

Estimation of potential GDP. Comments about Latin America and a focus on Mexico

Foro de Análisis Latinoamericano

Banco de España & SEGIB

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- 1. Potential GDP estimation : results, revisions and some comments on Latin America
- 2. Dealing with reforms and their effects on potential GDP estimations: the case of Mexico



Potential GDP: downward revision. yet acceleration throughout the current decade

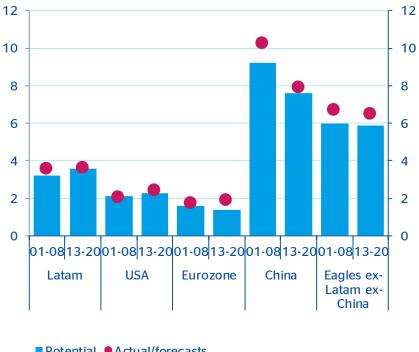
Potential GDP growth

Source: BBVA Research

	2013 estimation			2013 vs prev. est		
	91-00	01-10	11-20	91-00	01-10	11-20
US	3.3	1.9	2.1	0.0	-0.2	-0.1
EZ	2.2	1.4	1.2	-0.1	-0.4	-0.3
China	8.7	9.3	7.9	0.1	0.2	-0.6
LatAm	2.7	3.3	3.6	0.0	-0.2	-0.1

... even without the impact of the recent recovery after the Great Recession, the positive view of Latin America remains for the next decade

Actual and Potential growth (%) Source: BBVA Research 12

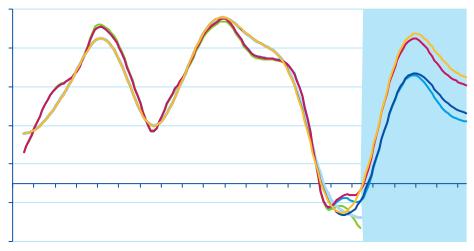




There is a relevant issue for the forecast of potential GDP: GDP forecast is key, regardless how we estimate it

Potential growth using alternative filters (H-P and financial neutral approach)

Source: BBVA Research



80 82 84 86 88 90 92 94 96 98 00 02 04 06 08 10 12 14 16 18 20 22



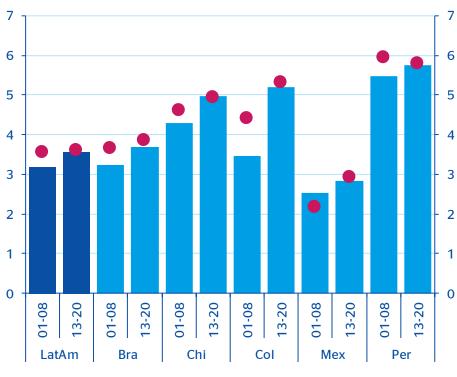
The estimation procedure to obtain the potential growth is relevant for the diagnosis of the current and past cyclical position, but regarding the future, the relevant issue is the forecast of the actual variables



Growth potential in Latin America: positive but not homogeneous perspectives within the area

Latin America: actual and growth potential (%)





■ Potential ● Actual/forecasts

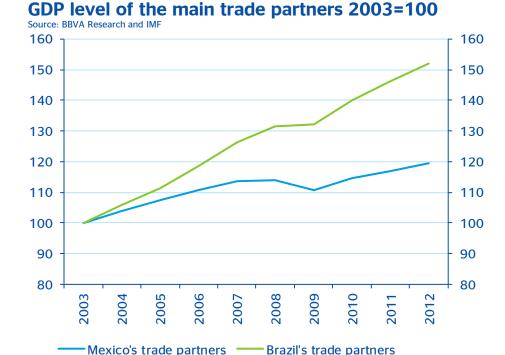
Latin America will increase its potential GDP throughout the next decade

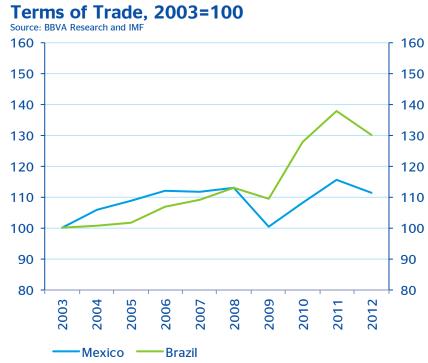
The growth improvement has been the consequence of a virtuous combination of external demand shocks and appropriate policies



The relative contribution of reforms and external shocks have been different across Latin America

External shocks have been more intense in economies oriented to commodities and to Asia. This kind of factors **could be assigned to "potential" if "permanent"**



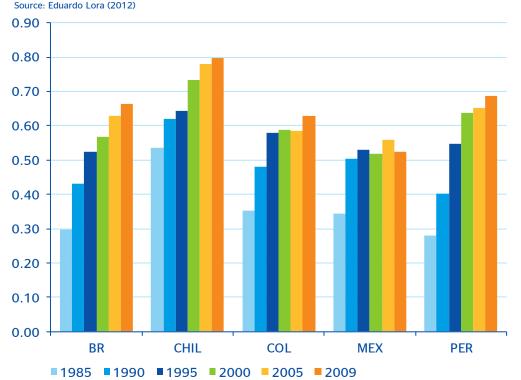




The relative contribution of reforms and external shocks have been different across Latin America

Latin America: structural reforms

Index of Structural Reforms, higher levels are associated with economic policies more neutral for the distribution of resources



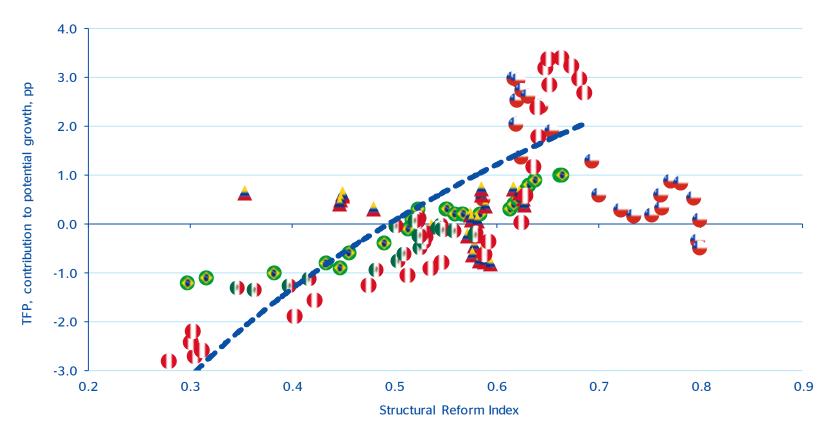
Structural reforms process have been a common characteristic across Latin America in the last 25 years, but more intense in the 90's



Differences in the intensity of reforms are associated with differences in TFP contribution to potential growth

Latin America: Productivity and structural reforms, 1985-2009

Source: BBVA Research for TFP contributions and Eduardo Lora (2012) for Structural Reform Index

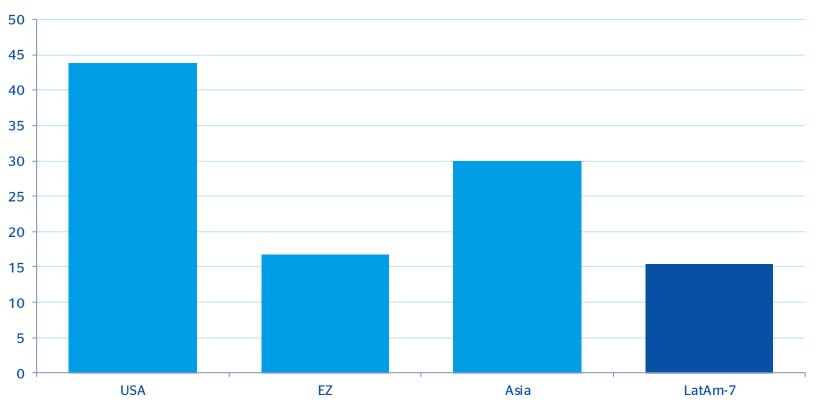




The contribution of productivity to growth potential has an ample margin for improvement in Latin America

TFP contribution to growth potential in 2001-2010, % of potential growth





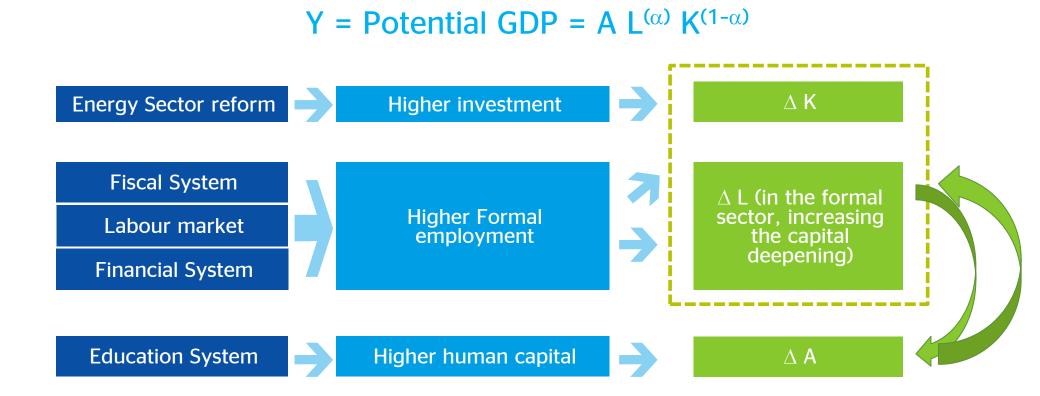


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Pacto por México consists of several reforms. If executed, they would bolster growth potential in Mexico





Pacto por México consists of several reforms. If executed, they would bolster growth potential in Mexico

Y = Potential GDP = A $L^{(\alpha)}$ $K^{(1-\alpha)}$

Energy Sector reform



Higher investment

It is assumed that the energy reform will increase investment in the industry (i.e. USD 5 billion a year so that Mexico accumulates in 5 years what Brazil receives in only 1 year)

 ΔK

Everything else equal, higher investment in energy sector increases Capital trend and potential GDP



Pacto por México consists of several reforms. If executed, they would bolster growth potential in Mexico





Formal Output

Informal Output

Households behavior

Businesses behavior

$$Y_f(A, L_f, K) = A L_f^{\alpha} K^{(1-\alpha)}$$

 $Yi(B,Li)=BLi^{\gamma}$, where B<A

Max U (Consump., leisure) and distribute their labour between the formal and informal sectors, L= Lf+Li

Max $\pi = Y_f(A, L_f, K)-(w+\tau) L_f - rK$



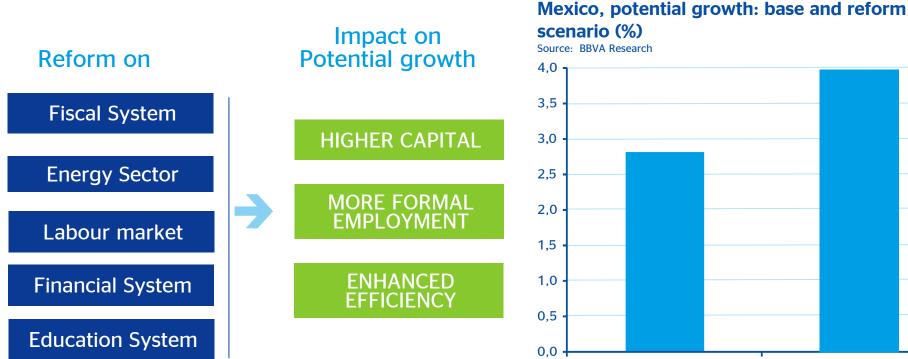
We assume that structural reforms decrease 1/3 of the non-salary formal labour costs (T): lower administrative burden, firing costs, social security contributions, ... or higher cost of informality (sanctions)

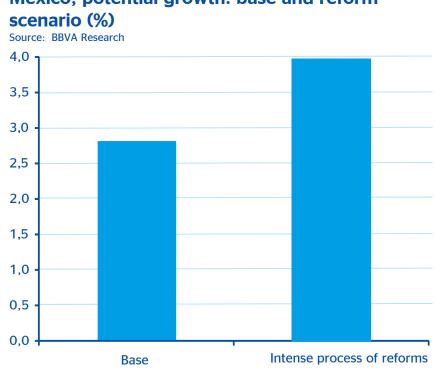


Lower cost of formal employment increases the labor in the formal sector, reduces unemployment, and raises capital to maximize profits



Pacto por México consists of several reforms. If executed, they would bolster growth potential in Mexico





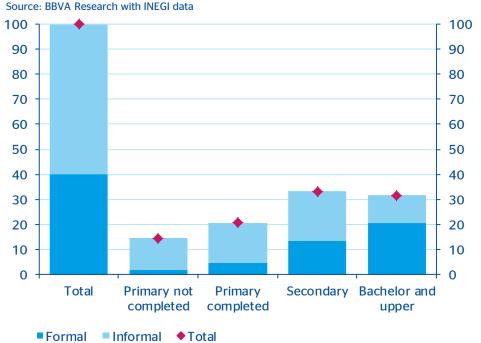
Any structural reform impacts on long term capability of growth through enhancing formality



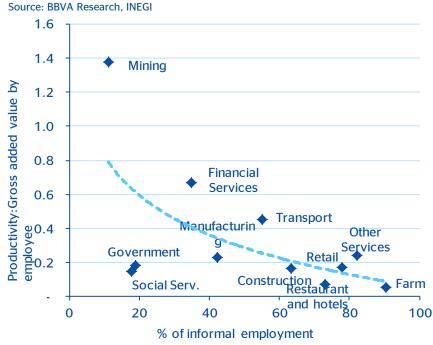
More formality is associated with higher productivity

Around **60% of Mexican workers are informal** (no social security, no taxes) and **more formal activities have higher labour productivity**

Labour informality and schooling ratio in Mexico



Sector productivity and share of informal employment in Mexico



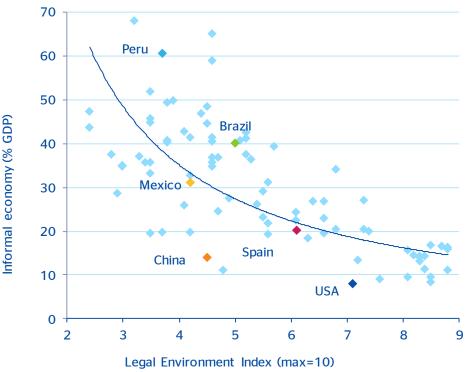


A more robust legal framework and better results of the educational system are key to develop Mexican productivity

Informal economy and legal framework

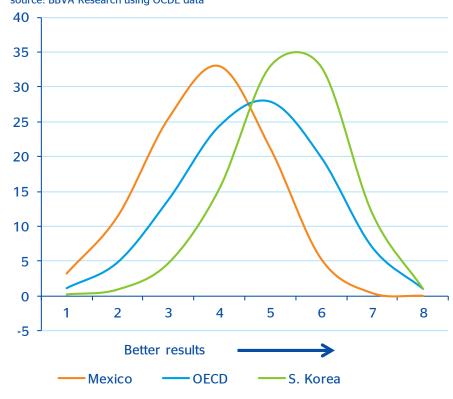
(% of GDP and index)

Source: Schneider (2009) and Property Rights Alliance based on World Bank



Education performance, PISA Report

% of 15-year students in each level of results source: BBVA Research using OCDE data





Main messages

- 1. Despite the last global recession, **potential GDP is expected to accelerate** in Latin America countries. But, be careful always with potential, as **GDP forecast is key in its estimation**
- 2. Growth improvement in Latin America has been the consequence of a virtuous combination of external shocks and appropriate policies. External shocks could be assigned to "potential" if they are "permanent"
- 3. Pacto por México consists of several reforms. If executed, they would increase growth potential in Mexico through higher formality



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