
A BRIEF ANALYSIS ON DEVELOPMENT AND COMPETITIVENESS – CONSIDERING THE WORLD’S TOP TRANSNATIONAL CORPORATIONS

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Abstract:

Development represents a strategic goal for every country of the world. But it also is a “complicated issue”, given the multitude of (micro and macro economic) approaches that academics and strategists have proposed for development. By this paper we consider competitiveness as measure and indicator of development – based on World Economic Forum researches and findings. This kind of approach allows us to make some (time - and space - based) comparisons – at country level and to identify some key figures – at industry level – of the world’s top transnational corporations (ranked by UNCTAD) that can be valorised by countries (and TNCs as well) on their journey through economic development and competitiveness.

Key words: *development, stages of development, competitiveness, Global Competitiveness Index (WEF), Top 100 non-financial TNCs (UNCTAD)*

1. Introduction

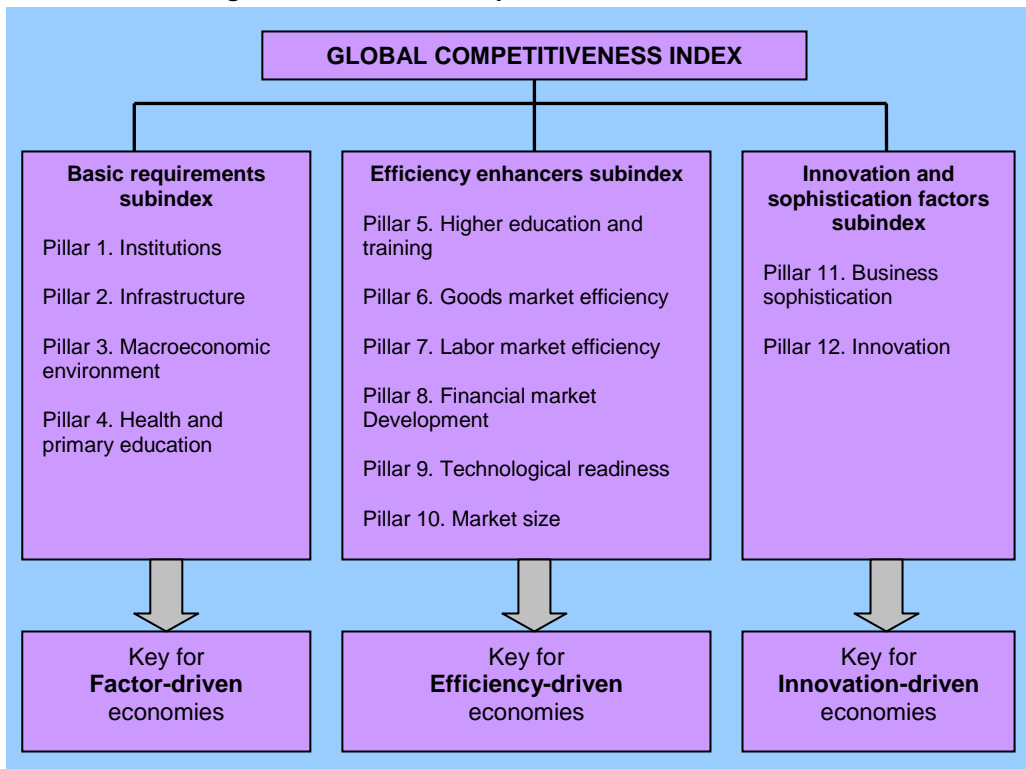
Development represents a strategic goal for every country of the world – no matter its level (or stage) of development or the moment in time. Most of the approaches on development are based on its economic foundation (usually express as *economic growth*), but development is a much more and complex concept and status than that. There are a variety of (micro and macro economic) perspectives regarding the theories of (economic) development. This variety is consistent with – and reflects – the reality itself, characterized by many development gaps and discrepancies – that are determined, and determine at their turn, by different levels of integration (of firms – nations – regions), as well as quite different impacts and consequences for the

decisions made by the global players – no matter their quality or level of aggregation (firms – nations – institutions...).

So, we agree with Todaro & Smith (2009) which emphasize that **development** „must be conceived of as a multidimensional process involving major changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty. Development, in its essence, must represent the whole gamut of change by which an entire social system, tuned to the diverse basic needs and desires of individuals and social groups within that system, moves away from a condition of life widely perceived as unsatisfactory toward a situation or condition of life regarded as materially and spiritually better.” (Todaro & Smith, 2009)

The World Economic Forum (WEF) represents a significant milestone on the map of concerns about development. It annually develops and releases a *Global Competitiveness Report* – that ranks countries based on a composite index of development: the *Global Competitiveness Index (GCI)*. During more than three decades of experience, the WEF has study and made benchmarks about the factors that determine national competitiveness, by highlighting, in the same time, the powerful connection between competitiveness and development (Figure 1).

Figure 1. The Global Competitiveness Index framework



(Source: WEF, 2012)

The most recent WEF report (released on the 5th of September 2012) defines **competitiveness** as „the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be earned by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates. In other words, a more competitive economy is one that is likely to sustain growth. The concept of competitiveness thus involves static and dynamic components. Although the productivity of a country determines its ability to sustain a high level of income, it is also one of the central determinants of its returns to investment, which is one of the key factors explaining an economy’s growth potential.” (WEF, 2012)

2. Global Competitiveness Index (GCI) as indicator and measure of (country-level) development

According to the WEF, GCI is a composite indicator based on 12 pillars (Figure 1). It conventionally assigns higher relative weights to those pillars of competitiveness that are more relevant for an economy within a certain stage of development. That means that, although all the 12 pillars of competitiveness count to a certain level – for every country and every stage of development – the relative weight of each one depends on the stage of development that defines a country on a certain moment. In order to put this concept into practice, WEF has grouped the 12 pillars of competitiveness into 3 sub-indexes; each of them is critical for a certain stage of development.

The interrelations between **competitiveness and development** (Table 1) are explained by WEF as follows (WEF, 2012):

- „In line with the economic theory of stages of development, the GCI assumes that economies in the first stage are mainly **factor-driven** and compete based on their factor endowments – primarily low-skilled labor and natural resources. Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. Maintaining competitiveness at this stage of development hinges primarily on well-functioning public and private institutions (pillar 1), a well-developed infrastructure (pillar 2), a stable macroeconomic environment (pillar 3), and a healthy workforce that has received at least a basic education (pillar 4).
- As a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the **efficiency-driven** stage of development, when they must begin to develop more efficient production processes and increase product quality because wages have risen and they cannot increase prices. At this point, competitiveness is increasingly driven by higher education and training (pillar 5), efficient goods markets (pillar 6), well-functioning labor markets (pillar 7),

developed financial markets (pillar 8), the ability to harness the benefits of existing technologies (pillar 9), and a large domestic or foreign market (pillar 10).

- Finally, as countries move into the **innovation-driven** stage, wages will have risen by so much that they are able to sustain those higher wages and the associated standard of living only if their businesses are able to compete with new and/or unique products, services, models, and processes. At this stage, companies must compete by producing new and different goods through new technologies (pillar 12) and/or the most sophisticated production processes or business models (pillar 11).” (WEF, 2012)

Table 1. Subindex weights and income thresholds for stages of development

	Stages of development				
	Stage 1: Factor-driven	Transition from stage 1 to stage 2	Stage 2: Efficiency- driven	Transition from stage 2 to stage 3	Stage 3: Innovation- driven
GDP per capita (US\$) thresholds	< 2.000	2.000-2.999	3.000-8.999	9.000-17.000	> 17.000
Weight for basic requirements subindex	60%	40-60%	40%	20-40%	20%
Weight for efficiency enhancers subindex	35%	35-50%	50%	50%	50%
Weight for innovation and sophistication factors	5%	5-10%	10%	10-30%	30%

(Source: WEF, 2012)

The classification of the countries upon their stage of development for the year 2012 – in accordance with the WEF methodological model – synthetically reunites all the determinants and consequences of competitiveness and development (Table 2). The resulted image is complex and comprehensive in terms of reflecting the country specific strengths and weaknesses – estimated through the scores that each pillar of competitiveness has acquired and also through the GCI at the end.

Table 2. Countries/economies at each stage of development

Stage 1: Factor driven (38 economies)	Transition from stage 1 to stage 2 (17 economies)	Stage 2: Efficiency-driven (33 economies)	Transition from stage 2 to stage 3 (21 economies)	Stage 3: Innovation-driven (35 economies)
Bangladesh	Algeria	Albania	Argentina	Australia
Benin	Azerbaijan	Armenia	Bahrain	Austria
Burkina Faso	Bolivia	Bosnia and Herzegovina	Barbados	Belgium
Burundi	Botswana	Bulgaria	Brazil	Canada
Cambodia	Brunei	Cape Verde	Chile	Cyprus
Cameroon	Egypt	China	Croatia	Czech Rep.

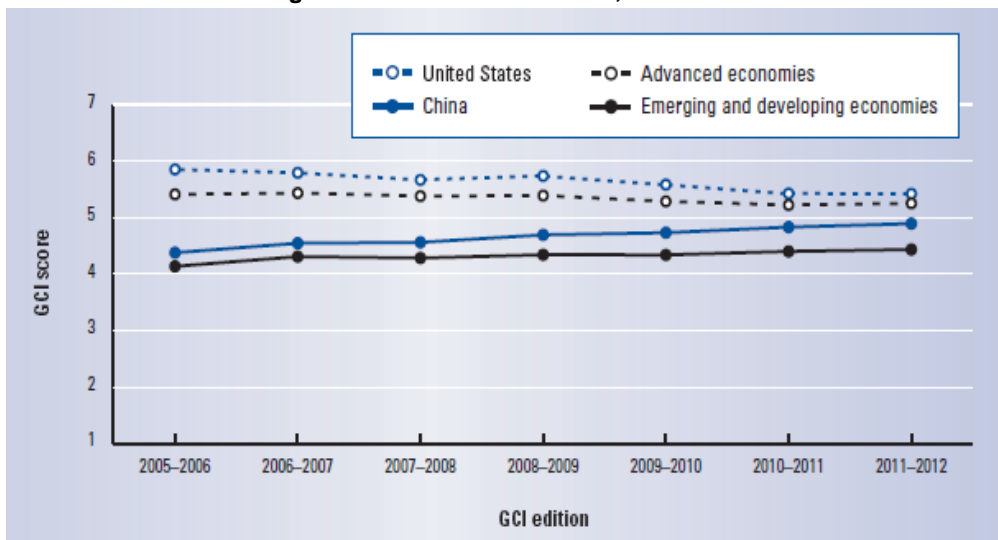
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Chad	Gabon	Colombia	Estonia	Denmark
Cote d'Ivoire	Honduras	Costa Rica	Hungary	Finland
Ethiopia	Iran	Dominican Republic	Kazakhstan	France
Gambia	Kuwait	Ecuador	Latvia	Germany
Ghana	Libya	El Salvador	Lebanon	Greece
Guinea	Mongolia	Georgia	Lithuania	Hong Kong
Haiti	Philippines	Guatemala	Malaysia	Iceland
India	Qatar	Guyana	Mexico	Ireland
Kenya	Saudi Arabia	Indonesia	Oman	Israel
Kyrgyz Rep.	Sri Lanka	Jamaica	Poland	Italy
Lesotho	Venezuela	Jordan	Russian Federation	Japan
Liberia		Macedonia	Seychelles	Korea Rep.
Madagascar		Mauritius	Trinidad Tobago	Luxembourg
Malawi		Montenegro	Turkey	Malta
Mali		Morocco	Uruguay	Netherlands
Mauritania		Namibia		New Zealand
Moldova		Panama		Norway
Mozambique		Paraguay		Portugal
Nepal		Peru		Puerto Rico
Nicaragua		Romania		Singapore
Nigeria		Serbia		Slovak Rep.
Pakistan		South Africa		Slovenia
Rwanda		Suriname		Spain
Senegal		Swaziland		Sweden
Sierra Leone		Thailand		Switzerland
Tajikistan		Timor-Leste		Taiwan, China
Tanzania		Ukraine		United Arab Emirates
Uganda				United Kingdom
Vietnam				United States
Yemen				
Zambia				
Zimbabwe				

(Source: WEF, 2012)

But this image can be optimized if we consider a comparative and dynamic analysis; by this way, the evolution of each country can be simultaneously compared in time (with its historical performances) and in space (with all the countries that share the same level of development or with those placed on superior stage). By doing so will be possible to configure alternative scenarios – strategies and politics for continuous improving and development. The comparative analysis of the GCI during the period it has been served as benchmark for WEF – 2005-2011 (Figure 2) reveals a tendency of convergence of values between the developed countries on one hand, and the emerging and transition ones, on the other hand. Total weighted average score of GCI for all the 80 countries that constitute the sample of the research has improved from 4.1 in 2005 to 4.4 in 2011 on a scale from 1 to 7. In the same time, the weighted average of the 33 advanced economies has decreased from 5.4 to 5.2. As a result of these evolutions, the gap between the two categories of countries has diminished from 1.3 to 0.8. (WEF, 2011)

Figure 2. Trends in GCI scores, 2005-2011



(Source: WEF, 2011)

3. Analysis and findings on development and competitiveness at country and industry level – considering Top 100 non-financial TNCs (UNCTAD)

Because multinational enterprises / *transnational corporations* (TNCs) have a growing relevance in the world economies in both the developed and the developing countries (Ietto-Gillies), and because they are the leading forces of the globalization process – as we perceive and live it today – we have to analyze the interdependencies between development and competitiveness at their level also. Within this general framework, “a multinational or transnational enterprise is an enterprise that engages in

foreign direct investment (FDI) and owns or, in some way, controls value-added activities in more than one country. This is the threshold definition of a multinational enterprise (MNE), and one that is widely accepted in academic and business circles, by data-collecting agencies such as the Organisation for Economic Co-operation and Development (OECD), UNCTAD's Division on Investment, Technology and Enterprise Development (DITE), and by most national governments and supranational entities" (Dunning & Lundan, 2008).

So, in order to translate the above results into useful insights for the analysis at industry level, we appeal to the most recent UNCTAD annual report on world investments (UNCTAD, 2012). The UNCTAD's World Investment Report 2012 contains two annexes that illustrate the rankings of the largest 100 Transnational Corporations (TNCs) according to their foreign assets. One of the annexes considers as unique criterion the ratio of foreign assets to total assets, no matter the country of origin of the TNC; the other one stops exclusively on the TNCs that have their origin in developing and transition economies. (Ogrea & Herciu, 2012)

According to UNCTAD's Top 100 non-financial TNCs, and the analysis made on its basis by The Economist online, "*the giant American conglomerate General Electric (GE) holds more assets abroad than any other non-financial firm in the world. ... Of the 100 companies with the most foreign assets, 17 hold over 90% of their assets abroad, including ArcelorMittal, Nestlé, Anheuser-Busch InBev and Vodafone. Their share of foreign sales is also substantially larger than GE's. More than half of GE's 300,000-strong workforce is based outside America ... Transnational firms benefited from the more favourable economic climates in emerging markets, and some developed markets, like America. ... Production by foreign affiliates increased in 2011: sales rose by 9% to \$28 trillion; employment rose by 8% to 69m; and total assets rose from around \$75 trillion in the previous two years to \$82 trillion.*" (The Economist online, 2012). All the above are strong arguments in favor of the importance of TNCs at global scale nowadays on one hand, and of the contribution of TNCs to development on the other hand – because the ranking is made primarily based on foreign assets, but it also counts for each TNC on the share of foreign employees in total employees and the share of foreign sales in total sales.

If we consider, on one hand, the **WEF's stage of development criterion for the countries** – that places them according to their GCI index and its sub-indexes within one of the five categories (Table 2) and the **Top 100 non-financial TNCs** – developed by UNCTAD (UNCTAD, 2012; Ogrea & Herciu, 2012) on the other hand, we have to emphasize that, from all the 24 countries that are present into the UNCTAD's Top 100 non-financial TNCs:

- twenty countries are placed into the 3rd stage of development – having innovation-driven economies: United States, Australia/United Kingdom, Austria, Belgium, Canada, Denmark, Switzerland, Finland, France, Germany, Hong Kong, Israel, Italy, Japan, Luxemburg, United Kingdom, Netherlands, Norway, Spain, Sweden;

- three countries are in transition from stage 2 to stage 3: Brazil, Malaysia, Mexico;
- one country is placed into the 2nd stage of development – having an efficiency-driven economy: China.

This kind of distribution (the presence of the countries that are in transition from stage 2 to stage 3 and mostly the presence of one country into the 2nd stage of development) does not seem so surprising if we take into consideration the composite structure of the reference and its structure.

Obviously, the distribution of **countries at each stage of development** differs a lot when we analyze the countries that are present into the **UNCTAD's Top 100 non-financial TNCs from developing and emerging economies** (UNCTAD, 2012; Ogorean & Herciu, 2012). So, from all the 18 entities:

- five of them are placed into the 3rd stage of development: Hong Kong, Taiwan, Singapore, United Arab Emirates, Korea;
- six countries are in transition from stage 2 to stage 3: Russia, Mexico, Malaysia, Brazil, Turkey, Argentina;
- two countries are placed into the 2nd stage of development: China, South Africa;
- four countries are in transition from stage 1 to stage 2: Kuwait, Qatar, Egypt, Venezuela;
- one country is placed into the 1st stage of development – having a factor-driven economy: India.

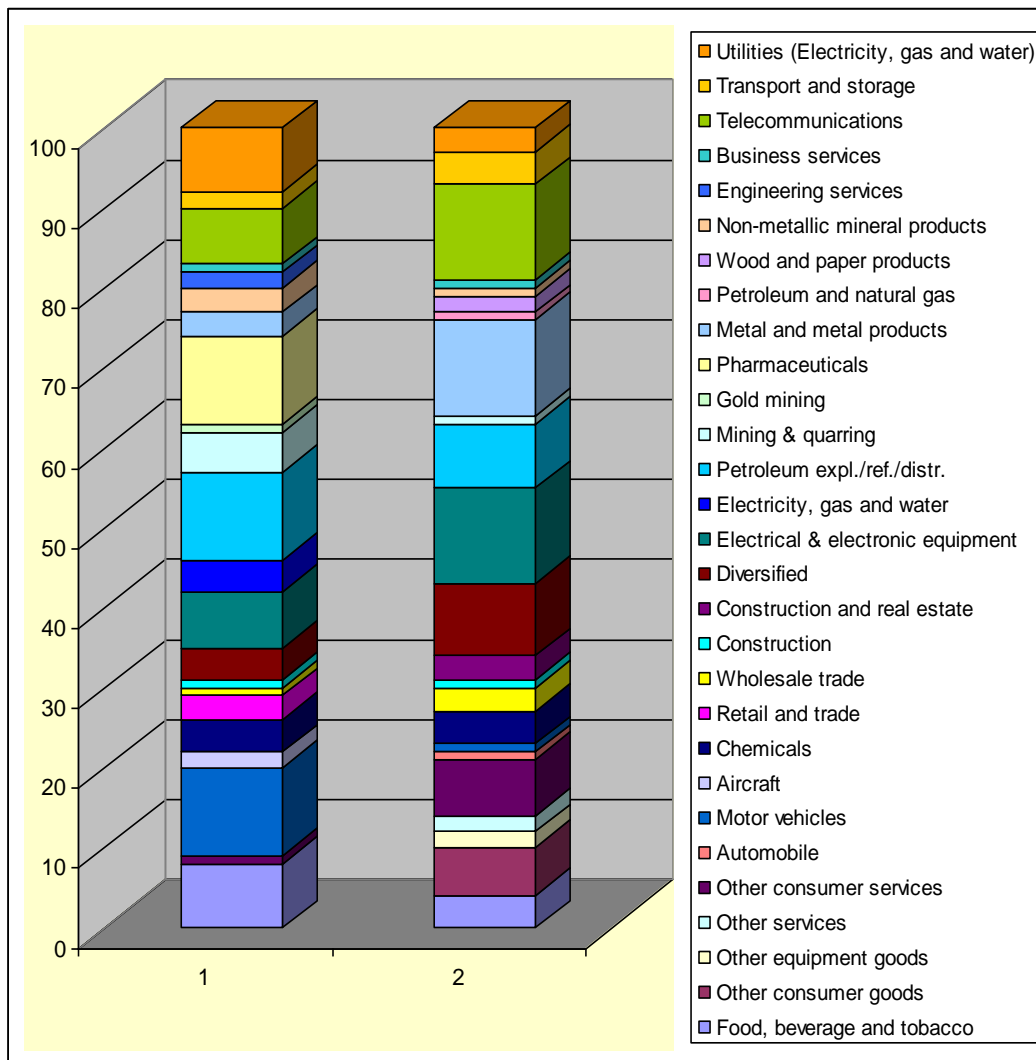
There is a great diversity regarding the main characteristics of these countries' development – equally seen as process and status; this **diversity** is also reflected in terms of the **industry** within the Top 100 non-financial TNCs (ranked by UNCTAD) and Top 100 non-financial TNCs from developing and transition economies (ranked also by UNCTAD) operate (Figure 3 and Annex 1).

The analysis on the distribution of TNCs in Top 100 non-financial TNCs (UNCTAD) and of TNCs in Top 100 non-financial TNCs from developing and transition economies (UNCTAD) – by industry reveals the following **findings and conclusions**:

- ✓ The two data series count for a total of 29 industries. 16 of them are present in both of the analyzed categories – food, beverage and tobacco; other consumer goods; motor vehicles; chemicals; wholesale trade; construction; diversified; electrical & electronic equipment; petroleum exploitation/refining/distribution; mining & quarrying; metal and metal products; non-metallic mineral products; business services; telecommunications; transport and storage; utilities (electricity, gas and water).

These industries are on different stages of lifecycle and their presence in both of the categories of countries/economies suggests that they may be determinants of competitiveness by capitalizing on their factors, but also through efficiency and innovation (possible in different dosages for different countries);

Figure 3. Distribution of TNCs in Top 100 non-financial TNCs and TNCs in Top 100 non-financial TNCs from developing and transition economies – by industry



1 - Number of TNCs in Top 100 non-financial TNCs UNCTAD – 2011 – by industry

2 - Number of TNCs in Top 100 non-financial TNCs from developing and transition countries UNCTAD – 2010 – by industry

(Source: authors' processing of data from UNCTAD, 2012)

- ✓ The industries exclusively present into Top 100 non-financial TNCs (regardless of the country where they have their headquarters) are: aircraft; retail and trade; electricity, gas and water; gold mining; pharmaceuticals; engineering services.

We can find the origin of this exclusivity into the highly innovative and competitive nature that characterizes the industry, or into the specific

strategies developed by the TNCs – in order to valorize: the company's scale and tradition, the economies of scale or those of network;

- ✓ The industries exclusively present into Top 100 non-financial TNCs from developing and transition economies are: construction and real estate; petroleum and natural gas; wood and paper products; other consumer goods; other equipment goods; other services.
- ✓ None of these industries does belong to a leading/top category industry, none of them requires special abilities in terms of business sophistication or innovation; all of these industries are (at least) into the maturity phase of their lifecycle. Therefore, the source of competitiveness could be efficiency – in general – and the challenge to overcome the status of origin countries followed by the entering into a new development stage – in particular.
- ✓ "Top 3" of the industries with the largest number of companies within the general classification is represented by the following: motor vehicles; petroleum exploitation/refining/distribution; pharmaceuticals (each of these industries having 11 TNCs in Top 100 non-financial TNCs - UNCTAD); on the other hand, "top 3" of the industries with the largest number of companies within the Top 100 non-financial TNCs from developing and transition economies (UNCTAD) is represented by the following: electrical & electronic equipment; metal and metal products; telecommunications.

Each one of these industries is highly competitive; it suggests and emphasizes on the need for an appropriate analysis (regarding the strengths and the weaknesses of a country, on one hand, and the opportunities and threats of the global business environment, on the other hand). This analysis has to be made in accordance with some scientifically based projections and forecasts of the essential economic trends, and it has to be followed by politics and strategies able to valorise the (internal and external) potential and to minimize (internal and external) risks. We think that this kind of approach has the vocation to allow and confer global competitiveness to a specific country.

So, we can talk about interdependencies between development and competitiveness at country, as well as at corporation and industry level – and the analyses made at each one of those levels are very significant and relevant in terms of conclusions and possible solutions.

4. Acknowledgement

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Annex 1. Distribution of TNCs in Top 100 non-financial TNCs and TNCs in Top 100 non-financial TNCs from developing and transition economies – by industry

Industry	Number of TNCs in Top 100 non-financial TNCs UNCTAD - 2011	Number of TNCs in Top 100 non-financial TNCs from developing and transition economies UNCTAD - 2010
1. Food, beverage and tobacco	8	4
2. Other consumer goods	-	6
3. Other equipment goods	-	2
4. Other services	-	2
5. Other consumer services	1	7
6. Automobile	-	1
7. Motor vehicles	11	1
8. Aircraft	2	-
9. Chemicals	4	4
10. Retail and trade	3	-
11. Wholesale trade	1	3
12. Construction	1	1
13. Construction and real estate	-	3
14. Diversified	4	9
15. Electrical & electronic equipment	7	12
16. Electricity, gas and water	4	-
17. Petroleum expl./ref./distr.	11	8
18. Mining & quarrying	5	1
19. Gold mining	1	-
20. Pharmaceuticals	11	-
21. Metal and metal products	3	12
22. Petroleum and natural gas	-	1
23. Wood and paper products	-	2
24. Non-metallic mineral products	3	1
25. Engineering services	2	-
26. Business services	1	1
27. Telecommunications	7	12
28. Transport and storage	2	4
29. Utilities (Electricity, gas and water)	8	3
Total corporations	100	100

(Source: authors' processing of data from UNCTAD, 2012)