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Industrial policy in South Korea and Ethiopia

The South Korean case

Summary

Aim: Studing the Korean I.P. and its recent evolution to identify sources of success and of failure of the government action.

1. Historical overview of Korean industrialization
2. Recent industrial strategies
3. Empirical analysis: a composite indicator to evaluate *structural change*
4. Final remarks

1. Historical overview of Korean industrialization

Why studying the South Korean case?
From agricultural economy in 1950s, a "big push" is occurred in **1960s** and **1970s** which has led South Korea to be one of the most competitive industrialized economies of the world.

PRECONDITIONS FOR DEVELOPMENT: 1945 – 1961: presence of few light industry; US' agrarian reforms reduced disparities and made stable the Korean state

When United States took control of the southern part of the country after World War II, establishing the modern state of South Korea, agricultural land reform was its first concern.

The reform enhanced the distribution of lands and incomes laying the bases for the rise of the entrepreneurial middle class, that would have been crucial for the future economic development (Amsden, 1989; Suh, 2007).
Increasing equality in income distribution and in general level of education were creating a system founding on a civil society ready to actively participate to the economic and political life of the country.

In this setting the development trajectory of the country could have been defined starting from a convergence of interests within the Korean society toward industrial development, as a rather homogeneous collective goal to pursue.

1. Historical overview of Korean industrialization

From Park's military coup of 1961, strategy for economic growth involved a fundamental role for large enterprises. Essentially, the role of the government was aimed to foster the growth of large industrial groups by defining economic plans through which it could coordinate investments and check results reached by the private economic agents. In this context, the government began to implement ***import substitution*** and ***export promotion*** measures by allocating important public resources to long-term investment plans, incentives and subsidies for manufacturing companies (sacrificing short-term social spending) (Amsden, 1989).

Public incentives and subsidies were necessary to allow firms to acquire and use **advanced technologies from industrialized countries**, by **prioritizing specific sectors (Heavy industries)**. A **mechanism of *reciprocal control*** between the private sector and the bureaucracy was set to give to the bureaucratic agencies control over the economic performances of firms, which in turn received subsidies of different nature (e.g. fiscal benefits, preferential loans, support by public funding programs). This kind of subsidies were granted on condition that firms managed to achieve specific prearranged standards

Manufacturing value added (share on total manufacture, selected years).

	1950	*1960*	*1970*	*1980*	*1990*	*2009*
Light industries:	78.9	76.6	56.5	38.7	26.7	13.8
- Food, beverage and tobacco	–	–	19.6	10.8	7.2	5.1
- Textile, leather	–	–	28.0	23.3	13.3	4.1
- Other (paper, wood)	–	–	8.9	4.6	6.2	4.6
Heavy industries:	21.1	23.4	39.8	58.4	70.0	84.9
- Machinery	–	–	8.1	16.6	23.5	33.9
- Transport equipment	–	–	8.5	5.2	11.7	17.5
- Chemicals and plastics	–	–	14.2	19.9	14.4	25.5
- Other (metal, mineral)	–	–	9.0	16.7	20.4	18.0
Manufacturing n.e.c.	–	–	3.7	2.9	3.3	1.3

Source: authors' elaboration on data from Bank of Korea and OECD.

"Principle of Reciprocity" as Export promotion strategy: exchange between public subsidies and high export performance of private enterprises

Exported goods (share on total exports, selected years, SITC Rev. 1).

	1962	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2013*
Food and live animals	38.6	7.8	11.9	6.6	3.7	3.1	2.2	1.4	0.9	0.9
Beverages and tobacco	0.2	1.7	1.3	0.7	0.3	0.2	0.1	0.1	0.2	0.2
Crude materials. Inedible, except fuels	37.6	12.0	3.0	1.9	1.0	1.4	1.5	1.1	1.0	1.2
Mineral fuels, lubrificants	4.9	1.0	2.1	0.2	3.1	2.1	2.0	5.5	6.3	9.5
Animals and vegetable oils and fats	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Chemicals	1.7	1.4	1.5	4.5	3.3	4.5	7.3	8.1	9.8	11.8
Manufact. goods classified by material	10.9	26.4	29.2	35.7	23.3	22.7	22.6	17.9	14.5	12.9
Machinery and transport equip.	2.6	7.4	13.8	19.7	36.4	39.4	51.5	57.0	58.7	54.7
Miscellaneous man. articles	3.4	42.2	37.1	30.3	28.8	26.8	12.8	9.0	8.6	8.6
Commod. & transacts. Other not class.	0.0	0.0	0.2	0.4	0.1	0.1	0.0	0.0	0.0	0.1

Source: authors' elaboration on data from UN Comtrade.

Value added for economic activity (share on total GDP, selected years)

Year	**Agricolture**	Mining and quarring	**Manufacturing**	Energy and construction	Services
1953	47.3	1.1	9.0	2.6	40.0
1960	36.8	2.1	13.8	4.1	43.2
1965	38.0	2.0	18.0	4.8	37.2
1970	26.9	1.5	20.9	7.1	43.6
1975	26.9	1.5	22.2	5.7	43.7
1980	16.0	1.4	24.6	10.0	48.0
1985	13.3	1.3	26.7	9.7	49.0
1990	8.7	0.8	26.6	12.4	51.5
1995	6.2	0.5	26.7	12.0	54.6
2000	4.6	0.3	28.3	9.5	57.3
2005	3.3	0.3	27.5	9.9	59.0
2012	2.6	0.2	31.1	7.9	58.2

Source: authors' elaboration on data from Bank of Korea.

80s and 90s: the *Washington Consensus* era:

Liberalization and privatization led to increasing **competition with China** and other South-East Asian economies (in steel, shipbuilding and automotive industry)

- **Overcapacity** of the Korean industry
- Macroeconomic **instability**
- **External debt**
- **The Crisis of 1997:** IMF rules, bail-outs of banks, creation of Financial Supervisory Commission

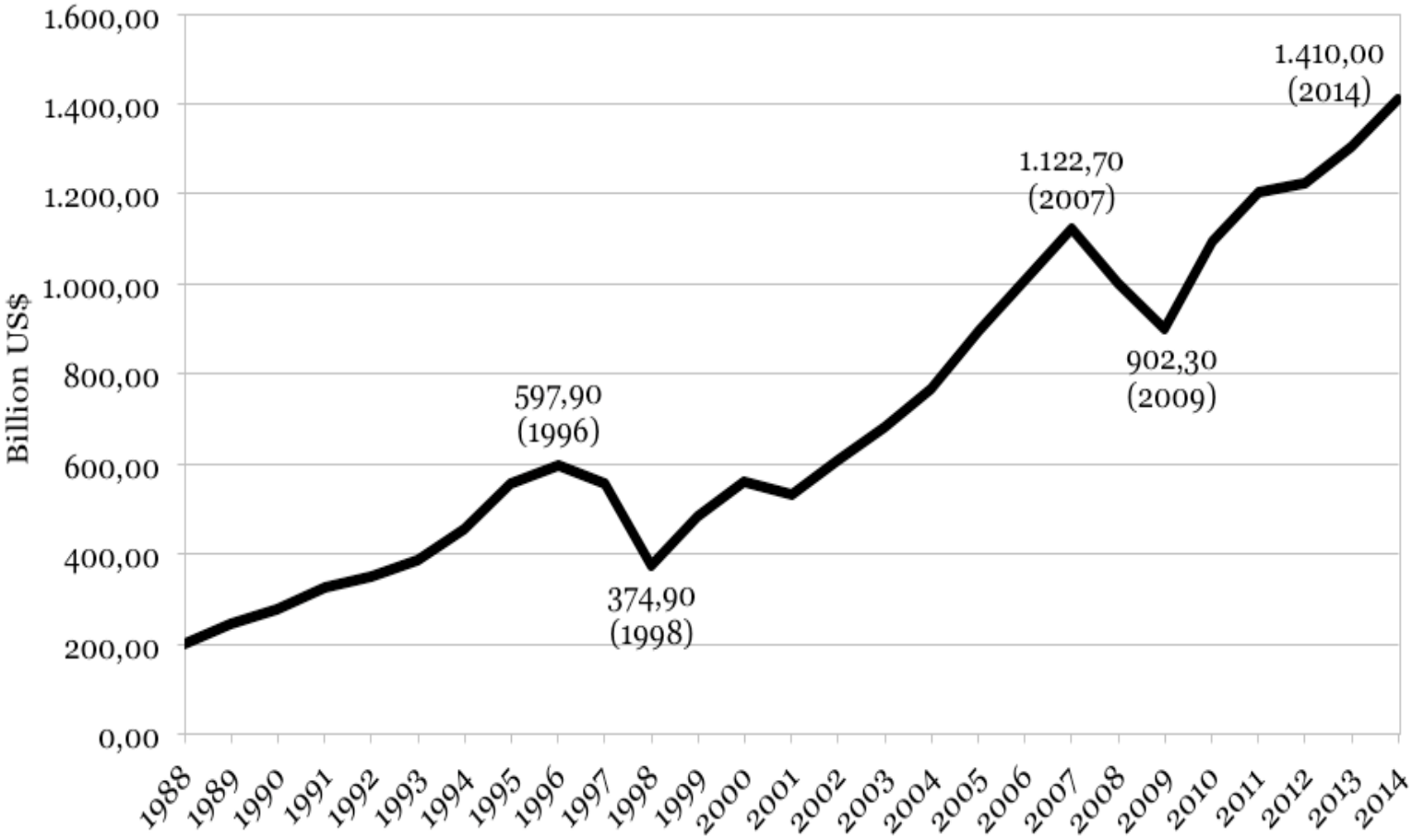
Main economic indicators (1996-2004, selected years)

	1996	*1997*	*1998*	*1999*	*2000*	*2004*
GDP per capita (US$)	12197	11176	7355	9438	10841	15898
GDP real growth (%)	7.2	5.8	-5.7	10.7	8.8	4.9
Net exports (US$)	-16.7	-6.2	39.5	25.3	15.6	39.3
- Exports	124.4	132.4	127.5	136.0	169.5	256.0
- Imports	141.1	138.6	88.0	110.8	153.9	216.8
Gross Investment Ratio (%)	38.1	35.6	25.2	29.1	30.7	32.3
Gross Saving Ratio (%)	34.8	34.6	36.6	34.6	33.0	35.5
Unemployment rate (%)	-	2.6	7.0	6.3	4.1	3.5

Source: adapted from Bank of Korea (2014).

Ability to respond to the Crisis

GDP (1988-2014), data from Bank of Korea



2. Recent industrial strategies

Recovery from the 2008 Crisis came under expansive monetary and fiscal policies

Looking for new sources of economic growth → **Paradigm of creative economy** (MOSF, 2013) → **A new strategic role of the government**

«Korean creativity and imagination will be combined with science, technology and ICT to create new industries and markets, and to make existing industries stronger and thus create good jobs» (MOSF, 2013).

The new framework for economic and industrial development, 3 main directions:

1. **National Innovation System**: facilitate application of R&D results in industrial contexts for product and process innovations;
2. **Small and Medium Enterprises**: increase "economic democracy" in SME-*chaebols* relationship;
3. **New *promising* sectors**: selective support for hi-tech industries, (robotic, autonomous veichles, drones, biotech) green economy and service sectors (logistics, healthcare, financial services).

Different interpretations of Korean case

- **Neoclassical view** (KRUGMAN, 1994; YOUNG, 1995): mobility of productive factors and internationalization of enterprises. Capital stock, amount of work and technology are the determinants of growth. Increasing in capital and labor with *low cost* generated growth by selling in domestic and international markets.
- **Market-friendly view** (STIGLITZ, 1996): reliance on **exports** and **FDI** was the key of success and economic growth got started only when Korean firms were able to compete on international markets; internationalization led to higher levels of efficiency for Korean firms (relevance of the state in maintaining a proper *investment climate, macroeconomic stability, infrastructure,* remove tariffs and other constraints to trade)

- **Developmental State view** (AMSDEN, 2001): a complex organization, featured by the collaboration between an expert bureaucratic apparatus and the private sector. The effects of government industrial policies should be to improve technology and efficiency. Public incentives and subsidies were necessary to allow firms to acquire and use advanced technologies from industrialized countries, by prioritizing specific sectors (Heavy industries). A mechanism of ***reciprocal control*** between the private sector and the bureaucracy was set to give to the bureaucratic agencies control over the economic performances of firms, which in turn received subsidies of different nature (e.g. fiscal benefits, preferential loans, support by public funding programs). This kind of subsidies were granted on condition that firms managed to achieve specific prearranged standards

- **Culturalist view** (RODRIK, 1995): focus on social and cultural aspects such as Confucianism, education system, income distribution. Confucian doctrine in Korean economic development, which promoted meritocracy, morality, honesty and competence in the bureaucratic body and civil society, encouraging investments in education, equality and hard work in economic life as social values.

4. Final remarks: sources of Korean industrialization

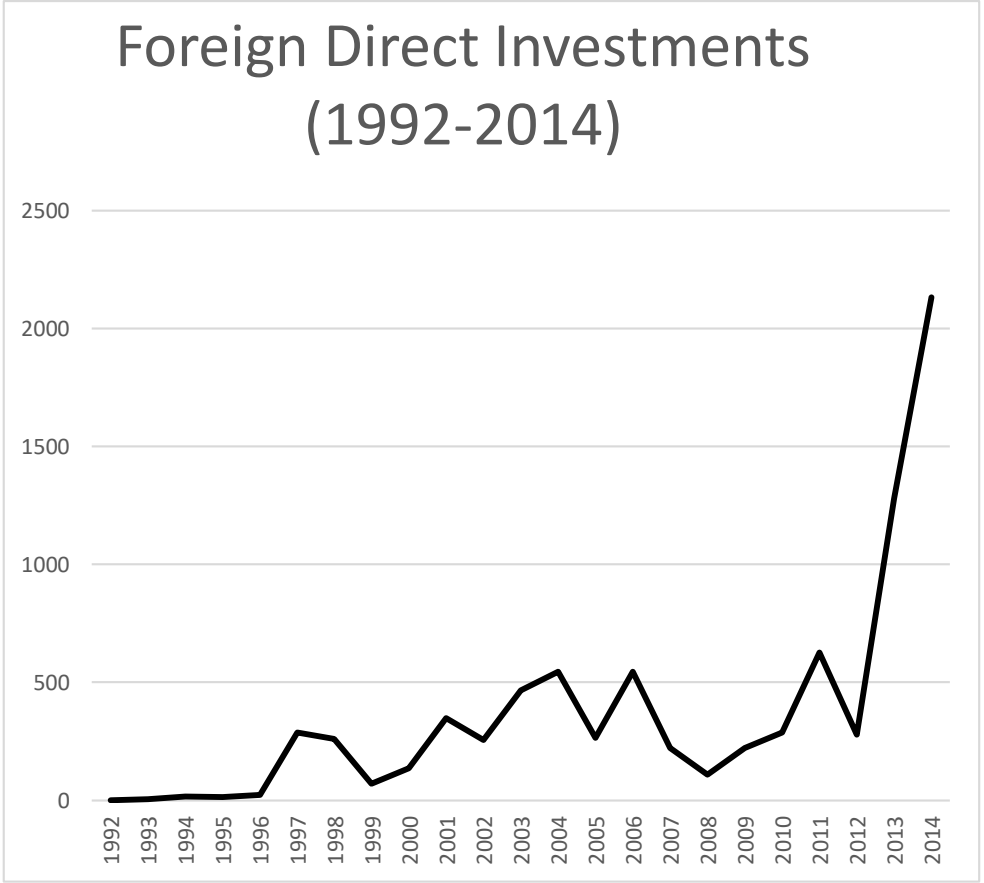
- **Complexity**: despite different interpretations many factors have led Korean industrialization
- **Complementarities between state and market**: Central role of public policies in managing the *market*
- **Selectiveness** of the policies toward strategic sectors
- Challenges for future Korean economy: searching for new sources of growth and development, fostering the environmental sustainability and improving innovation capabilities.
- Generally we conclude that the government has been able to find a virtuous compromise between international competition and protection and promotion of the national industry: **it seems to be the challenge of many countries, going beyond polarizing ideologies**.

The Ethiopian case

Ethiopia as a new business arena

- Since 1993, average growth rate: 8%
- Long-run Industrial Policy Plans and fiscal incentives
- FDI policies with particular focus on infrastructure

The countries is become of interest for many industrial power and it is experiencing a fast growth: the paper aims at analysing and assessing the Ethiopian industrial policy and FDI policy (with particular focus on infrastructure) as model of industrialization.



Source: UNCTAD (2016)

Structural Reforms and Industrial policies in Ethiopia

- Transition to market economy in 1991 (Naudé, 1998; Rajan, 2005)

- Five-year Plans (similarities with Chinese and Vietnamese model): *Plan for Accelerated and Sustained Development to End Poverty* (PASDEP) (2005-2010); Two *Growth and Transformation Plan* (2010-2015 + 2015-2020):

  - Export promotion and import substitution strategy
  - Industrialization of agricultural sector
  - "strategic" targeting of manufacturing sectors: textiles, clothing, leather, food and beverages (coffee), sugar, metals, pharmaceuticals, chemicals and building materials
  - Fiscal incentives for foreign investors

Policies for attracting FDI: improving "investment climate" and infrastructure

Ethiopian is still one of the most poor countries in the World. Despite growing FDI it is 159 (of 190) in World Bank ranking for easy of "doing business".

Ethiopian regulations require a massive amount of bureaucratic requisites. This bureaucratic regime is time-consuming, it increases the costs and reduces efficiency of the enterprises. Access to electricity, transportation and telecommunications is still a crucial problem for many Ethiopian regions.

Ease of doing business index
(*1=most business-friendly regulations)*

Country	2015	2016
Switzerland	29	31
Italy	44	50
Germany	14	17
Belgium	38	42
Poland	25	24
Colombia	51	53
Bulgaria	37	39
Sweden	9	9
Indonesia	106	91
Armenia	43	38
Ethiopia	159	159

Data Source: World Development Indicators (02/08/2017)

Policies for attracting FDI: improving "investment climate" and infrastructure

Ethiopian government is acting massively to improve the investment climate and push industrial development, especially by attracting **foreign investors**:

- Industrial development zone and **Industrial Park** (Addis Abeba, Awasa, Dire Dawa e Kombolcha)
- Transportation: prominent **Chinese investments** (e.g. 3,3 billion USD for the railway from Addis Ababa to Djibouti, 756 Km; 500 million for the *Light Rail Transit* (LRT) project in Addis Ababa)
- Energy sector: *Great Renaissance Hydro Electric Power Project* (6000 MW), il *Gilgel-gibe III* (1870 MW) from **Salini**, one of the biggest Italian construction companies; *Genale-Dawa III* (254 MW) and others for wind energy (e.g. in *Adama* e *Shegoda*)
- Telecommunication: Ethiopian Telecommunications Corporation (ETC), monopolistic public company

China's investment in Ethiopian infrastructures

China is one of the main player of the Ethiopian industrialization:

- On November 24, 1970, the Democratic Republic of China and Ethiopia established an **agreement on the diplomatic relations of the two countries**, after it a good relationship between the countries was established.
- Since 1986 Chinese engagement in Ethiopian economy has increased in many sectors (highways, power stations, water supply projects, etc.) and **since 2002 China has invested around US$ 710 million** to offer to the Chinese companies business opportunities.
- In 2007, the Chinese SinoHydro Corporation started the construction of **three road construction projects** to a total value of over $ 93 million under the supervision of the Ethiopian Roads Authority (ERA) for 252km.
- Another project was the **Addis Ababa Ring Road**, financed partly through an interest-free $ **12 million loan** from the Chinese government, constructed by China Road & Bridge Corporation (CRBC) from 1998-2003 and inaugurated in 2003.
- 3,3 billion USD for the railway from Addis Ababa to Djibouti, 756 Km;
- 500 million for the *Light Rail Transit* (LRT) project in Addis Ababa
- China is also involved in the telecommunication sector in Ethiopia thanks to an **agreement** with the Chinese ZTE **to upgrade its telephone system**; the agreement includes the delivery and installation of mobile phone equipment and a high volume of fiber-optic transmission line.

Main drivers of Chinese FDI in Ethiopia: how to explain Chinese presence in Ethiopia?

- Business opportunities provided by the current economic expansion of Ethiopia (growing market, cheap labor, cheap land).

- Incentives provided by the Ethiopian government to foreign investors (FDI and Industrial policy: tax holidays and tariff free policy for FDI equipment imports).

- As part of “China Goes Global” Strategy (which awards Chinese firms investing abroad with tax credits in China), Ethiopia is a strategic countries to enter the wider African market. Ethiopia offers a strong diplomatic support for deeper involvement of China in Africa (Alden, 2007).

Some open issues of industrial and FDI policies …

1) Worker conditions

- The remuneration to the local labor for Chinese constructions is still very low, as well as the level of safety.
- The quality of the Chinese construction is usually low and below the international standard.
- Equipments and machineries for construction are free of import duties and tariffs.

2) Land Grabbing

- The term refers to the model of taking control of lands and natural resources for producing and exporting.

- Italy is one of the most active countries regarding land grabbing, and the most involved sectors are the bank, insurance and energetic ones (e.g. Italian company Fri-El Green Power).

- Fri-El operates in Ethiopia since 2007, and gained from the Ethiopian government a concession of 300.000 ha of land on a contract which is supposed to last 70 years and that will cost EUR 3,5 per hectare (Borras S., 2011).

3) Territorial disparities in ability of attracting FDI and to participate to industrialization

Empirical analysis reveals that there is an heterogeneity in the business environment constrains on the territories.

Some territories suffer of a lack of fundamental infrastructures affecting the ability to attract FDI.

Business environment constraints in different regions

Access to finance	Regione					
	Addis Abeba	Amhara	Dredawa	Oromia	Snnpr	Tigray
low	53.54	35.82	92.59	47.29	96.00	41.67
high	46.46	**64.18**	7.41	52.71	**4.00**	58.33
Totale	100	100	100	100	100	100

Telecommunication	Regione					
	Addis Abeba	Amhara	Dredawa	Oromia	Snnpr	Tigray
low	54.27	57.97	66.67	49.62	84.91	78.90
high	45.73	42.03	33.33	**50.38**	**15.09**	21.10
Totale	100	100	100	100	100	100

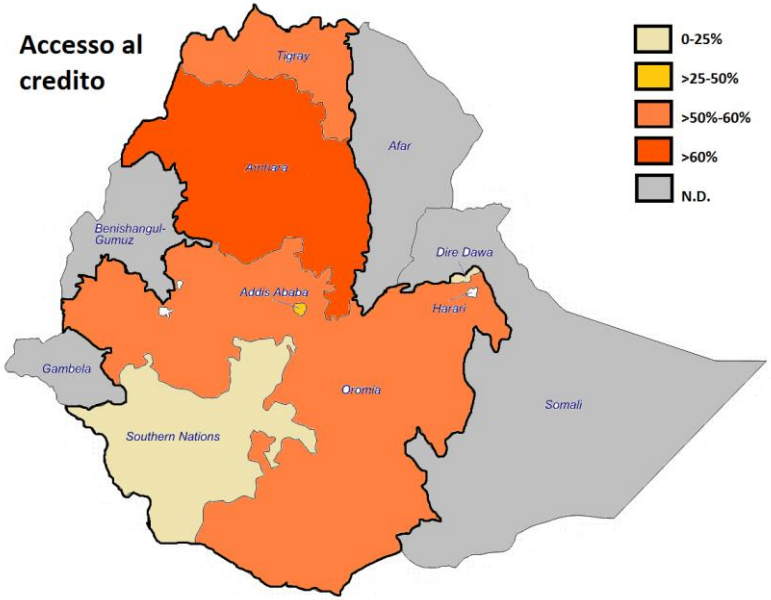
Fonte: World Bank, 2016

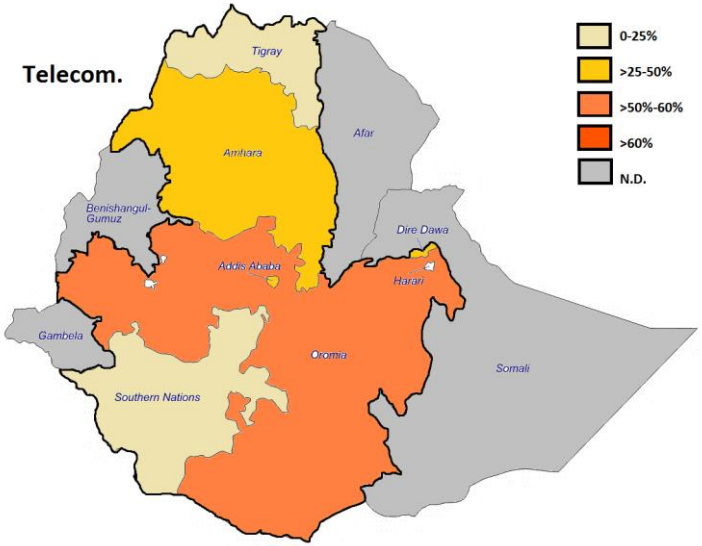
Electricity	Regione					
	Addis Abeba	Amhara	Dredawa	Oromia	Snnpr	Tigray
low	38.81	42.64	18.51	24.24	28.30	34.25
high	61.19	**57.36**	**81.49**	75.76	71.70	65.75
Totale	100	100	100	100	100	100

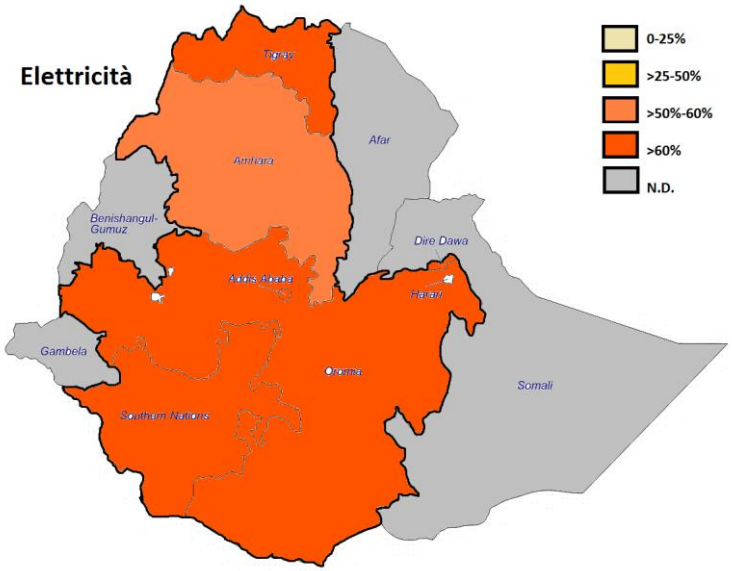
Trasportation	Regione					
	Addis Abeba	Amhara	Dredawa	Oromia	Snnpr	Tigray
low	74.88	67.16	74.07	78.64	93.75	83.02
high	25.12	32.84	25.93	21.36	6.25	16.98
Totale	100	100	100	100	100	100

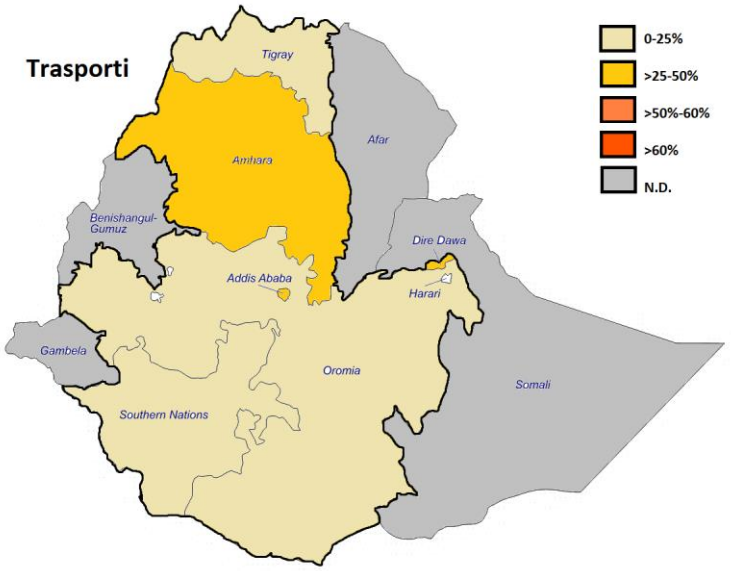
Fonte: World Bank, 2016

Heterogeneity of business environment constraints









Some concluding remarks…

- Ethiopia is experiencing a deep industrial transformation.
- The countries is subject of interest for China and other industrial power.
- The need of new infrastructure suggests that FDI in infrastructure are welcome to push economic development of Ethiopia.
- On the other hand the paper aims at analysing also the dark side of industrialization for marginal social groups and regions, since not all social groups can get benefit from industrialization process.
- Future industrial policy agenda needs to consider the interest of the minorities by recomposing the general interest of the country, as crucial point for future sustainability of economic development and avoid political instability.