

Workshop on Trade Policy and Trade Indicators

Evaluation of the economic and social impact of possible trade negotiations between Jamaica and Central America, Mexico and the countries of the Northern Caribbean





Mariano Alvarez

Economic Affairs Officer

Zebulun Kreiter

Economic Affairs Officer

Marcelo Pereira Dolabella

Consultant

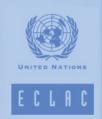
Economic Commission for Latin America and the Caribbean



Outline

- Introduction
- Socioeconomic context
- Jamaica in the World Economy
- Trade with Selected Partners
- Data and Methodology
- Results
- Conclusions and recommendations





Introduction





Introduction

- Part of the UN Development Account Project on "Enhancing the Contribution of Preferential Trade Agreements to Inclusive and Equitable Trade"
- The project's objective is to facilitate the negotiation of fair and equitable trade agreements that can contribute to a vision of development that combines growth with social inclusion.
- Three national seminars were held in the participating countries (Colombia, Ecuador and Jamaica) between December 2015 and June 2016
- Country studies were developed on the basis of these discussions (Colombia, Ecuador, Guatemala, Honduras and Jamaica)





Introduction

- The study evaluates the economic and social impact from the potential increase of commercial relations between Jamaica and Mexico, the Central American countries and those of the North of the Caribbean, after signing a Free Trade Agreement (FTA).
 - Currently a mix of trading arrangements with the studied countries:
 - Cuba and the Dominican Republic: Trade agreements with CARICOM
 - The Bahamas: CARICOM member, does not participate in the CARICOM Single Market
 - Haiti: Partial participant in the CARICOM Single Market
 - Mexico and Central America: No preferential terms





Socioeconomic Context

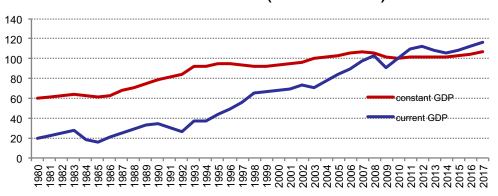




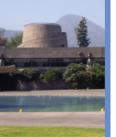
Socioeconomic Context: Economic Performance

 Despite low growth and high unemployment, Jamaica has achieved substantial improvements in indicators such as poverty and inflation reduction.

GDP Index (1980-2016) Index numbers (2010=100)



• In 2016, Jamaica's real GDP grew by 1.4%. This was the second best performing year in the post-crisis period, even though the country has not reached its pre-crisis level of output.





Socioeconomic Context

- Key economic reforms have contributed to stability:
 - (i) the introduction of a fiscal rule into the annual budget process;
 - (ii) a freeze on the public sector wage bill;
 - (iii) the Tax Administration's publication of Jamaica's National Compliance Plans;
 - (iv) the preparation of amendments to the Customs Act, the General Consumption Tax, and the tax regime governing Special Economic Zones; and
 - (v) the modernization of tax collection systems.
- The country has achieved a primary surplus above 7% of GDP for a fourth consecutive year and its debt-to-GDP is on a downward trajectory.

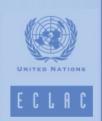




Socioeconomic Context

- Ease of Doing Business
 - Positive performance: starting a business (12/190) and getting credit (16/190)
 - **Underperformance**: trading across borders (131/190), registering property (123/190), enforcing contracts (117/190), paying taxes (116/190) and getting electricity (101/190)
- Tax policy
 - Positive performance: A business incorporated in Jamaica pays lower taxes (34.3% of commercial profits) and makes fewer payments (11) than the regional average
 - Underperformance: the hours needed to prepare, file and pay taxes (268 hours per year) lie above the regional average

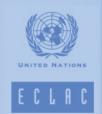




Socioeconomic Context

- High energy costs: over 90% of electricity production on the island comes from petroleum imports.
 - The National Energy Policy (2009 2030) aims to address this challenge through energy mix diversification, energy infrastructure upgrading, among others.
- High costs of transport (mainly maritime) and logistics
- Unsustainable dependence on imported fossil fuels
- The need to diversify production and exports
- Need to create complementarities between goods and services (clusters) as in the case of the food, hotel and tourism sectors







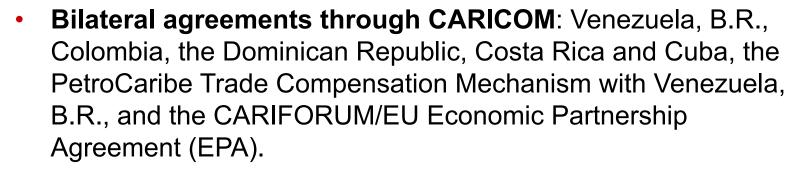


- The Jamaican economy is heavily reliant on its external sector, with trade representing around 74% of GDP.
 - The top exports in 2015 were
 - Aluminium Oxide (US\$ 570 million)
 - Aluminium Ore (US\$ 130 million)
 - Hard Liquor (US\$ 78.3 million)
 - Refined Petroleum (US\$63.3 million)
 - Raw Sugar (US\$46.6 million)
 - The two top imports, refined petroleum (US\$642 million) and crude petroleum (US\$342 million) leave the trade balance exposed to shocks in oil prices.
- The value of goods imported is nearly 4x the value of goods exported (1.75x when services are included)





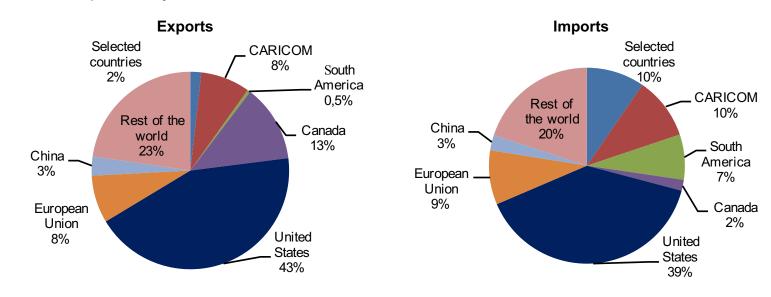
- Jamaica takes part in a number of preferential trading arrangements with a wide array of partners
- Preferential agreements:
 - The Generalized System of Preferences (UNCTAD)
 - The Caribbean Basin Initiative (CBI) → Duty Free Access to the US market
 - The Commonwealth Caribbean/Canada Trade Agreement (CARIBCAN) → Duty Free Access to the Canadian Market







- Jamaica's participation in the international context is dominated by extraregional markets:
 - The United States, European Union and Canada account for 70% of total exports and 50% of total imports.
 - The Latin American market represents less than 10% of Jamaican exports and 27% in the case of imports, with the selected countries and CARICOM partners both accounting for 10% of imports to Jamaica, respectively

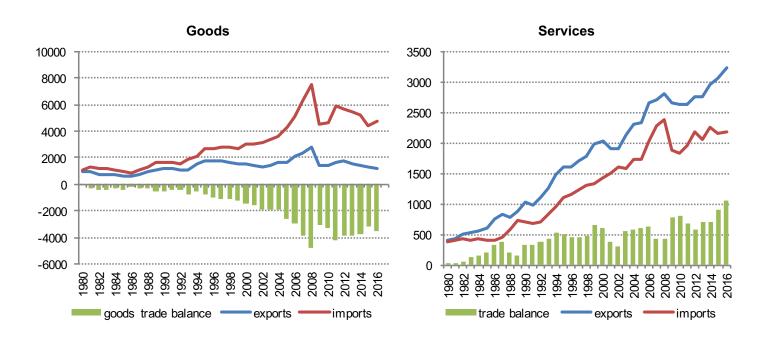






 The sustained increase in the trade deficit of goods contrasts with the historical surplus in the services balance, where tourism has historically played a predominant role.

Jamaica: Trade evolution, 1980-2016 (Millions of US dollars)







 In recent years, the trade deficit has been reduced, mainly driven by the reduction of the value of imports in fossil fuels and chemicals, since exports have not increased.

Jamaica: Trade pattern, biennium 2015-2016

| | Total | value | | Share in total | | | |
|---------------------------------|---------|---------|---------------|----------------|---------|--|--|
| Main sectors | Exports | Imports | Trade balance | Exports | Imports | | |
| Agricultural and livestock | 59 | 234 | -174 | 1.4 | 3.3 | | |
| Mining | 111 | 0 | 111 | 2.6 | 0.0 | | |
| Agroindustry | 216 | 669 | -452 | 5.0 | 9.5 | | |
| Textiles, clothing and footwear | 2 | 134 | -132 | 0.1 | 1.9 | | |
| Wood and paper | 6 | 231 | -225 | 0.1 | 3.3 | | |
| Chemical and petrochemical | 202 | 1438 | -1 235 | 4.7 | 20.5 | | |
| Non-metallic mineral products | 21 | 119 | -98 | 0.5 | 1.7 | | |
| Machinery and equipment | 22 | 720 | -699 | 0.5 | 10.3 | | |
| Other manufactures | 592 | 1335 | -743 | 13.7 | 19.0 | | |
| Transport | 180 | 744 | -565 | 4.2 | 10.6 | | |
| Travels | 2459 | 245 | 2214 | 57.0 | 3.5 | | |
| Other services | 442 | 1157 | -715 | 10.2 | 16.5 | | |
| Total good and services | 4313 | 7027 | -2714 | 100.0 | 100.0 | | |



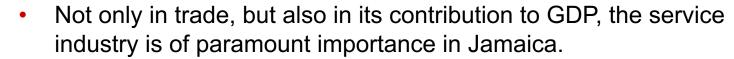
Weak external demand in recent years has led to a decline in exports
of goods in sectors such as chemicals, crude oil, limestone, mineral
fuels, food (vegetables, yams, ackee, animal feed) and beverages.



- From 2009 the bulk of Jamaican exports have come from the services account.
- The main export sector is Travels, which encompasses all tourismrelated activities (hotels and restaurants).
- This is an important sector in Jamaican commerce which has shown great resilience even after the global financial crisis.

Jamaica: Trade in services, 2016 (Millions of US dollars)

| | То | tal value | | Share in total | | |
|--|-----------------|-----------|------------------|----------------|---------|--|
| Main sectors | Exports Imports | | Trade balance | Exports | Imports | |
| Transport | 175 | 733 | -558 | 5.4 | 34 | |
| Travels | 2539 | 256 | 2283 | 78.9 | 11 | |
| Other services | 504 | 1167 | -663 | 15.7 | 54 | |
| Communications, information and information services | 128 | 81 | 47 | 4.0 | 3 | |
| Construction services | 0 | 95 | -95 | 0.0 | 4 | |
| Insurance services | 2 | 120 | -117 | 0.1 | 5 | |
| Financial services | 9 | 40 | -30 | 0.3 | 1 | |
| Royalties and license fees | 5 | 51 | -45 | 0.2 | 2 | |
| Other Business Services | 223 | 678 | -455 | 6.9 | 31 | |
| Personal, cultural and recreational services | 105 | 42 | 63 | 3.3 | 2 | |
| Government Services | 31 | 62 | -30 | 1.0 | 2 | |
| Total trade | 3218 | 2156 | 1062 | 100.0 | 100 | |

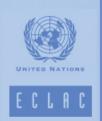






Trade with Selected Partners





Trade with Selected Partners

- Countries included in the study: the Bahamas, Costa Rica, Cuba, the Dominican Republic, Guatemala, Haiti, Honduras, Mexico, Nicaragua, and Panama
 - Accounted for 2.1% of Jamaica's total exports and 9.8% of its imports in 2016
- Variation in trade flows between these partners:
 - More exports to the Bahamas, Cuba, Mexico, the Dominican Republic, Panama and Haiti
 - Trade surpluses with only Nicaragua and Haiti
 - Imports from Mexico, 47% of which are petroleum and mineral products, contributed most to Jamaica's trade deficit with countries in the study





Trade with Selected Partners: Exports

- Agroindustry, other manufactures, non-metallic mineral products and chemical and petrochemicals are the foremost exports to the studied partners.
 - The number of products exported to these partners is low.
- Jamaica's exports to these partners are led by products such as beverages, lime, cement, inorganic chemicals (oxides and salts), disinfectants, insecticides, etc.
- Exports to Central American countries are concentrated in primary and agroindustrial products that are largely different from those exported to the United States and the European Union.



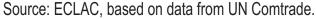


Trade with Selected Partners: Imports

 In 2016 four broad sectors represented more than 75% of Jamaica's imports with these partners: the chemical and petrochemical sector, agroindustry, other manufactures and machinery and equipment.

Jamaica: Trade with partners of interest, biennium 2015-2016

| | | Share in total | | | |
|---------------------------------|---------|----------------|---------------|---------|---------|
| Main sectors | Exports | Imports | Trade balance | Exports | Imports |
| Agricultural and livestock | 0.1 | 1.2 | -1.1 | 0.5 | 0.3 |
| Mining | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Agroindustry | 5.1 | 80.5 | -75.4 | 33.6 | 18.7 |
| Textiles, clothing and footwear | 0.1 | 12.8 | -12.7 | 8.0 | 3.0 |
| Wood and paper | 0.4 | 26.9 | -26.5 | 2.8 | 6.2 |
| Chemical and petrochemical | 1.3 | 161.7 | -160.4 | 8.4 | 37.5 |
| Non-metallic mineral products | 2.3 | 35.1 | -32.8 | 15.0 | 8.1 |
| Machinery and equipment | 1.6 | 48.6 | -47.0 | 10.5 | 11.3 |
| Other manufactures | 4.3 | 64.6 | -60.2 | 28.4 | 15.0 |
| Total | 15.3 | 431.4 | -416.1 | 100.0 | 100.0 |

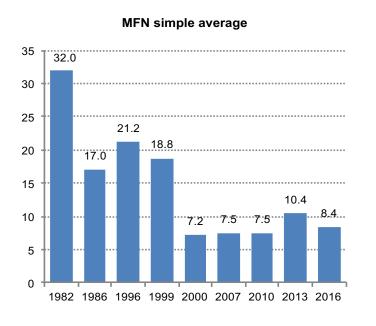


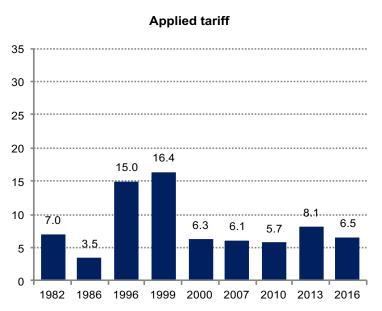


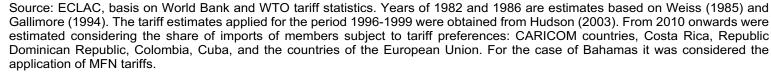


Trade with Selected Partners: Tariffs

 Tariff reform has been deepened as a result of the various trade negotiations undertaken in the last fifteen years







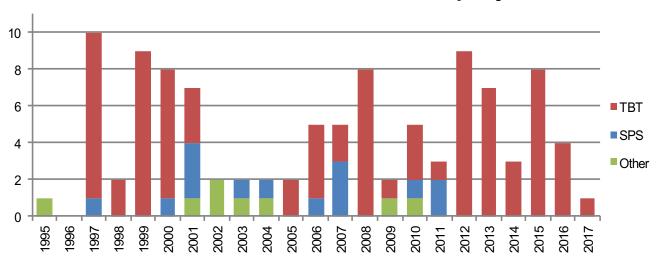




Trade with Selected Partners: NTMs

 Only six NTMs were established on a bilateral basis, with the rest affecting all countries. Only two of these notifications were a bilateral notification with respect to one of the studied countries.

Jamaica: Number of new NTMs per year



Source: ECLAC, based on data from Integrated Trade Intelligence Portal (I-TIP) from the WTO.

Notes: 1) The "Other" category includes one measure deactivating temporarily state trading enterprise (STE), a safeguard measure (SG) on cement imports and anti-dumping measures (ADP) also on cement imports from specific partners. 2) The value of 2017 correspond data up to 10-10-2017.

3) The graph displays number of new NTMs yearly according to their entry into force date, which when missing were replaced by dates as recommended by the methodology session of I-TIP/WTO.

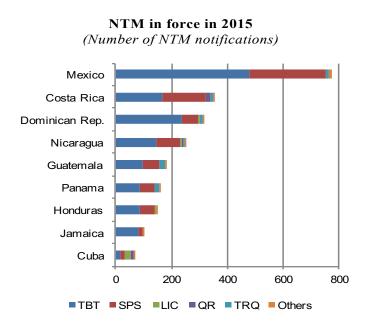




Trade with Selected Partners: NTMs

 Jamaica has issued fewer notifications to the WTO when compared to the selected partners.

NTMs imposed by Jamaica and selected partners on all members



Mexico Costa Rica Dominican Rep. Nicaragua Guatemala Panama Honduras Jamaica Cuba 0 10000 20000 30000 40000 50000

■LIC ■QR ■TRQ ■Others

Number of products affected by NTM in 2015

(Count of HS 6 digit codes in each NTM notification)





Data and Methodology





Sources of Information in the Study

 Official statistics from various national and international sources were used: Types of data that were collected include: (i) macroeconomic data; (ii) international trade data; (iii) tariff data; and (iv) household surveys.

Detailed information on the data bases used in the study

| Data bases used | Main purpose |
|--|--|
| Social Accounting Matrix of Jamaica (2007) | Calibration of a Computable General Equilibrium Model for Jamaica. |
| Foreign trade information | Analysis of Jamaica's international insertion pattern in bilateral trade with the principal countries identified in the study. |
| Tariff Data | Determination of bilateral tariffs to be used in policy simulations. |
| Employment surveys | Estimation of possible social effects of a trade policy that promotes new trade agreements with Mexico, Central America, Haiti, the Bahamas, |
| Income and spending surveys | Cuba, and the Dominican Republic. |

Source: ECLAC, own elaboration.

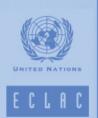




Social Accounting Matrix

- Provides the baseline for the CGE model.
- In addition, the data that complement the SAM are used as estimates for the unemployment rates by the category of work.
 Overall, this includes the following data:
 - (A) exports and imports to and from each of the countries identified in the model (UN Comtrade)
 - (B) bilateral tariffs imposed by Jamaica (TRAINS)
 - (C) bilateral tariff rates faced by Jamaica. (TRAINS)





Social Accounting Matrix

Accounts of the Social Accounting Matrix of Jamaica 2007

| Sectors | Sectors and others accounts | Sectors and others accounts |
|-------------------------------|---------------------------------|------------------------------------|
| Sectors (44) | Sectors (44) cont. | |
| Primary products (15) | Manufactures (21) cont | Distribution margins (17) |
| Sugarcane | Basic metals | domestic products |
| Banana | Machinery and equipment | imports (8) |
| Citrus | Other manufactures | exports (8) |
| Coffee and cocoa | | |
| Other export crops | Services (4) | Institutions (3) |
| Root crops (excl. ginger) | Construction | Households |
| Vegetables, corn, pulses | Trade | government |
| Other crops | Government services | Rest of the world |
| Other animal products | Other services | |
| Poultry and eggs | | |
| Agricultural services | Other sectors (4) | Capital (3) |
| Forestry and logging | industrial sup, unproc | Capital account, households |
| Fishing and aquaculture | industrial sup, proc | Capital account, government |
| Bauxite mining and alumina | machinery and equip | Capital account, rest of the world |
| Other mining | transport equipment | • |
| - | | |
| Manufactures (21) | Factors (7) | Investment (3) |
| Meat and meat products | Salaried work | Private investment |
| Fruit and vegetable products | Unpaid work | Public investment |
| Dairy | Capital | Stock Variation |
| Grain mill products | Earth | |
| Animal feeds | Forest resource | |
| Bakery | Fishing resource | |
| Sugar | Mining resource | |
| Other food | | |
| Beverages | Taxes (12) | Trade partners (8) |
| Tobacco products | Tax activities | Cuba |
| Textiles and wearing apparel | tariff (one for each 8 partner) | Haiti |
| Leather | Products Tax | Central America |
| Wood | Direct tax | Mexico |
| Paper | Bauxite tax | Dominican Republic |
| Printing and publishing | | Rest of Central America |
| Petrochemical | | Rest of CARICOM |
| Rubber and plastic | | Rest of the world |
| Non-metallic mineral products | | |





Jamaica's Productive Structure

- In 2007, the production and value-added structure of Jamaica's economy was concentrated in services:
 - Production: 75% of GDP
 - Employment: 86%
- In comparison to:
 - Manufactured goods: 15% of GDP
 - Primary products account for 11%
- The sector with the greatest relative weight is that of agroindustry (over half of all manufacturing production) followed by petrochemicals.
- Among others, the sectors of greater prominence are the activities of beverages, confectionery (bakery), meat and its products. These sectors also account for a significant proportion of the sector's employment.





Jamaica's Productive Structure

 In general the structure of production and trade between 2007 and 2016 are still quite similar.

Comparison of the structure of main macroeconomic variables of the model, 2007 vs. 2016

| | Product | ion | Exports | 3 | Imports | |
|---------------------------------|---------|-------|---------|-------|---------|-------|
| Products | 2007 | 2016 | 2007 | 2016 | 2007 | 2016 |
| Primary products | 9.7 | 8.8 | 27.2 | 13.7 | 1.5 | 1.8 |
| Agricultural and livestock | 5.5 | 6.8 | 1.4 | 1.5 | 1.4 | 1.8 |
| Bauxite mining and alumina | 4.1 | 2.0 | 25.8 | 12.2 | 0.0 | 0.0 |
| Manufactures | 8.9 | 7.9 | 17.9 | 13.5 | 79.7 | 67.1 |
| Agroindustry | 4.7 | | 5.2 | 5.7 | 8.5 | 11.2 |
| Textiles, clothing and footwear | 0.1 | | 0.1 | 0.1 | 2.6 | 1.9 |
| Wood and paper | 0.9 | | 0.2 | 0.2 | 4.8 | 3.1 |
| Petrochemical | 1.8 | | 11.9 | 4.2 | 28.1 | 19.0 |
| Rubber and plastic | 0.3 | | 0.1 | 0.3 | 2.0 | 3.4 |
| Non-metallic mineral products | 0.6 | | 0.0 | 0.4 | 1.8 | 1.6 |
| Machinery and equipment | 0.5 | | 0.3 | 1.5 | 19.7 | 12.7 |
| Other manufactures | 0.0 | ••• | 0.1 | 1.2 | 12.2 | 14.2 |
| Services | 81.4 | 83.3 | 54.9 | 72.8 | 18.8 | 31.1 |
| Construction | 8.3 | 6.6 | | | 0.1 | 1.4 |
| Trade | 16.5 | 16.1 | | | | |
| Government services | 12.9 | 11.8 | 0.0 | 0.7 | 0.1 | 0.9 |
| Other services | 43.7 | 48.8 | 54.9 | 72.1 | 18.7 | 28.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: ECLAC, based on the Social Accounting Matrix of Jamaica 2007, information from UN Comtrade, and information obtained from the Statistical Institute of Jamaica for the year 2016 Note: In the case of production, the two bases used are in constant currency of 2007. In the case of exports and imports, the source used reported the information in current US dollars.



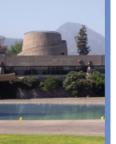


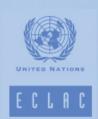
Foreign Trade Data

 Exports to the countries in the study have increased from 1.0% to 2.0% between the model baseline and 2016 while these countries' share of Jamaica's imports have increased by more than 5 percentage points between 2007 and 2016

Jamaica: Pattern of goods trade with main trade partners, 2007, 2015 and 2016

| Countries | Ехр | orts (Share in t | otal) | Imports (Share in total) | | | |
|--------------------|-------|------------------|-------|--------------------------|-------|-------|--|
| Countries | 2007 | 2015 | 2016 | 2007 | 2015 | 2016 | |
| Selected countries | 1.0 | 1.1 | 2.0 | 4.6 | 7.5 | 10.2 | |
| Bahamas | 0.1 | 0.1 | 0.3 | 0.0 | 0.6 | 0.6 | |
| Haiti | 0.0 | 0.1 | 0.4 | 0.0 | 0.0 | 0.0 | |
| Cuba | 0.3 | 0.1 | 0.1 | 0.2 | 0.0 | 0.1 | |
| Dominican Republic | 0.2 | 0.1 | 0.1 | 0.6 | 1.2 | 1.6 | |
| Central American | 0.2 | 0.3 | 0.5 | 2.2 | 3.0 | 3.8 | |
| Mexico | 0.2 | 0.4 | 0.6 | 1.5 | 2.6 | 4.1 | |
| Rest of CARICOM | 2.6 | 4.9 | 8.1 | 17.7 | 24.0 | 10.3 | |
| South America | 0.1 | 1.2 | 0.5 | 14.9 | 11.3 | 7.5 | |
| Canada | 15.0 | 15.5 | 12.6 | 2.0 | 1.9 | 1.8 | |
| United States | 37.2 | 39.6 | 43.4 | 40.4 | 37.5 | 39.5 | |
| European Union | 26.2 | 8.8 | 7.8 | 6.0 | 7.8 | 9.0 | |
| Rest of the World | 18.0 | 29.0 | 25.8 | 14.4 | 10.6 | 22.5 | |
| World | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |





Household Surveys on Employment and Spending

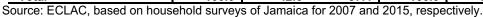
- Two fundamental sources of information from STATIN are used which are complemented with the results of the CGE model to measure the socioeconomic impact of FTAs
 - 1. Labor Force Surveys to measure employment effects
 - 2. Survey of Living Conditions to capture the effect on prices

Jamaica: Employment 2007 and 2015

(Employment numbers and percentages)

| | 2007 (1,155,387 employments) | | | | 20 | 15 (1,139,46 | 7 employmer | nts) |
|---------------------------------|------------------------------|------|-------|-------|----------------|--------------|-------------|-------|
| | Share of total | men | women | total | Share of total | men | women | Total |
| Agricultural and livestock | 17.8 | 19.7 | 80.3 | 100.0 | 17.6 | 20.3 | 79.7 | 100 |
| Bauxite mining and alumina | 0.8 | 9.5 | 90.5 | 100.0 | 0.6 | 5.4 | 94.6 | 100 |
| Agroindustry | 2.1 | 31.5 | 68.5 | 100.0 | 2.2 | 30.3 | 69.7 | 100 |
| Textiles, clothing and footwear | 1.7 | 81.2 | 18.8 | 100.0 | 0.9 | 71.6 | 28.4 | 100 |
| Wood and paper | 0.5 | 56.2 | 43.8 | 100.0 | 0.5 | 15.3 | 84.7 | 100 |
| Petrochemical | 0.0 | | | | 0.1 | 35.6 | 64.4 | 100 |
| Rubber and plastic | 0.1 | 39.5 | 60.5 | 100.0 | 0.1 | 46.2 | 53.8 | 100 |
| Non-metallic mineral products | 0.2 | 12.6 | 87.4 | 100.0 | 0.2 | 0.0 | 100.0 | 100 |
| Machinery and equipment | 0.9 | 5.6 | 94.4 | 100.0 | 0.7 | 5.0 | 95.0 | 100 |
| Other manufactures | 1.5 | 7.1 | 92.9 | 100.0 | 1.3 | 13.7 | 86.3 | 100 |
| Construction | 10.4 | 5.3 | 94.7 | 100.0 | 7.4 | 2.4 | 97.6 | 100 |
| Government services | 4.7 | 49.6 | 50.4 | 100.0 | 5.3 | 47.5 | 52.5 | 100 |
| Other services | 59.2 | 56.7 | 43.3 | 100.0 | 63.3 | 55.0 | 45.0 | 100 |
| Total | 100.0 | 42.6 | 57.4 | 100.0 | 100.0 | 42.7 | 57.3 | 100 |







Methodologies

- Index of Revealed comparative advantage: The import needs
 of the countries in the study (IRCA of imports) are compared
 with the export potential of Jamaica (IRCA of exports).
- Computable General Equilibrium Model: Simulates the macroeconomic effects of FTAs with the selected partners.
- Microsimulations: Estimate welfare effects using the results of the CGE macroeconomic model to generate a vector of prices and employment variables by sector corresponding to the effect of future liberalization.





Modeled Scenarios

- **0. BASELINE SCENARIO (business as usual).** This scenario shows the evolution of Jamaica's economy from 2007 to 2020. The 2017-2020 projection assumes that no shock impacts Jamaica.
 - Constructed by imposing the observed growth of the Jamaican economy and for the period 2017-2020 uses projections obtained from the International Monetary Fund's World Economic Outlook (2.5% per annum)
- Other assumptions to the baseline scenario:
 - Government expenditures and revenues remain constant relative to GDP for the entire simulation period of the model.
 - Both macroeconomic aggregates and sectoral value added grow at similar rates throughout the baseline scenario.
 - The growth rate of the agricultural sector is somewhat lower, since its supply is constrained by the rate of growth of available agricultural land.





Modeled Scenarios

- 1. Scenario: trade agreement with the Dominican Republic;
- 2. Scenario: trade agreement with Haiti;
- 3. Scenario: trade agreement with the Bahamas;
- 4. Scenario: trade agreement with Cuba;
- 5. Scenario: trade agreement with Mexico; and
- 6. Scenario: trade agreement with Central America.





Results





Modeled Scenarios: Northern Caribbean Countries

 The results presented below must be interpreted in relative terms, rather than as precise estimates of the effects of each of the scenarios analyzed.

Jamaica: aggregated macroeconomic results in real terms for the scenarios of the Caribbean countries

(percentage changes with respect to the baseline scenario)

| Macroeconomic aggregates | FTA with Dominican Republic | | FTA wit | TA with Haiti | | FTA with the Bahamas | | FTA with Cuba | |
|--------------------------|-----------------------------------|------|---------|---------------|------|-------------------------|------|---------------|--|
| | 2017 | 2020 | 2017 | 2020 | 2017 | 2020 | 2017 | 2020 | |
| Private consumption | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Government consumption | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Private investment | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | |
| Public investment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Stock Variation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Exports | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | |
| Imports | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | |
| GDP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

Source: ECLAC, based on simulations of CGE model calibrated for Jamaica.

- The results of the simulations with Northern Caribbean countries do not substantially change the growth path that Jamaica would observe in a similar scenario in which no trade agreements are signed.
- The most substantial changes are in the variable private investment for free trade agreements with the Dominican Republic and Cuba.





Modeled Scenarios: Mexico and Central America

 The trade integration scenarios with Mexico and Central America show more significant changes than those of the Caribbean, though the effects are still small.

Jamaica: aggregated macroeconomic results in real terms for the scenarios of FTAs with Mexico and Central America

(percentage changes with respect to the baseline scenario)

| Macroeconomic aggregates | FTA Mex | | FTA with Central America | | |
|--------------------------|------------|------|--------------------------------|------|--|
| | 2017 | 2020 | 2017 | 2020 | |
| Private consumption | 0.00 | 0.00 | 0.01 | 0.01 | |
| Government consumption | 0.00 | 0.00 | 0.00 | 0.00 | |
| Private investment | 0.04 | 0.06 | 0.03 | 0.05 | |
| Public investment | 0.00 | 0.00 | 0.00 | 0.00 | |
| Exports | 0.02 | 0.02 | 0.17 | 0.18 | |
| Imports | 0.02 | 0.03 | 0.10 | 0.10 | |
| GDP | 0.00 | 0.01 | 0.03 | 0.03 | |

Source: ECLAC, based on simulations of CGE model calibrated for Jamaica.



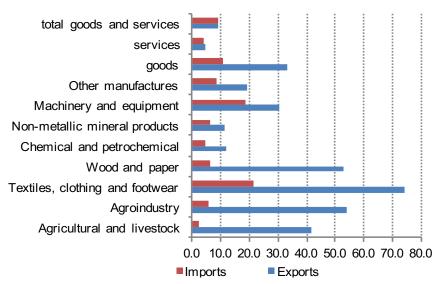


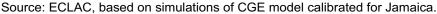
Sectoral Results

- The largest absolute increase in trade would be in the machinery and equipment sector.
 - The import of capital goods at lower prices could boost manufacturing capacity.

Jamaica: aggregated macroeconomic results in real terms for the scenarios of the Caribbean countries

(percentage changes with respect to the baseline scenario)









Sectoral Results: Value Added

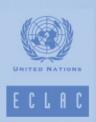
Total sectoral value-added in real terms, 2017-2020

(percentage changes with respect to the baseline scenario)

| Sectors | Base year 2017 (millions J\$) | Share in total | Dominican Republic | Haiti | Bahamas | Cuba | Mexico | Central America |
|---------------------------------|----------------------------------|-------------------|-----------------------|---------------|---------|------------------------------|-----------------------------------|--------------------|
| Agricultural and livestock | 40614 | 5.5 | -0.01 | -0.03 | 0.00 | -0.01 | -0.03 | -0.06 |
| Bauxite mining and alumina | 31533 | 4.3 | 0.01 | 0.00 | -0.01 | 0.00 | 0.00 | 0.17 |
| Foods | 24416 | 3.3 | 0.00 | -0.02 | 0.01_ | 0_00 | 0_02 | 0.07 |
| Beverage | 10300 | 1.4 | 0.02 | 0.42 | 0.03 | -0.01 | 0.42 | 0.12 |
| Tobacco products | 3 | 0.0 | -0.01 | -0.04 | -0.01 | -0.01 | -0.04 | 0.26 |
| Textiles, clothing and footwear | 779 | 0.1 | -0.01 | -0.02 | 0.19 | 0.01 | -0.02 | -0.01 |
| Wood and paper | 6449 | 0.9 | -0.02 | -0.02 | 0.06 | 0.00 | -0.02 | -0.11 |
| Petrochemical | 13047 | 1.8 | 0.00 | -0.01 | 0.02 | 0.05 | -0.01 | 0.03 |
| Rubber and plastic | 1917 | 0.3 | -0.03 | 0.01 | 0.01 | 0.03 | 0.01 | -0.13 |
| Non-metallic mineral products | 4508 | 0.6 | -0.11 | 0.03 | 0.10 | 0.00 | 0.03 | -0.36 |
| Base metal products | 2249 | 0.3 | 0.01 | 0.00 | 0.00 | 0.03 | 0.00 | -0.05 |
| Machinery and equipment | 1795 | 0.2 | 0.01 | -0.0 <u>6</u> | 0.00_ | - 0 .1 3 - | - -0 .0 6 - | 0.06 |
| Other manufactures | 326 | 0.0 | 0.01 | -0.02 | 0.22 | -0.01 | -0.02 | 0.25 |
| Construction | 61436 | 8.3 | 0.01 | 0.04 | 0.00 | 0.00 | 0.04 | 0.04 |
| Trade | 122521 | 16.6 | 0.01 | 0.04 | 0.01 | 0.01 | 0.04 | 0.08 |
| Government services | 95736 | 12.9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 |
| Other services | 324294 | 43.8 | 0.00 | -0.01 | 0.00 | 0.00 | -0.01 | 0.03 |
| Total Value Added | 741922 | 100.0 | 0.00 | 0.01 | 0.00 | 0.00 | 0.01 | 0.03 |

Source: ECLAC, based on simulations of CGE model calibrated for Jamaica.





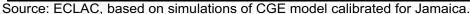
Sectoral Results: Value Added

 Many of the increases in value added translate into an increase of total exports, which are positive throughout the basket of exports.

Total sectoral exports in real terms

(percentage changes with respect to the baseline scenario)

| Sectors | Base year 2017 (millions J\$) | Share in total | Dominican Republic | Haiti | Bahamas | Cuba | Mexico | Central America |
|---------------------------------|-------------------------------------|-------------------|-----------------------|-------|---------|-------|--------|--------------------|
| Agricultural and livestock | 4942 | 1.4 | 0.02 | 0.00 | -0.01 | -0.02 | -0.04 | 0.18 |
| Bauxite mining and alumina | 90191 | 25.8 | 0.01 | 0.00 | -0.01 | 0.00 | -0.01 | 0.18 |
| Foods | 11508 | 3.3 | 0.04 | 0.01 | 0.04 | -0.02 | -0.05 | 0.26 |
| Beverage | 6789 | 1.9 | 0.07 | 0.00 | 0.13 | 0.02 | 1.88 | 0.68 |
| Tobacco products | 2 | 0.0 | 0.02 | 0.00 | -0.04 | -0.03 | -0.09 | 3.32 |
| Textiles, clothing and footwear | 242 | 0.1 | 0.01 | 0.00 | 1.72 | 0.17 | -0.01 | 0.23 |
| Wood and paper | 587 | 0.2 | 0.04 | 0.00 | 1.61 | -0.01 | 0.00 | 0.24 |
| Petrochemical | 41519 | 11.9 | 0.01 | 0.00 | 0.01 | 0.08 | -0.01 | 0.12 |
| Rubber and plastic | 330 | 0.1 | 0.00 | 0.00 | 1.32 | 0.49 | 0.11 | 0.89 |
| Non-metallic mineral products | 40 | 0.0 | -0.01 | 0.00 | 0.04 | 0.14 | 0.01 | 0.62 |
| Base metal products | 964 | 0.3 | 0.02 | 0.00 | -0.02 | 0.15 | 0.03 | 0.13 |
| Machinery and equipment | 243 | 0.1 | 0.02 | 0.00 | -0.02 | 5.00 | -0.04 | 0.22 |
| Other manufactures | 192 | 0.1 | 0.04 | 0.03 | 0.77 | 1.27 | -0.02 | 1.32 |
| Government | 14 | 0.0 | 0.01 | 0.00 | -0.01 | -0.01 | -0.03 | 0.10 |
| Other services | 192059 | 54.9 | 0.02 | 0.00 | -0.02 | 0.00 | -0.01 | 0.17 |
| Total exports | 349621 | 100.0 | 0.02 | 0.00 | 0.00 | 0.01 | 0.02 | 0.18 |







Sectoral Results: Value Added

 This is because there is a group of sectors that also register increases in their imports from Central America, especially in manufacturing, and benefit for their part from lower prices after liberalization with Jamaica.

Total sectoral imports in real terms

(percentage changes with respect to the baseline scenario)

| Sectors | Base year 2017 (millions J\$) | Share in total | Dominican Republic | Haiti | Bahamas | Cuba | Mexico | Central America |
|---------------------------------|-------------------------------------|-------------------|-----------------------|-------|---------|-------|--------|--------------------|
| Agricultural and livestock | 7861 | 1.4 | -0.02 | 0.00 | 0.01 | 0.00 | -0.02 | -0.13 |
| Bauxite mining and alumina | 114 | 0.0 | -0.08 | 0.00 | 0.01 | -0.05 | 0.06 | -0.29 |
| Foods | 39650 | 7.3 | 0.05 | 0.00 | 0.01 | 0.00 | 0.01 | 0.36 |
| Beverage | 5982 | 1.1 | -0.01 | 0.00 | 0.00 | -0.01 | 0.03 | 0.02 |
| Tobacco products | 576 | 0.1 | -0.02 | 0.00 | 0.00 | -0.01 | -0.04 | -0.22 |
| Textiles, clothing and footwear | 14202 | 2.6 | -0.01 | 0.00 | 0.01 | 0.00 | -0.01 | 1.70 |
| Wood and paper | 25893 | 4.8 | 0.12 | 0.00 | 0.01 | 0.00 | 0.09 | 0.39 |
| Petrochemical | 152709 | 28.1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 |
| Rubber and plastic | 10786 | 2.0 | 0.04 | 0.00 | 0.01 | 0.00 | 0.06 | 0.20 |
| Non-metallic mineral products | 9797 | 1.8 | 0.18 | 0.00 | 0.02 | 0.15 | 0.14 | 0.62 |
| Base metal products | 12228 | 2.3 | 0.01 | 0.00 | 0.01 | 0.02 | 0.05 | 0.07 |
| Machinery and equipment | 94558 | 17.4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other manufactures | 66324 | 12.2 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| Construction | 330 | 0.1 | -0.04 | 0.00 | 0.01 | 0.00 | 0.04 | -0.17 |
| Government | 372 | 0.1 | -0.01 | 0.00 | 0.01 | 0.01 | 0.02 | -0.09 |
| Other services | 101194 | 18.7 | -0.02 | 0.00 | 0.01 | 0.00 | 0.00 | -0.16 |
| Total imports | 542575 | 100.0 | 0.01 | 0.00 | 0.01 | 0.01 | 0.03 | 0.10 |

Source: ECLAC, based on simulations of CGE model calibrated for Jamaica.

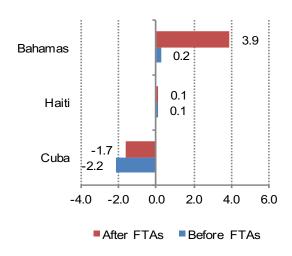


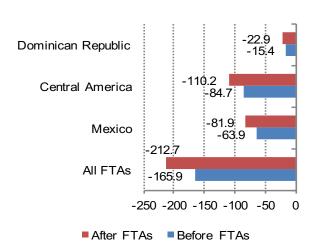


Bilateral Results

- Signing FTAs with all of the countries in the study would expand both Jamaica's exports and imports with a greater absolute impact on the volume of imports.
- Total exports of goods and services would be expected to grow by 21.8 million US dollars per year during the simulated period over what would otherwise be expected while imports of goods and services would be expected to grow by 70.8 million US dollars.

Net absolute annual impact of FTAs on bilateral trade balances (in millions of US dollars)





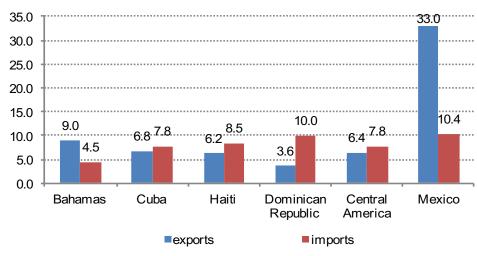




Bilateral Results

- The percentage growth in both exports and imports of goods and services is anticipated to be greatest in the case of a free trade agreement with Mexico.
- The percentage growth in exports with respect to the baseline scenario is expected to be greater than the growth in imports in the case of the Bahamas as well, but for the other countries in the study, the percentage growth in imports is anticipated to outweigh export growth.

Changes in Bilateral Exports and Imports by Partner from FTAs (percentage changes with respect to the baseline scenario)





Source: ECLAC, based on simulations of CGE model calibrated for Jamaica.

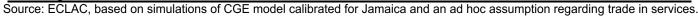


Bilateral Results: Cuba

- Expected 18% increases in Jamaica's exports of goods to Cuba and 9% in imports
- While absolute growth potential for exports to Cuba are highest in chemical and petrochemical products, with anticipated increases of 16%, increases are also expected to occur in manufactures, mainly machinery and equipment

Jamaica: bilateral trade in the scenario with a FTA with Cuba (in millions of US dollars and percentage changes with respect to the baseline scenario)

| | Baseline v | /alues, millions | of US dollars | changes in p | percentages | | |
|---------------------------------|------------|------------------|---------------|--------------|-------------|--|--|
| Sectors | | (2007) | | (2017- | (2017-2020) | | |
| | exports | imports | trade balance | exports | Imports | | |
| Agricultural and livestock | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | | |
| Bauxite mining and alumina | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Agroindustry | 0.2 | 0.1 | 0.2 | 1.0 | 24.0 | | |
| Textiles, clothing and footwear | 0.0 | 0.0 | 0.0 | 53.0 | 30.4 | | |
| Wood and paper | 0.0 | 0.1 | -0.1 | 0.0 | 0.8 | | |
| Chemical and petrochemical | 2.4 | 2.4 | 0.0 | 16.1 | 17.2 | | |
| Non-metallic mineral products | 0.0 | 2.4 | -2.4 | 7.4 | 0.1 | | |
| Machinery and equipment | 0.5 | 0.5 | 0.0 | 31.2 | 8.7 | | |
| Other manufactures | 0.1 | 0.0 | 0.1 | 27.9 | 0.0 | | |
| Goods | 3.3 | 5.5 | -2.2 | 18.4 | 9.2 | | |
| Services | 20.6 | 2.2 | 18.4 | 4.9 | 4.3 | | |
| Total goods and services | 23.9 | 7.7 | 16.2 | 6.8 | 7.8 | | |





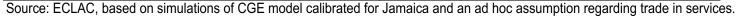


Bilateral Results: Haiti

- Goods exports are expected to increase by 12.3% and boost goods imports by 5.4%.
 - Opportunities to increase exports in agribusiness (food preparations, cheese, non-alcoholic beverages, alcoholic beverages, animal feeding), and the chemical and petrochemical sector, including rubber and plastics.
- Haiti accounts for only 0.4% of Jamaican exports (US\$ 4.3 million), and less than 0.1% of total imports.

Jamaica: bilateral trade in the scenario with a FTA with Haiti (in millions of US dollars and percentage changes with respect to the baseline scenario)

| Sectors | Baseline v | Baseline values, millions of US dollars (2007) | | | | |
|---------------------------------|------------|--|---------------|---------|---------|--|
| | exports | imports | trade balance | exports | imports | |
| Agricultural and livestock | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Bauxite mining and alumina | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Agroindustry | 0.1 | 0.0 | 0.0 | 17.5 | 0.0 | |
| Textiles, clothing and footwear | 0.0 | 0.0 | 0.0 | 0.0 | 29.4 | |
| Wood and paper | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Chemical and petrochemical | 0.1 | 0.0 | 0.1 | 8.4 | 12.8 | |
| Non-metallic mineral products | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 | |
| Machinery and equipment | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 | |
| Other manufactures | 0.0 | 0.0 | 0.0 | 18.6 | 0.0 | |
| Goods | 0.1 | 0.1 | 0.0 | 12.3 | 5.4 | |
| Services | 0.7 | 0.0 | 0.6 | 4.9 | 4.3 | |
| Total goods and services | 0.8 | 0.2 | 0.6 | 6.2 | 5.1 | |





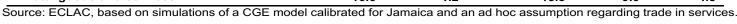


Bilateral Results: the Bahamas

- Would be expected to increase goods exports by 61.0% over the baseline scenario.
- Growth opportunities in the chemical and petrochemical, wood and paper, and agroindustry sub-sectors

Jamaica: bilateral trade in the scenario with a FTA with the Bahamas (in millions of US dollars and percentage changes with respect to the baseline scenario)

| Sectors | Baseline v | alues, millions/ (2007) | of US dollars | changes in percentages (2017-2020) | | |
|---------------------------------|------------|----------------------------|---------------|---------------------------------------|---------|--|
| | exports | imports | trade balance | Exports | imports | |
| Agricultural and livestock | 0.0 | 0.0 | 0.0 | 100.7 | 0.0 | |
| Bauxite mining and alumina | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Agroindustry | 0.3 | 0.0 | 0.3 | 77.0 | 0.0 | |
| Textiles, clothing and footwear | 0.1 | 0.1 | -0.1 | 78.0 | 0.2 | |
| Wood and paper | 0.3 | 0.0 | 0.3 | 62.2 | 0.0 | |
| Chemical and petrochemical | 0.5 | 0.1 | 0.4 | 39.2 | 11.9 | |
| Non-metallic mineral products | 0.0 | 0.6 | -0.6 | 106.4 | 3.8 | |
| Machinery and equipment | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | |
| Other manufactures | 0.0 | 0.1 | -0.1 | 109.4 | 5.9 | |
| Goods | 1.2 | 1.0 | 0.2 | 61.0 | 4.5 | |
| Services | 15.4 | 0.3 | 15.1 | 4.9 | 4.3 | |
| Total goods and services | 16.6 | 1.2 | 15.3 | 9.0 | 4.5 | |





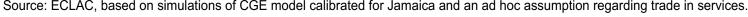


Bilateral Results: the Dominican Republic

- Goods exports from Jamaica to the Dominican Republic would be expected to grow by 1.0% compared to 12.0% import growth from the Dominican Republic.
- Jamaica's incremental export earnings would come from sectors in which it has a comparative advantage, mainly in agroindustry products.
 - Potential gains in fruits and vegetables, bakery products, sugar, as well as in the beverage industry

Jamaica: bilateral trade in the scenario with a FTA with the Dominican Republic (in millions of US dollars and percentage changes with respect to the baseline scenario)

| Sectors | Baseline v | Baseline values, millions of US dollars (2007) | | | | |
|---------------------------------|------------|--|---------------|---------|---------|--|
| | exports | imports | trade balance | exports | imports | |
| Agricultural and livestock | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | |
| Bauxite mining and alumina | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Agroindustry | 0.3 | 4.3 | -3.9 | 8.9 | 11.2 | |
| Textiles, clothing and footwear | 0.0 | 0.3 | -0.3 | 0.0 | 7.5 | |
| Wood and paper | 0.0 | 4.9 | -4.9 | 0.0 | 16.5 | |
| Chemical and petrochemical | 2.8 | 3.0 | -0.2 | 0.0 | 6.3 | |
| Non-metallic mineral products | 0.0 | 3.1 | -3.1 | 0.0 | 16.2 | |
| Machinery and equipment | 0.0 | 2.6 | -2.6 | 0.0 | 5.3 | |
| Other manufactures | 0.1 | 0.5 | -0.4 | 0.0 | 12.3 | |
| Goods | 3.2 | 18.7 | -15.4 | 1.0 | 12.0 | |
| Services | 6.6 | 6.5 | 0.1 | 4.9 | 4.3 | |
| Total goods and services | 9.9 | 25.2 | -15.3 | 3.6 | 10.0 | |





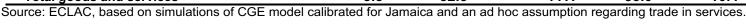


Bilateral Results: Mexico

- Would expand Jamaica's exports of goods to Mexico by 61.5% over the baseline scenario.
- The sectors that stand to benefit the most are those linked to Jamaica's dominant comparative advantages: agroindustrial and petrochemical products.
 - Among agroindustrial sub-sectors, the highest anticipated increases are in beverages (62%), and among manufacturers, petrochemical (36%), and rubber and plastic (46%)

Jamaica: bilateral trade in the scenario with a FTA with Mexico (in millions of US dollars and percentage changes with respect to the baseline scenario)

| | Baseline v | /alues, millions | of US dollars | changes in percentages | |
|---------------------------------|------------|------------------|---------------|------------------------|---------|
| Sectors | | (2007) | | (2017- | -2020) |
| | exports | imports | trade balance | exports | imports |
| Agricultural and livestock | 0.0 | 0.4 | -0.4 | 0.0 | 0.1 |
| Bauxite mining and alumina | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Agroindustry | 2.6 | 1.9 | 0.6 | 61.8 | 7.8 |
| Textiles, clothing and footwear | 0.0 | 0.1 | -0.1 | 0.0 | 26.8 |
| Wood and paper | 0.0 | 4.8 | -4.8 | 0.0 | 11.2 |
| Chemical and petrochemical | 0.0 | 16.7 | -16.7 | 36.0 | 1.4 |
| Non-metallic mineral products | 0.0 | 1.8 | -1.8 | 46.0 | 8.8 |
| Machinery and equipment | 0.0 | 25.5 | -25.5 | 19.6 | 20.0 |
| Other manufactures | 0.0 | 15.2 | -15.2 | 0.0 | 8.6 |
| Goods | 2.6 | 66.5 | -63.9 | 61.5 | 11.8 |
| Services | 2.6 | 15.8 | -13.2 | 4.9 | 4.3 |
| Total goods and services | 5.3 | 82.3 | -77.1 | 33.0 | 10.4 |







Bilateral Results: Central America

- The FTA with the countries of Central America shows the largest potential increases in trade flows, mainly exports.
- Good exports expected to increase by 31% and imports by 9.5%.
- Agroindustry and textiles show large increases from fairly low levels of trade.
 - The largest expected expansion is mainly in agroindustrial products that the subregion consumes and is not necessarily able to self-provide → high growth potential.

Jamaica: bilateral trade in the scenario with a FTA with Central America (in millions of US dollars and percentage changes with respect to the baseline scenario)

| Sectors | Baseline v | Baseline values, millions of US dollars (2007) | | | | |
|---------------------------------|------------|--|---------------|---------|---------|--|
| | exports | imports | trade balance | exports | imports | |
| Agricultural and livestock | 0.0 | 0.6 | -0.6 | 0.0 | 3.9 | |
| Bauxite mining and alumina | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Agroindustry | 0.3 | 21.4 | -21.1 | 65.1 | 4.2 | |
| Textiles, clothing and footwear | 0.0 | 15.8 | -15.8 | 38.0 | 22.0 | |
| Wood and paper | 0.1 | 13.9 | -13.8 | 1.5 | 0.7 | |
| Chemical and petrochemical | 0.4 | 9.7 | -9.4 | 17.9 | 5.9 | |
| Non-metallic mineral products | 0.0 | 10.0 | -10.0 | 0.0 | 4.4 | |
| Machinery and equipment | 0.0 | 8.9 | -8.9 | 2.0 | 18.3 | |
| Other manufactures | 0.3 | 5.3 | -5.0 | 6.9 | 9.0 | |
| Goods | 1.0 | 85.6 | -84.7 | 31.0 | 9.5 | |
| Services | 15.3 | 40.8 | -25.5 | 4.9 | 4.3 | |
| Total goods and services | 16.3 | 126.5 | -110.2 | 6.4 | 7.8 | |



Source: ECLAC, based on simulations of CGE model calibrated for Jamaica and an ad hoc assumption regarding trade in services.



Revealed Comparative Advantage Analysis: Caribbean

Jamaica: Sectors and products with positive RCA in the Caribbean market (products with RCA > 0.33 in imports of the trade partner)

| Products with RCA > 0.33 | Bahamas | Cuba | Haiti | Dominican Republic |
|---|---------|------|-------|-----------------------|
| Selected Agricultural products and agroindustry products (food and beverage) | | | | |
| Papaws (papayas), fresh (080720) | Х | | X | |
| Pepper of the genus Piper, crushed or ground (090412); Meat, meat offal and blood, prepared or preserved, nes (160290) | х | X | | х |
| Cocoa powder, sweetened (180610); Tomato ketchup and other tomato sauces (210320) | Х | Х | Х | Х |
| Infant foods of cereals, flour, starch or milk, retail (190110); Single fruit, veg juice nes, not fermented or spirited (200980); Mixtures of juices not fermented or spirited (200990); Rum and tafia (220840) | | | х | × |
| Sweet biscuits, waffles and wafers (190530); Soups and broths and preparations thereof (210410); Protein concentrates and te1tured protein substances (210610); Vodka (220860); Animal feed preparations nes (230990) | | х | | × |
| Sauces nes, mixed condiments, mixed seasoning (210390); Fermented beverages nes (eg cider, perry, mead, etc) (220600) | | Х | X | į |
| Vermouth and other flavoured grape wines - pack > 2l (220590); Salt (sodium chloride) including solution, salt water (250100) | Х | | | Х |
| Selected chemical and petrochemical products | | | | |
| Cement clinkers (252310) | | | X | Х |
| Portland cement, other than white cement (252329) | Х | | X | |
| Petroleum oils&oils obta (271000) | Х | | | Х |
| Resinoids (330130) | | Х | Х | |
| Soaps, for toilet use, solid (340111) | Х | Х | Х | Х |
| Soaps for purposes other than toilet soap, solid (340119) | Х | Х | X | |
| Selected machinery and equipment products | | | | |
| Containers for compressed/liquefied gas, iron or steel (731100) | Х | Х | | |
| Electrodes, coated, of base metal, for arc welding (831110) | | Х | Х | |
| Construction equipment, not self-propelled nes (843069) | Х | | X | |
| Welding machinery not gas-operated (846880) | Х | X | | |
| Office duplicating machines (847210) | | Х | | Х |
| Cinematographic cameras for film >16mm wide (900719) Source: ECLAC based on an analysis of IRCA. | | Х | Х | |



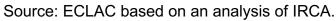


Revealed Comparative Advantage Analysis: Mexico and Central America

Jamaica: Sectors and products with positive RCA in the Mexican and Central American market

(products with RCA > 0.33 in imports of the trade partner)

| , | | • | | , | | | |
|---|--------|------------|-------------|-----------|----------|-----------|--------|
| Products with RCA > 0.33 | Mexico | Costa Rica | El Salvador | Guatemala | Honduras | Nicaragua | Panama |
| Selected Agricultural products | | | | | | | |
| Beans, small red (Adzuki) dried, shelled (071332); Pepper of the genus Piper, crushed or ground (090412); Papaws (papayas), fresh (080720) | | | | | | Х | Х |
| Selected agroindustry products (food and beverage) | | | | | | | |
| Cereal foods, roasting of cereal (190410); maize (corn) groats or meal (110313); Caramel and artificial honey (170290); Mixed condiments, mixed seasoning (210390); tomato ketchup and other tomato sauces (210320); soups and broths and preparations thereof (210410); Non-alcoholic beverages (220290); Cofee extracts, essence (210111); Wheat of meslin flour (110100); Protein concentrates (210610); Fruit, edible plants prepared/preserved (200899); Sweet biscuits, waffles and wafers (190530); Infant foods of cereals (190110); Communion wafers, rice paper (190590); Beer made from malt (220300); Vermouth and other flavoured grape wines pack>21 (220590); Rum and tafia (220840); Animal feed preparations (230990). | x | x | | × | × | x | X |
| Single fruits, vegetable juice fruits (200980); Beverage waters, sweetened or flavoured (220210); Cocoa powder, sweetened (180610); Vodka (220860) | | | | | Х | х | |
| Soya sauce (210310); Cheese except fresh, grated, processed or blue-veined (040690); Grapefruit juice, not fermented or spirited (200920); Alcoholic liqueurs nes (220890) | | | | | | | Х |
| Selected chemical and petrochemical products | | | | | | | |
| Cement clinkers (252310); Soap for purposes other than toiled soap, solid (340119); Soap for toilet use, solid (340111) Petroleum oils (271000) | | Х | | Х | Х | Х | Х |
| Portland cement, other than white cement (252329); Ice snow and potable water not sweetened or flavoured (220190) | | | | | | х | |
| Powders, for skin care and make-up (330491); Bituminous mix, mastic from asphalt (271500) | | | | | | | Х |



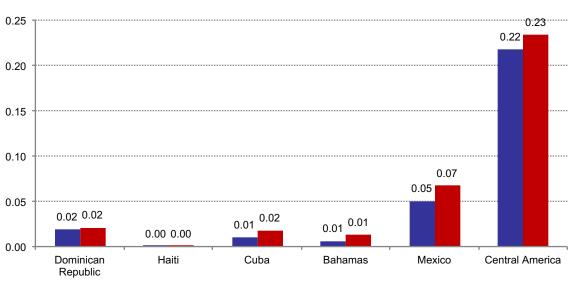




Socioeconomic Results: Effects on Wages

 The increase in wages for both salaried and non-salaried employees is greatest in the case of an FTA with Central America, though in none of the cases are the changes greater than 1%.

Jamaica, changes in wages in every scenario simulated (Percentage changes with respect to the baseline scenario)







Socioeconomic Results: Effects of prices on households spending

- In general, the effect of the change in prices on spending is limited but negative.
- The most negative effects occur in the agreement with Central America.
 - The effects are regressive since the lower quintiles are more affected due to the fact that the prices most impacted are food prices.

Change in expenditure level over the baseline scenario

| Quintiles | Central America | Mexico | Cuba | Bahamas | Haiti | Dominican Republic | |
|-----------|-----------------|--------|--------|---------|-------|--------------------|--|
| 1 | -0.29% | 0.03% | 0.01% | 0.01% | 0.00% | -0.10% | |
| 2 | -0.24% | 0.02% | 0.00% | 0.00% | 0.00% | -0.05% | |
| 3 | -0.28% | 0.01% | 0.00% | 0.00% | 0.00% | -0.04% | |
| 4 | -0.23% | 0.01% | 0.00% | 0.00% | 0.00% | -0.02% | |
| 5 | -0.12% | -0.02% | -0.01% | 0.00% | 0.00% | 0.00% | |

Source: ECLAC, based on the output of the CGE model and the microsimulation model.



 The positive effects are concentrated in the scenario of an agreement with Mexico and are progressive, meaning the foremost beneficiaries are the poorest, although the effect is much smaller.

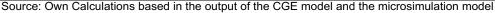


Socioeconomic Results: Effects on Employment

• In terms of employment, the results are generally positive. The aggregate results generate an increase in employment in all scenarios except in the scenario of an agreement with Central America.

Change in the sectoral employment with respect to the baseline scenario

| No | Sector | Dominican Rep. | Haiti | Bahamas | Cuba | Mexico | Central America | |
|----|---------------------------------|-------------------|--------|---------|--------|--------|--------------------|--|
| 1 | Agricultural and livestock | 0.01% | 0.00% | 0.02% | 0.01% | 0.03% | 0.14% | |
| 2 | Bauxite mining and alumina | -0.02% | 0.00% | -0.02% | 0.01% | 0.02% | -0.38% | |
| 3 | Foods | 0.00% | 0.00% | 0.03% | 0.01% | 0.03% | 0.07% | |
| 4 | Beverage | -0.03% | 0.00% | 0.05% | -0.01% | -0.63% | -0.18% | |
| 6 | Textiles, clothing and footwear | 0.02% | 0.00% | 0.44% | -0.03% | 0.03% | 0.20% | |
| 7 | Wood and paper | 0.04% | 0.00% | 0.20% | 0.00% | 0.03% | 0.22% | |
| 8 | Petrochemical | -0.01% | 0.00% | 0.02% | -0.11% | 0.04% | -0.06% | |
| 9 | Rubber and plastic | 0.04% | 0.00% | 0.15% | -0.05% | -0.01% | 0.20% | |
| 10 | Non-metallic mineral products | 0.14% | 0.00% | -0.01% | 0.11% | -0.03% | 0.46% | |
| 11 | Machinery and equipment | -0.01% | 0.00% | 0.00% | -0.07% | 0.02% | 0.08% | |
| 12 | Other manufactures | -0.01% | -0.01% | 0.30% | -0.40% | 0.03% | -0.34% | |
| 13 | Government | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | |
| 14 | Construction | -0.01% | 0.00% | 0.00% | -0.01% | -0.04% | -0.04% | |
| 15 | Other services | 0.00% | 0.00% | -0.01% | 0.00% | 0.02% | -0.04% | |
| 16 | No previous Industry | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| | Total | 0.00% | 0.00% | 0.01% | 0.00% | 0.01% | -0.01% | |











- The **greatest macroeconomic effects** occur when Jamaica signs trade agreements with **Mexico** and **Central America**.
 - Production increases of 0.01% (Mexico) and 0.03% (Central America) with slight increases in private investment and consumption.
- More profound trade agreements with Cuba, Haiti, the Bahamas and the Dominican Republic would have little impact on overall consumption, investment, trade, and production.
 - The only significant impacts perceived in the case of these FTAs with Caribbean partners occur bilaterally,
 - The largest absolute net changes in trade in goods are observed in agreements with Cuba and Haiti.
 - These countries account for only 0.1% and 0.4% of Jamaica's total exports, respectively.





- The simulated FTA with the countries of **Central America** shows the greatest estimated increase in aggregate trade flows for Jamaica in growth terms, primarily in exports.
 - Deepening trade relationships with Central American partners with whom Jamaica currently has very little trade, could likely lead to an interesting expansion in the set of products exported by Jamaica:
 - Mainly agroindustrial products that the subregion consumes and is not necessarily capable of selfproviding.
- Jamaica could also access cheaper imports from Mexico and Central America, which could improve its competitive position in exports to other destination markets including Central America, other Caribbean countries





- Subscribing to a broad spectrum and multi-country FTA in a comprehensive agreement with all partners considered in each of the simulations would yield a more significant positive impact on Jamaica's levels of production and trade
 - A more gradual liberalization in vulnerable sectors is important to ensure the minimization of the negative impacts of trade liberalization.

 In order to maximize the gains from trade liberalization with its neighbors in the Caribbean Basin, and especially with Central America and Mexico, it is important that Jamaica apply policies to stimulate increases in the productivity of the services associated with trade of goods





- Additional recommended policy actions include:
 - Increase the technical capacities and export market knowledge of the main actors involved in the provision of services
 - Expand the promotion of Jamaican exports in the region through activities that enhance awareness of Jamaican producers with a specific focus on product categories in which Jamaica enjoys a competitive advantage;
 - Strengthen the institutional capacity of public agencies linked to trade;
 - Focus public and private actions on the identification of specific needs that favor the increase of sectoral competitiveness. For example, retaining high-skilled human capital by reducing the migration of technicians, promoting partnerships of tourismrelated service providers to promote approaches such as allinclusive, ecotourism, etc.;





- Additional recommended policy actions include (continued):
 - Encourage coordination between public bodies to ensure the coherence of development policies to be promoted; and
 - Take advantage of flexibility in rules of origin requirements to support the development of intra-regional value chains.
 - Ample evidence indicating the potential for stronger intraindustry linkages with CARICOM partners (ECLAC, 2014).
 - This study can provide an empirical basis to identify individual products and product categories through which these linkages can be strengthened.





- Specific recommendations for the agro-industry sector:
 - Market intelligence studies to detect winning products in each market of interest.
 - These studies should include cultural elements that could affect the demand for products of Jamaican origin (flavour, texture, market differentiation).
 - In addition, the identification of exportable supply sufficient to meet the demand in the target markets should be prioritized;
 - Training in compliance with quality standards and technical requirements necessary to enter Spanish-speaking markets, especially Mexico and the countries of Central America;
 - Increase the value added content incorporated into agroindustrial exports through the improvement of packaging, cold chain, labeling, as well as advertising and marketing techniques aimed at new markets;





- Specific recommendations for the agro-industry sector (continued):
 - Identify a country brand strategy that includes the identification of exotic niche products of Jamaica and promotes the country's image.
 - Canned or preserved special products (soups, sauces, cakes, purés, among others); liquors and drinks (rum, beer, malt, etc.).
 - Facilitate the participation of Jamaican producers in fairs of small and medium producers in Central American countries. This includes special missions that identify potential buyers, especially in food and beverages.
 - Support research in Universities and local Research Centers on innovation processes in the design of non-traditional products identified for the target markets.





- ECLAC also recommends actions to reduce the high administrative costs that have a negative impact on the capacity to export. Some measures and actions in this direction are:
 - Reducing the number of administrative controls and customs procedures necessary to export, both at maritime and airport customs.
 - Introducing technological facilities that accelerate customs procedures (e.g. digital certificates, electronic data transfer)
 - Effective execution of this approach will require the involvement and cooperation of multiple Government Ministries, Departments and Agencies in conjunction with the private sector.
 - Jamaica will need the implementation of complementary policies to counter the undesirable effects of a possible liberalization.



