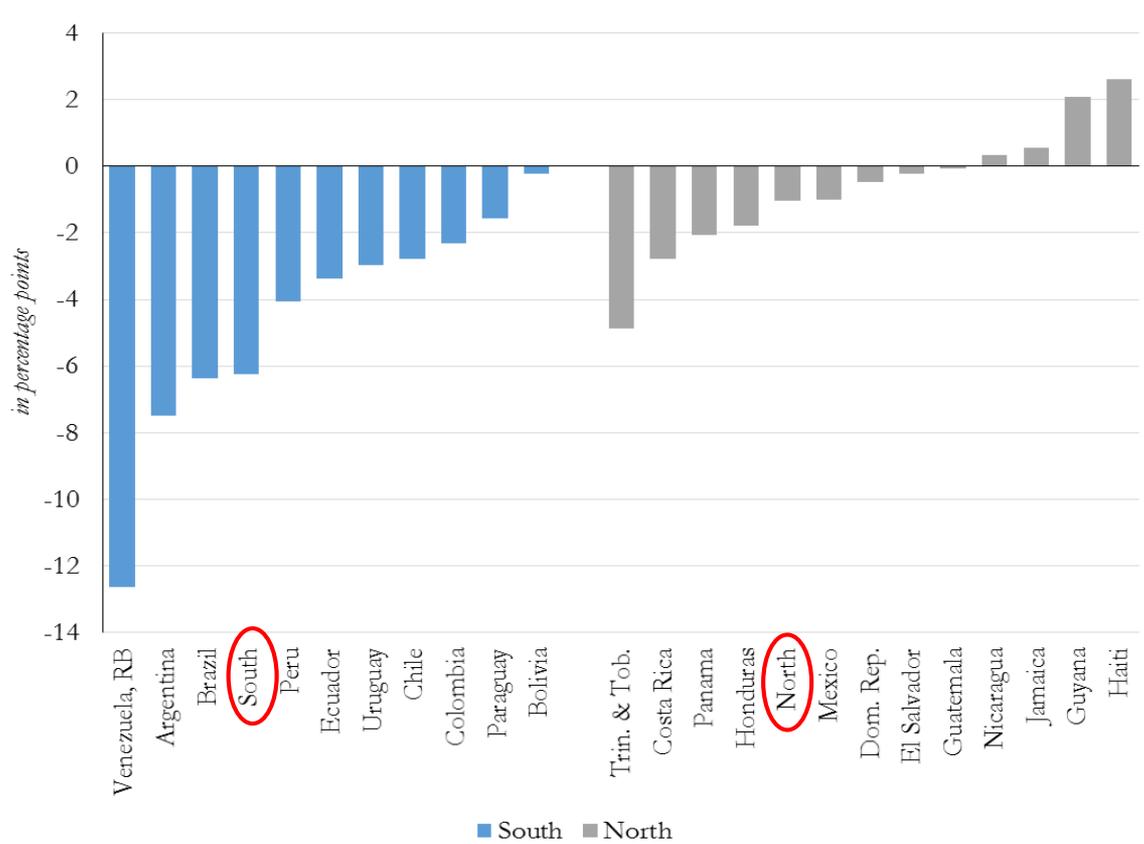
The North Cycle



Note: South includes Argentina, Bolivia, Brasil, Chile, Colombia, Ecuador, Perú, y Uruguay. North includes Panama, Costa Rica, República Dominicana, El Salvador, Guatemala, Jamaica, y México.

...manifested in much larger growth decelerations in the *south*

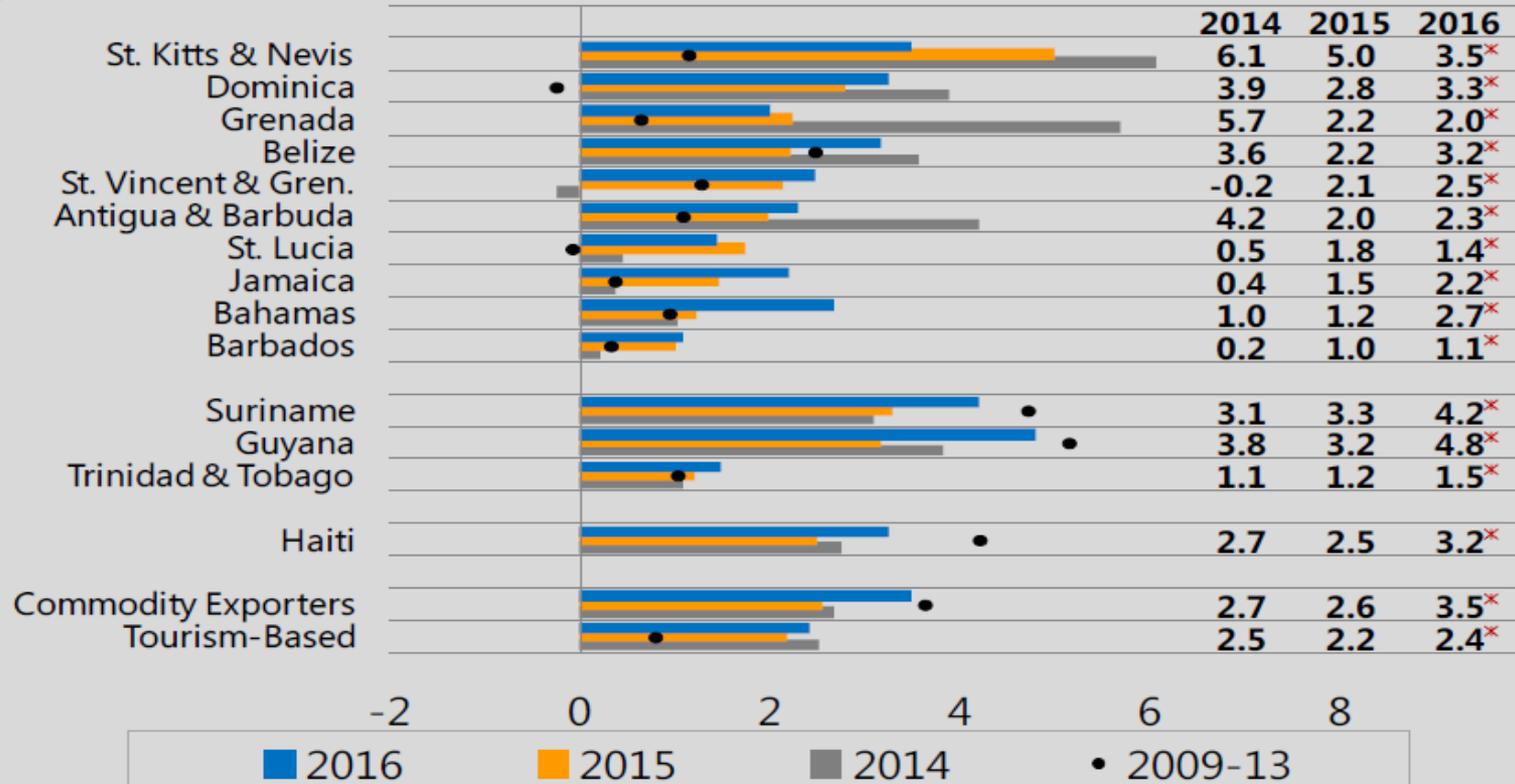
Deceleration across LAC Countries



Caribbean Growth: Better than in the past in tourism-dependent economies and surprisingly resilient for commodity exporters

Real GDP Growth

(in percent)



Policy Challenges and Priorities

The Caribbean faces a completely different challenge

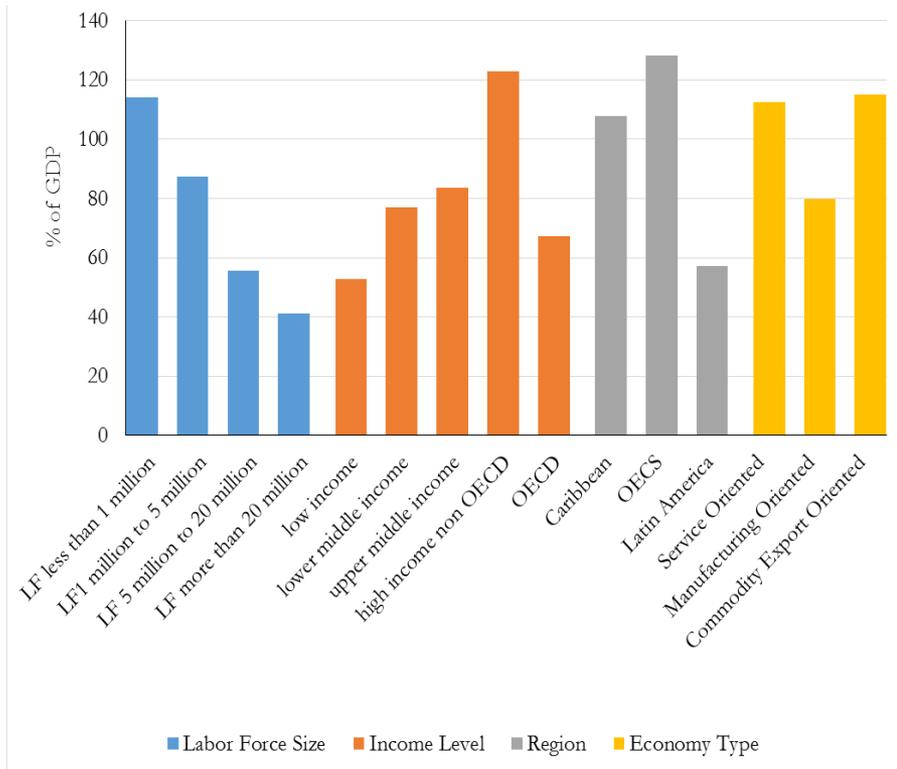


Smallness; openness;
volatility

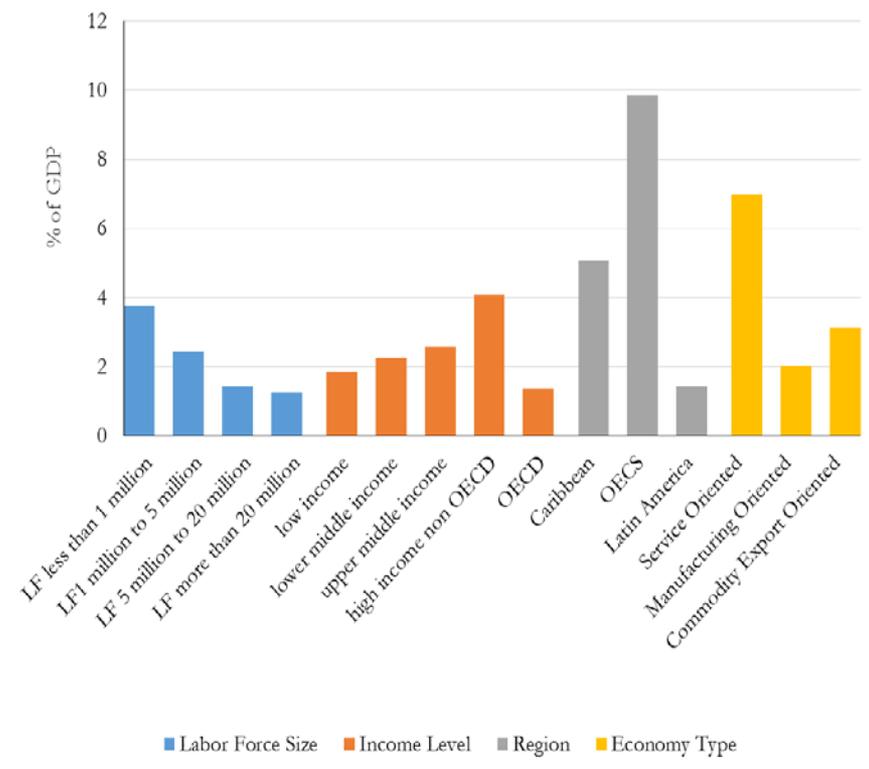
What to do with fiscal
policy when countries
have to deal with
uncertainty with terms
of trade volatility

Size and openness

Trade/GDP Ratio
(1970-2013)

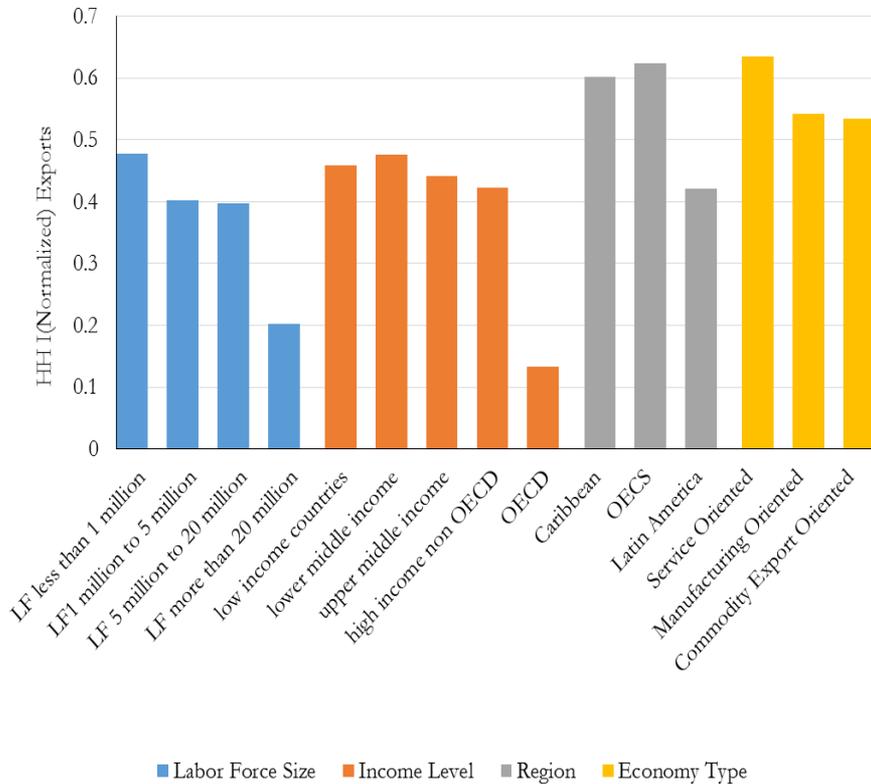


Gross FDI/GDP Ratio
(1970-2013)

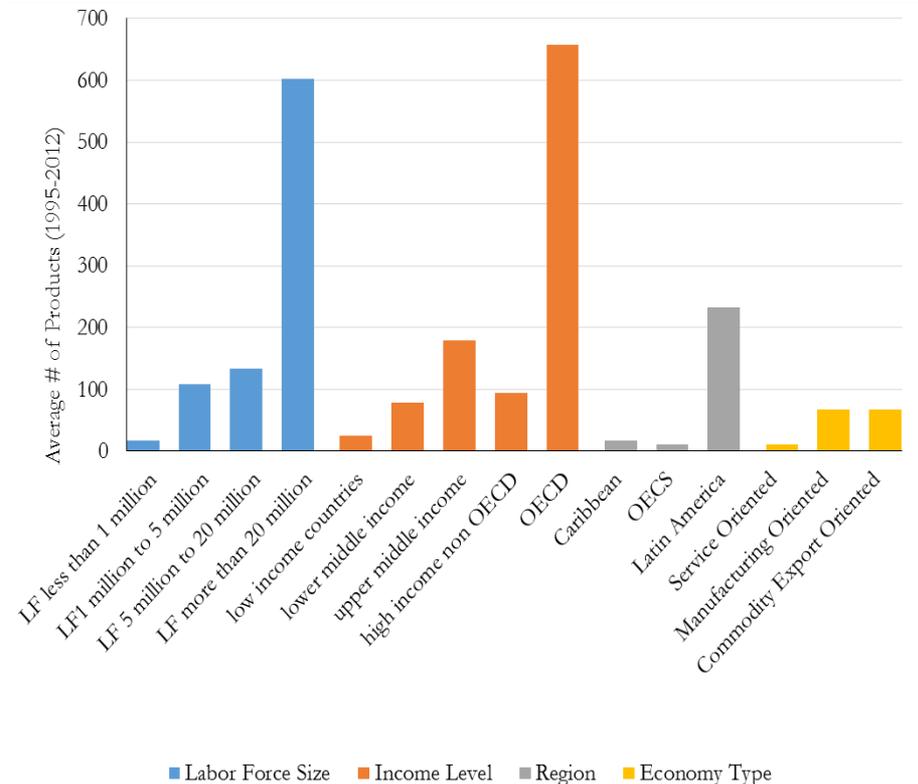


Size and specialization

Herfindalh Export Index (1995-2012)

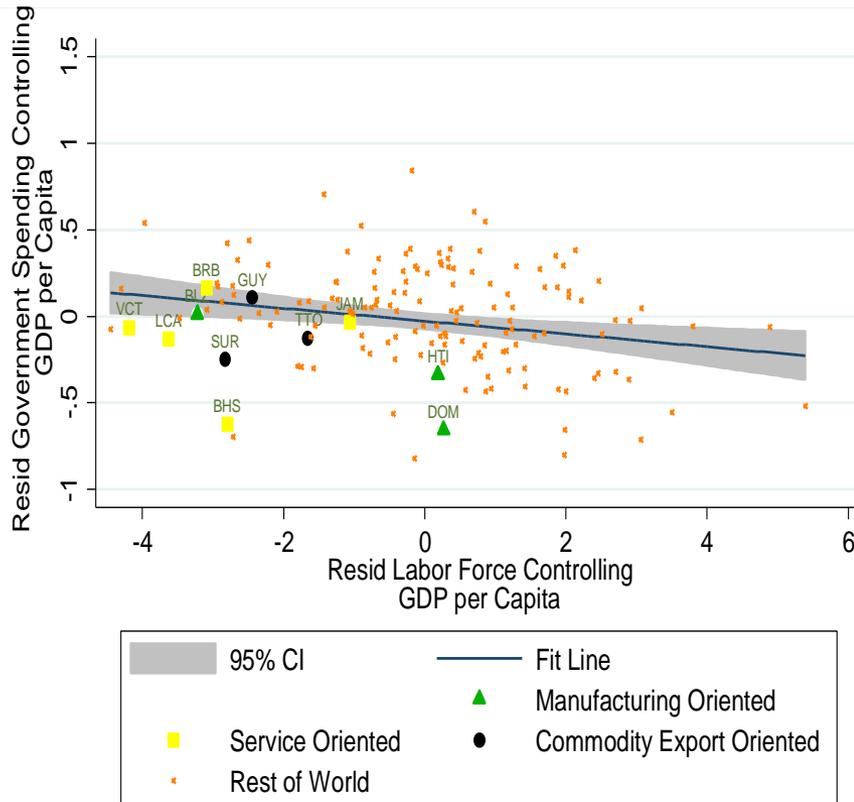


Average Number of Export Lines (1995-2012)



Diseconomies of scale: government and public goods

Partial Correlation Between Size and Government Spending/GDP

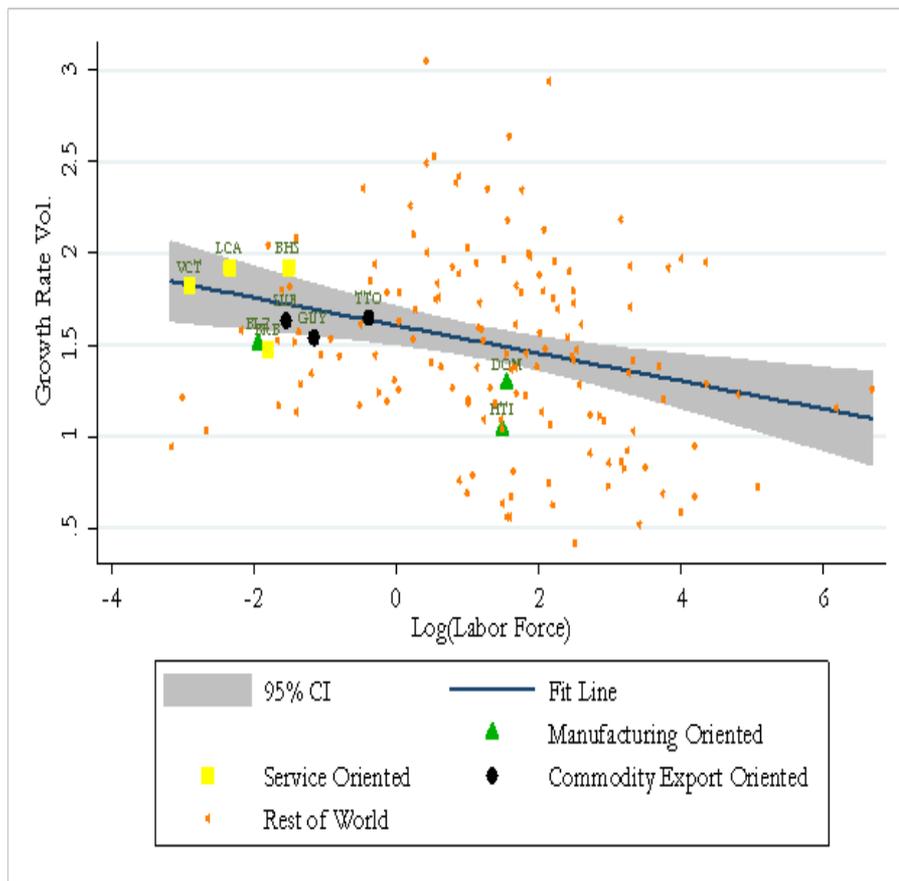


- Smaller countries have higher G/Y (Wacziarg and Alesina, 1998)
 - Inability to amortize fixed costs over large economic and population size
- Lack of economies of scale in providing public goods (Favaro 2008)
- In addition, Caribbean governments exhibit poor revenue generation

Challenges

Growth volatility

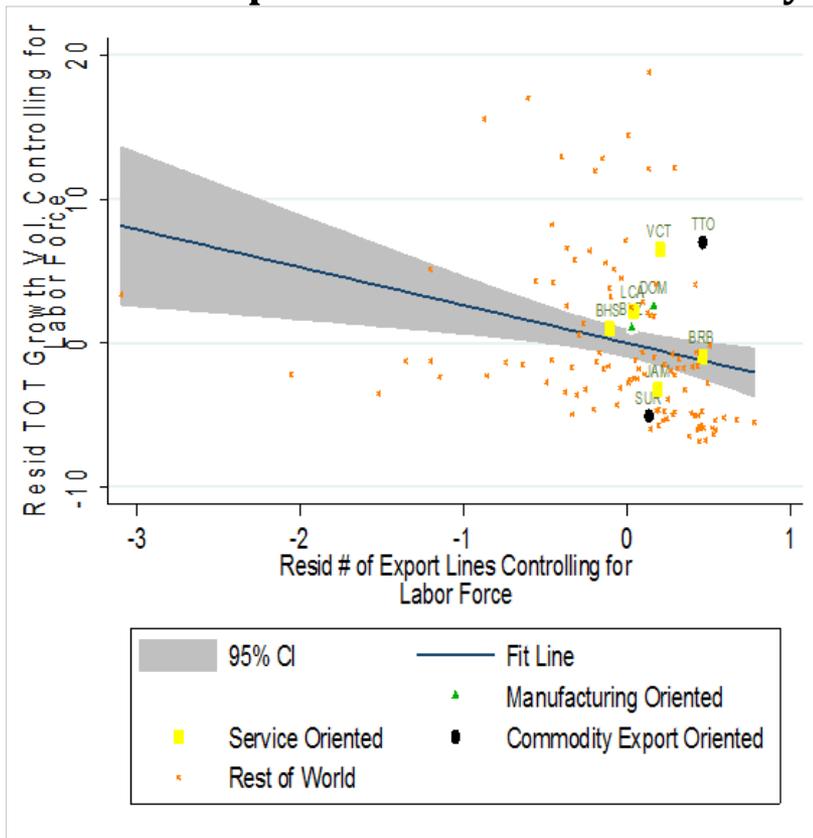
Correlation Between Size and GDP Growth Volatility



- Smaller countries have more volatile GDP growth.....
- ...but not necessarily caused by size per se
 - Terms of trade volatility
 - Export concentration
 - Natural disasters
- Higher growth volatility linked to lower long-term growth (Ramey & Ramey, 1995)

Terms of trade shocks: the downside of specialization

Partial Correlation Between Average Number of Export Lines and ToT Volatility



- Terms of trade volatility is linked to economic specialization (Lederman and Maloney, 2012)
- Terms of trade volatility linked to higher growth volatility (Jansen 2004, Bacchetta et al. 2007)
- Given specialization, terms of trade volatility has greater effects on more open countries

Natural disasters: small size => high value at risk

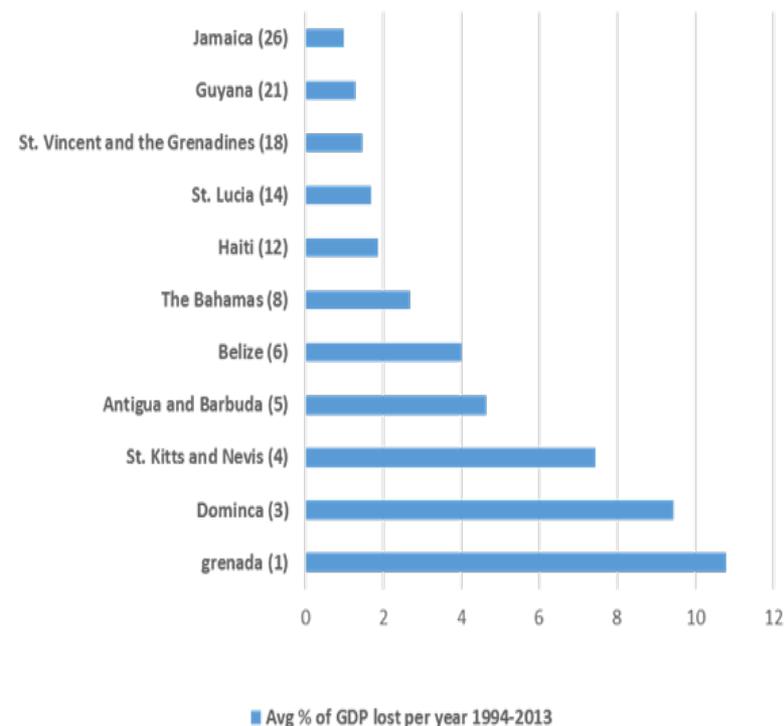
Disaster Incidence: 1970-2004

	All Recorded Disasters				
	Number of events	Number of events divided by land area		Number of events divided by population	
		Index	Rank	Index	Rank
All countries	7,116	100	75	100	75
Advanced economies	1,572	18	74	35	96
Caribbean	190	587	23	378	22
Eastern Caribbean					
Currency Union	48	1,173	5	747	5
Other Caribbean	142	196	35	133	34

Sources: EM-DAT Emergency Disasters Data Base (EM-DAT) (CRED, 2004) for natural disasters; World Bank, World Development Indicators database for land area; IMF, World Economic Outlook database for population.

Notes: The sample contains 148 countries after omitting countries without at least one natural disaster associated with a cost estimate and/or missing information on GDP (24 advanced economies, 15 Caribbean countries, and 109 other developing countries). Simple unweighted averages are used for country groupings. Rankings are in descending order, with "1" indicating the most exposed to natural disaster.

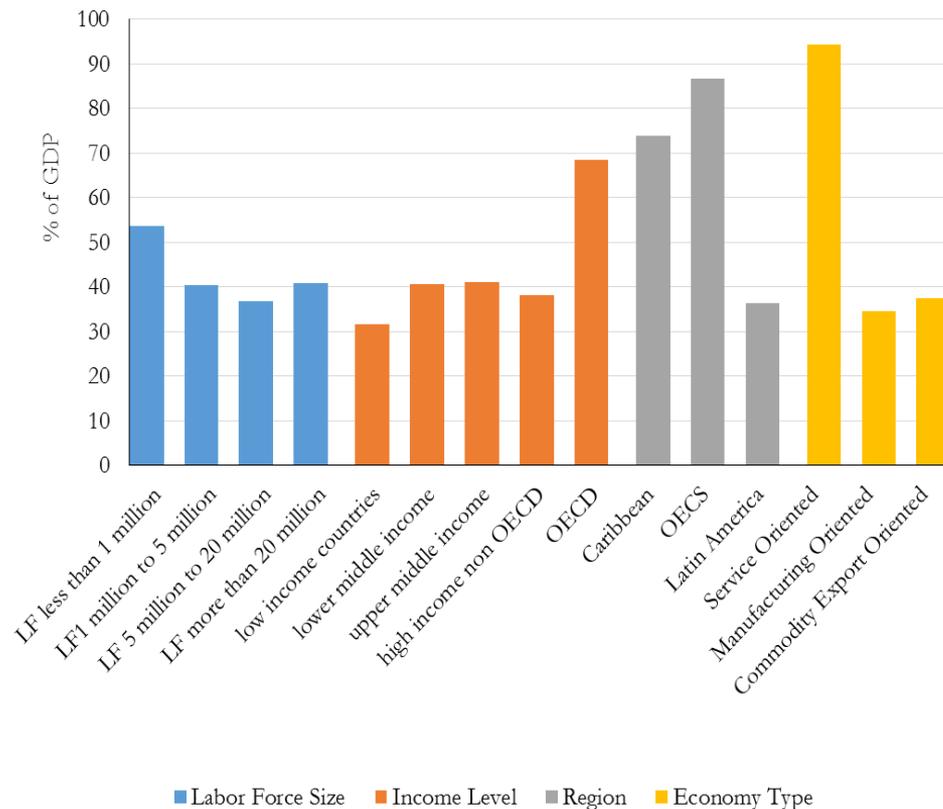
Losses from Disasters as % GDP (1994-2013)



11 of top 26 losers worldwide are in Caribbean

High public debt

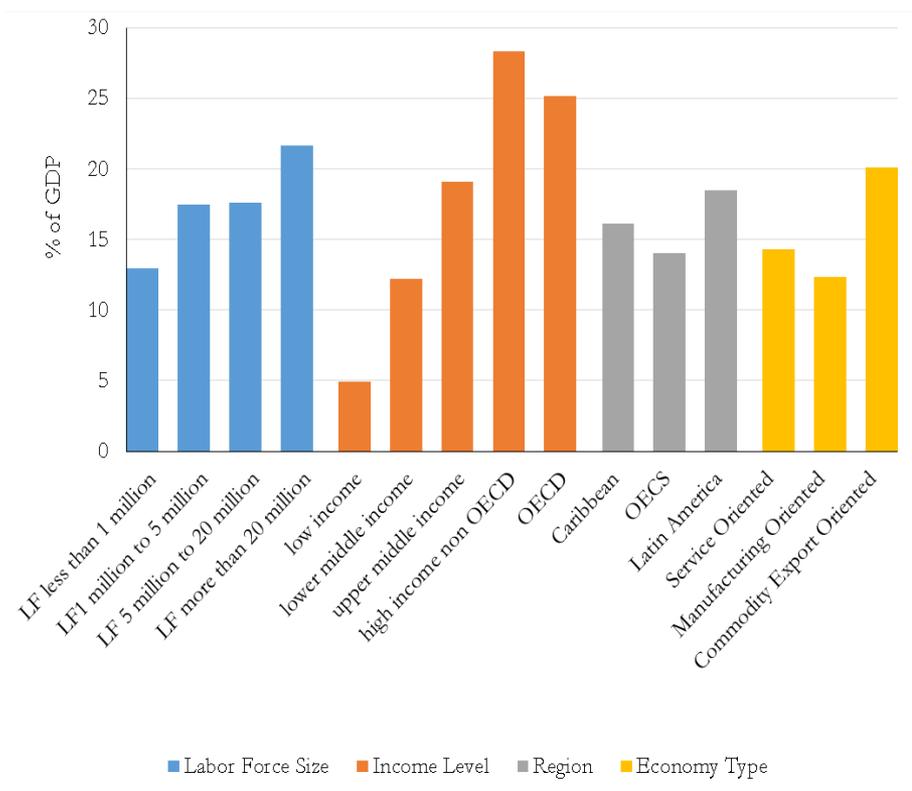
Gross Public Debt/GDP in 2013



- The Caribbean as a region struggles with high debt...
- ...which is not related to size per se
- Possible contributors
 - High cost of government per capita
 - Low government revenue collection
 - Natural disaster related expenses
 - Bailouts and other unplanned liabilities
 - Negative debt dynamics

Low saving rates

Gross Domestic Saving/ GDP (1970-2013)



- Smaller countries tend to have lower savings
- Possible channels in the Caribbean:
 - High public debt => low public savings
 - High remittances-induced consumption
- Lower savings is related to higher macro vulnerability, less competitive real exchange rates, lower investment, and lower growth

Fiscal Rules and Growth Volatility

Connecting volatility, fiscal procyclicality, financial development and growth

- Econometric results by Brueckner and Carneiro (2015) suggesting that:
 - a) Terms of trade volatility affect growth negatively
 - b) Fiscal policy procyclicality exacerbates the negative growth effects of terms of trade volatility, especially in the small islands of the Caribbean
 - c) Counter-cyclical fiscal policy and financial development can help these countries to mitigate the adverse growth effects of terms of trade volatility

Estimated equation:

$$Growth_{it} = a_i + b_t + \alpha Volatility_{it} + \beta (Volatility_{it} * FD_i) + \gamma (Volatility_{it} * Procyclicality_i) + \phi \ln GDP_{it-1} + e_{it}$$

Strengthening fiscal rules could reduce growth volatility

Policy Dialogue:

- Adoption of fiscal rules and the parallel creation of an independent fiscal council
- Adoption of measures aimed at increasing the depth, access, and efficiency of financial markets and institutions
- Benefits of increasing the quality of public spending

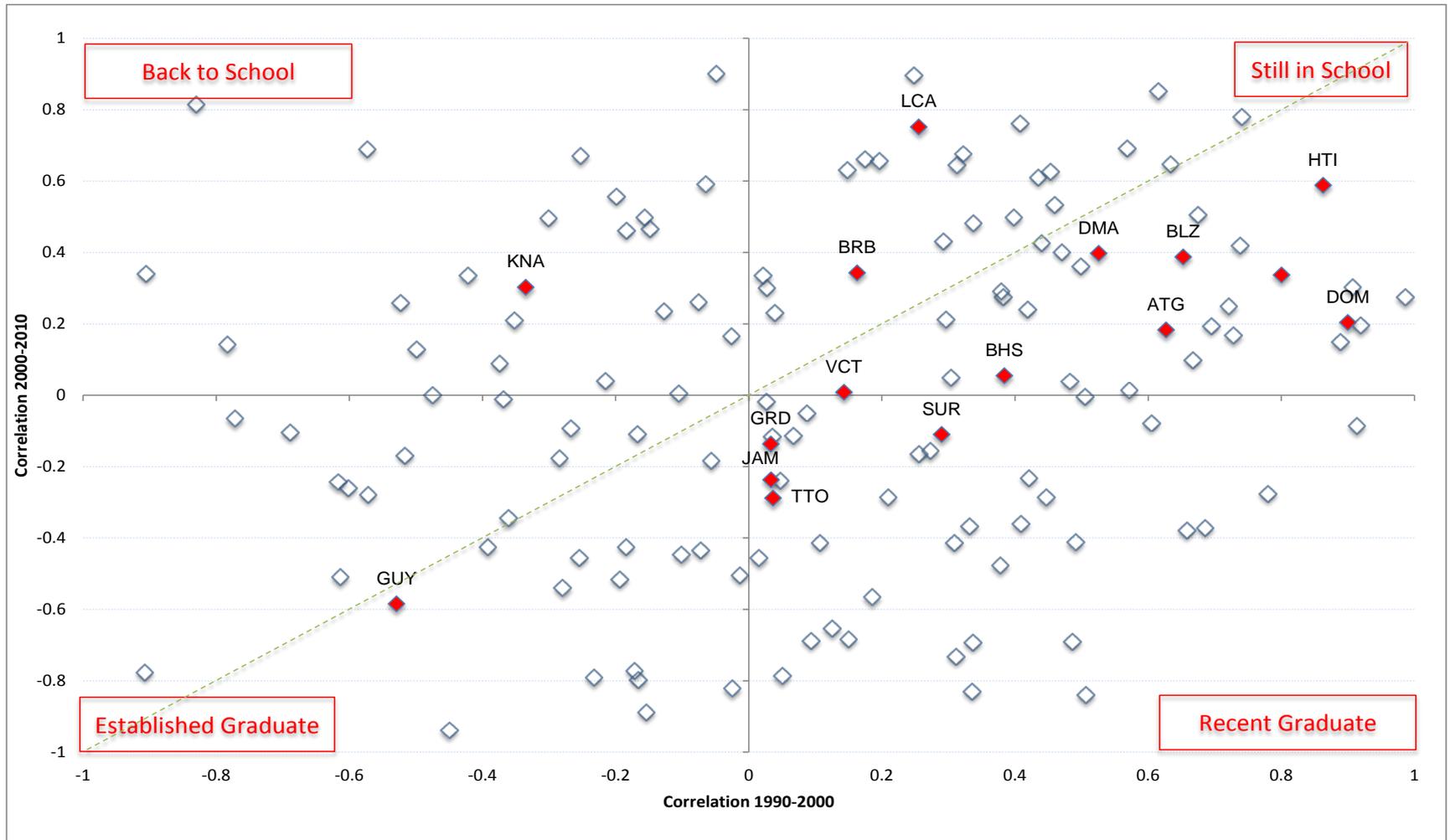
Operational Strategy:

- Comprehensive financial sector operations focusing on supervisory capacity building on banking, insurance, credit unions, and Anti-Money Laundering (AML), etc.
- Technical assistance to strengthen public financial management, procurement practices, audit capacity

Thank You !

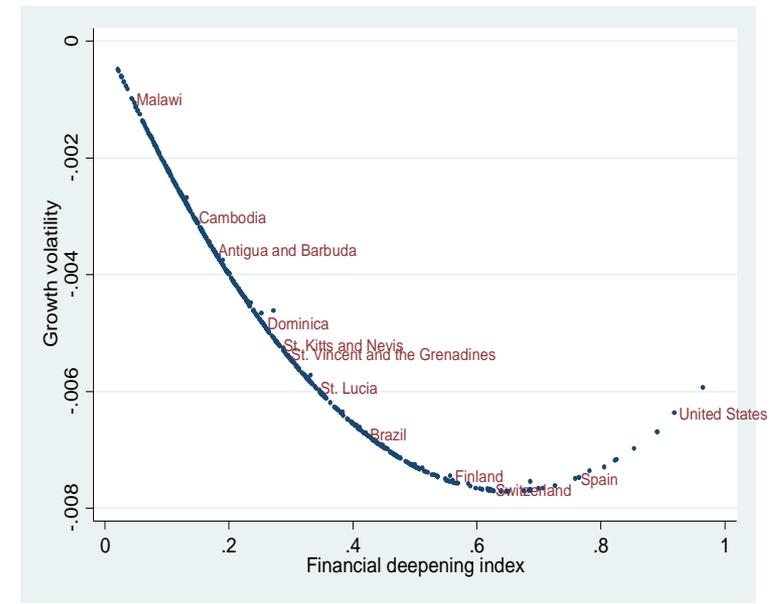
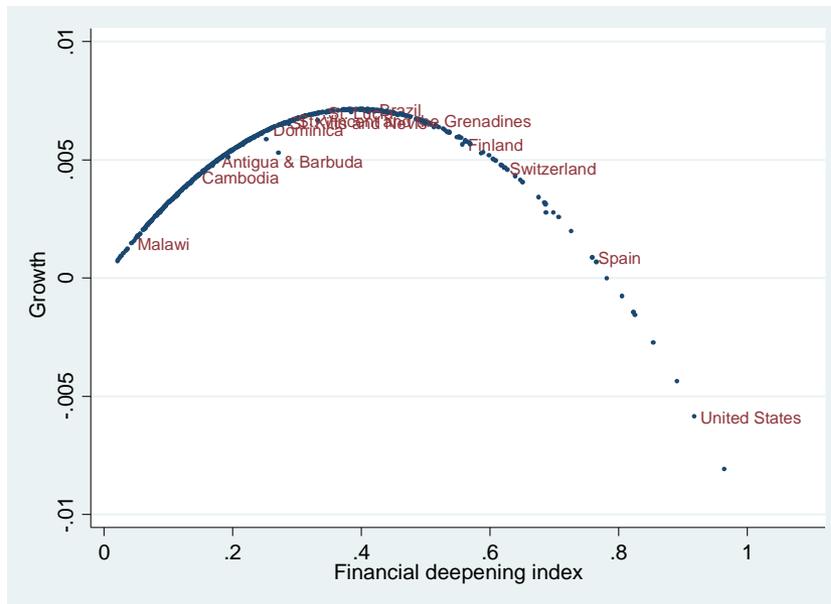
Extra Slides

The large majority of small islands of the Caribbean has not graduated from procyclical fiscal policies



Note: Pro-cyclicality is defined as a positive correlation coefficient between real government expenditures and GDP

Financial development, growth, and volatility



Source: Carneiro, Ha, and Odawara (2016), own calculations using the financial deepening index developed by the IMF in [Sahay and others \(2015a\)](#). Note: The curve in Panel A shows the predicted effect of financial deepening on growth for each level of the index, holding fixed other controls. The curve in Panel B shows the predicted effect of financial deepening on growth volatility, holding fixed other controls. Growth volatility is measured as the standard deviation of GDP growth rates over a five-year moving average.

Establishing the link between economic growth, volatility, procyclicality, and financial development

Dependent Variable is:	GDP per capita Growth				
	(1)	(2)	(3)	(4)	(5)
	LS	LS	LS	LS	LS
Terms of Trade Volatility	-0.46** (0.19)	-0.37** (0.18)	-0.38* (0.21)	-0.07 (0.20)	-0.03 (0.22)
Terms of Trade Volatility*Fiscal Procyclicality	-0.43* (0.25)	-0.42** (0.21)	-0.70** (0.29)	-0.67** (0.27)	-0.60** (0.27)
Terms of Trade Volatility*Fiscal Procyclicality*OECS	-1.95** (0.77)	-2.22*** (0.64)	-72.01* (42.04)	-78.00*** (15.37)	-73.01*** (26.31)
Terms of Trade Volatility*Credit-to-GDP ratio	0.55 (0.56)	0.36 (0.51)	0.99 (0.65)	0.17 (0.61)	-0.08 (0.64)
Terms of Trade Volatility*Credit-to-GDP ratio *OECS	1.76** (0.86)	2.07*** (0.62)	9.07 (10.56)	15.08*** (4.05)	12.66* (6.73)
Fiscal Procyclicality	0.04 (0.04)	0.04 (0.03)			
Credit-to-GDP ratio	0.27*** (0.06)	0.20*** (0.06)			
OECS	0.03* (0.01)	0.01 (0.01)			
Terms of Trade Growth					0.12*** (0.03)
Country Fixed Effects	No	No	Yes	Yes	Yes
Time Fixed Effects	No	Yes	No	Yes	Yes

Note: The method of estimation is least squares. Huber robust standard errors (shown in parentheses) are clustered at the country level. *Significantly different from zero at the 10 percent significance level, ** 5 percent significance level, *** 1 percent significance level.