Fourth Annual Meeting of the 
San Giorgio Group

Session:
Financing Efficient and Resilient Land Use

Juliano Assunção

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Example 1 (policy): Deforestation in Amazon

What if Amazon monitoring and law enforcement had been more effective?

... zero impact on agriculture
Example 2 (innovation): Brazilian Soy Revolution

- In the 1970s, R&D investments in agriculture were part of the government strategy to foster the development of the Brazilian Central-West.

- Soybean adaptation (from temperate to tropical climate) succeeded from early 1970s to early 1980s.

- Embrapa (created in 1973) has played a key role in this process.

“(...) nobody thought these soils were ever going to be productive.”
Norman Borlaug (New York Times - October 2, 2007)
Example 2 (innovation): Brazilian Soy Revolution

Panel A: Total Farmland (% of municipality area)

Panel B: Cropland (% of municipality area)

Panel C: Private Natural Pastures (% of municipality area)

Panel D: Private Natural Forests (% of municipality area)
Example 3 (private investment): Sugarcane in Mato Grosso do Sul

2005$ (8$MILLS)$

2012$ (22$MILLS)$

Figure 7: Estimated Net Land Use Change (Hectares)

(b) GDP, Population and GDP per Capita
Variation in Agricultural Productivity, 2006

Geographical aspects explain 37% of variation in agricultural productivity.

Credit per hectare increases explanation to 58%.

Land abundance shaped the institutional and technological choices since the colonial period.
Delivering efficient land use

Changing land operator

Land markets

Land rental markets

Inside farms

Better practices / technology

Tax / subsidies
Fiscal transfers
Market frictions
Downstream activities

Information
Credit
Risk management
Human capital