Barriers to Enterprise Development in the Caribbean

Stephen Drinkwater
University of Roehampton, London, UK
IZA, Bonn and WISERD

Jonathan Lashley
Sir Arthur Lewis Institute of Social and Economic Studies (SALISES)
The University of the West Indies, Cave Hill Campus, Barbados

Catherine Robinson
University of Kent, UK
WISERD

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Introduction

- Persistently low levels of GDP across (most of) the Caribbean has long been a major concern for policy makers

➢ average GDP per capita of around $11,000 (US) in 2014

➢ wide ranges from $4,000 in Guyana to over $22,000 in the Bahamas

- Lack of private enterprise (and successful firms) has been identified as a major cause of this (e.g. Ruprah *et al.,* 2014)

➢ our focus is on barriers to enterprise in the Caribbean

- We examine recent microdata (for 12 countries) including estimating econometric models for different size categories

- Allows us to identify certain policy implications and offer recommendations

Barriers to Enterprise Development

- Our review of the literature focuses on country and enterprise level factors separately

- Country-level factors include:
  - ➢ Functioning of capital markets
  - ➢ Access to energy and other networks
  - ➢ Transport infrastructure
  - ➢ Human capital levels
  - ➢ Corruption/Crime/Social Disorder
  - ➢ Political Instability
  - ➢ Macroeconomic conditions
  - ➢ Business regulations
  - ➢ Tax rates and systems

Barriers to Enterprise Development cont..

- Enterprise-level factors can relate to:
- ➤ Access to finance
- ➤ Competition
  - o from large organisations
  - o possibly from multinationals or exporters
  - o also from the informal sector
- ➤ Ownership characteristics can also have an effect in terms of legal status

- Empirical studies from other countries have used similar data (e.g. the WBES) to identify constraints on business
- ➤ these include Coad and Tamvada (2012) for India and Vargas (2015) for Bolivia

Data: PROTEqIN

- Firm level data from the Compete Caribbean's Productivity, Technology, Innovation (PROTEqIN) survey
  - ➢ collected for a cross section of firms and relates to 2014

- Data collected from 1,846 establishments across 12 countries

- Split across different size classes:
  - ➢ Small: Less than 20 employees (48%)
  - ➢ Medium: 20-99 employees (38%)
  - ➢ Large: 100 or more employees (14%)

- Size variations by country, with median employees ranging from 11 in SVG to 31 in BAH

Data cont..

- We examine different questions on barriers to enterprise:

➢ Top three most serious obstacles to the establishment's current operations

➢ The severity of the obstacle to the establishment's current operations

- Use the latter in the econometric analysis, as in Vargas (2015)

- Data also includes a range of establishment/firm level characteristics that can be used as controls
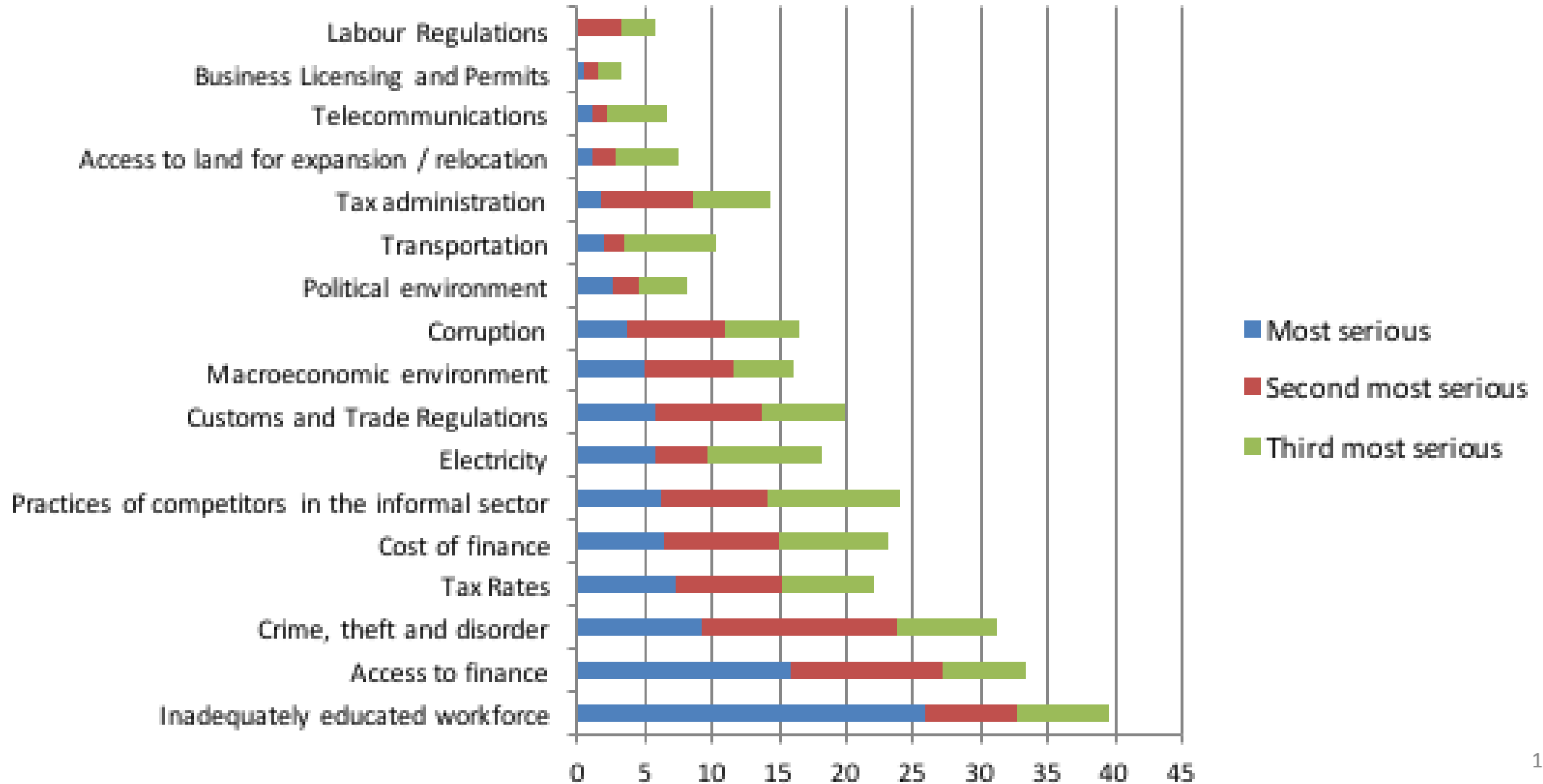
Empirical Methodology

- Firstly undertake descriptive analysis, including on basic features of establishments across countries (omitted here)

- Econometric analysis relates to a series of **ordered probits**
  - ➢ Given that dependent variable is ordered: 0=No obstacle, 1=Minor, 2=Moderate, 3=Major and 4=Very severe
  - ➢ Tables report coefficients and significance levels based on p-values using heteroscedastic consistent standard errors

- Models estimated for the 10 most severe obstacles, based on average scores
  - ➢ Country dummies and a range of establishment characteristics included as explanatory variables

Summary of Descriptive Statistics

- Information on the top 3 constraints and their severity reveal a fairly similar picture in terms of the **main barriers** perceived by businesses across the Caribbean as a whole:
  - ➢ Inadequately educated workforce
  - ➢ Poor access to Finance
  - ➢ Crime, Theft and Disorder

- Factors such as labour regulations, telecoms, business licensing/permits and access to land are far less important

- Variations by country are explored in more detail in the econometric analysis

Top 3 Most Serious Obstacles (% reporting)

Severity of Obstacle (cumulative %)

Obstacle	Mean
Corruption	.46
Macroeconomic environment	.63
Customs and Trade Regulations	.50
Electricity	.64
Practices of competitors in the informal sector	.63
Cost of finance	.40
Tax Rates	.54
Crime, theft and disorder	.73
Access to finance	.75
Inadequately educated workforce	.87

Legend: No obstacle, Minor, Moderate, Major, Very severe
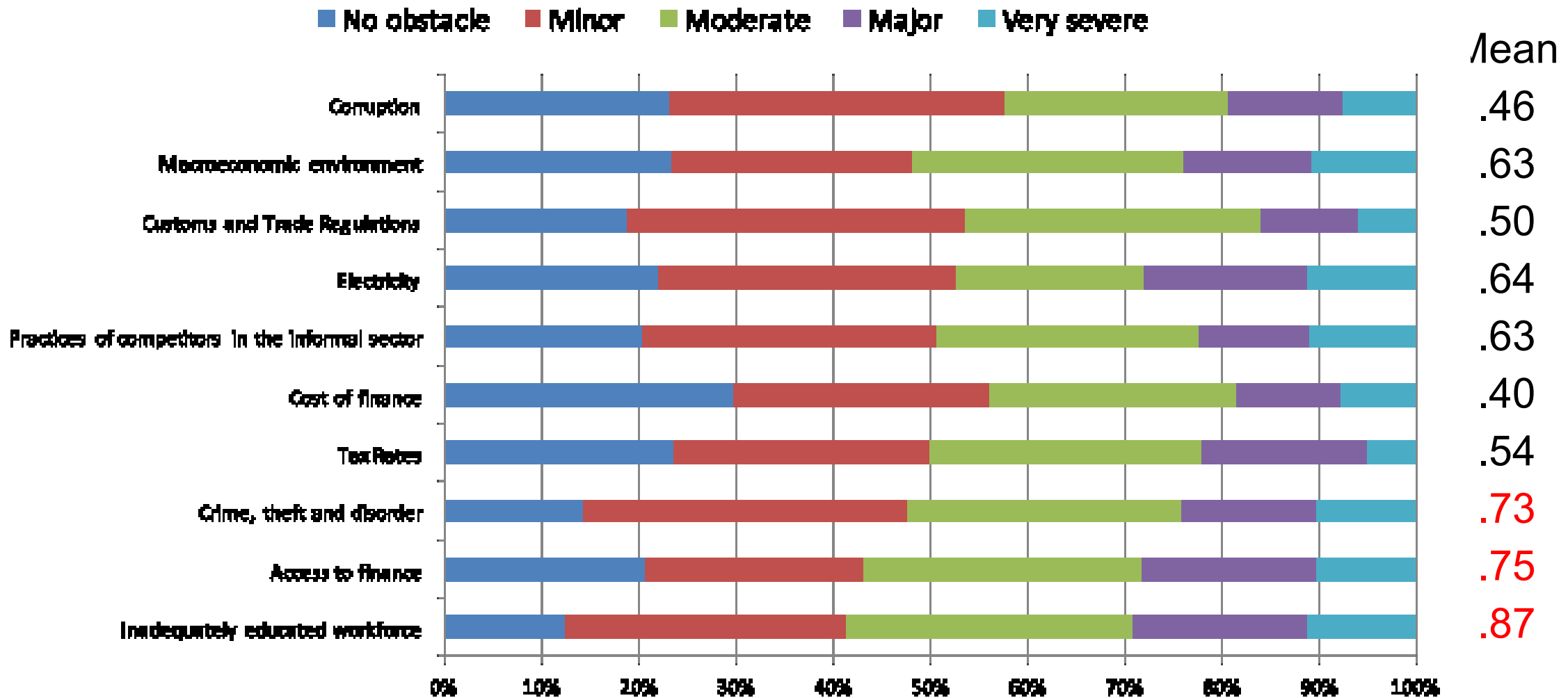
Summary of Econometric Results

- The following tables indicate the importance of country-level factors
- Note that establishment-level factors (even size categories) for most/all constraints are not significant

- We find clusters of similar countries in terms of reporting particular types of obstacles
  - Jamaica, Belize and Guyana (crime, tax rates, electricity and corruption are relatively important obstacles)
  - Grenada, St Lucia, The Bahamas and Trinidad and Tobago (inadequate education, business regulations and cost of finance are relatively important obstacles)

- Relatively small differences across size categories

Differences in Severity of Obstacle by Employment Size Band

	Workforce Education	Access to finance	Crime	Tax Rates	Cost of finance	Competitor Practices	Electricity	Regulations	Macro Env.	Corruption
Medium Establishment	-0.07	-0.01	0.04	0.04	-0.10	-0.09	-0.08	0.15***	-0.04	-0.02
Large Establishment	0.06	-0.02	-0.10	0.11	-0.09	0.00	0.12	0.11	-0.03	-0.03
Wald Chi-Squared	100.96***	89.37***	260.75***	148.60***	97.74***	165.99***	157.84***	157.85***	129.44***	218.36***
N	1785	1785	1785	1785	1785	1782	1785	1785	1785	1785

Notes: Reference category is Small Establishment. Controls also included for country, industrial sector, legal status, whether part of larger firm, location of main market and gender composition of ownership. *** indicates significance at the 1% level (using a two-tailed test for individual explanatory variables), ** at the 5% level and * at the 10% level. Significance levels calculated using heteroscedastic consistent standard errors.

Differences in Severity of Obstacle by Country

	Workforce Education	Access to finance	Crime	Tax Rates	Cost of finance	Competitor Practices	Electricity	Regulations	Macro Env.	Corruption
ANT	0.19	-0.60***	-0.63***	-0.89***	0.20	-0.92***	-0.51***	0.54***	0.16	-0.51***
BAR	0.16	-0.30**	-1.26***	-0.65***	-0.45***	-0.89***	-0.10	0.31**	-0.04	-0.72***
DOM	0.00	-0.10	-1.01***	-0.66***	0.17	-0.97***	-0.46***	0.09	0.53***	-0.11
GRN	0.23**	-0.33***	-0.30**	-0.65***	0.10	-0.57***	-0.61***	0.71***	0.27**	-0.19
GUY	0.22	0.10	0.07	-0.33**	0.67***	-0.45***	0.23	0.66***	0.70***	0.65***
SKN	-0.02	-0.12	-0.43***	-0.99***	0.17	-0.97***	-0.42***	0.13	0.60***	-0.55***
SLU	0.80**	-0.36***	-0.91***	-0.66***	-0.01	-0.65***	-0.56***	0.66***	0.14	-0.40***
SVG	0.21*	-0.07	-0.47***	-0.59***	-0.13	-0.73***	-0.64***	0.53***	0.63***	-0.42***
BEL	0.45***	-0.01	0.06	-0.10	0.33***	-0.42***	0.06	1.19***	0.00	0.42**
BAH	0.53***	-0.56***	-0.92***	-0.50***	0.17	-0.45***	-0.52***	0.48***	0.00	-0.52***
TNT	0.33***	-0.14	-0.22**	-0.41***	0.21**	-0.61***	-0.68***	0.43***	0.44**	-0.02

Notes: Reference country is Jamaica.

Differences in Severity of Obstacle by Country: Small Firms

	Workforce Education	Access to finance	Crime	Tax Rates	Cost of finance	Competitor Practices	Electricity	Regulations	Macro Env.	Corruption
ANT	0.02	-0.80***	-0.74***	-1.13***	0.07	-0.96***	-0.61***	0.72***	0.28*	-0.79***
BAR	0.16	-0.42**	-1.36***	-0.71***	-0.90***	-0.89***	-0.02	0.27	0.11	-0.99***
DOM	-0.01	-0.50**	-1.24***	-0.70***	0.12	-0.98***	-0.66***	0.11	0.70***	-0.35*
GRN	0.18	-0.64***	-0.61***	-0.62***	0.03	-0.46**	-0.77***	0.71***	0.60***	-0.39**
GUY	-0.12	-0.16	-0.19	-0.59***	0.34*	-0.40*	0.08	0.33	0.73***	0.35*
SKN	-0.04	-0.59***	-0.61***	-1.00***	0.13	-0.95***	-0.53***	0.13	1.04***	-0.91***
SLU	0.83***	-0.75***	-1.10***	-0.76***	-0.14	-0.81***	-0.68***	0.82***	0.55***	-0.57***
SVG	-0.03	-0.45**	-0.76***	-0.72***	-0.37**	-0.65***	-0.68***	0.66***	0.91***	-0.74***
BEL	0.25	-0.33**	-0.04	-0.20	0.07	-0.53**	-0.14	1.23***	0.13	0.12
BAH	0.68***	-0.99***	-1.15***	-0.52**	-0.04	-0.45**	-0.63***	0.40*	0.16	-0.91***
TNT	0.15	-0.53***	-0.46***	-0.61***	-0.03	-0.51***	-0.91***	0.51***	0.67***	-0.29*

Notes: Reference country is Jamaica.

Differences in Severity of Obstacle by Country: Medium-Size Firms

	Workforce Education	Access to finance	Crime	Tax Rates	Cost of finance	Competitor Practices	Electricity	Regulations	Macro Env.	Corruption
ANT	0.43**	-0.49**	-0.80***	-0.65***	0.15	-0.77***	-0.41**	0.16	0.17	-0.47**
BAR	0.33*	-0.41**	-1.39***	-0.63***	-0.34*	-0.83***	-0.51**	0.14	-0.11	-0.65***
DOM	-0.03	0.05	-1.07***	-0.72***	0.07	-1.04***	-0.09	0.03	0.50**	0.01
GRN	0.22	-0.08	-0.31	-0.77***	0.09	-0.57**	-0.32	0.56**	0.11	-0.25
GUY	0.69***	0.33	0.28	-0.09	1.11***	-0.47**	0.41	1.08***	0.79***	1.00***
SKN	0.05	0.24	-0.44**	-0.97***	0.2	-0.82***	-0.25	0.04	0.46**	-0.47**
SLU	0.89***	-0.17	-0.91***	-0.54***	0.07	-0.44**	-0.40**	0.50***	-0.08	-0.46**
SVG	0.66***	0.22	-0.25	-0.45**	0.12	-0.70***	-0.53**	0.19	0.55**	-0.22
BEL	0.72***	0.21	-0.12	0.01	0.45***	-0.25	0.24	1.11***	-0.04	0.58***
BAH	0.59***	-0.24	-1.02***	-0.59***	0.28	-0.34	-0.35*	0.37**	-0.25	-0.42**
TNT	0.50***	0.13	-0.29	-0.17	0.35**	-0.67***	-0.37**	0.39**	0.31**	0.01

Notes: Reference country is Jamaica.

Discussions and Policy Implications

- Results highlight the importance of **appropriate skills**
  - ➢ Need to reduce mismatch between needs of private sector and existing levels of human capital via education and training
  - ➢ Addressing factors causing emigration => may be able to deal with some push factors in short term but addressing pull factors, especially higher wages, is more difficult

- **Access to finance**
  - ➢ There may be policies (subsidies and regulations) that can reduce market failures affecting lending by financial institutions

- **Crime, theft and disorder is a barrier in some countries**
  - ➢ National governments may be able to introduce more pro-social policies that benefit individuals as well as business

Conclusions

- Our analysis of recent data indicates that Caribbean businesses identify a wide range of constraints on their operations

- These do vary by country – as evidenced by the very large effects on many of the dummy variables
  - ➤ some countries cluster in terms of businesses reporting similar constraints
  - ➤ establishment-level characteristics tend to be far less important

- We identify some of the key factors that appear to inhibit economic growth in the region
  - ➤ more detailed analysis is required on the (causal) relationships and on appropriate policy responses

Thank you !
Any questions?

stephen.drinkwater@roehampton.ac.uk

jlashley@caribsurf.com

C.Robinson-501@kent.ac.uk