

ROAD INFRASTRUCTURE:

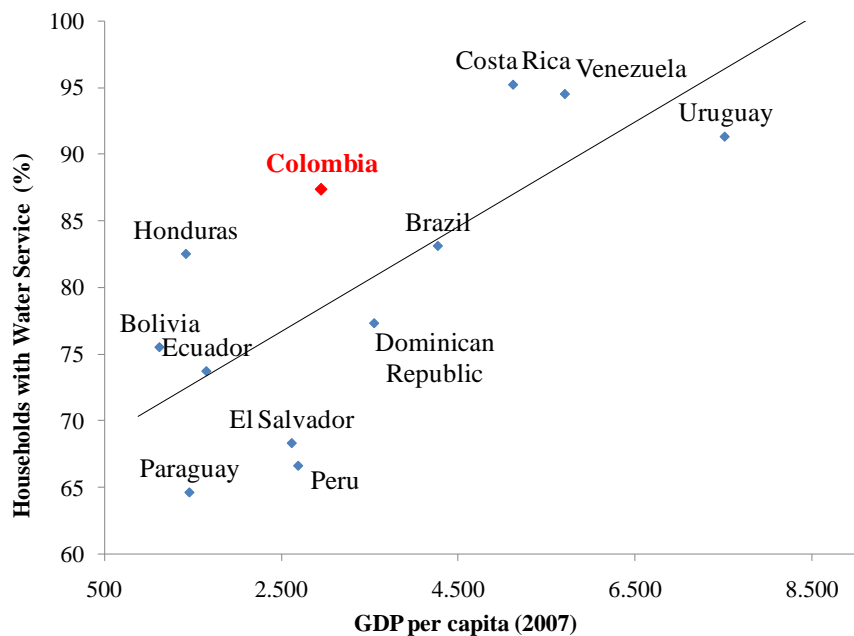
**An obstacle for economic growth
in Colombia**

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Fedesarrollo

High Coverage on Water and Electricity

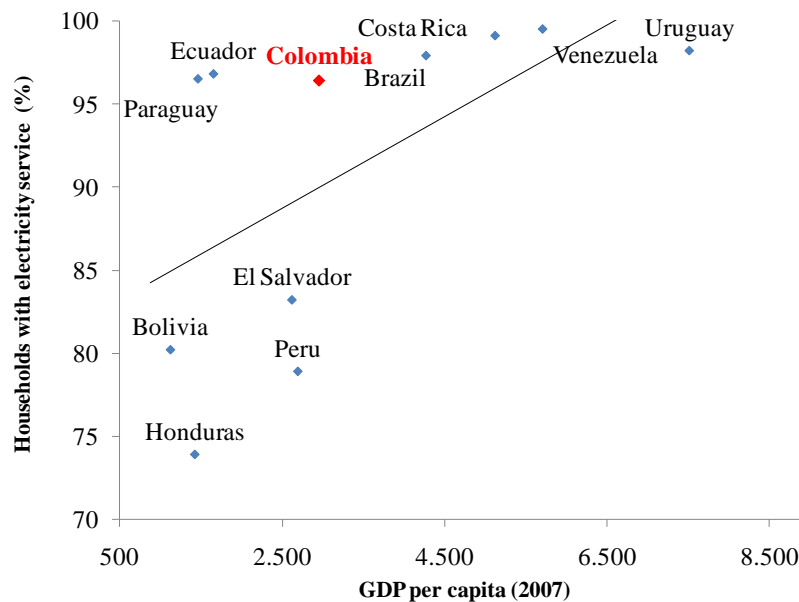
Water Utilities Coverage Vs GDP per capita, 2007



Colombia has a wide coverage in the provision of water utilities given its GDP per capita



Electric Power Services Vs GDP per capita, 2007



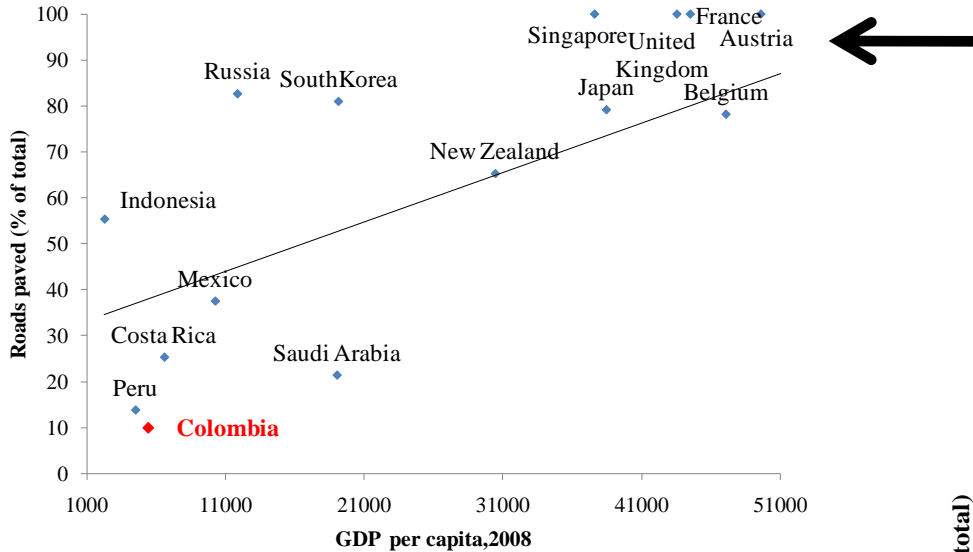
The same applies to electric power services



Source: ECLAC

The Problem in Infrastructure is on Roads

Paved Roads Vs GDP per capita, 2008



Source: WDI

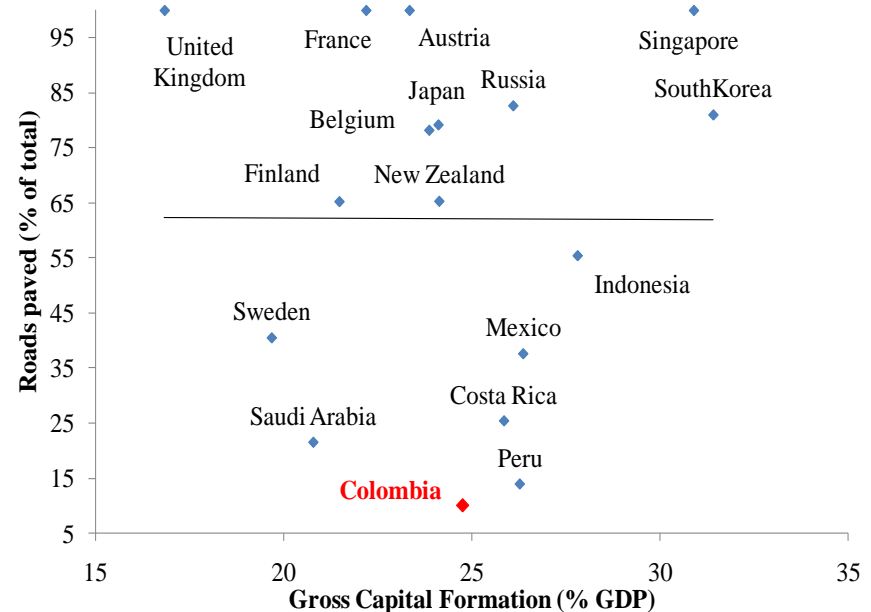
Low performance of paved roads, given GCF. →

→ 21% of total production costs corresponds to transport costs vs. 14% in Ecuador, Peru and Venezuela

The percentage of total paved roads in Colombia is low given its GDP per capita.

→ 10% of total paved roads vs. 20% in LAC
 → 14,6 of density (per Km²) vs. 36 in LAC

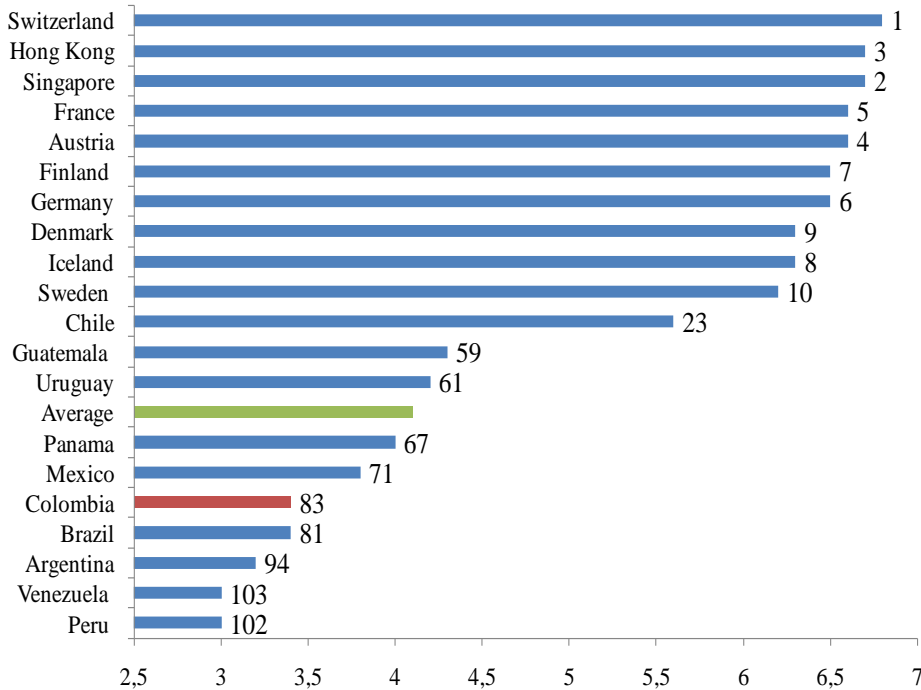
Paved Roads Vs Gross Capital Formation, 2008



Source: WDI

Confirmed by Perceptions

Quality of overall infrastructure, 2009



Source: World Economic Forum

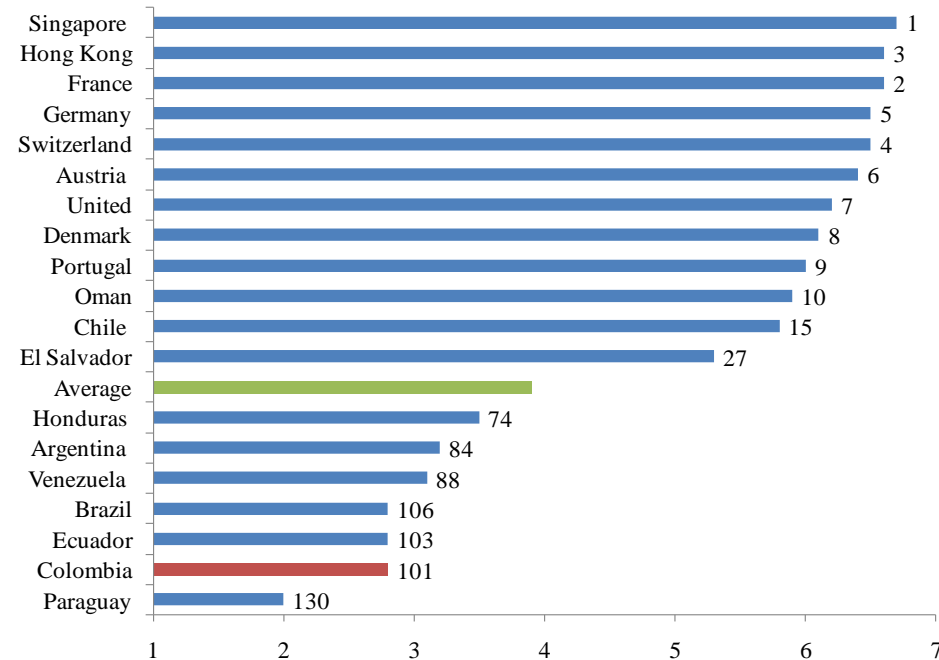
**... especially on roads.
(101/133)**



**Poor perception about
Colombia's quality of
infrastructure.
(83/133)**



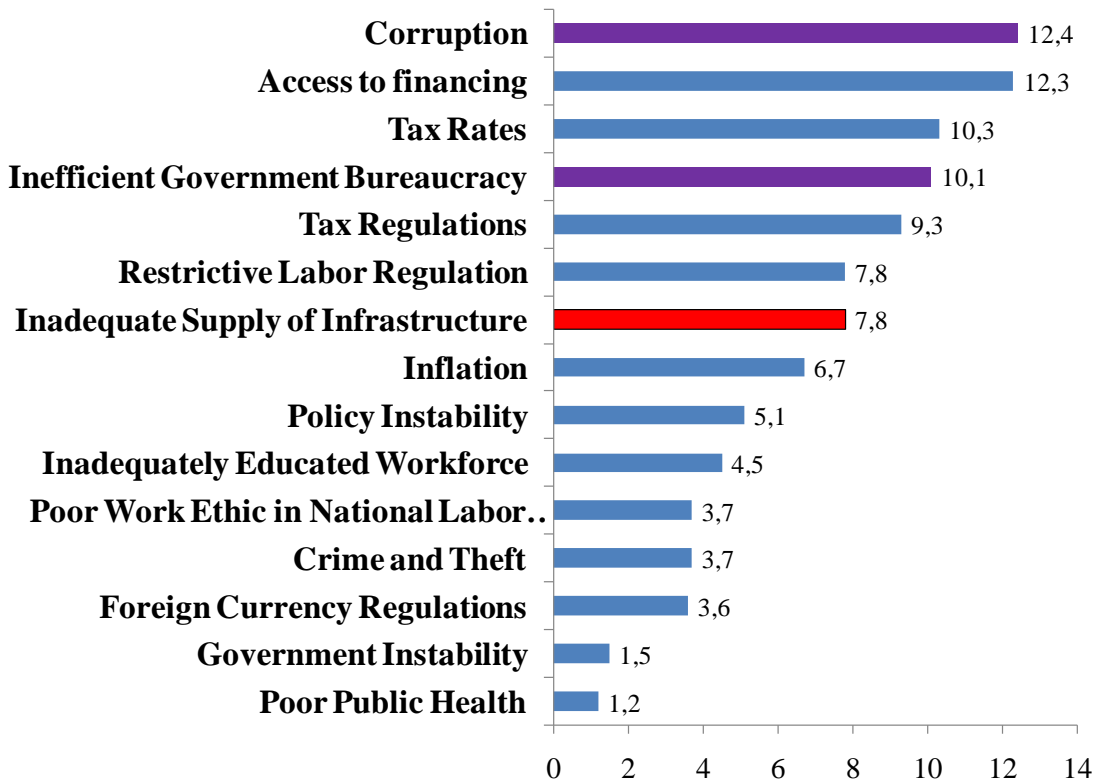
Quality of roads, 2009



Source: World Economic Forum

Hypothesis II: Political Economy and Institutions

The most problematic factor for doing business (2009)



The Paradox:

→ Higher efficiency in social expenditures (education & health) than in transports infrastructure (especially roads)

→ ... Higher efficiency in “non-measurable” expenditures than in “measurable” expenditures.

→ Is it because of the necessity to earmark expenditures? (education and health are regional earmarked transfers)

→ Is it because of a weak regulatory framework?

Hypothesis II: Political Economy and Institutions

- 1991 constitutional reform: Private participation in infrastructure
- During the first half of the 90s, privatizations of electricity and water supply
- ... However, roads cannot be “privatized”

→ Between 1990 and 2010, 22 road concessions

→ ... and an institutional reform at the beginning of 2000: primary roads financed with private participation

→ While secondary and tertiary (regional) roads financed with public resources (see Table)|

Concept	Primary road network (% of public investment)	Secondary (Departments) and tertiary (municipalities) road network
Gaviria 1900-1994	70	30
Samper 1994-1998	96	4
Pastrana 1998-2002	63	37
Uribe 2002-2006	45	55

→ With perturbing results:

→ None of the public projects of the public “2500 road plan” passes the threshold of a cost-benefit analysis (Fedesarrollo, 2009)

→ ... and results on concessions are disturbing

Hypothesis II: Political Economy and Institutions

Concessions:

→ Low equity requirements: concessionaires controlled by construction firms, with only one expertise, and incompatibility incentives (e.g. minimize or maximize inputs?)

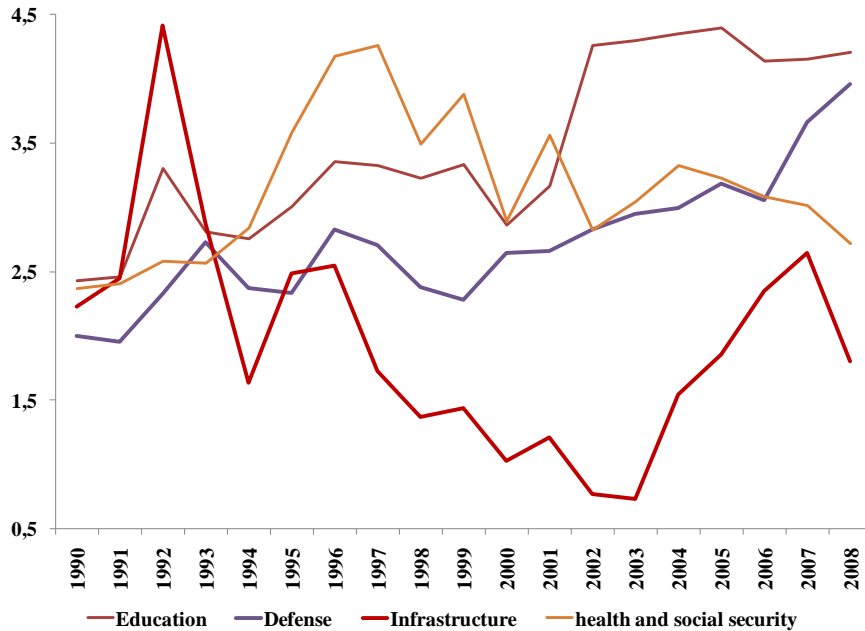
→ Frequent renegotiations and contract additions

→ First, low budget, then renegotiation;

→ Optimistic projections of construction costs and traffic volume

→ Unbundle road activities: financing and construction (with better public institutions)

Sectoral Public Expenditures, 1990-2009



↑
Low allocation of public resources on infrastructure

Policy Recommendations

- ➔ Strong institutions, one for project structure and road design (Ministry of Transport), one for financial structure (Ministry of Finance or National Planning Department).

- ➔ Higher equity requirements:
 - ➔ To attract institutional investors
 - ➔ To let the construction companies construct
 - ➔ To avoid conflict of interests

- ➔ Avoid periodic renegotiations (311 in all concessions since 1997) to avoid low power incentives: first, win the concession, then, renegotiate.

- ➔ Private participation in regional (secondary and tertiary) roads.