Growth in the Dominican Republic and Haiti: Why has the Grass been Greener on One Side of Hispaniola?

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Motivation

- Haiti and the DR: broadly similar in terms of geography and historical institutions, yet striking divergence in terms of growth performance.
Overview

- Case study approach, using Latin America as a reference point
- Initial conditions
  - Geography
  - Historical institutions
- Analysis of policies since 1960, drawing on:
  - Panel regressions in the literature
  - Examination of policies pursued in each country
- Alternative variables that help explain growth divergence
  - Political instability
  - Macroeconomic instability
- Panel regression testing the proposed variables
Initial Conditions: Geography

- Gallup, Sachs and Mellinger (1998) and Diamond (2005) cannot explain the diverging growth rates in Haiti and DR.

- Haiti and DR are under the same conditions in terms of location and climatic conditions.

- Haiti, being half the size of DR, has historically had higher population density.

- Both countries have much higher population density than the region.

Source: WDI and authors' calculations
Initial Conditions: Historical institutions

- Haiti and DR had comparable historical institutions.
  - Colonial origin story (Acemoglu, Johnson, Robinson, 2005, 2001)
  - Ethnolinguistic fragmentation, legal origin, religion (La Porta et al., 1998)
  - No statistical differences between Spanish and French colonial rule. (Acemoglu, Johnson, Robinson, 2001; Sirimaneetham, 2006; Treisman, 2000).
  - Common institutions at different points in time: Haiti ruled the DR for 22 years during the 19th century; U.S. military occupation of both countries in the 20th century.

- Prior to 1960, political instability was high for both countries, in particular for Dominican Republic.
Framework: Empirical Endogenous Growth Model

Endogenous

Factor endowments

Productivity

Partly endogenous

Structural policies

Stabilization policies

Institutions

Exogenous

External conditions

Geography

Income

Factors:
- Endowments
- Productivity

Policies:
- Structural
- Stabilization
- Institutions

Conditions:
- External
- Geography

Stabilization policies are partly endogenous, indicating a dynamic interaction between economic factors and policy decisions.
Panel regression (Loayza, Fajnzylber, and Calderón, 2005)

Variation of the standard growth regression

\[ y_{i,t} - y_{i,t-1} = \alpha y_{i,t-1} + \alpha_c (y_{i,t-1} - y_{i,t-1}^T) + \beta' X_{i,t} + \mu_t + \eta_i + \epsilon_{i,t} \]

where

- \( y \): log of output per capita,
- \( X \): a set of variables postulated as growth determinants,
- \( y^T \): trend component of output per capita,
- \( y_{i,t-1} - y_{i,t-1}^T \): the output gap at the start of the period,
- \( \mu_t \): a period-specific effect,
- \( \eta_i \): unobserved country-specific factors, and
- \( \epsilon \): the regression residual.
Explanatory variables in LFC

- Transitional convergence (initial GDP per capita)
- Cyclical reversion (initial output gap)
- Structural policies and institutions
  - Education (secondary school enrollment)
  - Financial depth (private domestic credit/GDP)
  - Government burden (government consumption/GDP)
  - Public infrastructure (main phone lines per capita)
  - Governance (ICRG index)
  - Trade openness (trade/GDP)
- Stabilization policies
  - Lack of price stability (inflation rate)
  - Cyclical volatility (standard deviation of output gap)
  - Real exchange rate overvaluation (index of real exchange rate overvaluation)
- External conditions
  - Terms-of-trade shocks (growth rate of terms of trade)
  - Period shifts (dummy variables)
DR and Haiti compared to other LA countries

- Fit of the LFC model
  - The model does well overall in explaining the direction of changes in growth rates in Latin America.
  - However, the model does not perform as well in explaining the magnitude of change, especially for Haiti.
Improving the fit of the LFC model

- Can we explain the higher growth rates in the DR and the consistently lower growth rates in Haiti compared to Latin America?
- The LFC model provides a good fit in terms of structural policies.
- We propose measures that could enhance the fit of the model:
  - Political stability
  - Stabilization policies
Structural measures

- Structural policy variables provide a good indication of performance of Haiti and the DR compared to Latin America.
  - DR has outperformed Haiti and Latin America since the 1970s.
  - Despite improvements in some periods, structural policies have been weaker in Haiti.
Structural measures: Trade

- On trade, both Haiti and the DR have liberalized imports but DR has done a better job of boosting exports.

- DR implemented policies to promote exports of goods through free-trade zones and of services through FDI policy.

- Despite some improvement in the late 1970s, Haiti was severely affected by the trade embargo in the 1990s.
Political shocks

- Problem with statistical significance of governance variable could be explained by:
  - A short time series
  - Subjective indicator

- An alternative measure of institutional quality is political instability.
  - Barro (1991) finds a negative relationship between political instability and investment and growth, due to the adverse effects of political instability on property rights.
  - Corbo and Rojas (1993) also find that political instability has a highly negative effect on investment rates and growth by creating an environment of high uncertainty.
Political Shocks

- Using the episodes of regime change as a proxy for political instability shows that Haiti has been the most unstable and DR among the most stable in the region.
Macroeconomic stability

- Drawbacks of stabilization measures used by LFC:
  - Difficulties in measuring potential output.
  - Difficulties in determining the equilibrium exchange rate.
  - Inflation provides only partial information about economic policies.

- A composite indicator would be more appropriate as it provides a better overall picture of stabilization policies. Index constructed as the weighted sum of:
  - Inflation
  - Fiscal deficit
  - Exchange rate volatility
  - International reserve losses

- This index has not been used elsewhere, but the literature indicates the need to look at various factors to determine a country’s policy stance.
  - Fischer (1993) identifies the inflation rate, budget balance, and the black market exchange premium as basic indicators of macroeconomic policy.
  - Sahay et al. (2006) look at the relationship of growth with volatility of inflation, the exchange rate, and fiscal balances.
Macroeconomic stability

Given what we know about the relative performance of DR and Haiti, the composite index provides a good description of macroeconomic policy developments.
Panel regression with alternative variables

- **Fit of the JS model**
  - The model improves the fit for both the Dominican Republic and Haiti, as well as for Latin America.
Dominican Republic. Changes in growth between decades

- The main contributors to improvements in growth rates were:
  - Structural policies in the 1970s
  - External conditions, transitional convergence, and structural policies in the 1980s
  - Structural policies in the 1990s
Haiti. Changes in growth rates between decades

- The structural measures and stabilization policies have not had a substantial contribution to growth, except in the 1970s.
Conclusions

- The growth divergence between the Dominican Republic and Haiti is not explained by differences in the initial conditions but rather by different policy decisions.

- The DR has consistently outperformed Haiti and the region in terms of structural measures and stabilization policies.

- Haiti has been subject to numerous political shocks that have severely affected its growth performance.