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

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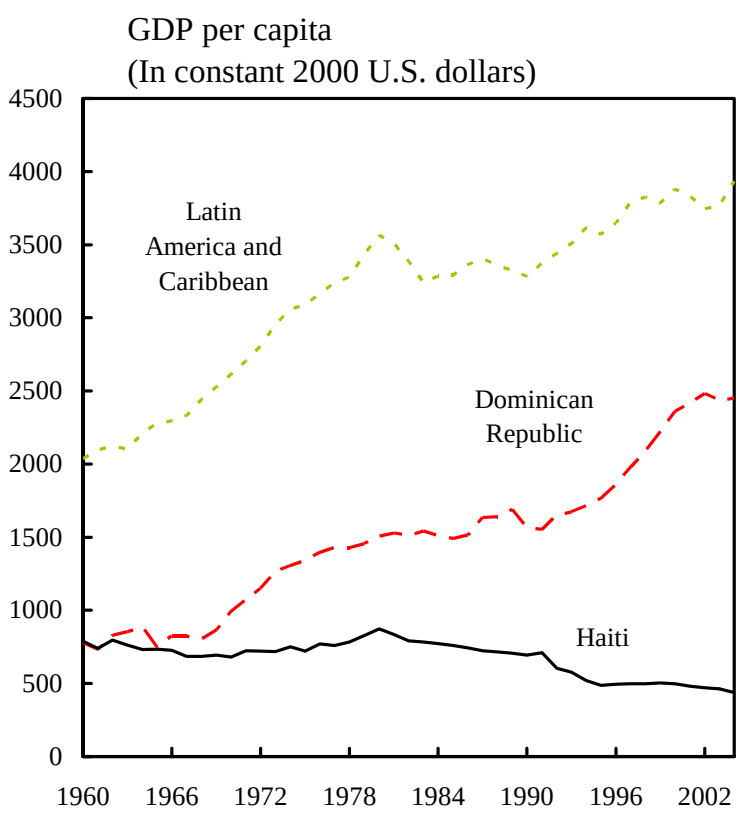
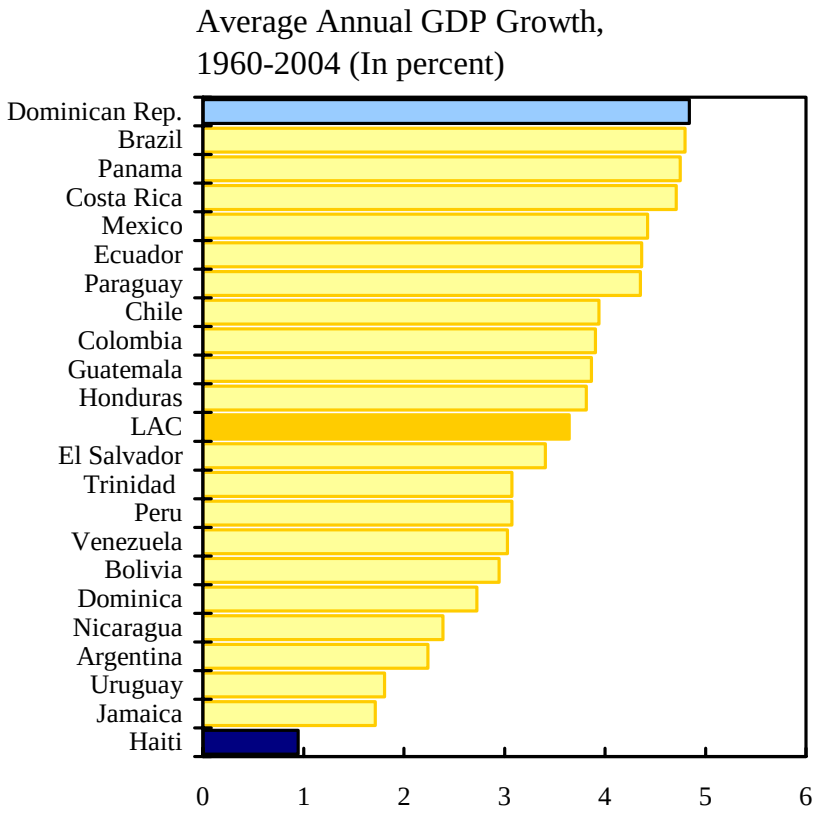
WHD Workshop

November 17, 2006

Motivation

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





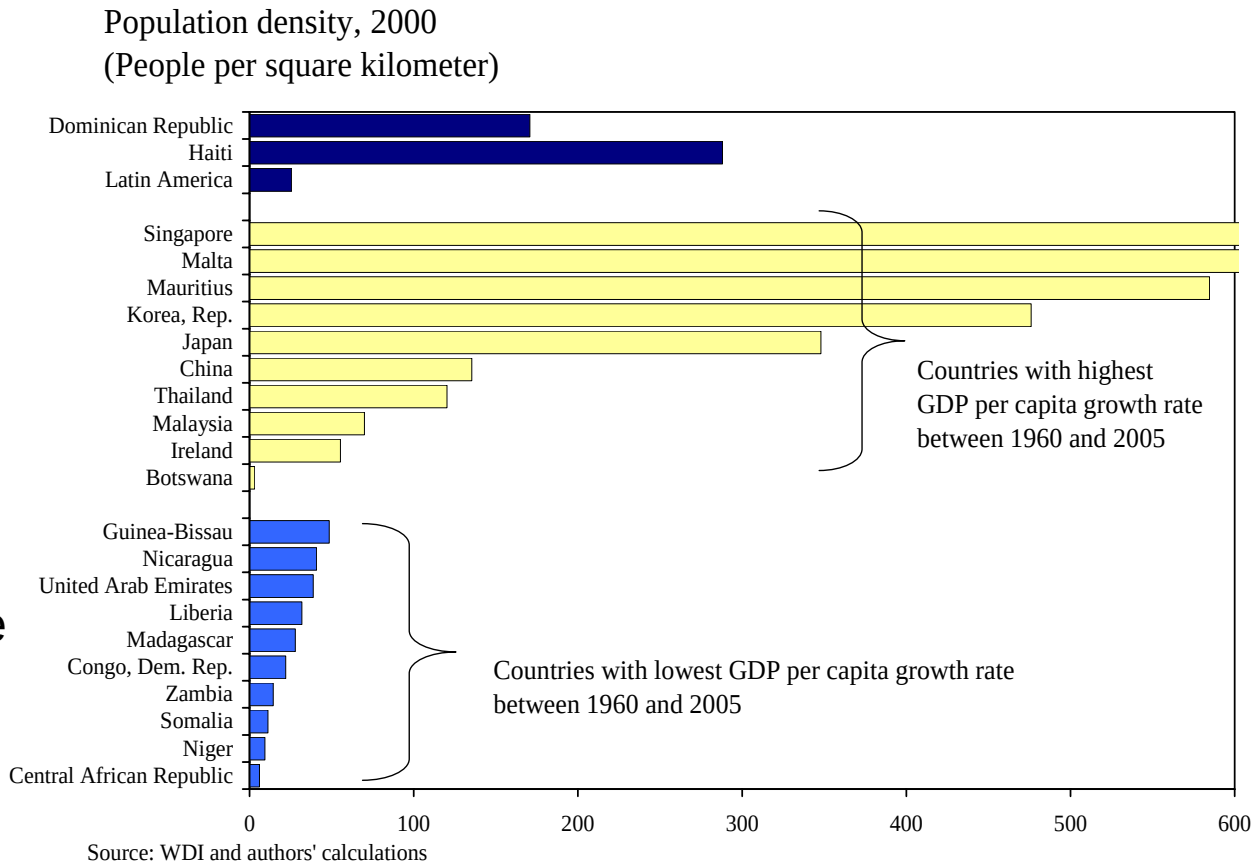
Overview

- 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.

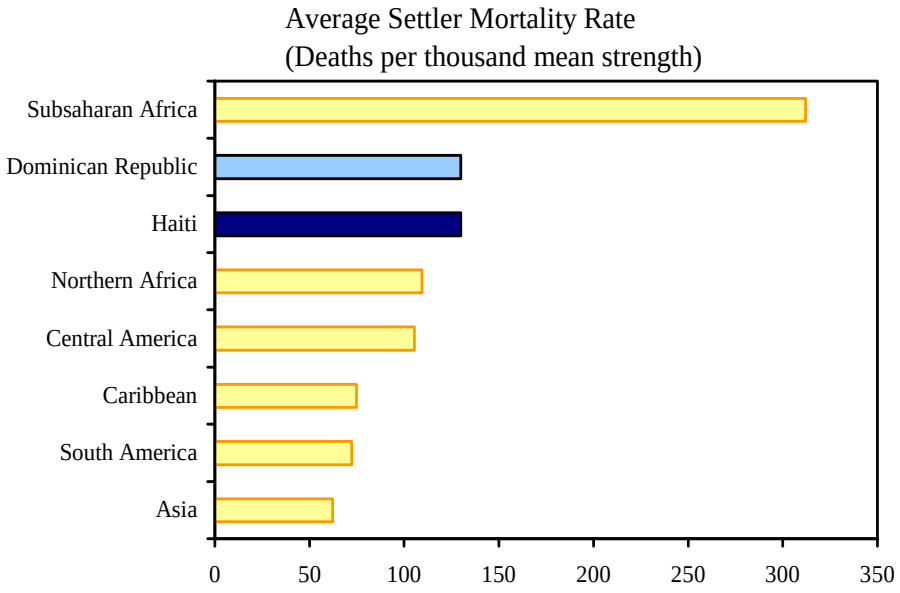
  - Haiti and DR are under the same conditions in terms of location and climatic conditions.
  - Haiti, being half the size of DR, has historically had higher population density.
  - Both countries have much higher population density than the region.

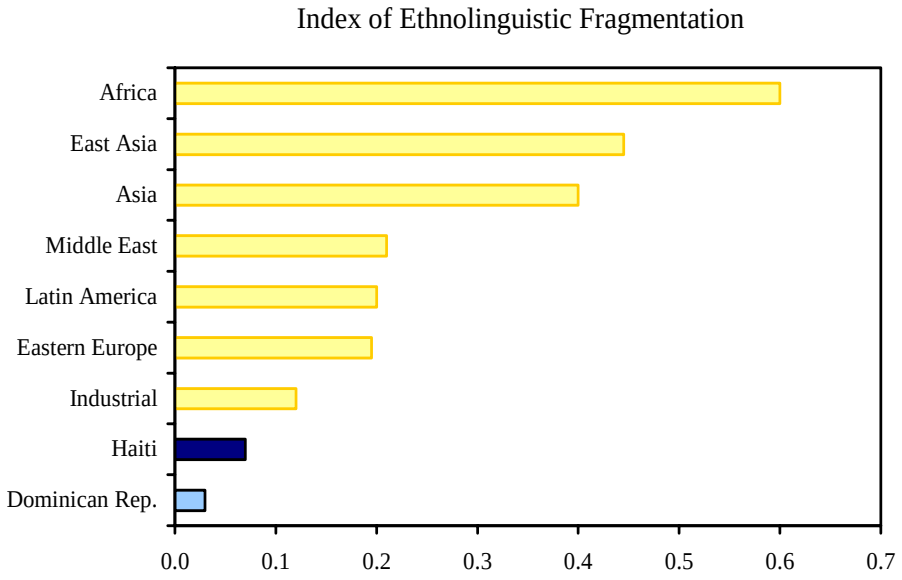


Initial Conditions: Historical institutions

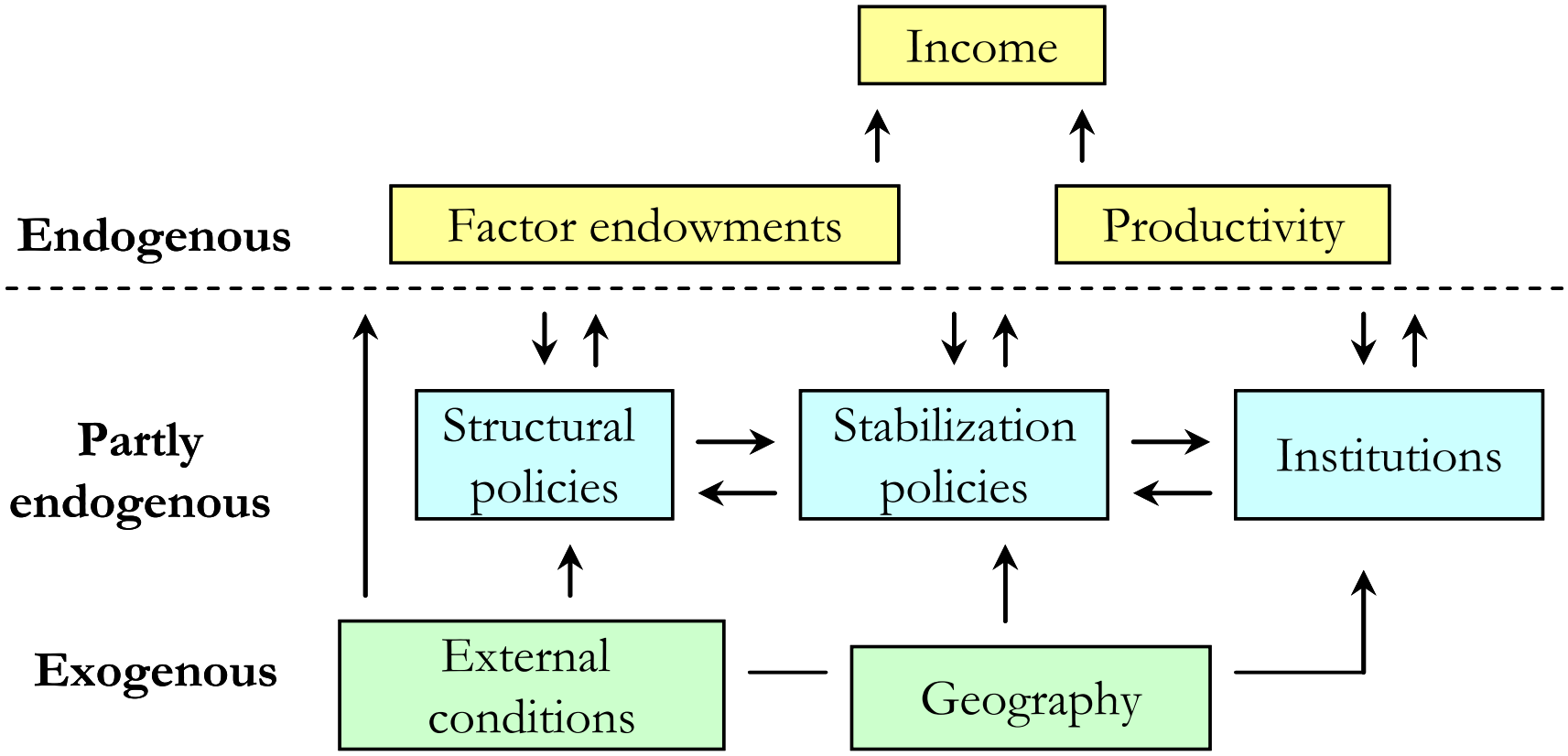
- Haiti and DR had comparable historical institutions.
  - Colonial origin story (Acemoglu, Johnson, Robinson, 2005, 2001)
  - Ethnolinguistic fragmentation, legal origin, religion (La Porta et al., 1998)
  - No statistical differences between Spanish and French colonial rule. (Acemoglu, Johnson, Robinson, 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



Panel regression (Loayza, Fajnzylber, and Calderón, 2005)

Variation of the standard growth regression

$$y_{i,t} - y_{i,t-1} = \alpha y_{i,t-1} + \alpha_C (y_{i,t-1} - y^T_{i,t-1}) + \beta' X_{i,t} + \mu_t + \eta_i + \varepsilon_{i,t}$$

where

y : log of output per capita,

X : a set of variables postulated as growth determinants,

y^T : trend component of output per capita,

$y_{i,t-1} - y^T_{i,t-1}$: the output gap at the start of the period,

μ_t : a period-specific effect,

η_i : unobserved country-specific factors, and

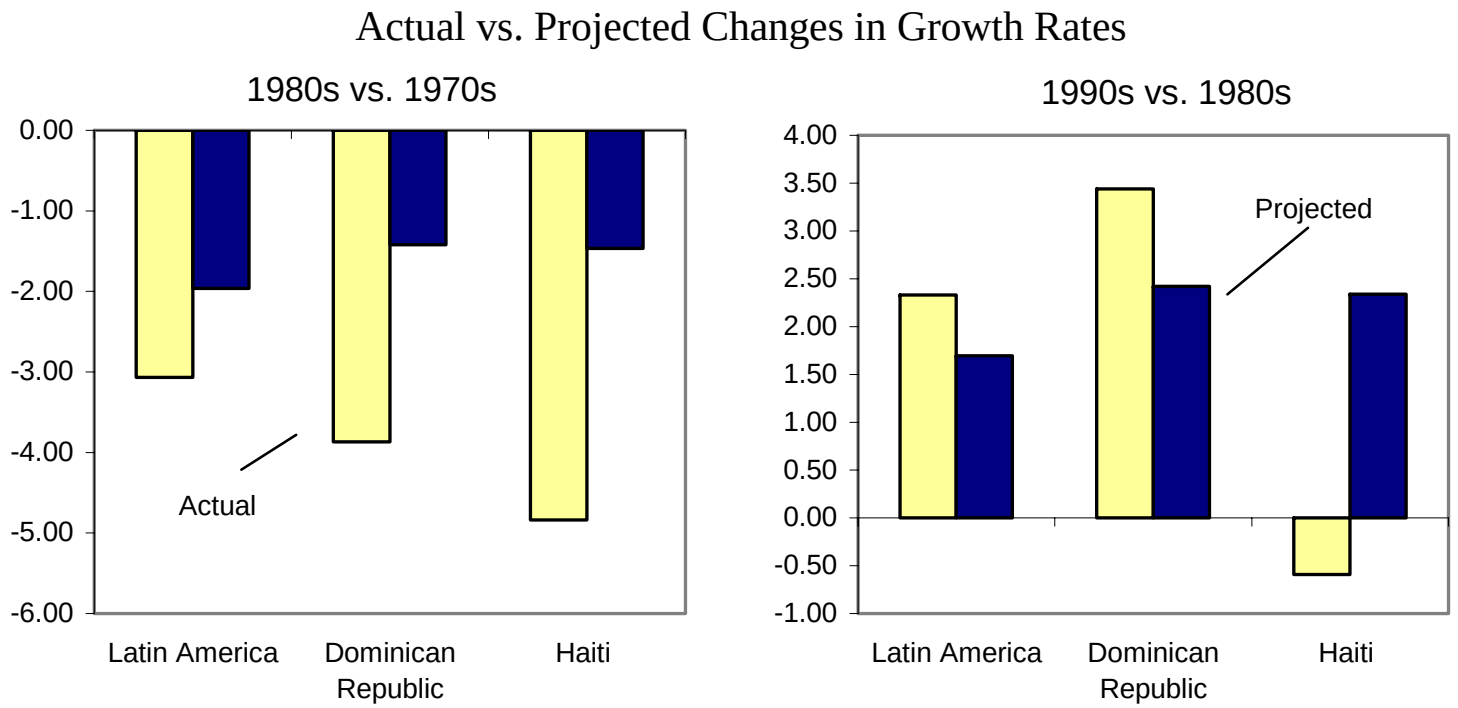
ε : the regression residual.

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.

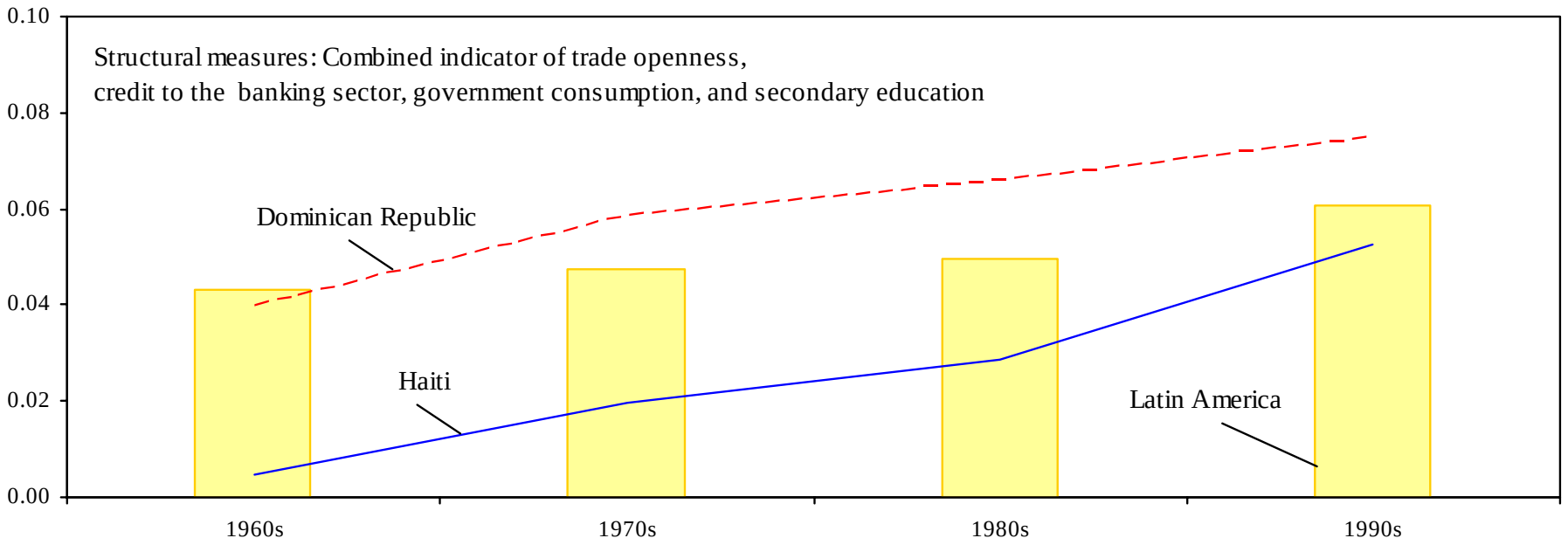


Improving the fit of the LFC model

- 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

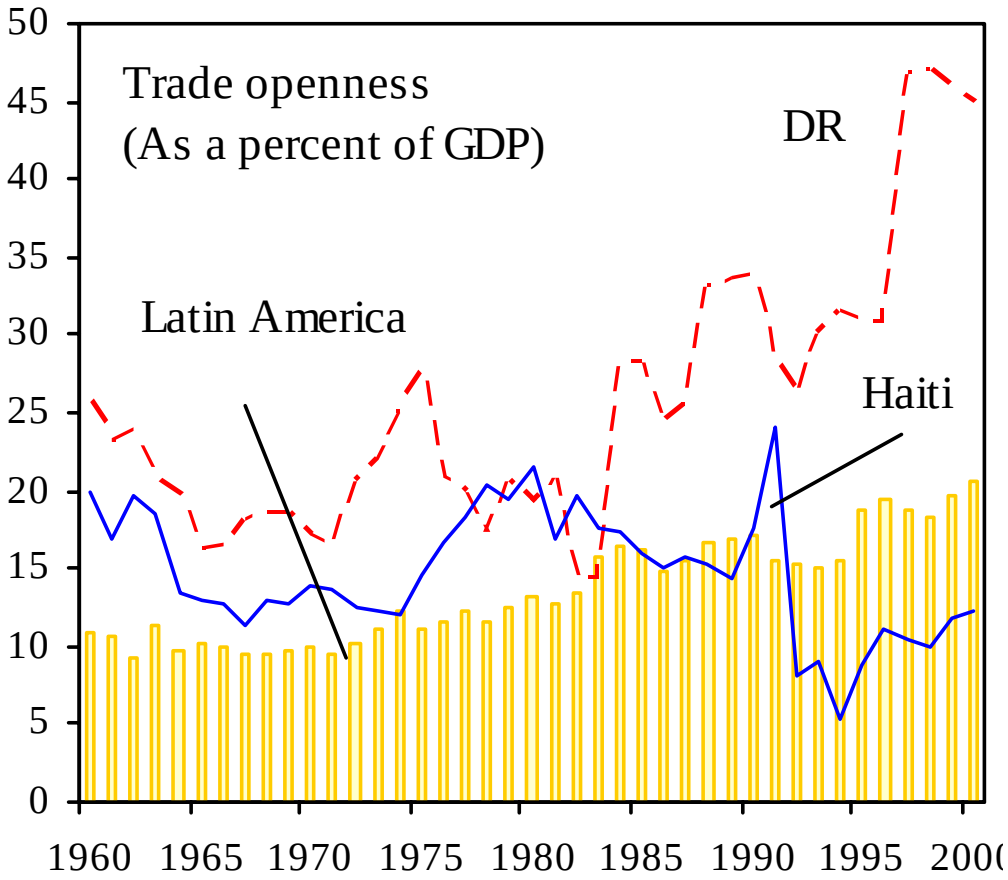
Structural measures

- 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.



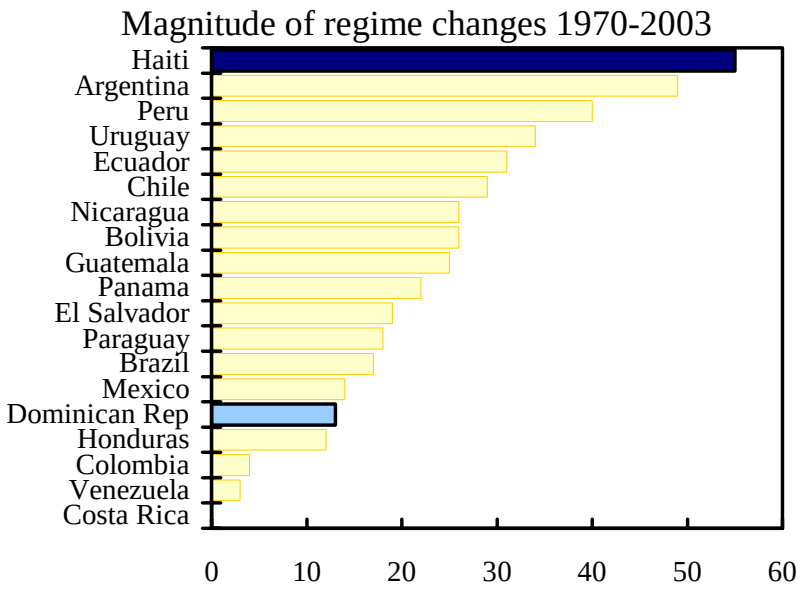
Political shocks

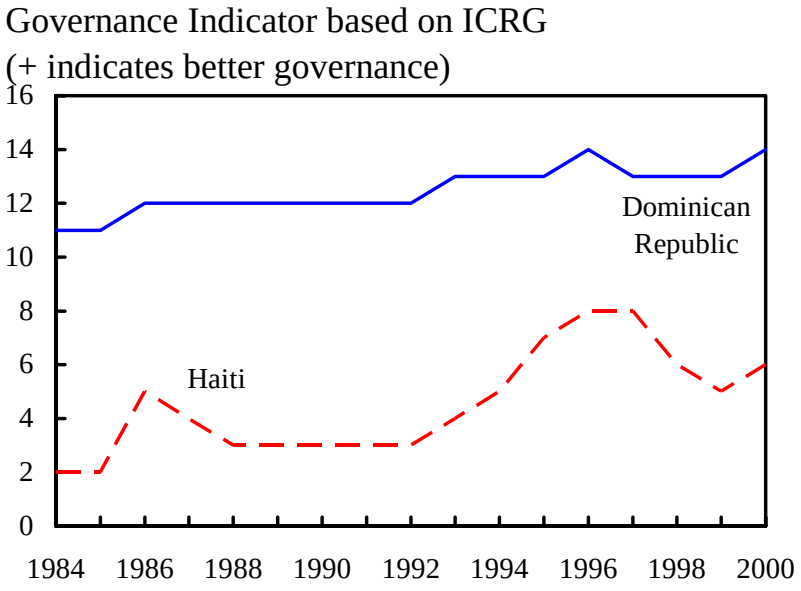
- Problem with statistical significance of governance variable could be explained by:
  - A short time series
  - Subjective indicator

- 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

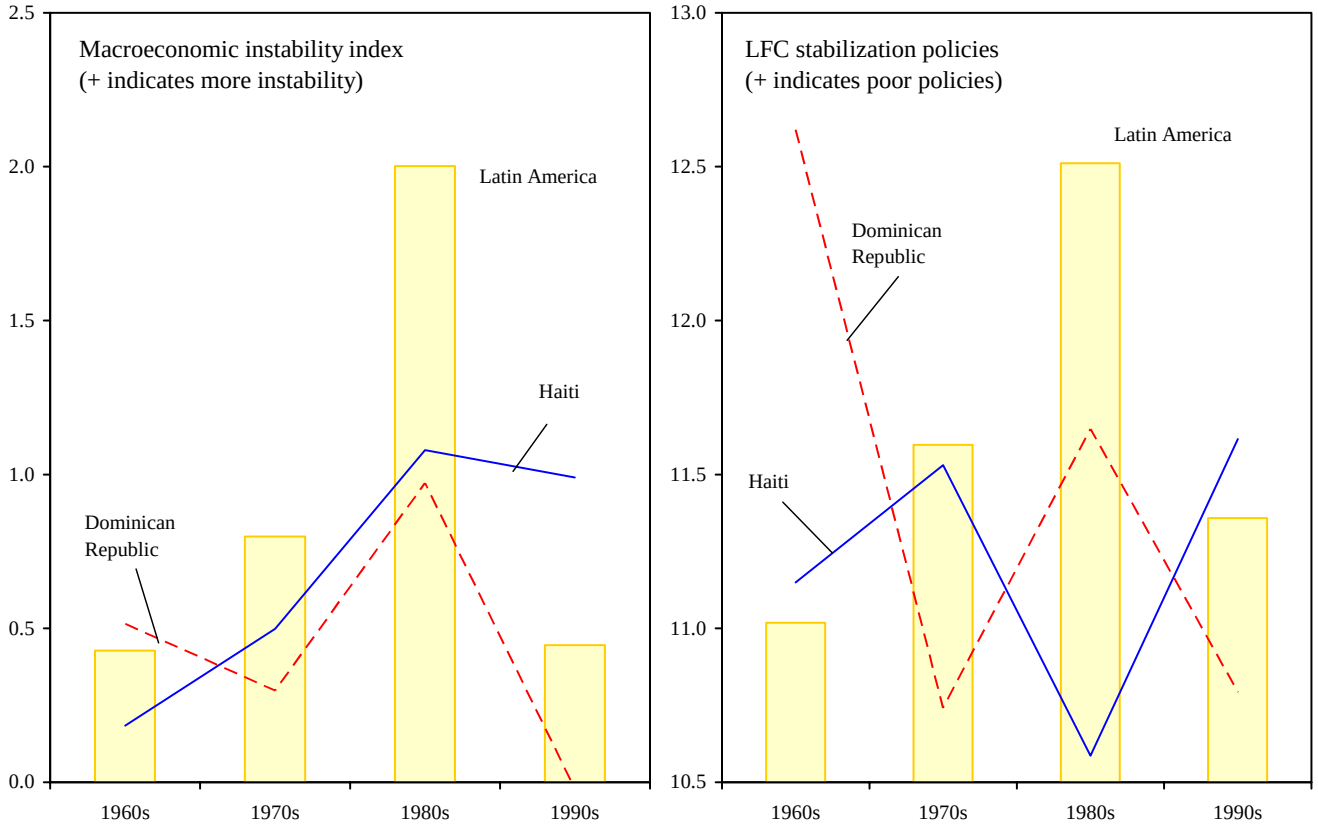
- Drawbacks of stabilization measures used by LFC:
  - Difficulties in measuring potential output.
  - Difficulties in determining the equilibrium exchange rate.
  - Inflation provides only partial information about economic policies.

- 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.

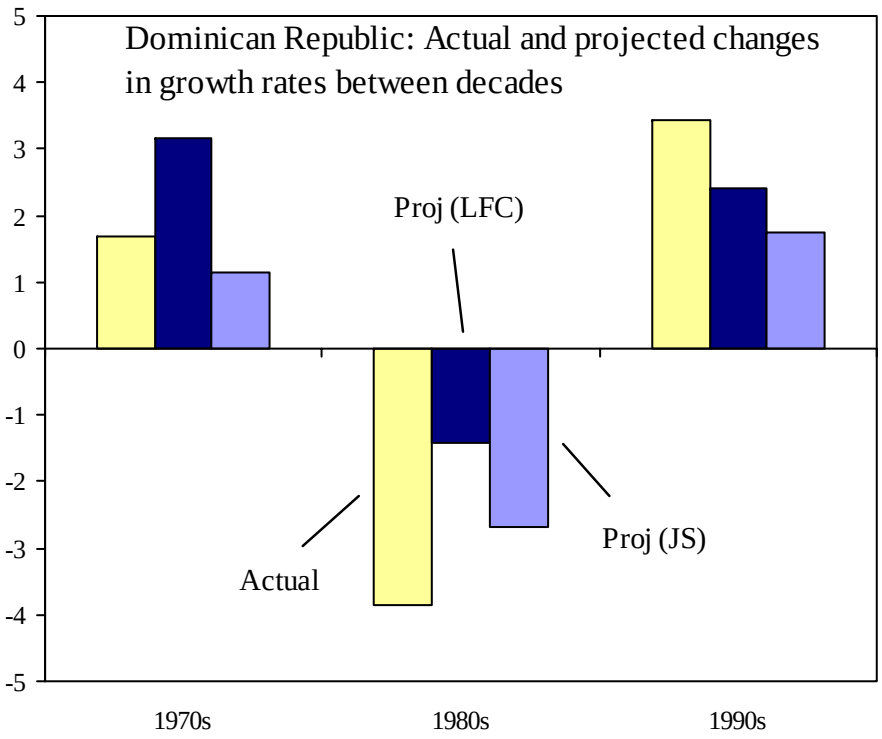
Macroeconomic stability

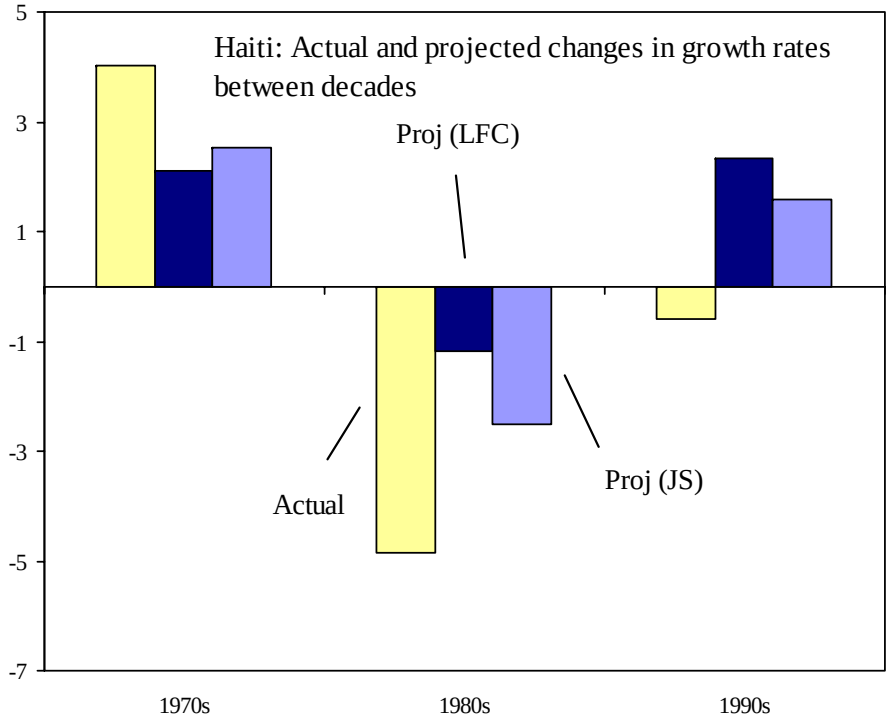
- Given what we know about the relative performance of DR and Haiti, the composite index provides a good description of macroeconomic policy developments.



Panel regression with alternative variables

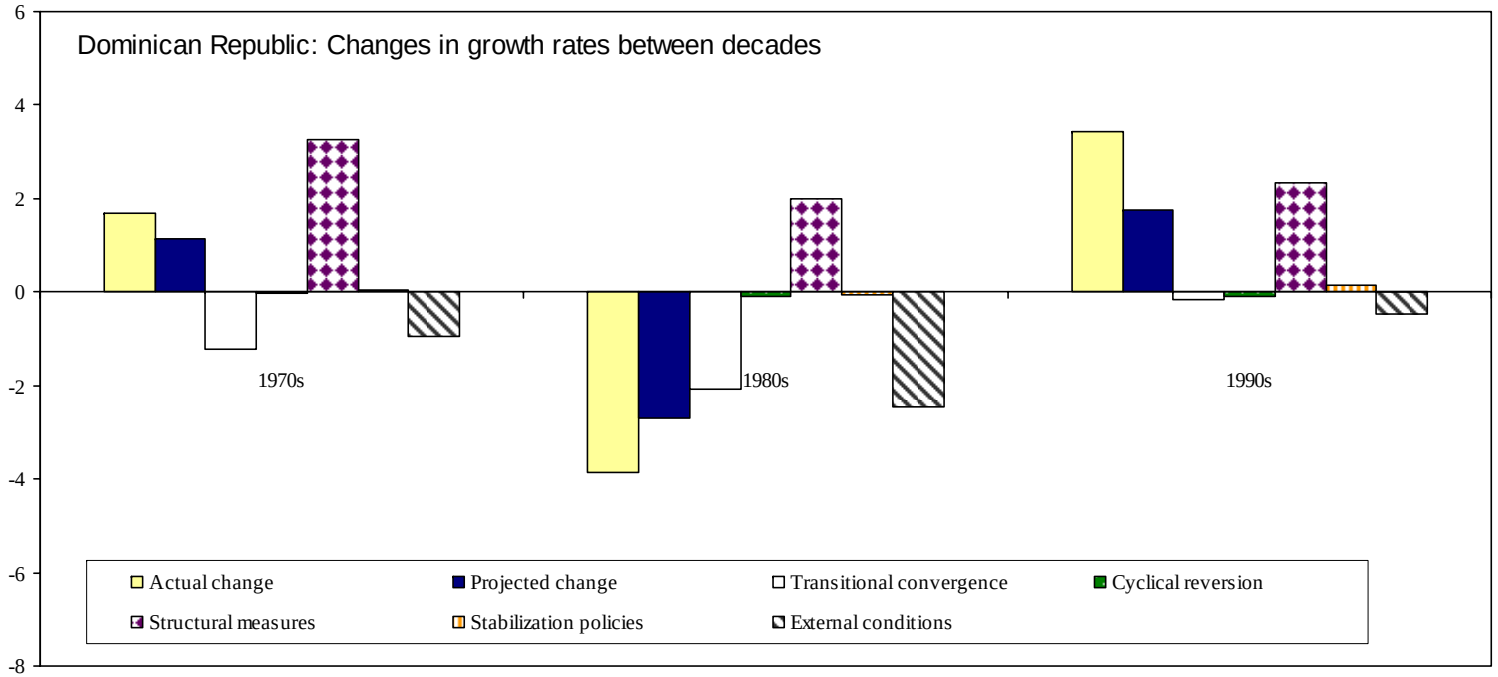
- Fit of the JS model
  - The model improves the fit for both the Dominican Republic and Haiti, as well as for Latin America.





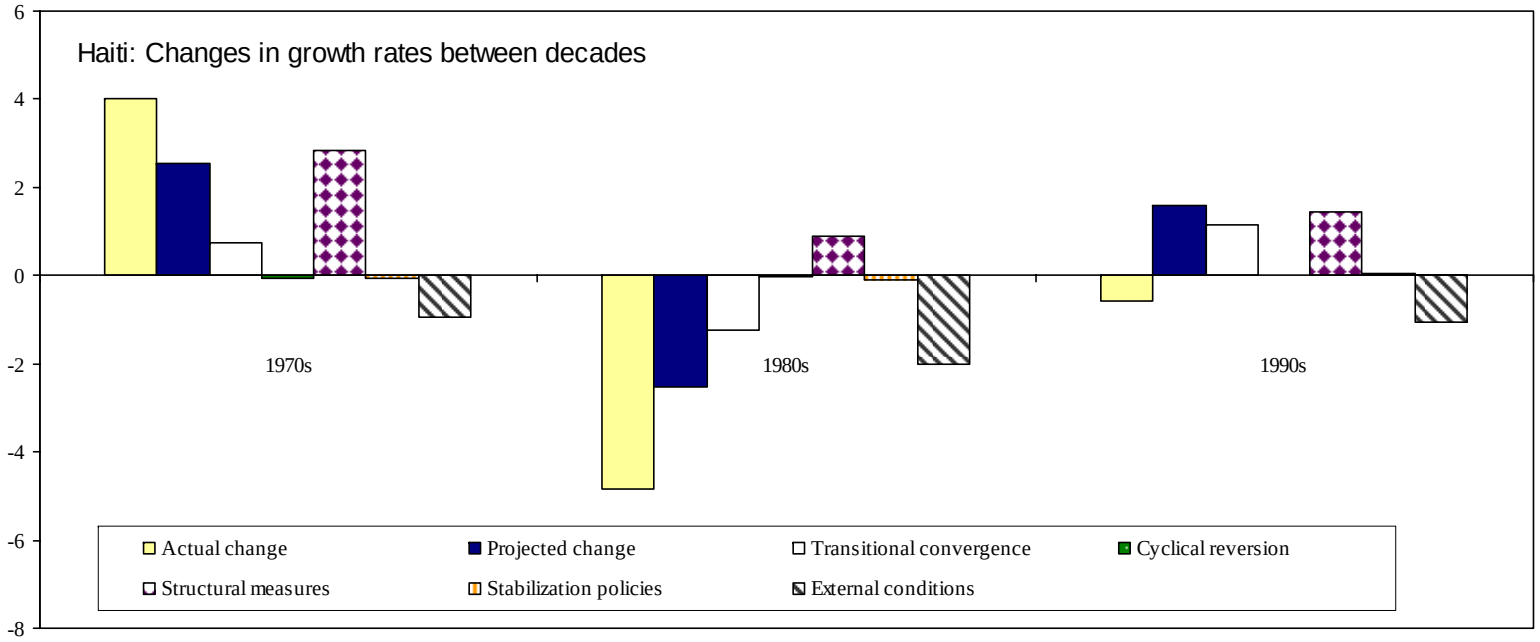
Dominican Republic. Changes in growth between decades

- 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.