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Development Paradigms and Related Policies

D R A F T

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1. INTRODUCTION

Emerging global development issues - such as the overuse of exhaustible resources, climate change, recurrent food crises and political instability of entire regions - combined with the persistency of inequalities, poverty and food insecurity renders the assessment of recent and past development processes particularly important. A comprehensive discussion of achievements and failures could help to not only inform the current understanding of these phenomena but also to design or redesign ways forward for ongoing and future processes of development. While immediate actions may relieve the direct and severe consequences of contingent crisis, the development process requires a long-term vision and lasting policy actions to be effective and sustainable.

In September 2000, the United Nations through the Millennium Development Goals (MDG) committed to assigning high priority to work aimed at poverty elimination and sustained development by the year 2015. Tracking the progress that the world has achieved in the area of development is of primary importance in understanding what aspects have been reached and which areas still need support in order to meet the goals of the MDG by the deadline.

From the Industrial Revolution until the Second World War, some "Western" countries gradually advanced along their development paths with respect to the rest of the world and cemented their position as "developed" economies, as they were henceforth known. There have since, however, been considerable changes to the world's socio-economic and political setting. The prevailing vision during the 1950s of there being two "main" worlds emerging from the cold war era, i.e. First and Third World countries, has been completely replaced by a globalized world where the equilibriums have been overthrown and the separation of countries into "developed" and "developing" countries is out of date.

In the last decades[1], the world has experienced an average increase in Gross Domestic Product (GDP). The first non-"Western" economies that showed good performances were the East Asian tigers, with average GDP growth rate of 5% since their boom in the 1960s. Since 2000, the annual growth rates have been higher, on average, in emerging and less industrialized countries than in advanced ones. Recently, Sub-Saharan Africa has also seen a recovery in terms of growth rates: most of the region experienced consecutive years of positive growth, with the exception of countries hit by civil conflicts (e.g.. Liberia, Zimbabwe).

[1] The macro data are in general available from 1960 for all the countries.

Some of the world's poorest countries of the past have made important steps in poverty reduction during the last decades; China and India, for example, have underlined a sort of "East and South Asian" regional pattern of development progresses. In contrast, most countries in Sub-Saharan Africa and "fragile states"[2] in particular, still lag behind in living standard improvements. In Latin America and the Middle East, poverty levels are lower than in other areas but progress has occurred at slower pace. The number of people in less industrialized countries living on less than $1.25 a day have decreased from about 1.8 billion in 1990 to 1.4 billion in 2005; by 2015, this number is projected to fall below 900 million[3] (MDG 2011 Report).

Universal primary education during the past decades has shown improvements at different levels and speeds, with the rapid achievement of the East Asian economies. Positive have been also some experiences in the Sub-Saharan with countries such as Burundi, Rwanda and Tanzania that are nearing the goal of universal primary access, with an adjusted net enrolment ratio above 95 per cent. Latin America and the Caribbean and Central Asia have achieved gender parity in primary education.
Progresses were made in reducing child deaths, with a globally mortality rate for children under five has declined from 89 deaths per 1,000 live births in 1990 to 60 in 2009. Malnourishment remains in the poorer countries of South Asia.

What leads certain development strategies to succeed and others to fail? Regional patterns and different timing? Researchers in the area of development, policy makers and civil society have all explored the various factors associated with successful development paradigms. Most, however, have opted to address development issues as they emerge, focusing on "symptoms" of development-related "diseases" rather than on the "diseases" themselves.

This paper aims to review the existing literature on how the thinking on and approaches and processes of socio-economic development have shifted and evolved over time, in differing countries, areas and at the global level, to understand what has emerged as successful and what lessons can be drawn. The review should be seen as complementary to more analytical evidence-based analysis, such as an empirical testing of some key development hypothesis through panel data analysis and policy impact assessments using general equilibrium models for selected countries. In addition, a comparative study based on country case studies will help focus on single experiences.

[2] "Fragile states" is the term used for countries facing particularly severe development challenges: weak institutional capacity, poor governance, and political instability. The World Bank's definition of fragile states covers low-income countries scoring 3.2 and below on the Country Policy and Institutional Assessment (CPIA), which is used to assess the quality of country policies (http://web.worldbank.org/).
[3] United Nations. The Millenium Development Goals Report 2011

We are concerned not only about development paradigms themselves but also about the context within which they have been implemented and the different elements of which they have been and are composed.

This paper is structured as follows: The second chapter deals with the concept of development, development paradigms and major thinking about development. The third chapter covers development experiences, paradigms and some major "thoughts" through time pertaining to countries and regions as well as at the global level. The forth chapter considers in greater detail major development paradigms, implemented in different countries and/or promoted by different actors. The fifth chapter highlights those which are – in our opinion - the relevant emerging paradigms. In the sixth chapter we review the FAO approach to development and related policies. The paper concludes with the major lessons learned from past development paradigms and considers how to move forward considering these insights.

2. THE CONCEPT OF DEVELOPMENT

2.1. What is development

In general terms, "development" is defined as an "event constituting a new stage in a changing situation"[4] or the process of change *per se*. If not qualified, "development" is implicitly intended as something positive or desirable. When addressed to a society or to a socio-economic system, "development" is usually intended as an improvement, either in the general situation of the system or in some of its constituent elements. It may occur as a result of successful government policies targeted to specific developmental aims,, positive spillover effects of private investment and enterprise, or a combination of the two.

Considering this broad definition, "development" is a multi-dimensional concept by nature. The development of complex systems, as indeed socio-economic systems are, can occur in different parts or ways, at different speeds and driven by different forces. Additionally, the development of one part of the system may be detrimental to the development of other parts, giving rise to conflicting objectives and trade-offs. Consequently, promoting development is a holistic exercise and measuring development, i.e. determining whether and to what extent a system is developing, is intrinsically a multidimensional practice. This comes in opposition to the traditional way of measuring development with economic growth, an approach that considers an increase in a country's capacity to produce goods and services and the attainment of higher income levels in nominal or in real terms as the main purposes of development policy.

In this paper, we intentionally avoid the standard classification of the "development stage" of a country based on its income level; we assume that every country is "developing" because it continuously puts in place "deliberate actions" to "achieve improvement" in the

[4] Oxford English Dictionary. *http://oxforddictionaries.com*

socio-economic system[5]. Instead of using the traditional definitions of "developed" and "developing" countries, we prefer to specifically address the issue we are analyzing. For instance, if our purpose is to separate countries based on their economic (not development) achievements we speak about "lower income" or "higher income" countries, while to qualify their main production options we directly refer to the "industrialized" and "less industrialized", and so on.

Even though we have defined the development of a socio-economic system as a holistic exercise (i.e. as an all-encompassing endeavor), for the practical purposes of policy making and development management, the focus of agents working toward development is almost always more targeted on selected parts or features of the system..

To this end, it can be useful to qualify "development", referring to its specific dimensions. Below is an attempt to further define some of these different aspects of development:

- Economic development: the improvement in the way endowments, goods and services are used within (or by) the system to generate new goods and services in order to provide additional consumption and/or investment possibilities to the members of the system.

- Human development: a "people-centered" development, where the focus is on the enhancement of the various dimensions affecting the well-being of individuals, group of individuals and their relationships within and between the society (health, education, entitlements, capabilities, empowerment etc.)

- Sustainable development: a development that considers the long term perspectives of the socio-economic system, to ensure that improvements occurring in the short term will not be detrimental to the future status or development potential of the system, i.e. development will be "sustainable" on environmental, social, financial and other grounds.

- Territorial development: the development and its relationships with external subjects within a specific region (space) that is attainable by exploiting the specific socio-economic, environmental and institutional potential of the area.

- Institutional development: development pertaining to a set of rules, mechanisms, processes and cultural norms that contributes directly or indirectly – i.e. facilitating the role of other "elements" – to support development, e.g.. in terms of guaranteeing

[5] This is also in line with the statement of United Nations (section "Standard Country or Area Codes for Statistical Use") that affirms: "the designations "developed" and developing" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process" (http://unstats.un.org/unsd/methods/m49/m49.htm). In addition "there is no established convention for the designation of "developed" and "developing" countries or areas in the United Nations system" (http://unstats.un.org/unsd/methods/m49/m49regin.htm#ftnc).

government effectiveness, equal levels of freedom, secure property rights and prevention from risk of appropriation. It can also be addressed in terms of good governance[6] "development achievements".

During different time periods and based on different circumstances both national governments and the international development community have privileged specific ways of achieving development, adhering to specific "development paradigms".

A "development paradigm" may be defined as a modality or path to follow for achieving development, based on a codified set of activities and/or a vision regarding the functioning and evolution of a socio-economic system.

Identifying a set of past and present "development paradigms" may help to structure and eventually revisit the way development has been perceived so far. The complexity of development concepts *per se*, the difficulties in identifying unambiguous cause-effect relationships between development policies and results and the diversity of country experiences that wipes off the possibility of "one size fits all" prescriptions render the development targets particularly difficult to obtain. Emerging issues, such as the overuse of exhaustible energy sources, climate change, the recent food crisis, political instability of entire regions and the realization of the unsustainability of current levels of "development" in the more industrialized countries, however, make the undertaking of a critical review particularly urgent.

In identifying prevailing development paradigms, we will underline the importance of the different processes employed to pursue development objectives as well as the relevant "ingredients" in each paradigm, both individually and as they come together.

The emphasis given to the different "ingredients", both in the literature and in the development practice of the international development community, reflects the different visions regarding that what matters in the development of a socio-economic system; there is no consensus as to which type of development is desirable and how it is best achieved. To gain a better understanding of development and development processes, it may prove useful to attempt to disentangle them by analyzing the main mutual cause-effect relationships.

To look more systematically into development processes, we identify development "achievements", i.e. desirable development "objectives", and development "instruments", i.e. the means of policy makers to achieve development targets. The existing cross-linkages and feedback effects associated with development "ingredients" and development outcomes, however, may not always render it possible to operate such a separation. In those cases, we stress the non-linearity and multiple directionalities among development

[6] "Governance is the exercise of political, economic or administrative authority in the management of a country's affairs. It comprises mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences" (UNDP, 2002)

"ingredients" and "achievements", where often a development ingredient is also an achievement, and the same achievement clearly contributes to generate further development (e.g., effective institutions, educational attainment and improved health conditions serve as both instruments for development and an achievement thereof as well as).

2.2. Definitions of development and development paradigms

The issue of development and development paradigms has been studied by a number of economists and development practitioners through the years and in several ways. They have, indeed, also tried to define development, ideas and elements with the aim of classifying them into paradigms and "good practices" and learning lessons from positive experiences.

Irma Adelman contributed to shaping a "new" concept of development. Proposing an idea of development that should emphasize redistribution before growth, education before industrialization policies to boost "economic progress" and the need for agriculture, she has been identified as proposing "earlier than others that economic growth should be replaced by poverty eradication as the major goal of development policy"[7] (Streeten, 1995).

She moved beyond the idea of development as a mere push for industrialization and GDP growth, stressing the need for a sound interrelationship between different aspects of economic and social life as a means [8] (Adelman, 1975): *"to provide the material basis for achieving these objectives and to establish the economic conditions for relaxing the other barriers to self-realization (access to education, work satisfaction, status, security, self-expression, and power)"*. The purpose of development is focusing on *"individual welfare [..], with full recognition of the non-material, human relations and intergenerational aspects of personal welfare"*.

Proposing the not existence of "X-factor" as a single cause of underdevelopment[9] (Adelman, 1999) and of any "simplicity-of-theory-and-policy" in the development framework, she maintained that leading policy advice should be more state-specific and stressed the importance of the correct sequences and packages to pursue development targets.

In his work, "The concept of development" (1988), Amartya Sen pointed out the mechanism through which economic growth and development interact, that being through a complex and multidirectional relationship:

[7] Streeten, P. (1995). The Selected Essays of Irma Adelman, Aldershot, England: Edward Elgar 1995.
[8] Adelman, I. (1975). Development Economics--A Reassessment of Goals, The American Economic Review, Vol. 65, No. 2
[9] Adelman, I. (1999). " Fallacies in development theory and their implications for policy", WP no 887, Dept of Agriculture and Resource Economics and Policy, University of California at Berkeley.

"The close link between economic development and economic growth is simultaneously a matter of importance as well as a source of considerable confusion. There can scarcely be any doubt that, given other things, an expansion of opulence must make a contribution to the living conditions of the people in question.[..] The process of economic development cannot abstract from expanding the supply of food, clothing, housing, medical services, educational facilities, etc. and from transforming the productive structure of the economy, and these important and crucial changes are undoubtedly matters of economic growth. [..] Even though an expansion of GNP, given other things, should enhance the living conditions of people, and will typically expand the life expectancy figures of that country, there are many other variables that also influence the living conditions, and the concept of development cannot ignore the role of these other variables".

The "average" positive relationship between growth and development emerges clearly. Different countries' experiences through time, however, show that there is no single recipe appropriate for all circumstances. This renders the relationship between growth and the development process particularly worthy of investigation.

A new pragmatic and holistic definition of development has been proposed by Joseph Stiglitz, who also focuses his study on the different strategies of development to attain a '"successful" process.

Stiglitz (1998)[10] defined development as "*a transformation of society, a movement from traditional relations, traditional ways of thinking, traditional ways of dealing with health and education, traditional methods of production, to more "modern" ways*"[11]. In this light, a development strategy should facilitate the transformation of a society such that it is able to identify development barriers and potential catalysts for change.

After describing the levels on which development must operate and the building blocks that it must provide, Stiglitz set rules that allow all the elements of the strategy to fit together and create a coherent framework. A country must first set its priorities (even though these will be different for different countries, there are some common basics that must be considered at the first stage, e.g., education, infrastructures, health, knowledge and capacity building). Secondly, when working with lower income economies, a country has to outline its partnerships and its assistance strategies in order to identify the areas where donors can be most effective. The country should additionally set a strategy that is consistent with its global and regional environment, including trade policies.

The concepts of development so far proposed can be analyzed also in terms of flows of "thoughts" and steps made through policies experiences, defining subsequent paradigms both through time and different countries, regions as well as global level achievements.

[10] Stiglitz, J. (1998) "Towards a New Paradigm for Development: Strategies, Policies, and Processes" Prebisch Lecture at UNCTAD, Geneva October 19, 1998

3. BRIEF HISTORY OF DEVELOPMENT THINKING

Countries' development paths have changed over time. Considerable changes have occurred in the world's socio-economic and political setting since the "start" of the development era, i.e. the shift from agricultural to "industrialized" societies. Countries' development paths have greatly evolved since and during that time. In this chapter, we provide a brief overview of development since the Industrial Revolution, with an aim of demonstrating and exploring how the equilibrium among countries has been overthrown as well as which experiences have been successful and unsuccessful in the attempt to pursue development achievements at the national, regional and global level. Additionally, our chronological presentation, which includes significant facts and dates, should help in understanding how progress in development thinking has followed or led the transformation of society as well as why there are certain developmental gaps between countries.

3.1. From Industrialization to the end of Second World War

The *decade*s – or even the centuries –from the Industrial revolution to the end of the Second World War, especially in "Western" economies, saw the first widespread "development experience", leading societies to shift from agriculture-based to more "industrialized" economies.

At the end of 18th century, Britain and the "New England" region of the United States were first to implement the process of moving resources, i.e. capital and labor, from primary production to the industrial sector. These initial steps are seen as the beginning of the Industrial Revolution. After the American Civil War (1861-1865), this expansion of the industrial sector widened to encompass the Eastern Seaboard of the United States. Belgium was the first continental European country to experience industrialization; it henceforth extended to northeastern France and Germany, the latter of which soon surpassed Britain in terms of industrial production. Over the next 30 years, other European nations industrialized and saw especially rapid expansion in heavy industries, such as iron and steel, chemicals, engineering, and shipbuilding. Japan was the first non-European power to become industrialized by the end of the 19th century.

The Industrial Revolution led to large-scale production and, consequently, several changes to society. Mechanical improvements brought significant increases in efficiency and lowered the cost of the production process; automation processes to follow increasingly replaced the human workforce, leading to a more efficient division of labor and higher economic growth rates. Shifting from the first stage of the industrial revolution to the later stages was characterized by the accumulation of capital and a central role for human capital formation.

The world setting of the nineteenth century was mostly characterized by the leadership of major European countries, a position lost, and henceforth gained by the United States of

America, during the years between the First World War (1914–1918) and the Second World War (1939-1945). During those years, one of the most significant and unpredictable events was the Great Depression (1929-1930), which revealed how unstable the capitalist economy could be.

The Great Depression had the shocking effect of reducing per capita income, tax revenue, profits and prices in every country. International trade fell by more than 50% and unemployment sharply rose everywhere, especially in the U.S., where spikes reached more than the 20%. National and local production was hard hit, especially those dependent on heavy industry. Construction was virtually halted in many countries, while farming and rural areas suffered as a result of decreasing crop prices, adding additional negative effects to areas dependent on primary sector industries. Almost a decade later, the Second World War showed how war could mobilize resources and production.

The end of the Second World War was accompanied by the creation of the Bretton Woods (1944) international institutions, namely, the International Monetary Fund (IMF) and International Bank for Reconstruction and Development (IBRD), which has since been incorporated into the World Bank Group, and the GATT (General Agreement on Tariffs and Trade, 1947), with the primary goal of coordinating monetary policy and trade interventions on the world scale.

Even though the process of development can be dated back to the origin of society itself, it is possible to distinguish between the factors influencing today's development paradigms from those of the Industrial Revolution.
During the early stages of the world's industrialization in the late eighteen-century, the "first comers" to the Industrial Revolution (i.e. England, U.S., and then Belgium and France) developed export-led industrialization, starting with high-productivity agriculture, without massive intervention from the State. Domestic institutions had already been developed and these countries were able to experience liberalized trade with virtually no competitors.

The larger "latecomers" (i.e. Germany, Italy, Japan, and Russia) were mostly inward-oriented and government-led in terms of their manufacturing production, having had incomplete and less advanced markets, a less innovative agriculture system, and an environment in which elites played a predominant role.
The smaller European countries that pursed an open and more balanced growth path, on the other hand, (i.e. Denmark, Netherlands, Switzerland and Sweden) had more advanced market and institutional development, as well as a more advanced agricultural sector.

The most heterogeneous group of countries, who are mostly land abundant, agricultural export oriented countries (i.e. Australia, Canada), made their successes by drawing on a mix of factors, including endowment of natural resources, a favored position of the government toward the elite, and colonial pressure.

Some more economically disadvantaged countries owe their success to the presence of institutions, a commitment to development, good leadership and modernization of the whole dual sector economy.

Industrialization also brought a social and cultural shift, changing people's attitudes toward nature and introducing a widespread rationalization in all processes. Technological innovation, for example, had the ability to solve problems; it began to replace a dependency on things outside of human control or "superstition".

During the first half of 20th century, policy agendas in more industrialized countries started to change their view of the "underdeveloped world". Foreign aid became the means used by national governments, International Organizations and civil society (i.e. NGOs) to lower the disequilibria among the industrialized and poorer countries and to "compensate" for these lower-income countries' past colonial experiences, unfavorable country conditions and missing development opportunities. This foreign assistance abroad officially began in the '40s, when the United Kingdom and France provided assistance to their colonies, in 1945 with the reorganization of "Colonial Development and Welfare Act" and in 1946 with the establishment of "Funds d'investissement économique et social des territoires d'outre-mer", respectively.

In 1947, the US Secretary of State, George C. Marshall, proposed the idea of a European recovery programme supported by the United States; the Marshall Plan combined massive aid to European countries "with a framework of a co-operative, agreed, and responsible strategy of reconciliation and reconstruction, thus providing the impulse for a new approach to co-operation in policy-making"[12] (Furher, 1996).

3.2. 50's and 60's

The *fifties* and *sixties* were decades of recovery post the tragedies of the Second World War which led to a new socio-economic setting and political equilibrium of the world.

The end of the Second World War left the world divided into two geopolitical blocks engaged in an economic and political "tension" with one another, namely, the "Cold war". Even though tensions did not escalate to a "real" army conflict, the Cold war saw the contraposition of two military entities: the North Atlantic Treaty Organization (NATO, established in 1949), as the political body constituted by "Western capitalist countries" under the influence of the United States, and the Warsaw Pact (1955-1991), led by the Soviet Union and formed by its satellite communist states of Eastern Europe.

[12] Furher, H. (1996), "The story of Official Development Assistance – A history of a Development Assistance committee and the Development Co-Operation Directorate in dates, names and figure", OECD

As these two "main" worlds were emerging, the countries unaligned with capitalism or central planning and still in "their process of development" formed an "undifferentiated mass of poverty and political turmoil" [13] called "third world"[14].
Only Japan was able to become a sort of independent superpower and an opponent to the United States in the "capitalist" setting of the world. Countries such as China, Cuba, and, with a lesser extent, India were meanwhile conducting their peculiar central planning experiences.

During the Second World War, the United States experienced a large expansion of its national economic activities mostly due to the war-led industry production. This growth rate, however, started to slow down after the '50s, returning again to more average levels. On the contrary, the economic boom of the European countries was encouraged with a massive post-war reconstruction programme and additional support from the Marshall Plan, financed by the United States. During the following decades, this reconstruction push boosted European growth rates, allowing them to catch-up to and overtake the United States' economic level. This economic boom, as well as those of countries out from the decolonization process, i.e. Australia, New Zealand, involved massive changes in labor market structure, consumption habits and cultural models.

At the same time, the Soviet Union, through socialism and central planning, transformed itself rapidly from an agriculture-based to an industry-led economy. Japan was also engaged in rapid economic recovering through an industrialization strategy; starting in the '60s, this same process also led to the high growth performances of the four Asian tigers - Hong Kong, Singapore, South Korea and Taiwan.

Before the Second World War, Latin American countries were strongly affected by the cycles of the "Western" economy and "Western" political events, such as the Great Depression and the US' trade protectionist policies that affected their exports based on primary commodities. The post-war period, on the other hand, saw Latin American domestic policy intent on limiting these external constraints to growth, mostly by emphasizing the prominent role of the state and trade protection policies. "Import substitution" policies fostered industrialization and growth, leading to an economic boom for some economies as Brazil and Mexico. From the late '60s, however, the strategy began encountering bottlenecks (Lozada, 1999)[15].

During the '50s and '60s, most African countries gained independence from their European colonizers. The "old continent", however, continued to maintain a strong link with Africa, regarding its relatively high level investment, its trade policy dominance and the level of aid and technical assistance that continued to be provided post-independence.

[13] The expression is in Lindauer, D. and Pritchett, L. (2002), "What's the Big ideas? The third generation of policies for economic growth", Economia
[14] The word is associated to the French demographer, anthropologist and historian Alfred Sauvy (*L'Observateur*, 1952)
[15] Lozada, C. (1999)."Economic Policy Trends in Post-World War II Latin America". Economic Review, Federal Reserve Bank of Atlanta, Fourth Quarter.

The mechanism of *foreign aid* was indeed reinforced. The UN "Measures for the Economic Development of Under-developed Countries" (also known as the "Lewis Report", 1951) proposed the establishment of a Special United Nations Fund for Economic Development; consequently, single industrialized countries started to deliver aid.
From 1960 onward, coordinated efforts gave birth to the Development Assistance Group (DAG), formed as a forum for consultations among aid donors, and the International Development Association (World Bank), the two of which contributed to the modern concept of development aid being based on delivering monetary and technical assistance to less industrialized countries.

Predominant development thinking during these decades focused on country GDP growth as the target to follow, independent from the status of the country, i.e., whether classified as capitalistic, communist or included in the "third world" block. Economic growth should have been pursued with *industrialization* and the *capital accumulation dynamics* that themselves became synonyms of the development process.
It was believed that the industrialization process through productivity enhancement would have led to limitless economic expansion, an idea further encouraged by the optimism of the end of the Second World War and the huge technological progress the world was experiencing at that time.

Capital accumulation did not pertain only to physical assets but also to *human capital,* with reinforced importance given to educational attainments, which were fundamental for the labor force as inputs in the production process.

As a consequence, the role of agriculture in the development path became evidently ancillary, as the main economic actions were aiming at creating infrastructures, favoring policies and incentivizing the labor supply in the industrialized sector. However, as the world progressed technologically, quantity and efficiency improvements were also made to the agriculture sector, as in the case of the green revolution in the late 1960s that increased food production around the world.

Especially in Latin America, the concept of a "virtuous" industrialization or "big push" to overcome a "low-level equilibrium trap"[16] in terms of GDP could have been obtained through a coordination of investments from different sectors and by inducing positive spillovers from other sectors' demands for goods and inputs[17] (Rosenstein-Rodan, 1943).
Another main idea of the time, linked to the "big push", was the leading *role of state initiative* into the economic process. The government was, in fact, playing a central role in driving

[16] The "traps" occurred with i.e. low innovation and inefficient institutions that impede the coordinating actions of the multiple agents crucial to achieving optimal outcomes (in this case the industrialization and the positive spillovers)
[17] Rosenstein-Rodan, P.N .(1943). Problems of Industrialization of Eastern and South-Eastern Europe, The Economic Journal, Volume 53, Issue 210/211

forces of development, especially in coordinating and scaling down problems associated with the capital accumulation process.

Opportunities provided by the "open economy" market setting, e.g. international trade and foreign capital injection, were considered risky and not completely reliable, with the exception of the aforementioned foreign aid.
Protectionism combined with industrialization policies was the base of the Latin American "Import Substitution Industrialization" (ISI) strategy. Seen as a variation on the "infant industry argument"[18] and as possible response to the postulate of Raul Prebisch on "center-periphery" relationships[19], it constituted a set of economic and trade policies advocating new industrial commodity production for the less industrialized countries. This strategy sought to increase capital accumulation growth rates to levels that would be conducive to the transformation of society and a more equitable income distribution among countries in the future[20].

However, pursuing growth did not always mean a "big push": oil and natural resource-based countries experienced higher growth rates, but confined their attention to the primary sector, not spreading development to all economic sectors.

Institutions also matter for development. Some countries, such as the four Asian tigers, succeeded in becoming industrialized mostly due to institutional maturity combined with their attention to skill creation and human capital accumulation. The development experiences and institutions of former colonies were different from those of their once colonizers. In Argentina and Brazil, for example, commercial relations with former colonizers contributed to accelerated growth paths, though did not solve the issues of land concentrations and the dominant role of the elite that led to inequality intensification. On the contrary, Australia and New Zealand benefited from the establishment of the British political system, which contributed to creating societies more similar to those of the "older" industrialized countries.

During the '50s and '60s, the idea that industrialization could lead to development, regardless of the a country's initial conditions and characteristics, encouraged a "common list" of rules and prescriptions said to be conducive to replicating, in poorer areas, the economic paths of the most advanced countries.

3.3. '70s and '80s

The *seventies* and the *eighties* experienced the starting of a "new world" uncertainty and complexity due to increasing political and economic interconnections among countries.

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[18] The infant industry argument is an idea associated to Alexander Hamilton (1790) who argued that the newly born industries should be protected until they reached economies of scale of the competitors already in the market.
[19] This idea argued that the industrialized countries (the center) deliberately tried to keep the growth low for less industrialized countries (the periphery), so the center could purchase cheap primary products - that were experiencing a deterioration of terms of trade.
[20] Gauhar, A. and R. Prebisch (1980), Interview to Raul Prebisch, Third World Quarterly, Vol. 2, No. 1

The decades opened with price spikes of oil and primary commodities, with aftershocks that harmed most economies worldwide. The price stability of the '60s was partially due to the fixed exchange rate regime established with the Bretton Woods agreements; the dismantling of the gold parity and pegging currencies to US dollar affected monetary policies and consequently the world price setting[21] (Diaz-Bonilla, 2010). The first oil crisis in 1973 - followed by the second one in 1979 - was accompanied by the new role played by OPEC in international markets. The food price boom of the '70s and the following decline in the '80s severely hit agriculture exporters, mainly located in Africa and in Latin America.

During this time of instability, the Asian Tigers – strongly dependent by oil products for their manufacturing production - were able to recover quite fast from the price shocks and continue the rapid economic growth that had begun in the '60s, as were other Southern Asian countries, such as Indonesia and Malaysia[22] (Lindauer and Pritchett, 2002).

In Latin America, the situation was more difficult. The import substitution strategy showed some limitations, such as not meeting the expected labor demand nor producing the anticipated self-generating growth process. During the '70s, Latin American countries strongly relied on external sources for financing their domestic productions, eased by low international interest rates. Borrowing led to increased public sector deficits, as the State was the largest beneficiary of foreign capital inflows[23] (Kuczynski, 1988). The second oil shock, the drop in primary commodity prices and the increase in interest rates by US monetary authorities raised the regional debt crisis during the '80s. The most impressive episode was Mexico's default in 1982. The need for structural reforms and macroeconomic stability led to the conceptualization in the late '80s of the "Washington Consensus".

Europe was still divided into two blocks until the falling of Berlin Wall in 1989 and the dismantling of the Soviet Union in 1991 marked the end of the "Iron Curtain" and the Sovie regime. Some failures of the Soviet's planned economic system started to become apparent during the '70s and '80s. Central Eastern European countries demonstrated their intolerance to the soviet planning system, the hard and soft government planning of China and India, respectively, was not proved to be effective in raising growth rates, and the Cuban experience was not showing the economic improvements expected by its revolution.

Throughout these major international changes, low economic growth rates and extreme poverty were still enduring in most of Sub-Saharan Africa.

[21] Diaz- Bonilla, E. (2010). "Globalization of Agriculture and Food Crisis: Then and Now". In Food crisis and WTO, Edited by B. Karapinar and Haberli. Cambridge University Press
[22] Lindauer, D. and Pritchett, L. (2002), "What's the Big ideas? The third generation of policies for economic growth", Economia
[23] Kuczynski, P. (1988). Latin American Debt, John Hopkins University Press, Baltimore

In terms of development targets, the '70s showed a shift in focus from growth-based objectives to redistributional issues and the fulfillment of basic needs, integrating agriculture and rural development in meeting livelihood goals. Meanwhile, agricultural and rural issues became more micro-focused, with increasing attention on emergency activities and the role of NGOs (Maxwell and Percy, 2001).

The macroeconomic instability of the '80s, on the other hand, showed that more attention should have been put on macroeconomic imbalances, fiscal policies and financial support. The oil shocks of the '70s and debt crises in Latin America raised the threat of *international interdependences,* both among countries and sectors in the economy. A shock transmission mechanism became a primary concern, stimulating the need to formulate a "structural adjustment" strategy for the countries.

In the previous decades the role of the Government in driving the development path had been essential, though poor economic performances of socialist/communist economies around the Soviet bloc as well as of other planned systems as China, combined with the crises of ISI-led countries, revealed that there had been "*government failures*" in the process. Acclaimed as a panacea to lead to the industrialization process, these strategies did not contribute extensively to boosting growth; on the contrary, they were seen as an "obstacle" to development and a dangerous in their conduciveness to rent seeking activities[24] (Krueger, 1974).

In addition, high barriers to international markets led to significant weaknesses. Considering the ISI strategy, for example, once "protectionism" became "permanent" in trade policy, it gave rise to few productivity improvements and no economies of scale in the manufacturing sectors, contributing to create on the most critical period of economic stagnations in some Latin American countries. As such was the case, i*nternational openness* to trade, FDI and private sector investments started to be encouraged.

All these events provided fodder for intense debate in development and economics thinking. Theories and models proposed by neoclassical economists assuming homogenous characteristics among countries were harshly criticized by new branches of more "heterodox" theories, mostly linked to Prebisch's thoughts of the early '50s[25]. The most intense debate, especially in Latin America, was between the Monetarist-Orthodox view and those of Structuralists and New Structuralists. The contention was along both short- and long-run prescriptions to promote growth in less industrialized countries.

Following neoclassic doctrine, the orthodox doctrine's[26] framework was formulated around rational expectations, hypothesis and the consequent efficient market mechanism. Orthodox

[24] Krueger, A., "The Political Economy of the Rent-Seeking Society," American Economic Review, June 1974, 64 (3)
[25] See Raúl Prebisch, "Commercial Policy in the Underdeveloped Countries," American Economic Review 49 (May 1959), pp. 251–273
[26] The orthodox view is often associated with Harberger (1963) and Sjaastad (1983) (Agenor and Montiel, 2008)

theory supported short-term interventions to mostly tighten fiscal and monetary policies in response to balance-of-payment deficits and high inflation, caused by excess money injections. In the long run, it aimed to rely on the market mechanism via free trade and government non-interventionism.

Structuralists and New Structuralists (associated with Raul Prebish and Lance Taylor, respectively) stressed, for example, the importance of an intersectoral relationship approach for short- and long-term strategies. Inflation was no longer studied as a "monetary phenomenon", but in association with the factors tending to create sectoral unbalances, such as the "center-periphery'' mechanism in international settings, external constraints, and domestic supply bottlenecks caused by institutional or industrial rigidities[27] (Di Filippo, 2009). Long-term growth should be pursued with structural change of institutions and wealth redistribution across both productive sectors and social groups[28] (Bitar, 1988)

In this period, it was not only the Structuralist school that questioned the idea of development and underdevelopment. The links between the growth of the economic system and income inequality, as well as its consequences in terms of poverty, began to be systematically explored. Chenery and Ahluwalia[29] (1974) pioneered these studies by proposing a model of "redistribution with growth", underlining the importance of applying redistributive processes to growth, if poverty had to be reduced.

These years also saw the birth of new growth theories as a response to criticism of the neo-classical growth model. With these new growth theories, the economic discipline tried to overcome the shortcomings of exogenous theories (e.g.. the concept of constant returns to scale) by building macroeconomic models that allowed policy measures to have an impact on the long-run growth rate of an economy. Two of the most important contributors to this new branch of endogenous growth were Romer[30] (1986) and Lucas (1988)[31].

Meanwhile, the changing social and cultural environments gave birth to new development concerns. The rethinking of the "industrial" development model, which in the these decades was mostly driven by uncertainty and instability, also raised questions regarding limits to development and the negative externalities of natural resource exploitation, as analyzed by the report "The limits to Growth"[32] (Meadows et al., 1972).

[27] Di Filippo, A. (2009). "Latin America structuralism and economic theory", CEPAL review 98
[28] Bitar, S. (1988) "Neoconservatism versus Neostructuralism in Latin America" CEPAL Review, No. 34
[29] Chenery , H., M. Ahluwalia, 1974. Redistribution with Growth. Oxford: Oxford University Press.
[30] Romer, Paul M, 1986**.** "Increasing Returns and Long-run Growth**,**" Journal of Political Economy, University of Chicago Press, vol. 94(5)
[31] Lucas, R., 1988. "On the mechanics of economic development," Journal of Monetary Economics.
[32] Meadows, Donella H. Dennis L. Meadows, Jorgen Randers, and William W. Behrens III. (1972). *The Limits to Growth*. New York: Universe Books

3.4. From 90's on

From the '90s onward, development processes that had begun in the previous decades started leading to massive changes in the world's political equilibrium, with rapid and increasing economic integration among countries.
Phenomena such as increases in foreign direct investments (FDI) flows, capital and labor movements and technology transfers contributed significantly to shaping these processes.

An important component of the increased global integration was the trade liberalization process in transitional and less industrialized countries - with the elimination of export subsidies and reductions in tariff rates, policy recommendations from institutions such as the World Bank, IMF and WTO. A further decrease in transportation costs[33], as well as the diffusion of information and communication technologies (ICT), deeply changed the concept of "distance" and allowed for a significant rise in factor mobility between countries.

Drawbacks of the integration process manifested themselves in the increasing number of financial crises that started to more severely affect the international markets from the '90s on.

In Latin America, the trade policies and other market liberalization prescriptions embedded in the "Washington Consensus" did not lead to the expected growth performances. The region continued to be hit by macroeconomic crises. Increasing international capital inflows restarted during the '90s; consequently, once capital flowed out of the region due to a loss of confidence, herding effects and insufficient regulation of the financial system brought economic stagnation to most Latin American countries. The Mexican peso devaluation crisis of 1994-1995 had regional contagion effects, triggering, for example, capital reversals in Argentina, which was under a fixed exchange rate regime at the time and could not freely issue any new currency (Lozada, 1999).

The successes of the Asian tigers faced a shock with the financial crisis of 1997-1998. The crisis had its roots in reforms of the early '90s aimed at upgrading financial institutions, which had, as a side effect, left individual economies exposed to the instabilities of international financial markets[34] (Radelet et al., 1998). While Singapore and Taiwan were relatively more protected by stronger financial systems, South Korea underwent an expansion of banking activity and short-term international loans without the necessary regulation and supervision, conducing to a stock market crash. In Hong Kong, speculative attacks against its stock and currency led to massive domestic market intervention. The crisis was not confined to this geographic area, however; it led to a significant loss of confidence of investors in some Latin American countries as well, spurring a further decrease in foreign capital flow injections, especially in Brazil.

[33] For an overview of the transportation costs: Glaeser, E. and Kohlhase, J. (2003). Cities, Regions and the Decline of Transport Costs, Harvard Institute of Economic Research, discussion paper 2014
[34] Steven Radelet, Jeffrey D. Sachs, Richard N. Cooper, Barry P. Bosworth, (1998). The East Asian Financial Crisis: Diagnosis, Remedies, Prospects, Brookings Papers on Economic Activity, No. 1. pp. 1-90.

The end of the Cold War contributed to creating a sense of uncertainty and complexity that led to "*fin de siècle pessimism*"[35] and a consolidation of ideas from multi-civilization environments and *"cultural kinship" differences*[36] (Huntington, 1996). The Eastern European and the Soviet transitions to market economies were not homogenous experiences. While Central European countries rapidly included their economies in the "Western" market scheme, some former Soviet States did not integrate. The former Yugoslavia experienced an internal war during the '90s and Russia was hit by an economic crash during its shock therapy of market reforms. The economic growth gap between India and China and the rest of the previously called "third world countries" became large. After 1979, China started a reform process focused on improving institutional management, reshaping resource allocation (including labor supply) and gradually implementing the "market-socialist economy"[37] (Lin et al., 1996). Important reforms implemented in rural areas also stimulated agricultural production.

From 2000, Sub-Saharan Africa's growth rates recovered; most of the region, in fact, experienced consecutive years of positive growth. The good experiences of South Africa, Mauritius and Botswana were not common in the continent, however, and some other Sub-Saharan African countries' situations worsened with civil conflicts and the AIDS plague.

The recent economic, food and financial crisis of the 2007-2008 period have highlighted weaknesses and limitations of globalization.

The "development ideas" of the previous decades started materializing from the '90s with precise development action plans from International Organizations; poverty reduction became the main and clear development objective for both the United Nations (with the UNDP's Human Development Report, 1990) and the World Bank (World Development Report, 1990). The "recipe" for the agricultural sector was mostly to support small-scale projects, sustainable livelihood and an increase in the participation of stakeholders in the development process. New ideas and the basis for the next steps in development thinking were discussed in the World Food Summit in 1996, where "food security" became one of the major focuses of development policies and a prerequisite to other development achievements[38].

The general commitments of the International community came to focus on eradicating poverty and guaranteeing a sustainable use of natural resources, in addition to supporting

[35] Shuurman (2000) Paradigms lost, paradigms regained? Development studies in the twenty-first century" Third World Quarterly, Vol 21, No 1, pp 7-20, p. 11
[36] Huntington, S. (1996), "The Clash of Civilization and the remarking of a World Order", Simon & Schuster
[37] Lin, J. Y., Cai F., Li Z. (1996), The China Miracle: Development Strategy and Economic Reform. Hong Kong: Chinese university Press
[38] FAO definition of food security "all the people at all the time, have significant and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preference for an active and healthy life" (put ref.)

agricultural development, risk management strategies for natural resources, the prevention of and relief for disasters, a fairer market orientation for trade policies and an increased role of the private sector.

Understanding the complexities of the globalization phenomenon has been center to the economic debate of the last decades. Increasing international interdependence was not only the result of national government policies, but was, in fact, mostly led by private agents, interest groups and multinational firms. The benefits and threats of this interdependence are still under question. Some of the more distinctive aspects that resulted, however, were a reduction in national sovereignty, an increase in the instability of global financial markets, an exacerbation of global income inequalities and a lowering of social protection and safety nets[39] (Screpanti and Zamagni, 2011).

The economic discipline and development studies became more focused on new *intangible issues,* such as credibility, sustainability, policy sequencing and individual agents acquiring a central role [40] (Behrman and Srinivasan, 1995).

Among these new issues, the lens of development economics started to focus – if not primarily, more extensively - on the emerging central role of *institutions and individuals* and their relationships. Improvements in data, mostly through the increase in household surveys and censuses, and alternative analytical strategies to evaluate policies increased the micro-orientation of development thinking[41] (Schultz and Strauss, 2008).

In addition, how to build and reinforce market and regulatory institutions, respectively, in order to sustain the development process became one of the more urgent tasks. Nowadays, the efforts of the development community are not focused on separating macro and micro policies, but, rather, on looking for their complementarities. A goal is to avoid generalizations while coming to understandings as to why some recipes work and in what contexts (even temporal ones) they do not, in addition to being able to clearly distinguish symptoms from the roots of underdevelopment and address the cause-effect mechanism[42] (Rodrik and Rosenzweig, 2009).

The "one-size-fits-all" recipe has certainly revealed its weaknesses; the current task of theorists and practitioners, as most see it, is to move away from this cookie-cutter approach by incorporating more tailored policy reforms, i.e., those which take into consideration local and regional conditions and culture, into the development process.

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[39] Screpanti, E. and Zamagni, S. (2004), "Profilo di storia del pensiero economic, gli sviluppi contemporanei", Carocci Ed.

[40] Behrman, J. and Srinivasal, T.N. (1995), Preface, Handbook of Development Economics, Vol.III

[41] Schultz, T. P. and Strauss, J. (2008), Introduction, Handbook of Development Economics, Vol.IV

[42] Rodrik, D and Resenzweig, M.R. (2009), introduction, Handbook of Development Economics, Vol.V opportunities are available all over the world.

4. SELECTED PARADIGMS AND COUNTRY DEVELOPMENT APPROACHES

This section aims to identify and analyze nine different development paradigms which have been recognized as paths of development. The paradigms explored are: the agriculture-based development paradigms, the Industrial Revolution, the Import Substitution Industrialization (ISI) strategy, the East Asian development approach, the "Washington Consensus", the Comprehensive Development Framework (CDF), the Pro-poor development, the Natural Resources export-led strategy and the International Capital Flows paradigms.

Paradigms such as the Washington consensus and the CDF are defined and structured as paradigms by International Organizations, whilst approaches such as the ISI and the East Asian represent a "recipe" to industrialization in selected geographical area, as well as the Industrial Revolution. Other paradigms have been identified in this review considering some of the main drivers of development: agriculture, pro-poor approach, natural resources and international capital flows.

Each development paradigm is studied considering the **vision** that it pursues and analyzing the **set of ingredients** and related policies needed to achieve the defined targets. In each paradigm then the **development outcomes** and the **drawbacks** are presented to complete the exploration of the paradigm itself.

The paradigms are complemented with the identification of the countries that led or are leading their development process adopting one (or more) of the recognized/known paths. This descriptive analysis aims to link - in partial terms - the selected countries to what happened in their whole development process, even though we do not intend in this way to be exhaustive or establishing any causal relationship among paradigm and outcomes.

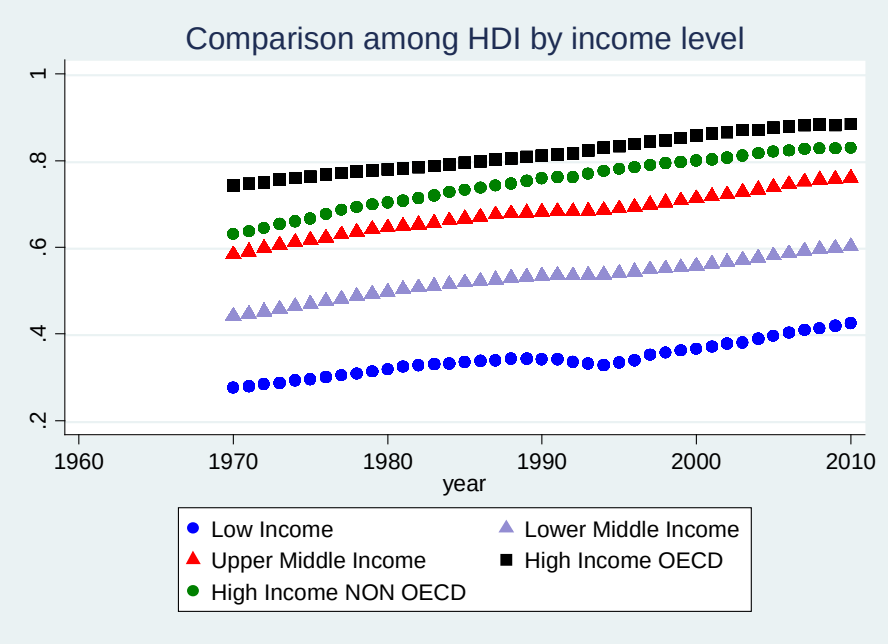
As proxies for development, we use the Human Development Index (HDI)[43] and Food Security Indicator (FAO)[44]. The HDI is a combination of indicators of life expectancy, educational attainment and income that, in this way, includes several dimensions of development. Moreover, through the normalization of the indicators[45], the HDI allows for possible comparison through countries and time. The Food Security Indicator refers to the undernourishment[46] as the condition of people "whose dietary energy consumption is continuously below a minimum dietary energy requirement for maintaining a healthy life and carrying out a light physical activity with an acceptable minimum body-weight for attained-height".

[43] Among all the HDI indicators, we use hybrid HDI because of its longer time series data availability. Human development Report (HDR), UNDP; http://hdr.undp.org/en/statistics/
[44] We use Prevalence of undernourishment in total population. Food Security statistics of the Food and Agriculture Organization of the United Nations: http://www.fao.org/economic/ess/ess-fs/en/
[45] Using a minimum value of zero and maximum values among the actual observed
[46] Proportion of the population in a condition of undernourishment

In order to give an overview of the chosen development variables among more conventional country classifications, we present the HDI and Food Security Indicator trend and values considering the income level and the geographical area.

As shown in Figure1, the HDI has a constant increasing trend for all the country aggregations by income level, showing some downturns in the mid '90s and at the beginning of '90s respectively for low income countries and the rest of the countries. The drop for low income countries is driven by the collapse in HDI levels in countries like Rwanda, Liberia and Democratic Republic of Congo, mostly due to the consequences of internal institutional instabilities. A slight decrease is visible also for middle and high economies at the beginning of '90s, mostly due to the decreasing development level of the ex-Soviet Republics included in the classification.

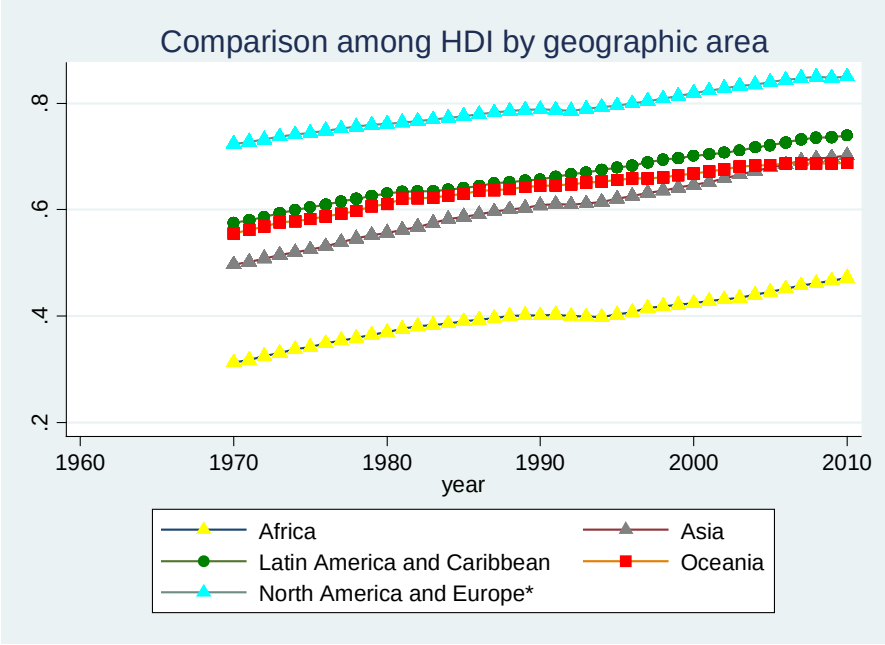
Figure 1



Source: Our elaboration on UNDP data. Income classification by World Bank, revision Nov. 2011

The HDI has also a general ascending trend for the countries considering the division by geographical areas (see Figure 2): African countries showed the highest growth rates during the four decades (51%) speeding up after the mid '90s. It followed the growth rate of Asian countries (42%) that during the last years surpassed Oceania in terms of level of HDI reached.

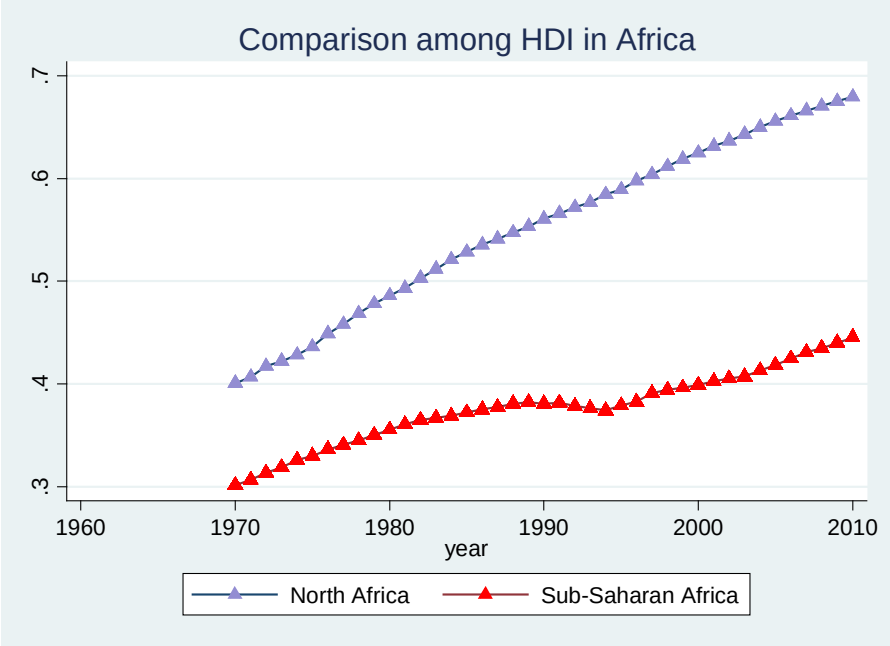
Figure 2



Source: Our elaboration on UNDP data. * includes Israel

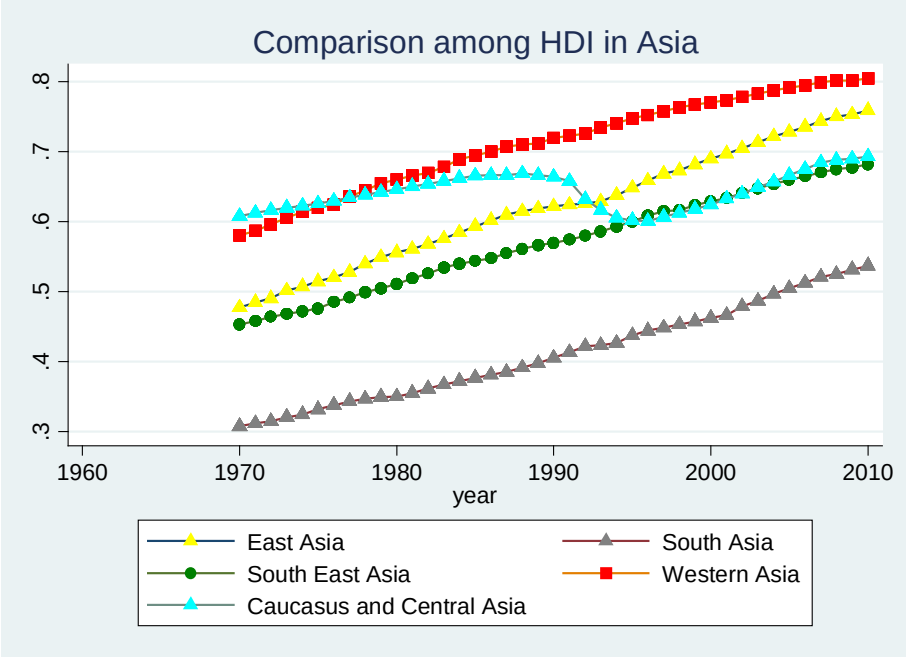
However the situation inside broad geographic areas is not homogenous. Table 3a shows for example the gap between North African and Sub-Saharan countries that enlarges through the years, passing from 0.14 to 0.27.

Figure 3a



Source: Our elaboration on UNDP data. As in Figure 3b, all the Asian countries appear to have an upward shift of HDI levels in the 40 years analyzed, with East Asian and South Asian countries showing the largest growth rates, respectively of 60% and 76%. An evident decrease for Caucasus and Central Asian countries came at the beginning of '90s, mostly due to the worsening situation in terms of economy, health and education of ex-Soviet Republics in transition.

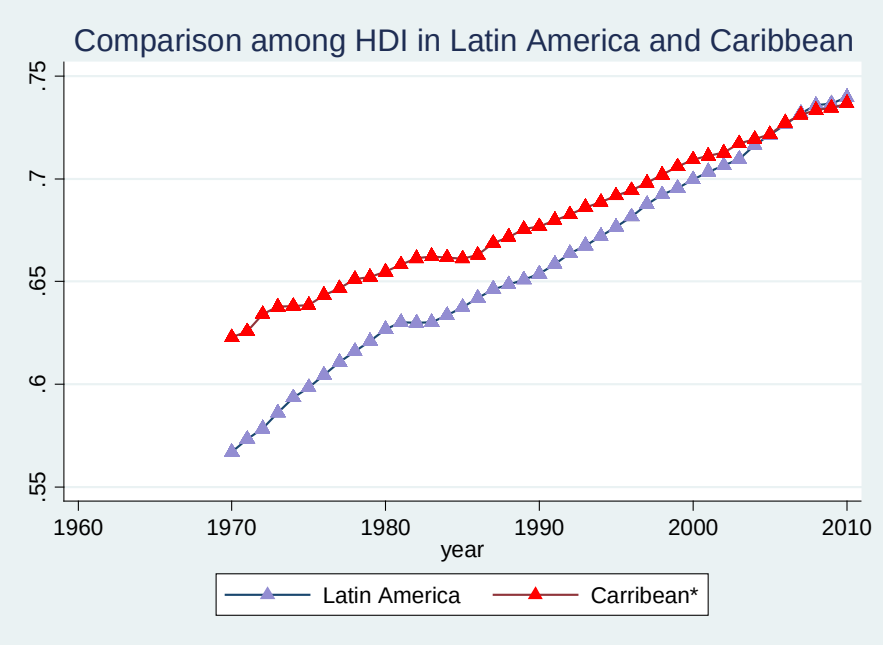
Figure 3b



Source: Our elaboration on UNDP data.

In Latin America, Figure 3c shows the catch up of Latin America countries to the development level of some Caribbean countries in the mid of 2000; however this comparison cannot be fully valid considering the small amount of HDI data for this Caribbean geographical area.

Figure 3c



Source: Our elaboration on UNDP data.
* includes only Dominican Republic, Jamaica and Trinidad and Tobago for data availability

Considering the indicator for the sufficient caloric intake, Table 1 and Table 2 illustrate the food security status in the countries grouped by income level and geographical areas.
All the countries reached a lower number of undernourished as percentage of population through all the decades considered. However low and lower middle income countries – the group that show the highest percentage of undernourished among the population - show an increasing proportion of undernourished respectively from 1990/1992 to 1995/1997 (+3%) and from 1995/1997 to 2000/2002 (+1%).

Table 1 – Undernourishment by country income level

	Number of people undernourished				Proportion of undernourished in total population			
	1990-1992	1995-1997	2000-2002	2006-2008	1990-1992	1995-1997	2000-2002	2006-2008
	(million)				(%)			
Low Income	201.2	242.7	239.0	257.7	38	41	36	34
Lower middle income	356.2	329.2	388.8	399.2	20	17	18	17
Upper middle income	282.3	211.8	200.8	185.3	14	10	9	8
High income OECD	6.9	6.5	6.4	7.0	<5%	<5%	<5%	<5%
High income non OECD	1.8	1.3	1.1	0.9	7	4	3	2

Source: Food and Agriculture Organization of the United Nations

The division by geographical groups illustrates that Africa (in particular the Sub-Saharan area) is the continent that suffers more of undernourishment, although with a decreasing percentage among total population. Caribbean countries have about one fourth of the

population suffering of undernourishment, with a increase of 3% from 1990/1992 to 1995/199. In Asia, Caucasus and Central Asia, the East (except China) and the South (excluding India) parts of the continent show a slight increase of the percentage of undernourishment in the mid years of the decades considered.

Table 2 – Undernourishment by geographical area

	Number of people undernourished				Proportion of undernourished in total population			
	1990-1992	1995-1997	2000-2002	2006-2008	1990-1992	1995-1997	2000-2002	2006-2008
	(million)				(%)			
Africa	**170.9**	**193.6**	**203.3**	**223.6**	**26**	**26**	**24**	**23**
Northern Africa	*5.0*	*5.4*	*5.6*	*6.1*	**<5%**	**<5%**	**<5%**	**<5%**
Sub-Saharan Africa	*165.9*	*188.2*	*197.7*	*217.5*	*31*	*31*	*29*	*27*
Latin America and the Caribbean	**54.4**	**53.4**	**50.8**	**47.0**	**12**	**11**	**10**	**8**
Caribbean	*7.7*	*8.9*	*7.4*	*8.3*	*25*	*28*	*22*	*23*
Latin America	*46.7*	*44.5*	*43.4*	*38.6*	*11*	*10*	*9*	*7*
Asia	**607.1**	**526.2**	**565.7**	**567.8**	**20**	**16**	**16**	**15**
Caucasus and central Asia	*10.9*	*9.2*	*12.4*	*6.7*	*16*	*13*	*17*	*9*
Eastern Asia	*215.6*	*149.5*	*141.8*	*139.4*	*18*	*12*	*10*	*10*
Eastern Asia - no China	*5.5*	*7.9*	*9.0*	*9.8*	*8*	*11*	*13*	*13*
Southern Asia	*267.5*	*269.0*	*307.9*	*330.1*	*22*	*20*	*21*	*20*
Southern Asia - no India	*90.5*	*101.9*	*99.9*	*105.5*	*26*	*26*	*23*	*22*
South-Eastern Asia	*105.8*	*86.0*	*89.6*	*77.4*	*24*	*18*	*17*	*14*
Western Asia	*7.4*	*12.5*	*13.9*	*14.2*	*6*	*8*	*8*	*7*
Oceania	**0.7**	**0.8**	**1.0**	**1.0**	**12**	**11**	**13**	**12**
Europe	**11.6**	**14.1**	**11.6**	**6.3**	**<5%**	**<5%**	**<5%**	**<5%**
North America	**1.1**	**0.8**	**0.4**	**0.4**	**<5%**	**<5%**	**<5%**	**<5%**

Source: Food and Agriculture Organization of the United Nations

4.1. Agriculture-based Development Paradigms

Agriculture activities, such as plant cultivation and livestock breeding, can both constitute the primary income sources for agriculture-based economies and represent the first "stage of the development process" (Rostow, 1960)[47]. The role of agriculture in the "development paradigms" has been in fact mainly linked to the shift from agriculture to industrially-based economies. In this context the agriculture activities were generally considered as a source of surpluses (e.g., savings, inputs, food, etc.) and as a source of low-cost workforce to be extracted and placed at the service of the "modern" (industrial, urban) sector[48] (Lewis, 1954; Matsuyama, 1992).

Efforts for agriculture output policies per se and considerations on its role as an engine for development have been in general neglected and discriminated through times, with the state's intervention mainly focused on industrialization and the agriculture contribution undermined by the market failures[49] (Krueger, 1995).

Indeed after the fifties, the implementation of macroeconomic policies that led to industrialization was mostly pursued with few synergies with the agriculture sector, as for example in the Latin America countries applying the Import Substitution Strategy or adopting the prescribed Washington Consensus[50]. This process lowered the agriculture's potential to reduce rural poverty and to be a means for the increase of autonomous incomes. Additionally, low international commodity prices (due for example to the OECD farm policies) and the adverse environmental effects contributed to discourage investments in agriculture.

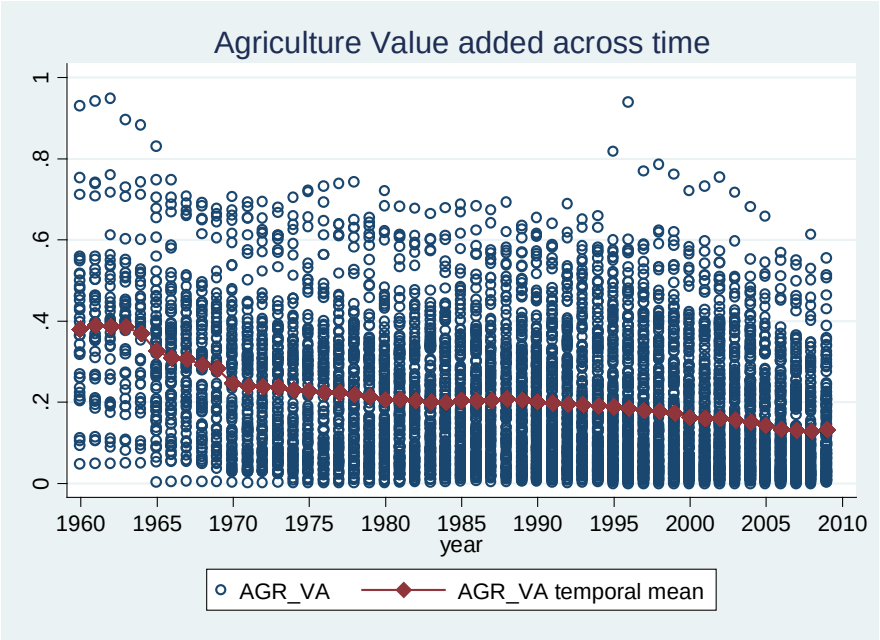
In the last 20 years, since the "development discussion" has started including pro-poor growth measures, the role of agricultural for poverty reduction has become a focal point in the economic debate. This new role is linked to the Millennium Development Goals' commitment to promote sustainable and broad-based economic growth and to encourage development in less industrialized countries in order to achieve poverty reduction. Moreover it has been argued that a "new paradigm is needed that recognizes agriculture's multiple functions for development in that emerging context", as, for example, its capacities in narrowing income disparities, in providing food security and in delivering environmental services[51] (Byirlee at al., 2009).

Figure 4 shows the decreasing contribution of the agriculture to the GDP on average - from 40% in 1960 to less than 20% in 2009 - with a downward degree of dispersion among

[47] Rostow W.W., 1960. "The Stages of Economic Growth, A Non-Communist Manifesto". First Edition, Cambridge University Press.
[48] Lewis, W. A. (1954) "Economic Development with Unlimited Supplies of Labour" The Manchester School, Vol. 22, pp. 139–191; Matsuyama, K. (1992) "Agriculture productivity, Comparative Advantage and Economic Growth", Journal of Economic Theory 58, pp. 317-334
[49] Krueger, A. O. (1995). "Policy lessons from development experience since the Second World War", Handbook of Development Economics, Vol.III
[50] For a deeper analysis of the Import Substitution Strategies and of the Washington Consensus look at section 4c and section 4e
[51] Byerlee, D., de Janvry, A. and Sadoulet E. (2009). "Agriculture for Development: Toward a New Paradigm," Annual Review of Resource Economics, Annual Reviews, vol. 1(1), pages 15-31, 09.

countries underling that the share over GDP is decreasing even among the more active agriculture economies.

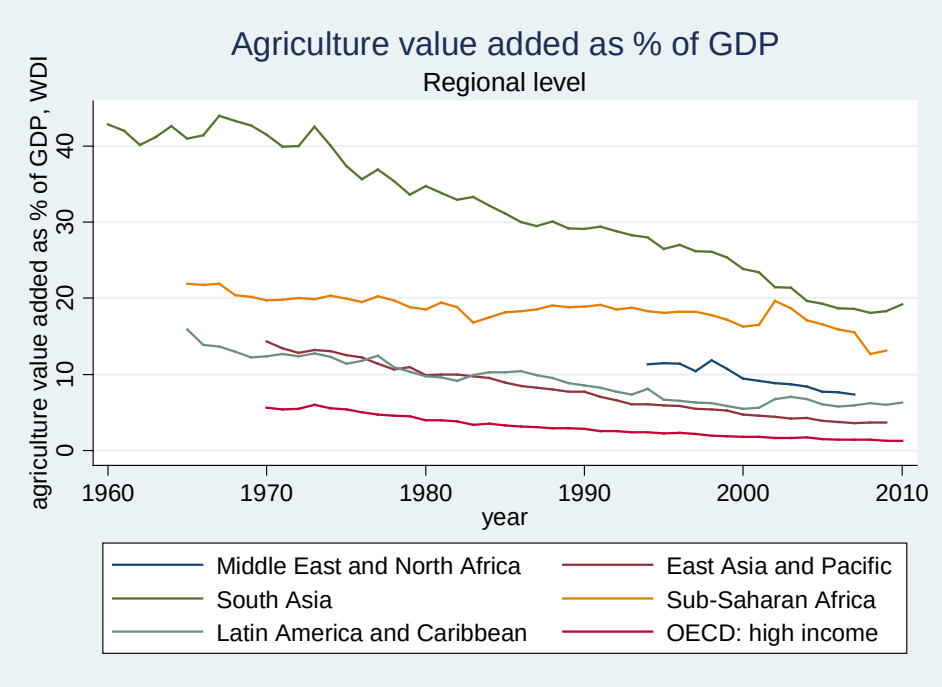
Figure 4 - Trend of the agriculture value added



Source: Our elaboration on World Development Indicators (WDI) data

However, the decline is not homogenous for all the geographic and economic areas: the South Asia shows a sharp drop in the importance to agriculture sector in GDP composition since the '70s while the decline in Sub-Saharan is more recent (Figure 5).

Figure 5: Mean regional level of Agriculture value added as percent of GDP



Source: Our elaboration on World Development Indicators (WDI) data

According to the **vision** of the agricultural based paradigms, the development of a country socio-economic system has to be mainly supported by agriculture and rural activities. Even today many less industrialized countries account for large shares of their GDP from agricultural activities and the linkages between agricultural, economic growth and development are of great concern.

How agriculture can be conducive to development is due to the "backward" and "forward" linkages it can establish with the other sectors (Johnston and Mellor, 1961[52] ; Anriquez and Stamoulis[53], 2007)[54]. Indeed in the early stages of development, agriculture plays a critical role thanks to the "backward linkages" it creates requesting an important amount of input to the other sectors. On the other side, in the more mature phases of development, agriculture establishes strong "forward linkages" with the others sectors thank to its capacity of absorption of the other sectors' output. However those linkages have been

[52] Johnston B,F and Mellor J,W. (1961)." The role of agriculture in economic development", American Economic Review 51(4): 566-593, 1961. Anríquez, G., Stamoulis, K. 2007. Rural development and poverty reduction: Is Agriculture Still a Key? e-JADE, FAO- Rome.

[53] Anríquez, G., Stamoulis, K. 2007. Rural development and poverty reduction: Is Agriculture Still a Key? e-JADE, FAO- Rome.

[54] In an Input-Output (I-O) context, as in the one adopted by the authors, "backward linkages" are the relationships of a sector with the other sectors via its input requirements; "forward linkages" instead refer to relationships of a sector with the others by means of the absorption of the sector's outputs downstream. The authors work out backward and forward linkages of the agricultural sector as first-round multipliers. For more details on these indicators, see Anriquez et al, 2003: Anriquez G, Foster, W, Valdéz A., 2003: Agricultural Growth Linkages and the Sector's Role as Buffer. Roles of Agriculture Project. FAO. Rome. Italy.

considered very weak within the rest of the socio-economic system[55] (see e.g. Hirschman, 1958). Another important effect of agriculture on development involves the reduction of unemployment. Promoting the development of activities in rural areas could reduce in fact wage differentials between rural and urban areas and, consequently, it could diminish unemployment in the industrial (urban) sector (Harris and Todaro, 1970)[56].

Nowadays agriculture is promoted as a potential engine to development per se, as a contribution to the livelihood, and as a provider of environmental services (World Bank, 2008). This new role of agriculture has led to an approach to development deeply linked to an "*inward-oriented agriculture based paradigm*"[57] (Bellu, 2011).

The inward-oriented agriculture based development places emphasis on the agriculture sector per se also involving the socio-economic relationships among the agents present in the same space, whether urban, peri-urban or rural. In this case, it is possible to recognize a *rural development paradigm*, or, more broadly, of a *territorial development paradigm*, which embodies the concept of *community-based development*. In these situations, polices play a key role in the development process, aiming to maintain and enhance the socio-economic relationships in the *community*.

Looking at the relationship between trade and agriculture from another perspective, it can be said that agriculture can be considered first an instrument for trade and then as a means for development. Countries relying mainly on the agricultural sector in fact can increase their income with the production and exportation of primary and semi-processed commodities (e.g. tea, coffee, cocoa, cotton, bananas, etc), following an "*agricultural commodity export-led development paradigm*" (Bellu, 2011). Development outcomes, such as a reduction in poverty, are not reached through the enhancement of the agricultural sector per se or through the role of the agriculture sector as a provider of income to poor. They are realized through the development of the overall socio-economic system within the country trade mechanism for agriculture commodities, associated with strategic inputs and trickle-down[58] mechanisms. Improvements to the sector benefit both the export activities and the agricultural ones themselves. Exporting agricultural commodities as a primary economic activity, however, can have negative consequences in the short-run, due to the volatility of commodity prices, in addition to long-run effects of declining growth rates.

[55] Hirschman, A., O., 1958. "The Strategy of Economic Development", Yale University Press, New Haven, Connecticut.
[56] Harris, J. R. and Todaro, M. P. (1970) 'Migration, Unemployment and Development: a two-sector analysis', The American Economic Review, 60 (l) , Mar. 1970, pp. 126-42.
[57] Bellu, L. (2011). Development and Development Paradigms - A (Reasoned) Review of Prevailing Visions**,** EasyPol issue paper Module 102
[58] Conceiving growth as the primary "ingredient" for development, even if it accrues for the rich, it "trickles-down" to the poor. This happens through the normal income distribution channels and the functioning of free markets, favored by the withdrawal of national governments, the liberalization of foreign trade and the promotion of foreign investments. This vision configures a sort of "***free market trickle-down growth***" development paradigm (Bellu, 2011)

For some Sub-Saharan countries, subsistence agriculture has been neglected in favor of supporting export commodities, leading to food self-sufficiency problems. It has been showed that a great number of less industrialized countries are net food importers and that, at the same time, they can have problems in meeting their basic needs (Valdes and McCalla, 1999)[59]. Recently, it has been evaluated an improved in last two decades of food deficits in most of low-income countries, with Sub-Saharan economies remaining an exception to this increasing trend (Ng and Aksoy, 2008)[60] .

To define which countries followed or are following an agriculture-based paradigm, we considered as agriculture-based countries the ones generating on a minimum of 29 percent of the gross domestic product (GDP) from agriculture[61] (usually employing 65 percent of the labor force, where data available[62]) with the 5 years average agriculture value added per capita that grows more than the period correspondent total GDP per capita. We tend to exclude the countries that respect these criteria only for one 5-year period. Moreover considering two specifications about agriculture trade (only food[63] and all agriculture trade[64]), Table 3 shows also the net trade status of the previously selected agriculture economies (see the Note below).

Table 3- AGRICULTURE PARADIGM

	60-64	**65-69**	**70-74**	**75-79**	**80-84**	**85-89**	**90-94**	**95-99**	**00-04**	**05-10**
Benin				**X**		**X**		**X**		
Net Food Trade status	E	E	E	I	I	I	I	I	I	I
Net Agri Trade status	E	E	E	**.**	I	**.**	I	E	E	I
Burkina-Faso	**X**		**X**			**X**	**X**		**X**	**X**
Net Food Trade status	I	E	I	I	I	I	I	I	I	I
Net Agri Trade status	I	E	E	E	I	E	E	E	E	E
Cameroon				**X**		**X**		**X**		
Net Food Trade status	E	E	E	E	E	E	E	E	E	I
Net Agri Trade status	E	E	E	E	E	E	E	E	E	E

[59] McCalla, A. & Valdés, A. 1999. "Issues, interests and options of developing countries". Presented at the Conference on Agriculture and the New Trade Agenda from a Development Perspective, WTO, Geneva, October.

[60] Ng, F. and Aksoy, M.A. (2008)." Who are the net food importing countries?".Policy research Working Paper 4457, The World Bank. In order to run their analysis, the authors use a different definition of agriculture trade and they cluster the countries on the basis of endowments and conflicts

[61] We use the variable of the World Development Indicators "Agriculture, value added (as % of GDP). Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. This classification includes also growing of non food crops. The data we are using start from 1960.

[62] We partially link our definition to the one of the World Development Report (2008), Agriculture for Development, the World Bank (p.4-6)

[63] The Food trade definition comprises the commodities in SITC sections 0 (food and live animals), 1 (beverages and tobacco), and 4 (animal and vegetable oils and fats) and SITC division 22 (oil seeds, oil nuts, and oil kernels) (WDI).

[64] See footnote 16

Central African Republic			**X**		**X**	**X**			**X**	**X**
Net Food Trade status	E	E	E	E	.	.	I	I	I	I
Net Agri Trade status	E	E	E	E	E	.	I	E	I	.
Chad		**X**		**X**		**X**	**X**	**X**		
Net Food Trade status	I	I	I	.	.	.	.	.	.	.
Net Agri Trade status	E	E	E	E	E	.	E	.	E	.
Comoros						**X**		**X**	**X**	
Net Food Trade status	.	.	.	.	.	.	.	.	I	I
Net Agri Trade status	.	.	.	.	.	.	.	I	I	I
Congo, Dem. Rep.					**X**		**X**	**X**	**X**	
Net Food Trade status	E	E	E	E	.	.	.	.	.	.
Net Agri Trade status	E	E	E	E	.	.	.	.	.	.
Egypt, Arab Rep.		**X**	**X**							
Net Food Trade status	I	I	I	I	I	I	I	I	I	I
Net Agri Trade status	.	E	E	I	I	I	I	I	I	I
Ethiopia						**X**	**X**			**X**
Net Food Trade status						.	E	E	E	E
Net Agri Trade status						.	E	E	E	E
Ghana		**X**	**X**	**X**					**X**	
Net Food Trade status	E	E	E	E	E	.	.	E	E	E
Net Agri Trade status	E	E	E	E	E	E	E	E	E	E
Guinea-Bissau			**X**	**X**		**X**	**X**	**X**		
Net Food Trade status	.	.	I	.	.	.	.	.	E	.
Net Agri Trade status	.	.	I	I	I	.	E	.	E	.
India	**X**	**X**								
Net Food Trade status	E	I	E	E	E	E	E	E	E	E
Net Agri Trade status	E	I	E	E	E	E	E	E	E	E
Kenya	**X**		**X**				**X**			
Net Food Trade status	.	.	.	E	E	E	E	E	E	E
Net Agri Trade status	.	.	.	E	E	E	E	E	E	E
Liberia				**X**	**X**	**X**	**X**	**X**		
Net Food Trade status	I	I	I	I	I	.	.	.	.	.
Net Agri Trade status				E	E	.	E	.	E	.
Madagascar					**X**			**X**		**X**
Net Food Trade status				E	E	E	E	E	E	I
Net Agri Trade status				E	E	E	E	E	E	I
Malawi				**X**		**X**		**X**		
Net Food Trade status	.	E	E	E	E	E	E	E	E	E
Net Agri Trade status		E	E	E	E	E	E	E	E	E
Mali				**X**		**X**		**X**		
Net Food Trade status		E	I	I	I	.	I	I	I	E
Net Agri Trade status	E	E	E	E	E	E	E	E	E	E
Mongolia							**X**	**X**		

Net Food Trade status	.	.	.	.	.	.	.	I	I	I
Net Agri Trade status								E	E	E
Mozambique					**X**				**X**	**X**
Net Food Trade status	.	.	.	.	.	.	I	I	I	I
Net Agri Trade status							I	E	I	I
Nepal		**X**	**X**							
Net Food Trade status				E	I	I	I	I	I	I
Net Agri Trade status				E	E	I	I	I	I	I
Niger							**X**	**X**	**X**	
Net Food Trade status	E	E	E	E	.	.	.	I	I	I
Net Agri Trade status	E	E	E	E	.	.	.	I	I	I
Papua New Guinea				**X**	**X**		**X**	**X**	**X**	
Net Food Trade status	.	.	.	.	E	E	E	E	E	.
Net Agri Trade status			E	E	E	E	E	E	E	.
Paraguay	**X**		**X**	**X**						
Net Food Trade status	E	E	E	E	E	E	E	E	E	E
Net Agri Trade status	E	E	E	E	E	E	E	E	E	E
Solomon Islands							**X**		**X**	**X**
Net Food Trade status	.	.	E	E	E	.	.	.	.	.
Net Agri Trade status	.	.	.	.	E	.	E	.	E	.
Somalia				**X**	**X**		**X**			
Net Food Trade status	.	.	.	.	.	.	.	.	.	.
Net Agri Trade status	E	E	E	E	E	.	E	.	E	.
Sudan			**X**			**X**		**X**		
Net Food Trade status	E	E	E	E	E	E	E	I	I	I
Net Agri Trade status	E	E	E	E	E	E	E	E	I	I
Swaziland			**X**	**X**						
Net Food Trade status	.	.	.	.	.	.	.	.	I	E
Net Agri Trade status									E	E
Syria						**X**	**X**			
Net Food Trade status	.	.	.	I	I	I	I	I	I	E
Net Agri Trade status	.	.	.	I	I	I	I			E
Togo				**X**	**X**		**X**	**X**	**X**	
Net Food Trade status	E	E	E	E	I	I	I	I	I	I
Net Agri Trade status	E	E	E	E	I	E	E	E	E	E
Uganda	**X**		**X**	**X**		**X**				
Net Food Trade status	.	.	.	.	.	.	.	E	E	E
Net Agri Trade status	.	.	.	.	.	.	.	E	E	E

Source: Our elaboration on WDI data.

X: presence of the development paradigm; E: net exporter; I: net importer. Food Trade and Agri Trade refer respectively to the definition of the Footnotes 19 and 16

Considering the previous explained criteria, the chart lists the countries and the related five-year periods that can be considered as following an agriculture paradigm. The largest number of countries fostering an agriculture paradigm is located in Sub-Saharan Africa.

These countries tend to pursue the agriculture paradigm for longer and also for relatively more recent decades while the remaining countries outside Sub-Saharan region mostly "abandoned" agriculture as the main economic path earlier. Considering the trade status the group of countries is less homogenous, even though the majority of the agriculture economies export both food and the larger amount of agriculture commodities.

Beyond the role of international trade, the **set of ingredients** establishing the agriculture-based paradigms involves the role of *institutions*, the process of *urbanization* and the consequent change of the *labor market structure*, the enhancement of *technology* and *productivity, infrastructures and community participation.*

Good quality *institutions* at the national and at global levels can have an important effect on strategically planning the agriculture sector activities and regulating total production and prices of food commodities in the international framework. Overall it can be said that in both the inward-oriented and the export oriented paradigms, the role of *technology* and *productivity enhancements* in the agricultural sector can contribute to improve quantity and quality of production, as well as to generate the surpluses that feed the evolution of the industrial sector.
The amount of government funding that should optimally be devoted to public *infrastructures* is an issue concerning macro and micro agriculture improvements, such as the accessibility of the territory, labor productivity and mobility.

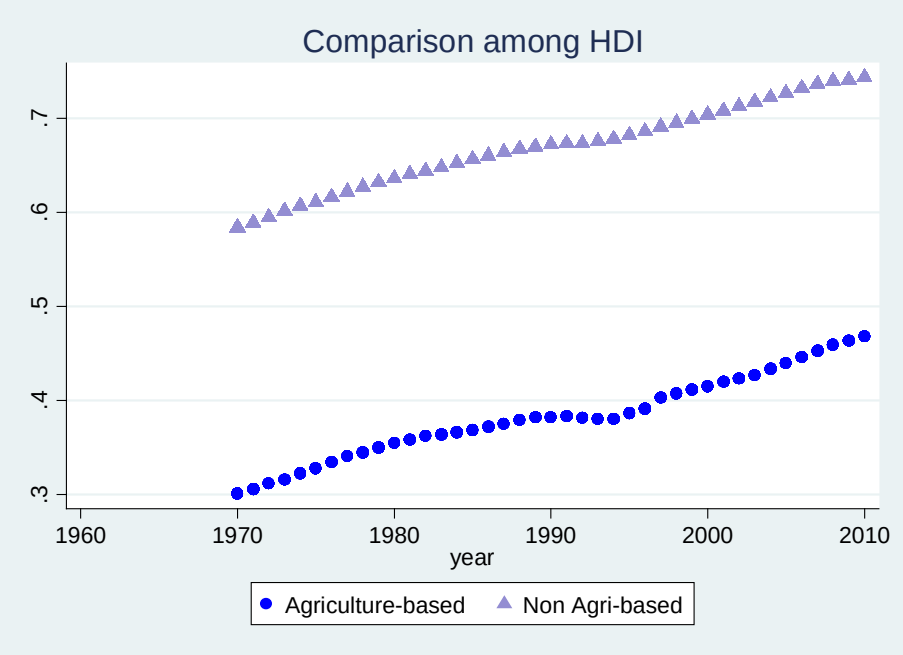
The main **development outcomes** of the agriculture-based paradigms are the economic and social growth, the poverty reduction through food security and the overall improvements in the other dimensions of development.

Figure 6 compares the trend of the HDI of the agriculture-based and non agriculture-based economies[65] ; the comparison[66] shows that both paths are uniform and constantly growing with a more prominent downturn in the mid '90s for the agriculture-based countries. This drop is mostly driven by the collapse in HDI rates in countries like Rwanda and Liberia, due to the consequences of internal institutional instabilities. A slight decrease is visible also for the non agriculture based economies at the beginning of '90s, mostly due to the decreasing development level of the ex-Soviet Republics.

Figure 6

[65] The non-agricultural based economies grouped together all the other countries (that have HDI data available). For all the paper, all the graph interpretation should take in consideration the amount of heterogeneous countries included.

[66] For all the paper, the comparisons among different country groups are made considering the countries "assigned" to the paradigm, independently by time intervals in which the paradigm has been highlighted. The HDI values are an average unweighted mean of all the countries in the subsamples. The time series have (tentatively) the same countries each year, without any switching in case the paradigm is not present anymore for a certain country in a certain time span.



Source: Our elaboration on UNDP data.

Table 4 shows that the growth rate of the HDI in agriculture-based countries is higher than in the non agriculture-based ones (53% versus 27%), even though both levels in 1970 and in 2010 remain definitively lower than non agriculture-based economies. This could suggest a sort "convergence theory" for HDI, similar to the one proposed for the GDP growth (i.e. linked to idea of Solow growth model, 1956)[67].

Table 4 – Comparison of HDI growth

	1970	**2010**	**Growth rate[68] in percentage (1970-2010)**
Agriculture Based countries	0.30	0.46	53%
Non Agriculture based countries	0.58	0.74	27%
Average (of all countries)	0.53	0.69	30%

Source: Our elaboration on UNDP data.

Turning to the empirical literature, various researchers have investigated the outcomes of the agriculture-based paradigms. Studying the linkages between agricultural growth and *poverty reduction*, Bourguignon and Morisson[69] (1998) concluded that, in many countries, the traditional agriculture activities are the most efficient means for the raise the

[67] Solow R.M. (1956)."A Contribution to the Theory of Economic Growth". The Quarterly Journal of Economics Vol 70, No. 1 pp. 65-94

[68] Growth rate= (Value 2010 – Value 1970)/Value 1970

[69] Bourguignon, F. and Morisson, C. (1998) "Inequality and development: the role of dualism" Journal of Development Economics Vol. 57, Issue No. 2, pp. 233-257

productivity and for the reduction of poverty and inequality, while productivity growth in industry and services are not[70] (Thirtle et al., 2003).

Timmer[71] (2003) pointed out the links between *inequality* in asset endowments and the role of agriculture, concluding that an unequal distributions of land ownership can cause the growth of agriculture to be poverty increasing in a country, while *"when a country's income distribution is relatively equal, agricultural growth stimulates the rest of the economy at the same time that it strengthens the connection of the poor to that more rapid growth"* (Timmer 2033, p.ii).

Byerlee et al.[72] (2005) argued that macroeconomic and agricultural reforms in the nineties led to a substantial reduction of poverty among crop producers in selected countries, such as Vietnam, Uganda, Ghana, Zambia and Burkina Faso. Devaluation, the elimination of export taxes and the rearrangement of para-statal marketing boards in fact have substantially stimulated the incentives for traditional export crops such as coffee and cotton, with a reduction of poverty for those farmers producing export crops. They admitted, however, the fragility of this channel for poverty cut back in the export-oriented paradigm, mainly due to the international price shocks and to the different geographical setting of the countries (i.e. confined to areas with suitable agro-climatic conditions and/or access to infrastructure) in lowering total poverty levels.

As already mentioned before, an important aspect of the agriculture is represented by the *food security,* that is physical, social and economic access to sufficient, safe and nutritious food for all people, at all times (FAO, 2001)[73]. Food security is considered a fundamental step toward development contributing to the economic growth of countries through institutional and technological innovations (Kuznets, 1966[74]; Fogel, 1991[75]).As shown in Table 5 following the agriculture paradigm for the majority of the countries seems leading to a decreased percentage of number of undernourished through the decades considered. However it does not impede country to have still a high percentage of undernourished population, in some cases even higher of the correspondent regional mean. This is the case for example of Chad and Ethiopia that in the meantime enjoyed also the greatest drop of undernourished, respectively of 21% and 28%.

[70] Thirtle C., Lin L. & Piesse, J, (2003).The Impact of Research-Led Agricultural Productivity Growth on Poverty Reduction in Africa, Asia and Latin America". World Development, Elsevier, vol. 31(12), pages 1959-1975, December.
[71] Timmer, C.P., (2003). "Agriculture and Pro-Poor Growth". The Pro-Poor Economic Growth Research Studies. Boston Institute for Developing Economies
[72] Byerlee, Derek, Diao, Xinshen and Jackson, Chris. (2005). "Agriculture, Rural Development, and Pro-poor Growth: Country Experiences in the Post-Reform Era". Agriculture and Rural Development Discussion Paper 21, The World Bank
[73] FAO (2001) "The State of Food Insecurity in the World" FAO Corporate Document Repository
[74] Kuznets, Simon (1966), Modern Economic Growth, New Haven, CT: Yale University Press.
[75] Fogel, Robert W., 1991. 'The conquest of high mortality and hunger in Europe and America: timing and mechanisms' in Timmer 2004, Food Security and Economic Growth: an Asian perspective

Table 5 - Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008
Benin	20	18	15	12
Burkina-Faso	14	12	12	8
Cameroon	33	34	26	22
Central African Republic	44	47	43	40
Chad	60	53	43	39
Comoros	38	47	54	47
Egypt, Arab Rep.	–	–	–	–
Ethiopia	69	62	48	41
Ghana	28	13	9	5
Guinea-Bissau	22	26	25	22
India	20	17	20	19
Kenya	33	32	33	33
Liberia	30	32	36	32
Madagascar	21	26	28	25
Malawi	43	36	30	27
Mali	27	25	18	12
Mongolia	28	33	27	27
Mozambique	59	47	46	38
Nepal	21	20	18	17
Niger	37	37	27	16
Paraguay	16	10	10	10
Solomon Islands	21	13	12	11
Sudan	39	29	28	22
Swaziland	12	21	18	19
Syria	–	–	–	–
Togo	43	36	36	30
Uganda	19	23	19	22
Africa	**26**	**26**	**24**	**23**
Northern Africa	–	–	–	–
Sub-Saharan Africa	*31*	*31*	*29*	*27*
Latin America and the Caribbean	**12**	**11**	**10**	**8**
Latin America	*11*	*10*	*9*	*7*
Asia	**20**	**16**	**16**	**15**
Eastern Asia	*18*	*12*	*10*	*10*
Eastern Asia - excluding China	*8*	*11*	*13*	*13*
Southern Asia	*22*	*20*	*21*	*20*
Southern Asia - excluding India	*26*	*26*	*23*	*22*
Oceania	**12**	**11**	**13**	**12**

Source: Food and Agriculture Organization of the United Nations

The *food security* is strongly related to the concept of *inward-oriented agriculture based paradigm*, since its aim is to produce food for the national market, contributing to increase its availability at the national level. This process reduces or lowers the need to import

necessary food items contributing to keep the food prices low enough to feed the labor force in the other sectors.

Food Security is also connected to the concepts of global *security*, *civil conflict*, and *democracy*[76]. Timmer (2004)[77] argued that successful Asian countries used a strategy based on two elements of their domestic food system: the sectoral arrangement of the income growth and the food prices. After many years of neglected agriculture and increased food insecurity, the world energy and financial crisis have put agriculture back into government agendas, especially in the ones of net importers countries, affected by the rose of prices linked to transportation issues. As the State of Food Insecurity (SOFI) states:

"The global agriculture sector faces significant challenges in the coming four decades. Continued population growth will drive up food demand, while climate change and natural resource degradation will create challenges on the supply side, both in terms of average production and in terms of production volatility. FAO estimates indicate that global agricultural production will need to grow by 70 percent between 2005–07 and 2050, and by almost 100 percent in poor countries, to feed a population of more than 9 billion people in 2050. Investment in agriculture will improve the competitiveness of domestic production, increase farmers' profits and make food more affordable for the poor" [78] *(SOFI 2011,* p.42*)*

The **drawbacks** of this paradigm can easily been found in some experience of Sub-Saharan Africa countries, still locked in the poverty trap, and in some failures in many Asian countries during the 70s, where the applied integrated rural development had an objective to meet broaden development goals. Despite these ambitious objectives, they overestimated the states' capacity to coordinate such measures and did not take into account the emerging role of the private sector, which was gaining more and more importance. This undermined cooperative producer organizations. Moreover, the agriculture-based projects were too complex and were not held up by the necessary support from the states themselves.

4.2. Industrial revolution

The term "industrialization" is generally defined as the process of moving resources, usually capital and labor, from primary production to the industrial sector. The process is commonly associated with the Industrial Revolution.

[76] W.P. Falcon and R. L. Naylo (2005), "Rethinking Food Security for the 21st Century," *American* Journal of Agricultural Economics, Volume 87, December 2005, pp. 1113-1127.
[77] Timmer, Peter, Food Security and Economic Growth: An Asian Perspective (December 13, 2004). Center for Global Development Working Paper No. 51. Available at SSRN: http://ssrn.com/abstract=1112795
[78] FAO, State of Food Insecurity in the World, 2011. How does international price volatility affect domestic economies and food security?, Food and Agriculture Organization of the United Nations

At the end of 18th century, Britain and the "New England" region of the United States were the first countries implementing this new production strategy. Belgium was the first continental European country to experience industrialization that henceforth spread to the northeastern France and to Germany. Over the next 30 years, other European nations industrialized and Japan was the first non-European power to become industrialized by the end of the 19th century.

Industrialization was the development strategy followed by most of today's more advanced countries. Later it was energetically pursued by the former centralized economies and many poorer countries, with a great wave starting at the end of the Second World War.

The Industrial Revolution's **vision** emphasized the industrial sector and the accumulation of capital as a prime source for economic growth. The industrialization process has been considered a synonyms for the development course itself and, as such, is has driven the development of both the society and the economy as a whole.

As explained by Adelman[79] (1999), the industrialization evolved in several countries in different time and followed diverse approaches (see Table 4). She classifies the countries involved in three groups on the basis of their industrialization process: the first comers, the late comers and the small, high-social capital countries.
During the early stages of the world's industrialization in the late eighteen-century, the "first comers" to the Industrial Revolution developed an export-led industrialization, starting with high-productivity agriculture and without a massive intervention from the State. Here domestic institutions were already developed and these countries were able to experience liberalized trade with virtually no competitors.
The larger "latecomers" were mostly inward-oriented and government-led in their manufacturing production, since they were characterized by incomplete and less advanced markets, by a less innovative agriculture system, and by an environment in which elites played a predominant role.
The smaller European countries, on the other hand, pursed an open and more balanced growth path, had more advanced markets institutional development as well as a more advanced agricultural sector.

Table 6. INDUSTRIAL REVOLUTION

	First-comers	Late-comers	Small, high social-capital countries
Belgium			X

[79] Adelman, I. (1999) " Fallacies in development theory and their implications for policy", WP no 887, Dept of Agriculture and Resource Economics and Policy, University of California at Berkeley

France	X		
Sweden			X
Spain		X	
Russian Federation		X	
United States	X		
Japan		X	
Italy		X	
Denmark			X
United Kingdom	X		
Germany		X	
Netherlands			X
Switzerland			X

Source: Our elaboration on Adelman (1999) and Adelman and Morris (1988) [80].

The most heterogeneous group of countries, characterized by land abundance, followed an export oriented path of development. Those countries made their successes by drawing on a mix of factors, including endowment of natural resources, a favored position of the government toward the elite and colonial pressure.

Looking closely at the **common set of "ingredients"** delineating the development paths of the countries involved, the main shared features were: the *accumulation of physical capital* in the first stages of the industrialization, the *accumulation of human capital* in the second stage and the continuous *technical change* throughout the whole process. Other important elements included the mechanization, the factory system of production, the division of labor and the increased mobility of the workers. Elements such as state intervention and market conditions (e.g. competition, financial development, trade openness) played an influential role conducive to the process of industrialization as well.

During the early stages of the Industrial Revolution, the *physical capital accumulation* was the primary source of economic growth, contributing to escalate income inequalities. In fact, inequality enhanced the process of development by channeling resources towards individuals. The high marginal propensity to save of human resources leads to an increase in the aggregate savings, in the capital accumulation and in the economic growth (Kaldor, 1955; Galor, 2011)[81].

The links between growth, inequality and their reverse U-shaped relationship were first analyzed by Kuznets (1955), who asserted that: *"In the early phases of industrialization [...], income inequalities will tend to widen before the leveling forces become strong enough first to*

[80] Morris, C. and Adelman, I. (1988) "Comparative patterns of economic development, 1850-1914" Johns Hopkins University Press (Baltimore)
[81] Kaldor, N. (1955). "Alternative Theories of Distribution", Review of Economic Studies 23(2): 83.100; Galor, M. (2011). "Inequality, Human Capital Formation and the Process of Development" (forthcoming in the Handbook of the Economics of Education, North-Holland).

stabilize and then reduce income inequalities"[82]. The likely increase in inequality was indeed a price to pay for achieving growth.

Industrialization based on capital accumulation is characterized by the promotion of industry at the expense of agriculture and, in general, of consumption. This type of industrialization led to the adoption of a *"low-wage industry-led*" development paradigm, characterized by significant investments of national output especially into heavy industry. These investments prevent the national output from being largely distributed as wages, and they generate significant growth rates (Bellù, 2011).

Since the 20th century physical capital has been complemented with the *human capital accumulation*. In the later stages of the industrialization process, once *human capital* emerged as an engine for economic growth, more income equality - also in the presence of credit constraints - has encouraged investment in human capital and promoted economic growth (Galor, 2011).

Thus the education of the labor force markedly increased and skill development became a necessary input for production[83] (Galor and Moav, 2004)[84].

This change had an important impact on country-wide inequalities. As argued by Abramovitz: *"[i]n the twentieth century [..] [t]he bias shifted in an intangible (human and knowledge) capital-using direction and produced the substantial contribution of education and other intangible capital accumulation to this century's productivity growth".* (Abramovitz, 1993 p.224)[85]

Considering the countries experience, in England the first phase of the Industrial Revolution saw a significant increase in the capital accumulation (as a fraction of GNP), while literacy rates remained largely unchanged and child labor continued to be highly valuable. Workers developed skills primarily through on-the-job training and causing the, literacy rates to be stagnant (Sanderson, 1995, pp. 2-10)[86]. As argued by Landes (1969, p 340), "*although certain workers must be able to read and do the elementary arithmetical operations in order to perform their duties, large share of the work of industry can be performed by illiterates as indeed it was especially in the early days of the industrial revolution*."[87]

[82] Kuznets S., 1955. Economic Growth and Income Inequality. The American Economic Review, Vol. 45, No. 1. (Mar., 1955), pp. 1-28.
[83] From the 1850s, job advertisements suggest that literacy has become an increasingly desired characteristic for employment (Micth, 1993, p. 292).
[84] Galor, O. and Moav, O. (2004) "From physical to human capital accumulation: inequality and the process of development" Review of Economic Studies, Wiley Blackwell, vol. 71(4), pp. 1001-1026, October.
[85] Abramovitz, M. (1993) "The Search of the Sources of Growth: Areas of Ignorance, Old and New" Journal of Economic History 53, pp.217-243
[86] Sanderson, M. (1995) "Education, economic change, and society in England, 1780-1870", Cambridge University Press Edition
[87] Landes, D. S. (1969) "The unbound Prometheus: technological change and industrial development in Western Europe from 1975 to the present" Cambridge University Press Edition

From 1890 to 1999, the contribution of human capital accumulation to the growth process in the United States nearly doubled, while the contribution of physical capital declined significantly (Goldin and Katz, 2001 and Abramovitz and David, 2000)[88].

The industrialization process happened as a result of both the *introduction of new technologies* into the production process and the *process of technology transfers* from more industrialized economies. In the early 90's, one of the major issues in the debate about the industrialization process in general, concerned the nature of the technological changes, contrasting authors such as Rostow[89] that suggested the technological change as external to an economy and originating from foreign sources. The new stream of literature considered the technological change as generating by the economy itself: in this case the change is considered endogenous and can be based, for example, on domestic investment of knowledge, as proposed by Romer (1986) and by other supporters of the *endogenous growth-based* development paradigm[90]. The endogenous growth theory mainly revisits the concept of diminishing returns to capital, meaning that every increase in capital do not correspond anymore to a decrease in the marginal per-unit output, as postulated by the neoclassical models.

Today's thinking considers investment as necessary not only for increasing the stock of capital, but also for generating spillovers, such as the case of the technological change spreading from one sector to another generating further growth.

The role of *governmen*t is fundamental for the development of this paradigm since it can contribute to human capital accumulation by increasing public expenditures on R&D or by enforcing property rights that allow private agents to invest in innovations. Excessive taxation levels, on the other side, may discourage economic activities by reducing private investment incentives (Barro, 1990)[91]. As already mentioned, the role of the government has been different in the three groups of countries identified by Adelman and Morris (1988).

The industrialization of the first-comers saw *no direct government investments* to production and very little direct financing of private enterprises in industry and agriculture. Governments did, however, play a fundamental role promoting private investment with

[88] Abramovitz, M. and David P. A. (2000) "American Macroeconomic Growth in the Era of knowledge-Based Progress: The Long-Run Perspective," in The Cambridge Economic History of the United States, Stanly L. Engerman and Robert E. Gallman eds., Cambridge; New York Cambridge University Press.
Goldin, C. and L F. Katz, (2001), "The Legacy of U.S. Educational Leadership: Notes on Distribution and Economic Growth in the 20th Century" American Economic Review, 91, pp.18-23.
[89] Rostow W. W. (1959), "The stages of economic growth" The Economic History Review, Vol. 12, Issue 1, pp. 1-16, August 1959
[90] Observing the failure of the expected cross-country convergence, they drop two central assumptions of neoclassical models: i) that technological changes are exogenous; and ii) that the same technological opportunities are available all over the world (Romer, 1986).
[91] Barro, R. J. (1990) "Government spending in a simple model of endogenous growth" Journal of Political Economy 98, pp. 103-25

large subsides and the removal of certain market constraints. The subsidy policies permitted private enterprises to finance substantial amounts of their investments in infrastructure. In the United States, for example, private investment in canals and railroads was subsidized through land grants to private entrepreneurs. In addition, the government encouraged through subsidies, *labor* mobility and *land transactions*. The elimination of legal barriers to labor mobility, to further encourage industrialization, led also to a massive spread of the phenomenon of slavery.

The British government defended entrepreneurs against the outside competition through significant tariff protection and discriminatory shipping rules. British industrialization and competitiveness were promoted by allowing *cheap raw materials and food imports* from its Commonwealth countries, whose economies were made open to British industries with inland transport (e.g. Indian railroads) and free trade. This openness provided additional opportunities for private British ventures overseas, by playing an important part of the security and administrative costs of the colonies and by developing capital markets that enabled the export of large amounts of capital.

The latecomers were moderately backward at the start of their development phases and *their governments actively promoted* their processes of industrialization. They stimulated their domestic markets and enlarged the sizes of their economies supporting, for example, the economic integration of urban and rural trade networks (e.g. between northern and southern Germany) and creating a government demand for manufactures (e.g. military uniforms in Russia).

Governments also substituted for missing domestic factors adopting measures to enlarge the supply of skilled labor and through financing. To increase the supply of skilled labor, they enhanced *human capital*, investing in education, importing skilled technicians from more advanced countries[92] and removing restrictions on labor mobility. They also favored the influx of unskilled labor through immigration laws. Banks were required to finance industry and the State promoted the establishment of financial intermediaries, investing in industrial enterprises directly or via private entrepreneurs.

The role of the government in the last group of small, high social-capital countries was neither too fundamental nor too marginal. In the early development of democracy in those countries, governments had been critical in building market institutions and in providing finance for interregional transport, agricultural infrastructure and human resources. These components, however, did not have the same impact on the financing of the private sector as they had in the Latecomers countries

These small countries experienced heavy export dependence and productivity improvements in both agriculture and industry. During the last quarter of the nineteenth century, they shifted from an extensive agriculture paradigm to an intensive farming of high

[92] Especially in Russia under Catherine the Great (1762-1796)

value crops. Also, the paucity of natural resources led human resource to specialize in intensive industrialization increasing the growth rates of their per capita income.

The **outcomes** of industrialization on society, such, for example, average higher incomes, lower birthrates and increased technology have, to some extent, yet to be deemed positive or negative[93]. The industrialization process has had great impacts on several economic and geographical factors, at both local and national levels. Urbanization has been a major consequence; industrialization encouraged the formation of manufacturing towns as well as the migration of the workforce from rural to urban areas by means to share lower costs and gain efficiency. However, since there is not a wide range of reliable data available, especially dating back to the initial development of the Industrial Revolution paradigm (mainly the 19th century), it is not possible to evaluate the precise impact of this paradigm on the social and economic context of the countries involved.

Some researchers, though, have attempted to measure European country trends during that period with measures of development such as GDP, literacy levels and life expectancy at birth, as can be seen in the Tables below. The data in Table 1 show how GDP per capita increased with the first wave of industrialization in the 19th century, with UK, France, Germany and Netherlands registering the highest rates of increase. Conversely, the increases in the levels of GDP per capita of the other countries were smaller; this created a gap in GDP levels between the first countries to industrialize and others.

Table 7 : GDP per Capita across Europe, 1820-1870 (Indices UK in 1820=100)

	1820	**1870**
UK	100	187
France	67	110
Germany	63	108
Netherlands	108	162
Sweden	70	97

[93] Coleman D. A. (1992), "The Demographic Transition in Ireland in International Context." *Proceedings of the British Academy* Vol.79, pp. 53-77

Italy	66	88
Spain	59	71
Russia	43	55

Source: Baten and Pamuk, (2007) and Maddison,(2003)[94]

Tables 2 and 3 display data respectively for life expectancies and levels of literacy, measured by the ability to sign a document, in the period 1820-1870 (Baten and Pamuk, 2007 and Maddison, 2003). During the 19th century, the life expectancy index rose slightly and literacy levels increased at a much faster rate.

GDP per capita differences inside Europe trended up from the beginning of the Industrial Revolution until the end of the 19th century. However, the gaps in the literacy and, for a less extent, in the life expectancy at birth between the first industrialized countries and the rest of the continent tended to increase until 1870.

Table 8 : Life Expectancy at birth across Europe, 1820-1870 (in years)

	1820	**1870**
UK	40	41
France	37	42
Germany	32	36
Netherlands	32	37
Sweden	37	45
Italy	30	33
Spain	30	34
Russia	25	30

Source: Baten and Pamuk, (2007) and Maddison, (2003)

Table 9: Literacy across Europe, 1820-1870 (as percentage of population capable to sign a document)

	1820	**1870**
UK	53	76
France	38	69
Germany	65	80
Netherlands	67	81
Sweden	75(?)	80 (?)

[94] Baten, J. and Pamuk, S. (2007), "Inequality in Standards of Living across Europe, 1820- 2000, A preliminary look", paper presented at the workshop on "Human Capital, Inequality and Living Standards, Measuring divergence and convergence in a globalising Europe", 2-3 July 2007 School of Economics and Management, Lund University, Lund

Italy	22	32
Spain	20	30
Russia	8	15

Source: Baten and Pamuk, (2007) and Maddison, (2003)

Considering some data on non-European countries and a larger time span, in can been noticed how the gap in levels of real income between poorer and more advanced countries has become larger and larger over the years. In some cases, growth rates show negative values, indicating really slow rates of growth in the selected countries (Table 10).

Table 10 : Growth of the GDP per head of population (annual average compound growth rates)

	1820-1870	1870-1913	1913-1950	1950-1973
Argentina		1.5	0.6	2.2
Bangladesh				-0.7
Brazil	0.1	1.2	1.6	4.3
China	0	0.5	-0.4	4
Colombia			1.3	2.3
Egypt			0.2	1.7
Ghana		0.9	1.1	1.2

India	0	0.6	-0.1	1.4
Mexico	0	0.8	1.7	3.1
Pakistan				1.7
Peru			2.2	2.7
Philippines			-0.3	2.9
South Korea			-0.9	4.7
Spain			-0.3	5.9
Thailand				4
Turkey				3.2
Advanced Countries Average	1.1	1.4	1.2	3.8

Source: Maddison, A. (1982) "Phases of Capitalism Development" (London New York)

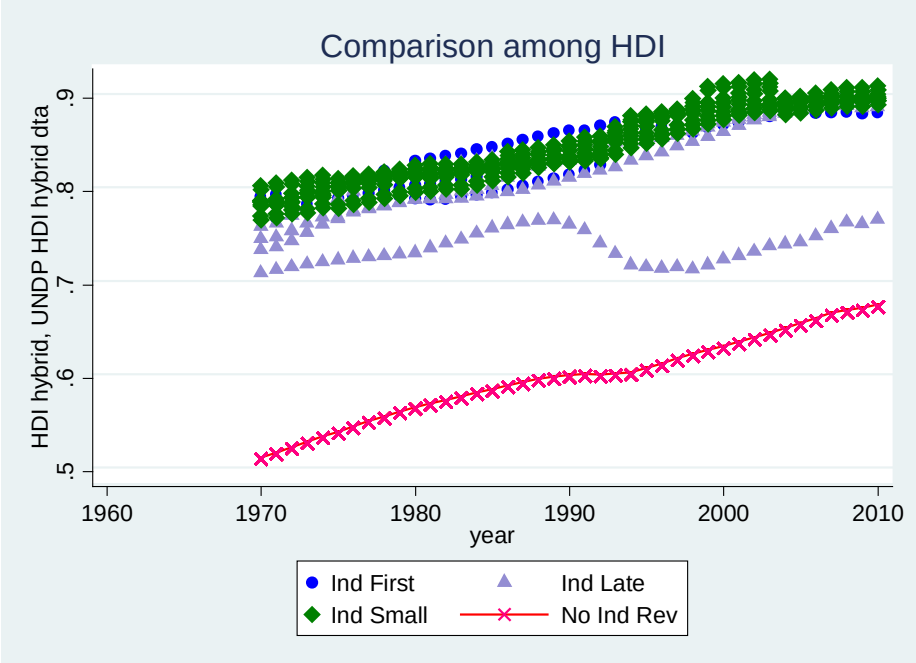
The absence of our reference data (HDI and food security) back to the time span of the Industrial Revolution precludes the possibility of comparing the development of the countries interested with the rest of the world. However, the countries involved in the Industrial Revolution are nowadays the OECD high-income countries[95], with in general the higher levels of HDI and, whenever present, low levels of undernourishment.

Nevertheless, it can be worth to figure out how the countries that undertook the first industrialization evolved and where they stand in terms of development compared to the countries that started their industrialization processes in relative recent time or did not go through it at all.

Figure 7 shows the increasing path of the HDI from 1970 for all the Industrial countries, but one latecomer, identified with the Russia. The collapse of the socialist economy brought as a consequence a downturn of the overall development level, also for those countries interested in the shifting to a market based economy. Those countries are included in the No Industrial Revolution group, showing a contraction during the first half of the '90s.

Figure 7

[95] With the exception of the Russia, considered as a Upper middle income level country (World Bank classification, updated November 2011).



Source: Our elaboration on UNDP data.
Note: The Late-Industrialized country having a different trend is Russia, during its transition to market

As shown in Table 11, the growth rate of the HDI in the countries involved in the Industrial Revolution is slower than the in the other countries (30% versu 30%) even though the levels of the former are higher in 1970 and 2010. The different political-economic experiences of these countries can explain the different growth rates among them.

Table 11- Comparison of HDI growth

	1970	2010	Growth rate[96] in percentage (1970-2010)
Belgium	0.77	0.89	0.16
France	0.77	0.90	0.17
Sweden	0.79	0.90	0.14
Spain	0.73	0.90	0.22
Russian Federation	0.71	0.77	0.08
United States	0.79	0.90	0.14
Japan	0.76	0.89	0.18
Italy	0.75	0.89	0.19
Denmark	0.79	0.90	0.14
United Kingdom	0.77	0.88	0.15

[96] Growth rate= (Value 2010 – Value 1970)/Value 1970

Germany			
Netherlands	0.78	0.91	0.16
Switzerland	0.80	0.90	0.12
Average	0.53	0.69	0.30
Average (without the Industrialized countries)	0.51	0.67	0.31

Source: Our elaboration on UNDP data.

The Industrial Revolution set the basis for an 'industrialization paradigm' to pursue development, adopted in different ways and in different areas through time as a process to solve problems of poverty and underdevelopment in poorer countries.

Its potential **drawbacks,** however**,** may become apparent as the process does not spread its positive effects to the whole of society, but, rather, generates higher inequality and creates groups of elites. In addition, environmental concerns, such as global warming and pollution caused by both industrial production and consumption activities, may cause serious harm to the global eco- system.

4.3. Import Substitution Industrialization

From the late '30s until the '80s, the Import Substitution Industrialization (ISI) paradigm was followed by many countries, especially in Latin America, to create their own industrial policy. During that time, industrialization was still a synonym for development and the way ISI was implemented aligned with the upcoming visions and theories of the Economic

Commission for Latin America and the Caribbean (ECLAC). According to those, industrialization had to "become the most important means of expansion"[97] (Prebisch, 1950) in order to overcome the trap of the terms-of-trade-deterioration of primary commodities[98], which, up until then, had been the main exports and source of income for less advanced economies.

The period between the two World Wars in Latin America was characterized by the negative effects of Western economic cycles; this new ISI strategy sought to limit these external constraints and create "infant industries" to satisfy internal demand, all the while protecting against open market competition with trade barriers, foreign exchange rate controls and advantages in cheap inputs acquisition[99] (Agenor and Montiel, 2009).

Import substitution industrialization' **vision** aimed to structure a set of economic, production and, more specifically, trade policies that would stimulate new domestic output for commodities previously imported.
The strategy was influenced by postulates of Raul Prebisch on "center-periphery" relationships[100]; the deteriorating terms of trade for agricultural and raw commodities mostly produced in the "less advanced world" (periphery) relative to manufactured goods produced in "industrialized countries" (center) suggested the need for emerging industry in the agricultural-based economies to overcome the disadvantages of primary product specialization. The so defined "division of production and labor" among center and periphery (or North and South) appeared detrimental to Latin America's long-term development. Further, "a structural subordination of the periphery's economic activity to the interests of the center" impeded any technological dynamism, production or labor diversification in the "less advanced world" [101] (Birdsall et al., 2010).
Prebisch hoped that the new industrialization would have brought not only results in terms of higher growth rates and labor productivity in the countries involved, but a whole transformation of society and a shifting emphasis on re-distributional issues, conducing to a more equitable income distribution among "center" and "periphery" in the future.

The manufacturing production change in Latin American (see Table 12) was based on a **common set of "ingredients"** to protect and develop the newly born industrial sector: a proactive role of the government in policies concerning, for example, trade barriers and

[97] Prebisch, Raul. 1950. The *Economic Development of Latin America and its Principal Problems,* United Nations. New York.
[98] The Prebish-Singer hypothesis (1950) identifies a secular and deteriorating trend of the terms of trade for primary commodities that, combined with relatively slow rate of technical progress in the primary sector, impedes the attainment of development goals for agricultural-based economies.
[99] Agenor, P. R. and Montiel, P. K. (2008) "Development Macroeconomics" Princeton University Press
[100] For a detailed explanation, Gauhar, A. and R. Prebisch (1980), Interview to Raul Prebisch, Third World Quarterly, Vol. 2, No. 1
[101] Birdsall, Nancy, De la Torre, Augusto and Valencia Caicedo, Felipe (2010). "The Washington Consensus, Assessing a Damaged Brand", Center for Global Development Working Paper No. 213. The Washington Consensus: Assessing a Damaged Brand (May 4, 2010).

exchange rates, the use of cheap inputs for production (e.g. physical inputs, labor, and credit) and natural resources availability. The aim of these policies was to promote growth while rendering the countries more self-sufficient and less vulnerable to "dependency" schemes[102] and external shocks.

Table 12- Manufacturing value added over GDP: 1950-1980

	1950	1960	1970	1980
Argentina	23.9	26.7	30.2	27.7
Brazil	21.2	26.3	28.4	29.4
Chile	23.1	24.8	27.2	22.5
Mexico	18.8	19.3	23.4	24.6
Uruguay	20.3	24.3	24.2	24.3
Venezuela	11.2	14.0	15.0	16.9
Latin America*	14.6	16.6	19.0	20.1

* Average for 20 countries of Latin and Central America
Source: Own elaboration on The Montevideo-Oxford Latin American Economic History Database

Governments were intervened to promote infant industries with protections on production, such as through high import tariffs and quotas, provisions of direct credit to firms, management of the interest rates, control over banks and the inclusion of state owned firms in production processes. *Trade policies* aimed at protecting activities oriented towards the domestic market.

Cheap imports of capital goods, as well as cheap funds to borrow from external markets, were made available due to overvalued *exchange rates*. Fiscal and monetary policies allowed for increased job creation in urban areas, including in the public sector and state enterprises, and overvalued exchange rates contributed to keeping urban prices low and increasing rural-urban migration[103] (Lipton, 1977).

The size of the agricultural sector and *abundance of natural resources* in some countries (e.g. Brazil and Mexico) facilitated the shift to the production of manufactured goods; exporting primary commodities not only provided economic growth *per se*, but it also helped in building the capacity for international borrowing to invest in new productions[104] (Lal and Myint, 1999).

The policies needed to encourage industrial production can be grouped into four phases[105] (Ramos, 2000). Firstly, a "vertical policy" was needed to promote the selected high priority manufacturing sectors. Secondly, the chosen sectors benefited from favorable trade policies,

[102] Dependency can be intended in general as an " historical condition which shapes a certain structure of the world economy such that it favors some countries to the detriment of others and limits the development possibilities of the subordinate economics" (Dos Santos, T. (1971)."The Structure of Dependence," in K.T. Fann and Donald C. Hodges, eds., *Readings in U.S. Imperialism.* Boston: Porter Sargent)
[103] Lipton, M. (1977). Why Poor People Stay Poor: Urban Bias in World Development. Harvard University Press. Cambridge
[104] Deepak Lal and Hla Myint (1999), The Political economy of poverty, equity and growth: a comparative study, Oxford University Press
[105] Ramos, J. (2000), Policy Directions for the New Economic model in Latin America, World Development, Vol.28, no.9

such as tariff protection or import quotas low or no tariffs on imported inputs and preferential credits, in addition to the purchasing of goods and the provision of utilities/key inputs (in this case below market prices) by the public sector. During the third stage, the selected sectors' priorities went through a shift from the production of relatively easy-to-substitute final consumer goods to demanded intermediate goods (steel, petrochemicals, paper, etc.) and finally to more technology-dependent commodities. Fourth, "horizontal policies", such as preferential credits for small and medium-sized enterprises (SMEs), were encouraged in order to induce technology enhancements and promote employee training. Such policies were largely complementary to "vertical" policies, though involved significantly fewer resources,

Ideally, import substitution should have allowed less industrialized countries to develop inside protective boundaries before being exposed to a broader economy. Adopting some following outward trade reforms, however, could have raised concerns over the adjustment of relative prices and the reallocation of resources toward export sectors[106] (Bruton, 1989).

The import substitution paradigm has been applied by almost all the Latin American countries, even though not at the same time. However other experiences - also within a shorter time span- can be found in the Sub-Saharan Africa[107] and in Asia, with the four Tigers for example that have started their growth path with a prudent import substitution strategy.

For sake of precision, Table # reports only the Latin American countries, in order to avoid confusion between Sub-Saharan Africa industrialization experiences and more peculiar import substitution industrialization.

Table 13 – IMPORT SUBSTITUTION INDUSTRIALIZATION PARADIGM[108]

[106] Bruton, H (1989) "Import substitution", Handbook of Development Economics

[107] Sub-Saharan Africa industrialization experience started since the decolonization on the '60s. The countries mostly involved where Nigeria, Democratic Republic of Congo, Zimbabwe, Kenya, Uganda, Tanzania, Ghana, Cote d'Ivoire, Mali, Mauritania, Senegal (for reference, Pearson. D.S. (1969), *Industrial Development in East Africa*, Oxford University Press; Nellis, J.R. (1986), "Public Enterprises in Sub-Saharan Africa", World Bank Discussion Paper Nº 1, Washington DC). From the literature review, it is less clear if industrialization in Sub-Saharan Africa can be always though as an import-substitution strategy.

[108] Arnaut, J. (2010). Understanding the Latin American Gap during the era of Import Substitution1: Institutions, Productivity, and Distance to the Technology Frontier in Brazil, Argentina and Mexico's Manufacturing Industries, 1935-1975, prepared for the Southern Hemisphere Economic History Summer School 2010 (Montevideo, Uruguay); Pacheco, P. (2006) Agricultural expansion and deforestation in lowland Bolivia: the import substitution versus the structural adjustment model, Land Use Policy 23 (2006) 205–225; Willmore, H. (1989), Export promotion and import substitution in Central American Industry, Cepal Review n.38; Sapelli, C. (2003) The Political Economy of Import Substitution Industrialization, Instituto de Economía, Pontificia Universidad Católica de Chile; Wogart J.P. (1975), From Import Substitution to Export Diversification in Colombia, Kiel Institute of World Economics WP n.30; Werner B. (1972), Import Substitution and Industrialization in Latin America: Experiences and Interpretations, Latin American Research Review, Vol. 7, No. 1, pp. 95-122); Itzigsohn, J. (2000), Developing poverty: the state, labor market deregulation and informal

	30-40	40-50	50-60	60-70	70-80*
Argentina		X	X	X	X
Bolivia			X	X	X
Brazil	X	X	X	X	X
Chile			X	X	X
Colombia	X	X	X	X	
Costa Rica				X	X
Dominican Republic**			X	X	X
El Salvador				X	X
Guatemala				X	X
Honduras				X	X
Mexico	X	X	X	X	
Nicaragua				X	X
Peru				X	
Uruguay			X	X	
Venezuela, RB			X	X	X

Source: Our elaboration on different reference (see footnote 65)
*Most of the countries ended their ISI paradigm in the first half of the '70s.
**It is debated if Dominican Republic had a first phase of ISI in '30s-'40s (see Itzigsohn, J. (2000), Developing poverty: the state, labor market deregulation and informal economy in Costa Rica and Dominican Republic))

Outcomes that resulted from the import substitution industrialization model in Latin American from the '50s onward included the fostering of heavy industries and an average annual GDP growth rate of 5.1 percent during the first decade[109] (Wilkie, 1995). After the '60s, growth rates lowered but remained positive (Table 14).

economy in Costa Rica and Dominican Republic). From the Latin America and Caribbean countries, we excluded Ecuador, paraguya and Panama that the literature indicated as pursue few or not at all import substitution policies (i.e. De janvry, A, and Sadoulet, E. (1991) Adjustment and equity in Ecuador, OECD)

[109] Wilkie, J. (1995). Statistical abstract of Latin America, UCLA Latin American Center Publication

Table 14- GDP per capita and growth rates

	1950	1980	Growth Rate of GDP per Capita (percent per year)
Argentina	1,877	3,209	1.8
Brazil	637	2,152	4.2
Chile	1,416	2,372	1.8
Mexico	1,055	2,547	3.0
Uruguay	2,184	3,269	1.4
Venezuela	1,811	3,647	2.4
Latin America*	n.a.	n.a.	3.0

*Except Cuba
Source: Cardoso E. and Fishlow, A. (1989). Latin American Economic development, NBER, Working Paper no.3161

From the '60s and more into the '70s, import substitution revealed weaknesses and signs of exhaustion; the growth dynamism lowered and macroeconomic imbalances and debts spread in Latin American countries. The expectations of reducing poverty and income inequality were disregarded; only in a few countries did poverty rates fall, while income inequality remained mostly unchanged (Table 15).

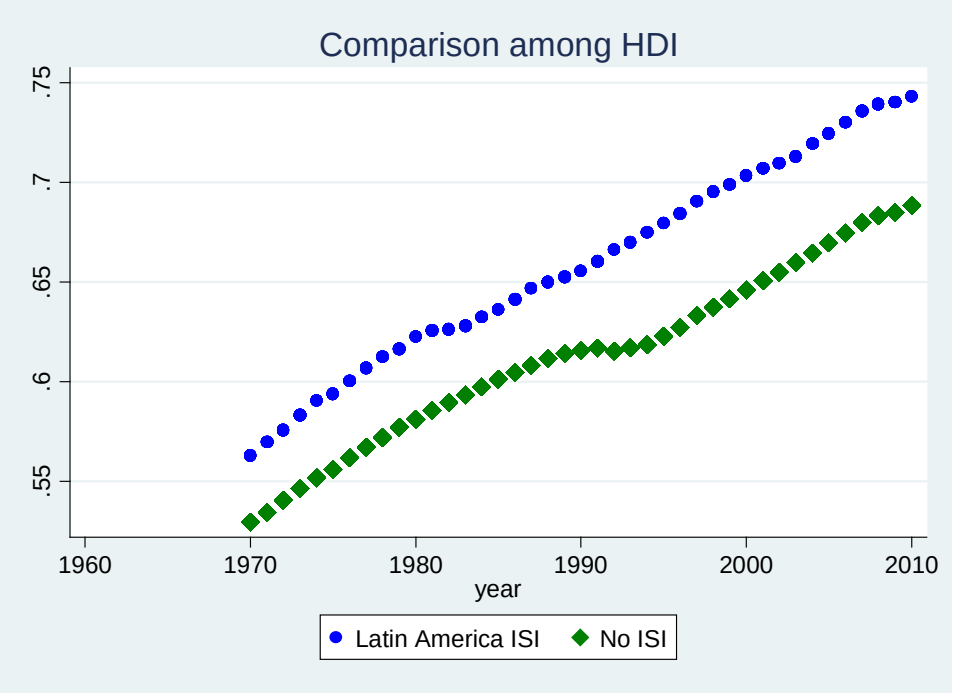
Table 15 – Poverty rates: 1970-1981

	1970	1981
Argentina	8.00	8.00
Brazil	49.00	43.00
Chile	17.00	16.00
Mexico	34.00	29.00
Venezuela	25.00	24.00
Latin America*	39.00	35.00

* Average for 10 countries of Latin and Central America.
Poverty is defined with the Head Count (percent of population below the poverty line)
Source: Cardoso E. and Fishlow, A. (1989). Latin American Economic development, NBER, Working Paper no.3161; HDI is the hybrid human development index Source: UNDP

Figure 8 compares the trend of the HDI of the Latin American countries involved in the import substitution strategy and rest of the world; the comparison shows that both paths are uniform and constantly growing. However the Latin American countries experienced a downturn of their HDI level at the beginning of the '80s. This can be seen as the outcome of the regional debt crisis during the '80s induced by the increase in interest rates by US monetary authorities and reinforced by oil shock and dropping in primary commodity prices. ISI countries in fact showed a strong reliance into external sources for financing their domestic productions especially in the last period of the paradigm.

Figure 8



Source: Our elaboration of UNDP

Considering the heterogeneity of the non ISI group, no comparisons can be made. However the results in Table 16 show the growth rates of HDI for the LAC that pursued the ISI is slightly higher than the average achieved during the four decades by the rest of the countries.

Table 16 – Comparison of HDI growth

	1970	**2010**	**Growth rate[110] in percentage (1970-2010)**
ISI Latin America	0.56	0.74	32%
No ISI	0.52	0.68	30%
Average	0,53	0.69	30%

Source: Our elaboration of UNDP

Unfortunately, the available food security data do not cover the period of the Import substitution strategy and the decade immediate after. However the Table 17 shows that food security is improved during from the '90s in most of the countries, representing mostly a general trend for the entire Latin American and Caribbean area.

[110] Growth rate= (Value 2010 – Value 1970)/Value 1970

Table 17 - Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008
Bolivia	29	24	22	27
Brazil	11	10	9	6
Chile	7	—	—	—
Colombia	15	11	10	9
Dominican Republic	28	26	25	24
El Salvador	13	12	7	9
Guatemala	15	20	22	22
Honduras	19	16	14	12
Nicaragua	50	38	25	19
Peru	27	21	18	16
Uruguay	5	—	—	—
Venezuela, RB	10	14	13	7
Latin America and the Caribbean	12	11	10	8
Caribbean	25	28	22	23
Latin America	11	10	9	7

Source: Food and Agriculture Organization of the United Nations

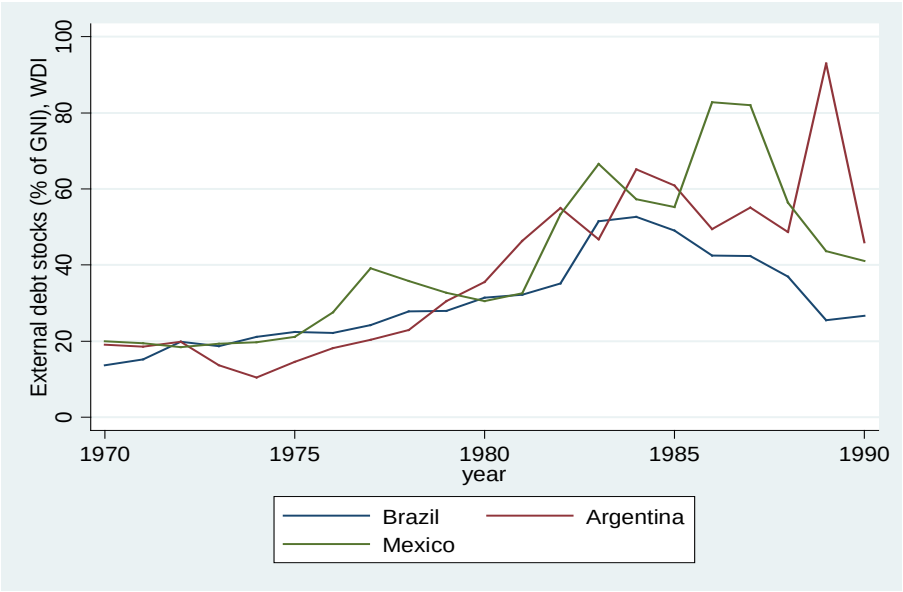
The ISI strategy encountered its first **drawbacks** when governments attempted to substitute consumer goods with more advanced goods (intermediate and capital ones). The domestic markets were in fact too limited to generate both economies of scale and sufficiently competitive environments to reach efficiency, lower costs of production and increased productivity. Also, the ISI trade strategy, with its high tariffs – including export taxes – did not stimulate exports, especially those of nontraditional export commodities. Critics have put additional focus on the tendency to diversify production rather than to specialize, in addition to the "deadweight" costs of administering all of these programs (Ramos, 2000). The creation of capital-intensive industries also failed to generate a substantial demand for labor and the initial expectations of the links from manufacturing, technology, and increased labor force productivity to subsequent higher wages and living standards failed to materialize[111] (Lozada, 1999).

In addition, the Latin American region was forced into the external dependence that initially wanted to avoid because production needed intermediate capital inputs and credit not available domestically. As Figure 9 shows, the external debt as percentage of GNI grew fast in some countries, reaching values superior than 80% for countries as Argentina and Mexico.

[111] Lozada, C. (1999)."Economic Policy Trends in Post-World War II Latin America". Economic Review, Federal Reserve Bank of Atlanta, Fourth Quarter.

In the '70s, a favorable international environment with low real interest rates and a strong demand for Latin American primary exports contributed to the growth of their external financing.

Figure 9 - External debt (as % GNI): 1970-1990



Source: World Development Indicators

Many Latin American countries sustained their growth though imports. They relied on capital inflows greatly facilitated by "petrodollars" from the oil shock of 1973 to complement internal savings in the financing of investments (Lozada, 1999). With the second oil shock in 1979 and the lowering of primary commodity prices at the beginning of the '80s, in addition to the decision of US monetary authorities to raise interest rates, Latin America's debt significantly increased (see Graph 2 for Brazil, Argentina and Mexico). With variable rate loans, interest payments on foreign debt rose significantly and the debt in Latin America passed from less than $9 billion in 1978 (17 percent of regional export earnings) to $30 billion in 1981 (42 percent), an incidence that was amplified by capital flight from the region during the late '70s (Lozada, 1999). GDP continued to grow in the '70s, as foreign debt was financing capital formation; only in the '80s did the collapse of capital inflows almost stop growth in the region (Table 18).

Table 18 - Capital goods (as % of Imports):1950-1980

	1950	1960	1970	1980
Argentina	30	38	29	32
Brazil	37.4	38.5	33.8	18.6

Chile	33.9	40.9	39.8	25.1
Mexico	35.8	42.1	39.9	38
Uruguay	30	24.8	26.6	23.4
Venezuela	41.8	34	38.6	34.8
Latin America*	34.4	37.3	35.8	30.8

* Average for 9 countries of Latin and Central America
Source: The Montevideo-Oxford Latin American Economic History Database

The decline of capital inflows, the devaluation of major currencies and the import restrictions on capital goods contributed to the downsizing of real wages, having subsequent effects on the increase of unemployment and the spreading of the phenomenon of hyperinflation in the region (Birdsall et al., 2010). The regional average per capita income in 1985 fell to levels prevailing in the mid-1960s[112] (Balassa et al., 1986).

As soon as a few adverse effects emerged from import substitution policies, the idea that more open and outward-oriented countries could perform economically better than autarky or partial free trade regimes came into force. This thinking led to much advice from multilateral institutions, e.g. the OECD, World Bank, IMF and research organizations such as NBER, to espouse more liberalized trade strategies (Srinivasan and Bhagwati, 1999; Rodrik and Rodriguez, 2001). With the acceptance of this "Washington Consensus" recipe, as it came to be known, there was indeed an adoption of market-oriented reforms in several Latin American economies during the late 1980s and the 1990s.

"Structuralists" argued that import substitution was to initiate the process of industrialization, that the protection of domestic markets was only the first stage of a whole process that would have been completed in an internationally competitive market based economy. Trade policies relating to the sequencing, rules and penetration of foreign markets, as well as the role of tariff and subsidies on export promotion, continue to provoke much debate. However the infant industry argument seems to be revitalized (see, e.g. Rodrik, 2004[113]); it is today no longer, as in the past, thought of as a means to acquire the skills required for efficient production but a challenge regarding the provision of public goods for the productive sector, which requires the support of "good institutions", and an approach for dealing with international markets.

It should be noted that the ISI strategy did not perform equally throughout the region. One of the better performances of this period was that of Brazil, which experienced broad structural changes in production and registered the highest growth and poverty reduction rates of the region. Brazil and Mexico can be said to have fully adopted the ISI strategy aimed at complete vertical integration with the simultaneous promotion of final consumer

[112] Balassa, Bela, Gerardo M. Bueno, Pedro-Pablo Kuczynski and Mario Henrique Simonsen. 1986. *Toward Renewed Growth in Latin America.* Institute for International Economics. Washington, D.C.
[113] Rodrik, D. (2004) , Industrial Policy in the twenty-first century, working paper for UNIDO.

goods industries (generally with private sector) and intermediate and capital goods, owned or heavily subsidized by the State[114] (Wionczek, 1974).

On the other hand, there was the Southern Cone (Argentina, Chile and Uruguay), which, during the decades of ISI, lost its initial leading position in the region, being sustained only by a "normal performance". Among the laggards, we find a variety of smaller countries, including several in Central America[115] (Cardoso E. and Fishlow, A., 1989), where the imports of consumer goods were not fully substituted by industrial goods but by large assembling activities that did not greatly raise domestic value added.

Higher growth rates were not characteristic of only Latin America, but of the world in general; Latin American per capita income did not, on average, converge significantly toward those of rich countries (Birdsall et al., 2010).

4.4. East Asian Development Approach

Starting at the end of the Second World War, the East Asian industrial paradigm[116] has revealed the capacity of some Asian countries to successfully lead their own industrialization processes.

[114] Wionczek, M. (1974). Latin American Growth and Trade Strategies in the Post-War Period, development and Change, Vol.5,

[115] Cardoso E. and Fishlow, A. (1989). Latin American Economic development, NBER, Working Paper no.3161

[116] In the literature, the East Asian paradigm is referred to the development strategy carried mostly by Japan and the four Asia tigers (i.e. Kuznet, P. (1994). "Asian industrialization: is there a paradigm?" Journal of Asian Economics, Vol. 5, No.4, 1994, pp.491-497). The World Bank seminal report 'The East Asian miracle – Economic

Until the first half of the 20th century, the industrialization process was somehow a Western hemisphere phenomenon, strongly linked to the Western production structure and to its "civilization" history and Protestant principles[117] (Max Weber, 1905; Vogel, 2006).
However, when the Japan's experience of rapid growth continued after the Second World War, it became more concrete the possibility of success of an Eastern industrialization paradigm. The paradigm mainly comprised a mix of strong government interventions, strategic trade policies[118], a structure of private industries and low-cost credit for long-term projects.

The **vision** of the East Asian industrialization development paradigm was focused on building a peculiar industrial process mainly export-oriented in a stable macroeconomic environment. It started with the rapid economic recovery of Japan after the Second World War and continued into the '60s with the superior performances of the four Asian tigers[119] and of China a few decades later (Table 8).

Table 19- EAST ASIAN DEVELOPMENT APPROACH

	50-59	60-69	70-79	80-89	90-99	2000 - 2010
Japan	X	X	X	X	X	X
South Korea		X	X	X	X	X
Singapore		X	X	X	X	X
China				X	X	X

Source: Our elaboration

The countries aimed of pursuing rapid and high output growth rates that would have lead to the transformation of the whole society: once higher growth rates had been attained, the mechanism would have generated long-term development results[120].

The idea was to build a "shared growth path"; an economic expansion where all groups of people would have benefited though the following "hierarchical" coordination mechanism. In particular *"[f]irst, leaders had to convince economic elites to support pro-growth policies.*

growth and public policy' (1993) includes also three Southeast Asian countries (Thailand, Malaysia, Indonesia) as High Performance Asian Economies (HPAE). In our paper, we decide to focus our attention only to three East Asian tigers (Taiwan, South Korea and Singapore), Japan and China.

[117] Weber, Max (1905), "The Protestant Ethic and the Spirit of Capitalism", Routledge Classic, London, 2001; Vogel, Ezra (2006). The Four Little Dragons: The Spread Of Industrialization In East Asia, Harvard University Press

[118] The Ministry of International Trade and Industry - MITI - had often been addressed to be its main leader, see i.e. Chalmers A., Johnson (1982), "MITI and the Japanese miracle: the growth of industrial policy, 1925-1975", Stanford University Press

[119] They are Taiwan, South Korea, Hong Kong and Singapore (also called "little dragons"). The term "tiger economy" is used to define a country with an economy that is growing very fast (The Cambridge Dictionary, http://dictionary.cambridge.org/dictionary/business-english/tiger-economy)

[120] Barro, R. J. and X. Sala-i-Martin (2003), *Economic Growth*, Second Edition, Cambridge, MA: MIT Press.

Then they had to persuade the elites to share the benefits of growth with the middle class and the poor. Finally, to win the cooperation of the middle class and the poor, the leaders had to show them that they would indeed benefit from future growth" (World Bank, 1993 p.13)[121].

The East Asian tigers experienced the positive effects of their combination of economic policies from the '60s until 1997, when the financial crisis severely hit this geographic region.

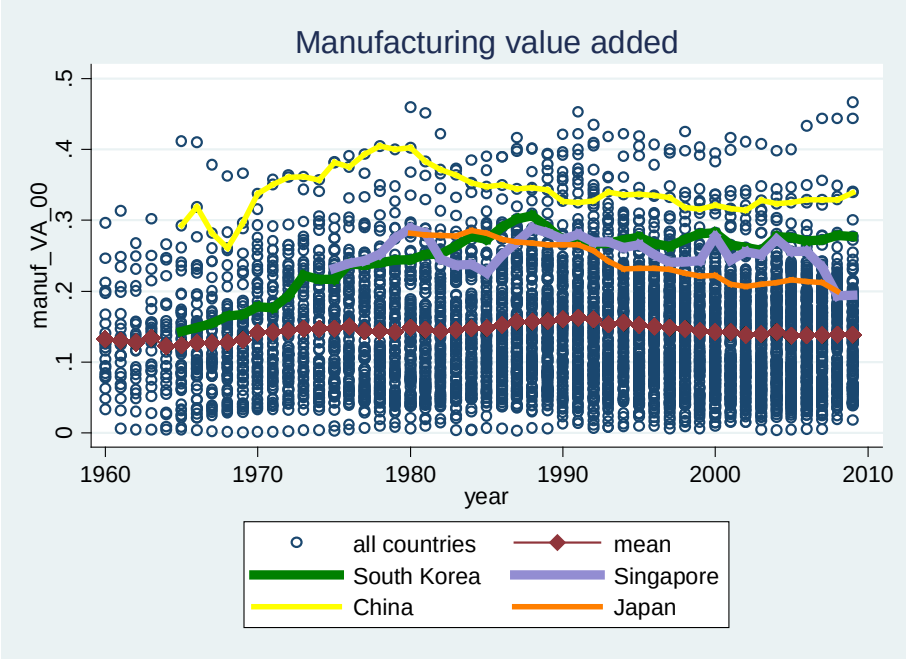
Their industrialization process was not only "a catching-up" imitation strategy with respect to Western industrialized economies, but it tried to build country-level comparative advantages to overcome their lack of natural resources. Moreover, they tried to integrate their regions' peculiarities and production schemes into the emerging globalized economy [122] (Jang-Sup Shin, 2008).

As confirmed in Figure 10, the value added of the manufacturing sector was generally increasing and definitively higher in the countries interested by the paradigm if compared to the world average. The trend was growing from the late '60s with downturns varying for each country, mainly attributable to the oil (1979) and the financial crises (1997-1998).

Figure 10 – Trend of the manufacturing value added

[121] World Bank (1993). "The East Asian miracle – Economic growth and public policy", World bank, Oxford University Press

[122] Jang-Sup Shin (2008), The East Asian Industrialization in the Gerschenkronian Mirror: Catching-up Strategies and Institutional Transition, Department of Economics Working Paper No. 0208, National University of Singapore



Source: Our elaboration on WDI data.

During the second half of the 20th century, the world had already begun experiencing interrelated economic processes and the acceleration of worldwide connections. The East Asian tigers were able to manage the complexity of the new business environment and to create favorable conditions for the development of technology and the attraction of foreign capital. Particularly manufacturing industry paid an increasing attention to the soft skills acquisition respect to hard machinery endowments.

Even though each country adopted its own unique policies, there was a **common set of "ingredients"** used to pursue their industrialization and growth strategies. In general, the main driving forces behind their economic growth came from *private domestic investments* and *human capital* [123] (World Bank, 1993). More specifically, the common goal was to create an environment favorable to the economy to thrive, by making sure that exchange rates reflected the economic fundamentals. In order to held this condition they assured that the interest rates yielded positive returns, the inflation was kept under control and that taxes did not discourage economic activity.

The growth performances of the Asian tigers were strongly related to the combination of ingredients such as targeted *production* and *technology* enhancements, a large *labor* supply, the availability of high quality *human capital* (due to education policies already in place), strategic *international trade* choices, the role of the *financial sector* and a distinguishing

[123] World Bank (1993). "The East Asian miracle – Economic growth and public policy", World bank, Oxford University Press

cultural environment. *Governmen*t intervention and the gradual market openness of their economies played major roles in their successful economic performances.

It is not possible, however, to disentangle the effects of the specific policies in order to explain their development process; increased growth rates resulted from a combination of these policies and from the interactions between the above mentioned factors, in addition to the favorable geographical and cultural setting of the East Asian region.

The initial "unlimited" *labor supply* and the initial *low wages* in the agricultural sector helped in conducting the process of industrialization. Moreover, also the initial education levels played an important role in the strategy of and subsequent improvements to production technologies since the continuous need for highly educated workers was supported by an outward trade orientation. Subsequently, education policies focused on primary and secondary school attainment rates generating further increases in labor force skills.
However, this development of the labor market was not followed by policies related to minimum wages, to trade unions or to labor codes; rather, low level wages were maintained inside more intense production schemes [124] (Dowling, 1994).
The development of these East Asian countries was characterized initially by following a *low-wage labor-intensive industry-led* path, and later by a *low-wage labor-intensive export-led*[125] one (Bellu, 2011).
From here the importance of the *trade policies* in the East Asian development approach; all the analyzed East Asian countries adopted a *strategic openness-based development approach*, balancing openness and protection by differentiating across commodities, partners and periods. Starting with a prudential import-substituting strategy, they promptly turned into an outward-oriented industrialization policy, with the aim of encouraging manufactured exports that contributed in a major way to boost the growth rate of GNP (Krueger, 1995).

The *role of the Government* in this context was mainly focused on the establishment of both a pro-export incentive structure and moderate protection from import. These policies led to a higher level of efficiency and to better resources allocation in the globally competitive environment than in Latin America or Africa. The Government played also a coordination role in the determination of industrialization policies in the East Asian countries at the micro level, guiding and directing private agents, for example with financial support. In the areas of macroeconomic stability and policy flexibility, government policies across the region were quite homogeneous; the fiscal reforms reduced the macro deficits and the inflation rates were kept very low since the '80s.

[124] Dowling, M. (1994). Is there an Asian Industrialization growth paradigm? , Journal of Asian Economics, Vol.5, No.4, 1994, pp. *52S-S3S.*
[125] Bellu, L. (2011). Development and Development Paradigms - A (Reasoned) Review of Prevailing Visions**,** EasyPol issue paper Module 102

Another possible contributing factor to the East Asian economic boom stems from the Confucian and Buddhist ethics of the region that created a mix of "successful Asian values", such as honesty, loyalty and diligence in work. Culture has been in fact recognized as an element supporting development not only in its remunerative element, but also in less measurable items, like work ethic, risk behavior, entrepreneurship, corruption and attitude toward the environment[126] (Sen, in Rao and Walton, 2004).

Moreover, the *enhancement of financial sector* and the *injection of capital from abroad* helped the economic system to develop. However, in order to last, the the development of production processes required more appropriate financial market reforms for the long run financing and for protecting the market against global risks. The expansion of financial services did not match with a proper regulation system, exposing the countries to the instabilities of the global finance and to the eventual crisis that hit the region in 1997[127] (Radelet et al., 1998).
Radelet et al. argued in fact that *"the crisis was not an inevitable result of an Asian capitalist model, but rather, an accident of partial financial reforms that exposed these economies more directly to the instability of international financial markets".* The attempt to upgrade the financial institutions rendered individual countries *"exposed to the instabilities of international financial markets"*.

Despite the many similarities, there are some important factors that differentiated the development paths of the East Asian countries from one another.
Since the '70s, for example, South Korea has followed a development path based on heavy and chemical industrialization, more similar to the Japanese model. The effort has mainly been put on the catching-up process, on the increase of its competitiveness strategy with investments in R&D and on the strengthen of backward and forward-linkages among industries. The strong reliance on private, family-owned industry, the use of foreign debt to finance the industrialization process, the direct intervention of the government in providing loans, subsidies and protection to strategic industries and an export-led business orientation are the most distinctive elements of the Korean strategy within the "East Asian model of development". Taiwan and Singapore followed a different path with a focus on foreign direct investment: Singapore grew through the most internationalist route towards industrialization while Taiwan initially took a nationalistic path of development.

There was an extensive debate within the International Organizations environment regarding the causes of the rapid growth of the East Asian economies and especially on whether the government intervention was the leading factor. With respect to this issue,

[126] Sen, A. (2004), "How does the culture matter?" (in "Culture and Public Action", edited by Rao, V. and Walton, M., The World Bank)
[127] Steven Radelet, Jeffrey D. Sachs, Richard N. Cooper, Barry P. Bosworth, (1998). The East Asian Financial Crisis: Diagnosis, Remedies, Prospects, and Brookings Papers on Economic Activity, No. 1. pp. 1-90.

Wade[128] (1996) claimed that the success of East Asian countries did not come from the leading role of Government, but from their initial conditions in terms of human capital and infrastructure, plus an *investment-led growth* attitude: "the *causality runs from higher investment to faster technical change and higher imports, and from these to higher exports—these exports being more a result than a cause*".

Among the **development outcomes** of the industrial sector expansion throughout East Asia, the most important and relevant is an unprecedented upward shift in the per capita income after the '60s[129] (Table 20; see for extensive description also Durlauf et el., 2005; Rodrik, 2005). This phenomenon was associated to a diminishing role of agriculture in terms of value added and employment (see Table 21), and a change in the final demand structure (Syrquin and Chenery, 1989)[130].

Table 20 - GDP per capita and growth rates

	1960	1970	1980	1990	2000	Compound Annual Growth Rate (percent per year)
Japan	6,093	14,797	20,495	28,499	30,953	4.1
Singapore	4,299	6,806	14,349	22,981	38,278	5.6
South Korea	1,782	3,018	5,339	11,437	18,926	6
Taiwan	1,826	3,501	7,367	13,658	23,225	5.8
Asian tigers*	2,811	5,089	10,230	17,674	27,239	5.8
China	362	389	638	1259	2885	5.3

* Average includes Hong Kong
Source: Penn World Tables, 7.0, PPP Converted GDP Per Capita (Chain Series), at 2005 constant prices

Table 21- Agriculture value added and Urban Population

[128] Wade, R. (1996). Japan, the World Bank, and the Art of paradigm maintenance: the East Asian miracle in political perspective new Left review I/217)
[129] Durlauf, S.N., P. Johnson, J.R.W. Temple (2005). Growth Econometrics, Handbook of Economic Growth, Vol. 1A; Rodrik, D. (2005), Growth strategies Handbook of Economic Growth, Vol. 1A
[130] Syrquin, M. and Chenery, H. B. (1979). "Patterns of development, 1950-1983", World Bank discussion paper 41, the World Bank

	1960	1970	1980	1990	2000	Compound annual Growth Rate (percent per year)
Japan						
Agriculture value added (in %)		6	3.6	2.46	1.77	-4.0
Urban population (% of total)	43.1	53.2	59.6	63.1	65.2	0.5
South Korea						
Agriculture value added (in %)	39.35*	29.25	16.16	8.94	4.63	-6.0
Urban population (% of total)	27.70	40.70	56.70	73.80	79.60	2.7
China						
Agriculture value added (in %)	22.31	35.21	30.17	27.11	15.06	-1.0
Urban population (% of total)	16	17.4	19.6	27.4	35.8	2.0

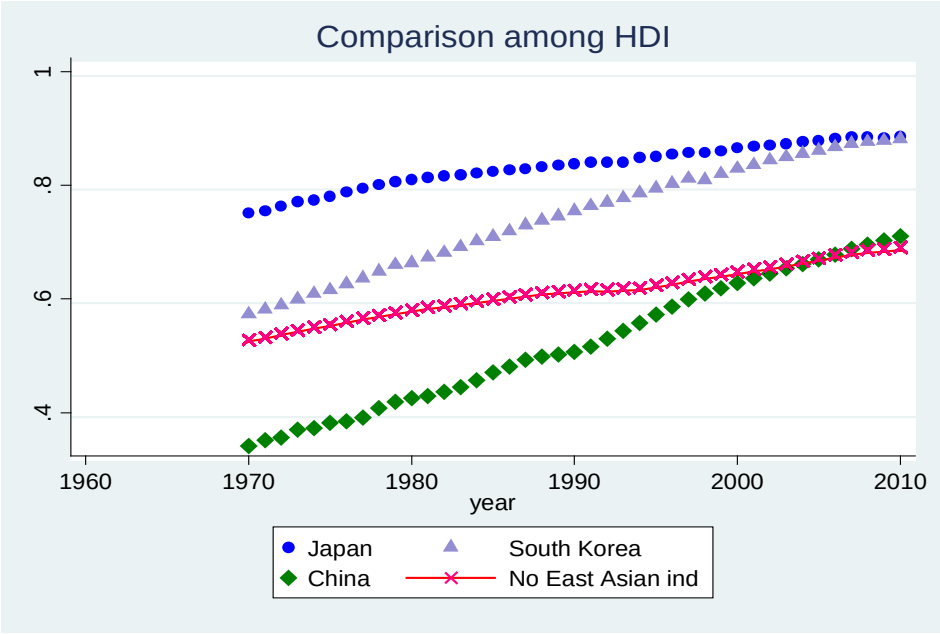
Source: World Development Indicators
*it refers to 1965

The industrial shift was led by the accumulation of capital, both public and foreign, and by the initially imported technology, with a growing numbers of licensing agreements and of innovative commodity imports. These elements, combined with an already educated and trained workforce, created the fertile ground for a further output growth and a greater export expansion [131] (Kuznet, 1994). Technological transfers contributed to initial the efficiency gains and to the adoption of best practices, allowing for later expansion in both capital assets acquisition and human capital improvements. These developments had important and positive impacts on poverty, as they led to higher employment rates, increased earning opportunities and multiplicative effects that usually expand outside specific industries.

The goal of an increase in the per capita income turned into the realization of improvements in human welfare measures such as higher life expectancy at birth and improvements in school enrolment ratios, as synthesized by the HDI (see Figure 11). It is in fact evident the sharp increasing trend of the East Asian economies, compared with the other countries.

Figure 11

[131] Kuznet, P. (1994). Asian industrialization: is there a paradigm? Journal of Asian Economics, Vol.5, No.4, 1994,pp. 491-497.



Source: Our elaboration on UNDP data.

While Japan followed mostly the trend of the aggregate country average, as explained by its high HDI level, the performance of South Korea and China in terms of development was definitely impressive (with China higher than 100%).

Table 22 - Comparison of HDI growth

	1970	2010	Growth rate (1970-2010)
Japan	0.75	0.89	19%
South Korea	0.58	0.88	52%
Singapore	.	.	.
China	0.34	0.71	109%
Average	0.53	0.69	30%
Average* (without the selected East Asian countries)	0.53	0.69	30%

*the differences among Average and Average (without the selected East Asian countries) stand in the third digit after the comma
Source: Our elaboration on UNDP data.

The percentage of undernourished among the population is not available for most of the economies of the paradigm, since Japan, South Korea and Singapore reached the status of high income countries.
Considering the issue of food security in China, Table 23 shows a lowering level of undernourishment in the last 20 years, with an 8% decreasing percentage among the population. The whole Asian continent counts an overall decreasing of 5% while the Eastern Asia part (excluding China) in the same years worsen its food security conditions, with an increasing prevalence of undernourishment in the total population of 5%.

Comparing the data with the world population, in the early '90s China had a higher percentage of population affected by undernourishment, while nowadays the countries have a lower level of food insecure.

Table 24 - Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008
China	18	12	10	10
Asia	**20**	**16**	**16**	**15**
Eastern Asia	*18*	*12*	*10*	*10*
Eastern Asia - excluding China	*8*	*11*	*13*	*13*
WORLD	**16**	**14**	**14**	**13**

Source: Food and Agriculture Organization of the United Nations

The **drawbacks** of this type of industrialization paradigm are placed in the long-term sustainability of the growth process itself since it depends on the institutional developments and on capacity for knowledge generation[132] (Timmer, 2006). In those countries with "technocratic bureaucracies", institutions and educational levels to support low-cost trade and knowledge "import" from abroad, such as Korea and Taiwan, the transition to export-led growth was feasible but not without consequences, as shown with the crisis in 1997 that left economies directly vulnerable to the instability of international financial markets.

4.4.1. The China's path to development

In China, the rapid economic growth through industrialization over the past fifty years began with the economic reforms in the late 1970s leading the country to be one of the fastest growing economies in the world.

The success of China was differently organized and came at a different time with respect to the Asian Tigers. It started once the country abandoned the 'heavy-industry-oriented' or 'leap forward' development strategy of the pre-1979 reform period. During this period China was mainly following the Soviet model to catch up the Western industrialized countries and in 1979 it started to adopt the comparative advantage strategy of Japan and of the Asian tigers [133] (Lin et al., 1996).
China was an economy with very scarce physical capital but endowed with abundant labor: in order to implement the heavy-industry-oriented strategy, all the "scarce" resources were allocated centrally by the government in the heavy-industry sector. From the late '70, China's reform process focused on improving the institution management, reshaping the resource allocation (including labor supply) and implementing gradually the "market-

[132] Timmer, C.P. (2006). How countries get rich. Centre for Global development, CGD Brief, February 2006
[133] Lin, J. Y., Cai F., Li Z. (1996), The China Miracle: Development Strategy and Economic Reform. Hong Kong: Chinese university Press.

socialist economy". Moreover important reforms were put in place in rural area to stimulate farmers' production, significant increase in the agriculture production were reached. The rural non-agricultural sector was the most dynamic component of the Chinese economy and it helped to renew and transform rural China. This rural non-agricultural development has been led by the collectively owned township-village enterprises that expanded at first by filling niches in the domestic market and by producing consumer goods not adequately supplied by the state sector. Then, since the late 1980s, they became increasingly export oriented (Ho, 1995)[134].

The impressive results reached by China in terms of GDP growth and poverty reduction have led to the formulation of a recipe that could mark "a path for other nations [...] to figure out how to develop": the so called "Beijing Consensus"[135].
If China can be really seen as a model for development for other countries however did not have reached a strong consensus itself.

Synthesizing the "ingredients" used by China, Williamson argued the non-applicability of this new development model to other countries. According to him, approaches such as gradual reforms, continuous strain for innovation, export-led growth, state capitalism and non democratic regime would not be suitable for the development of any other country[136]. Indeed, not only each strategy seems to have its own validity in peculiar context (e.g. the gradualism in pushing the economy), but also their desirability was under treat considering for example the authoritarian institutions and the non-market led privatization.

It has been also argued that this rapid growth is clearly not sustainable since it misallocates capital and it happened at the expenses of the environment (Timmer, 2006). Indeed, the rapid rural non-agricultural development has been attained at considerable costs to the environment and it has contributed to a worsening of regional inequality and income (Ho, 1995). Particularly, the productivity gap between agriculture and the rest of the economy has continued to widen, leading to an increased level of rural-urban income inequality (Kuijis, L and Wang, T., 2005)[137].
It has been argued that the key issues currently of concern to policymakers – widening inequality, rural poverty, and resource intensity - are now to a large extent rooted in China's growth strategy, and resolving them requires a rebalancing of policies (Kuijis, L and Wang, T., 2005). The political and social tensions that emerged recently are a sign of discontent and a serious challenge that China's leader should face urgently in order to assure a sustainable long-run economic growth (Timmer, 2006).

[134] Samuel P. S. Ho, S. P. S. (1995) "Rural, Non-Agricultural Development in Post-Reform China: Growth, Development Patterns and issues" Pacific Affairs , Vol. 68, No. 3, Autumn, 1995, pp. 360-391
[135] Ramo, J.C. (2004), "The Beijing Consensus", London: Foreign Policy Centre
[136] Willimson, J. (2012). "is The Beijing Consensus now dominant?", Asia Policy, no 13
[137] Kuijis, L and Wang, T., (2005) "China's Pattern of Growth: Moving to Sustainability and Reducing Inequality" World Bank Policy Research Working Paper No. 3767

4.5. The "Washington Consensus" Development Paradigm

The Washington Consensus was proposed in the late 80's as a new development strategy to overcome the partial failure of the state-led experiences and not fully satisfactory economic results of Latin America's inward-oriented production during the decades of "post war capitalism". Considering the successes of the East Asian tigers' export-led policies during this same time period, it seemed appropriate to give certain prescriptions in order to boost the economies of the high-debt Latin American economies that had been affected by the "exhaustion of import substitution" and external shocks (Birsdall et al, 2010)[138].

Williamson (1990)[139] provided the first broad definition of the concept of as well as the initial recommendations behind the "Washington Consensus", drawing on views of the participants of the Institute for International Economics conference on Latin American debt issues (1989) in Washington, DC[140].
Considering the difficult economic situation in Latin America at the time, having started to deteriorate with the oil crisis in 1973 and having continued to do so with ever-increasing debt levels, the targeted countries had few options other than accepting the new strategies and rules that International Organizations proposed to them.

The Washington Consensus' **vision** aimed to create free market economies by employing policy prescriptions to guarantee macroeconomic stability and outward oriented-growth strategies. The theory behind this vision was that pro-market agendas in a macro-stabilized and globally integrated environment should lead to growth (see Table 25 and Figure 12), improve income distribution and achieve primary education, health and infrastructure targets.

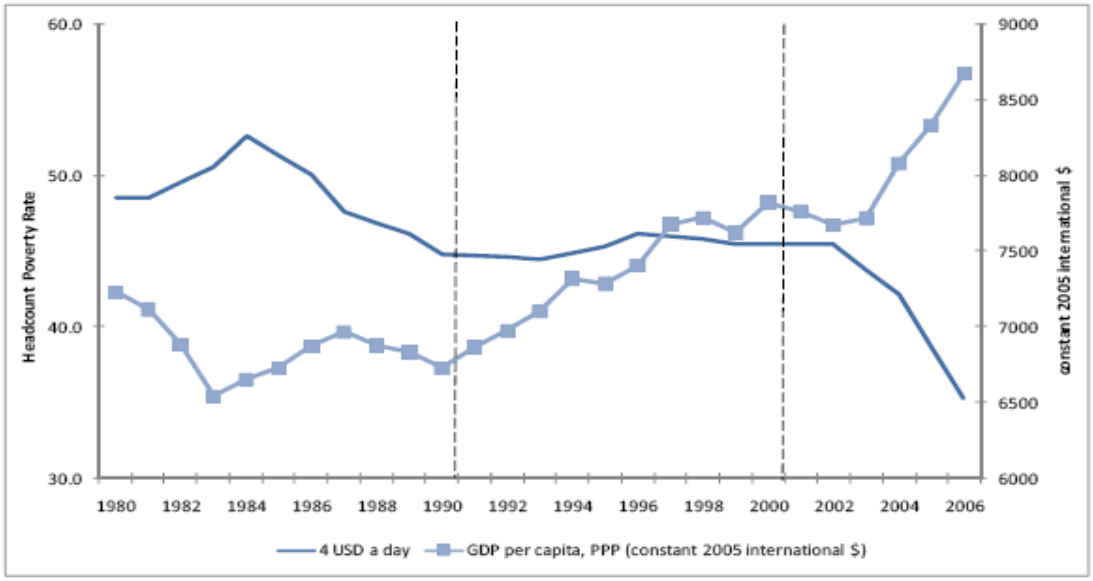
[138] Birdsall, Nancy, De la Torre, Augusto and Valencia Caicedo, Felipe (2010). "The Washington Consensus, Assessing a Damaged Brand", Center for Global Development Working Paper No. 213. The Washington Consensus: Assessing a Damaged Brand (May 4, 2010).
[139] Williamson, John (ed.). 1990. *Latin American Adjustment: How Much Has Happened?* Institute for International Economics, Conference Volume. Washington, D.C.
[140] Even though this paradigm is usually attributed to Williamson, some authors such as Birdsall, de la Torre, and Valencia Caicedo (2001) argued that the Latin American politicians and technocrats invented the original consensus and that Williamson's role was to put together the ten points in the same documents and not to properly "create" the paradigm.

Table 25 - GDP per capita and growth rates

	GDP per capita			Average Growth Rate
	1990	1995	2000	(percent per year)
Argentina	6,822	8,578	9,171	2.6
Brazil	7,180	7,640	7,790	0.3
Chile	5,636	8,065	9,448	4.9
Colombia	4,620	5,271	5,816	2.3
Mexico	8,788	8,618	10,570	2.0
Peru	4,003	4,802	5,024	1.6
Venezuela	7,810	8,606	8,314	0.9

Source: Penn World Table, 7.0

Figure 12 – Latin American Poverty and GDP per capita



Source: Birsdall et al, 2010; World Bank[141] (2009)

The Washington Consensus became the key platform through which neo-liberal economic policies and their associated conditionality clauses spread throughout lower-income countries in Latin America, as well as in some countries of the Sub-Saharan region (Hoogvelt, 1997[142]; Veltmeyer[143] et al, 1997; Singh, 2002[144]). Easterly[145] (2001) claimed

[141] World Bank (2009). "How Has Poverty Evolved in Latin America and How it Likely to be Affected by the Economic Crisis?" Mimeograph. World Bank, Latin American Poverty and Gender Group. Washington, D.C.
[142] Hoogvelt, A. (1997) *Globalisation and the Postcolonial World: the New Political Economy of Development*, London: MacMillan.
[143] Veltmeyer, P., Petras, J. and Vieux, S. (1997). Neo-liberalism and Class Conflict in Latin America: A Comparative Perspective on the Political Economy of Structural Adjustment, London: Palgrave.
[144] Singh, A. (2002) 'Aid, conditionality and development', *Development and Change* 33(2): 295-305.
[145] Easterly, W. (2001). "The effect of International Monetary Fund and World Bank programs on poverty," Policy Research Working Paper Series 2517, The World Bank

that, between the 1980 and 1998, the World Bank and the IMF made 958 adjustment loans across the world.

According to its structure and expected target, the involved countries agreed to use a **common set of "ingredients"** to structure their domestic macro environment and establish an open market setting for development. Privatizing public assets, lowering marginal tax rates and broadening the tax base, keeping tight public deficits and refraining from market interventions, were part of the whole strategy that was intended to lead to the multiplicative effects of raising domestic savings and bringing new 'modern' technologies. Each country was also meant to put in place policies encouraging liberalized international trade, stabilized and competitive exchange and interest rates and FDI attraction. Countries that did not adjust their policies were marginalized from this 'development' mainstream (Bellu 2011).

The set of policies designed by the Washington Consensus has been classified in two big groups: macroeconomic stability measures and structural reforms (Williamson, 1990)[146].

Macroeconomic stability measures refer to the measures controlling short term fluctuations caused by internal or external factors[147]. It was an instrument for development related to good management of the public expenditure and tight exchange rate and fiscal policy discipline.

Public expenditures needed to be oriented toward sectors of high economic returns (e.g. primary health, education, and infrastructure) instead of being used in less productive sectors. The *exchange rate* had to be single and competitive, with the goal of stabilizing prices, trade and capital flows and inducing rapid growth in non-traditional exports. *Fiscal discipline* was needed to prevent vicious cycles of debt and to allow for a higher level of national savings to use for future investments.

Structural reforms required the implementation of free market programs and policies, including domestic interventions such as privatization and deregulation, and external ones, such as the reduction of barriers to trade. As a "comprehensive" vehicle for development, they were often accompanied by tax reforms, financial liberalization, trade openness and foreign direct investments.

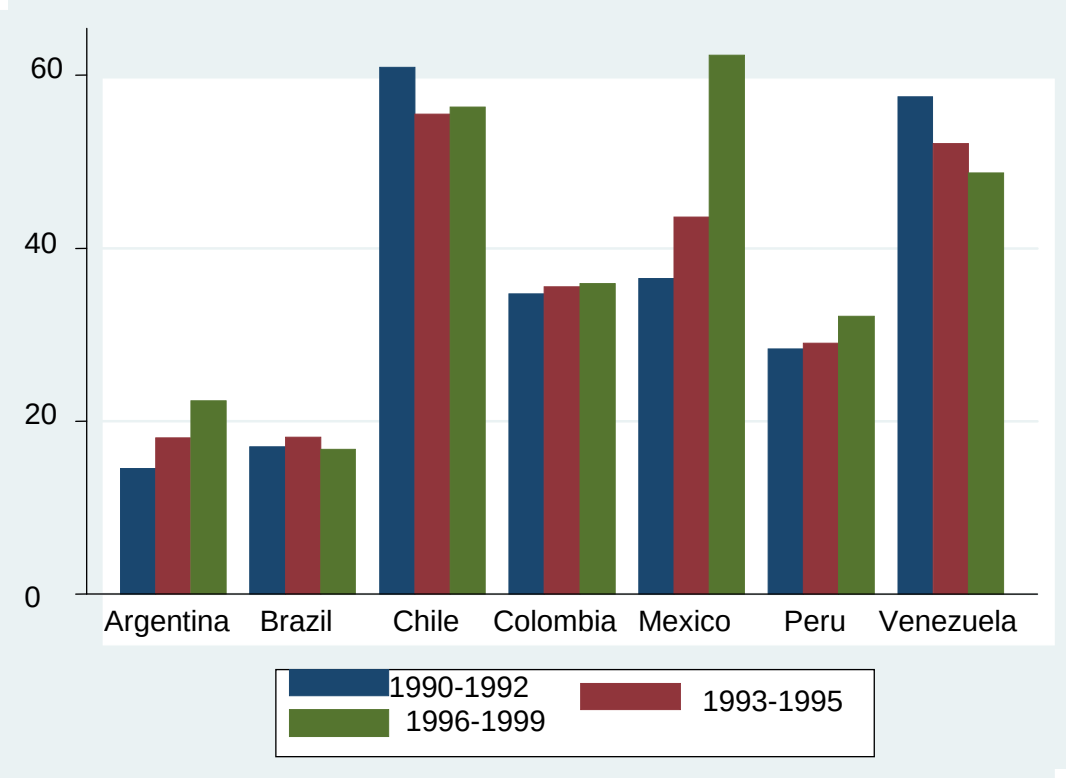
The government budget plan and the effects of public sector deficits were among the main macroeconomic concerns, especially for the high debt Latin American economies. According

[146] Williamson, John (ed.). 1990. *Latin American Adjustment: How Much Has Happened?* Institute for International Economics, Conference Volume. Washington, D.C.
[147] Macroeconomic instability in fact does not give incentives to undertake investments plans that may undermine the long-term growth potential while a stable economy provides the framework for the sustainable development of the country.

to the Washington Consensus' suggestions, *tax reform* should have reduced distortions, improved tax administration and increased the revenues necessary to developing a capable state[148] (Bahl and Bird, 2008), e.g. for their redistribution and public investment purposes.

Trade's link to development stems from its potential to contribute to income growth, sector specialization and innovation, as well as knowledge, best practice and technical transfers; the Washington Consensus sought to capitalize on this with t*rade openness* measures, such as replacing all trade restrictions with open markets and uniform tariffs (see Figure 13).

Figure 13 – Trade openness in Latin America



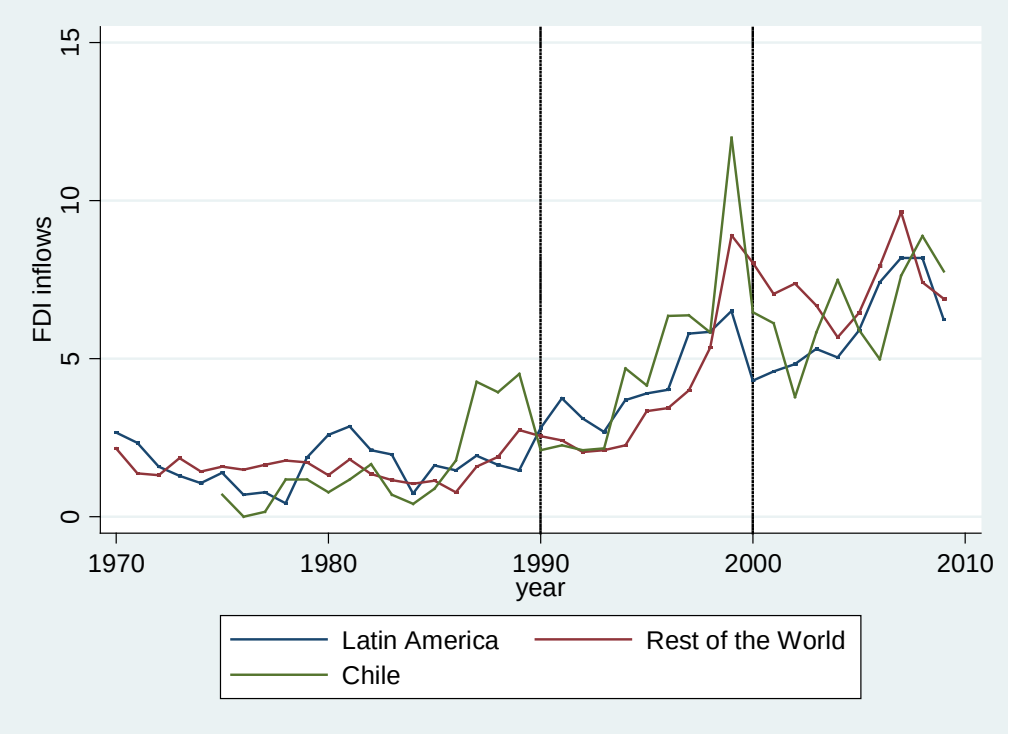
Source: World Development Indicators

It was suggested that *market regulation* was necessary to eliminate of the main barriers to trade, in order to guarantee greater competition as a source of well being for consumers, innovation transmission and, therefore, growth. To put in place such reforms, a strong system of regulatory institutions was needed.
In addition, the Washington Consensus supported the dissolving of barriers to *foreign direct investments* in order to allow competition between domestic and foreign enterprises, thus

[148] Roy W. Bahl & Richard M. Bird, 2008. "Tax Policy in Developing Countries: Looking Back and Forward," Working Papers Series 13, Rotman Institute for International Business, Joseph L. Rotman School of Management, University of Toronto, revised May 2008.

and inducing efficiency gains, as well as *financial liberalization, which* aimed at allowing markets to determine interest rates and abolished preferential interest rates for certain borrowers.

Figure 14- Foreign Direct Investment



Source: UNCTAD

The Washington Consensus also prescribed the *privatization* of the economy, i.e. reallocating assets and functions from the public to the private sector[149]. It was believed that in a competitive environment, privatization would improve efficiency by providing more incentives to innovate and reduce costs, thus raising the rate of economic growth.
Enhancements of the *property right system* were to be installed with limited costs; together with *patents discipline*, it represented a key incentive for human capital attainment in the growth process.
The Washington consensus could be associated with the so-called Free-market Trickle-down Growth-led development (Bellu, 2011). Under this paradigm, growth, even if initially bestowed upon the rich, extends its positive effects to the poor through income distribution

[149] Rodrik in his work of 2004 defines the three commandments of Washington Consensus "liberalize, privatize and stabilize" (Rodrik, D. (2004) "Rethinking Growth Policies in the Developing World", Harvard University, October 2004)

channels and the free market system, results of the withdrawal of national governments, international trade liberalization and the promotion of foreign investments.

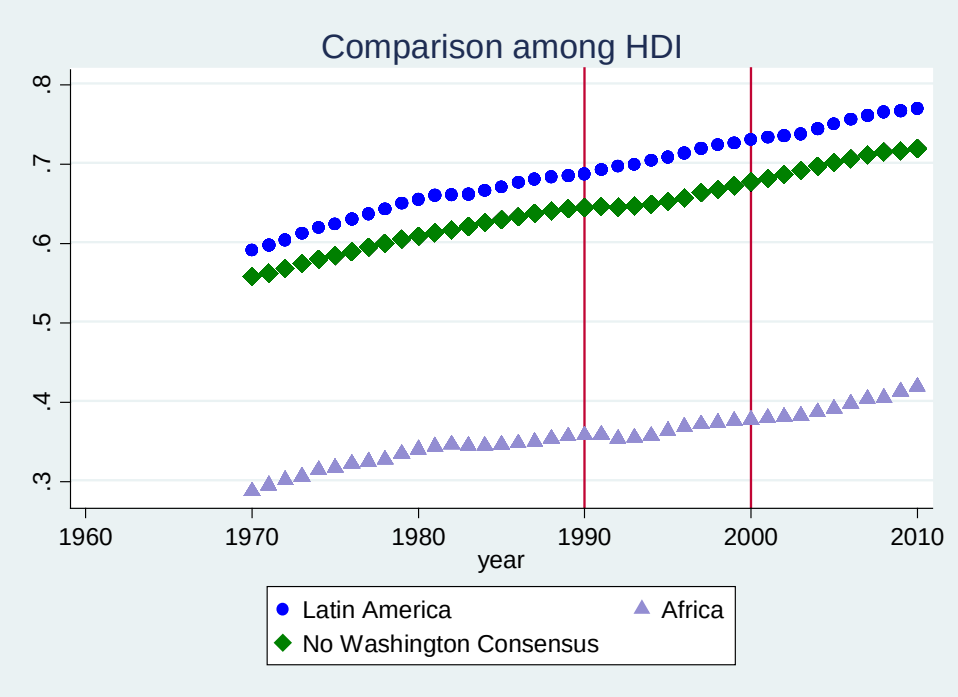
As for the Import Substitution Industrialization paradigm, the Washington Consensus has been mainly applied into Latin American countries, even though other experiences (also with fewer selected policies, as Structural Adjustments Programs, SAPs) can be found in Sub-Saharan region.
For the descriptive analysis we considered the following countries having applied the Washington Consensus "prescriptions" for the decade 1990-2000:

- in Latin America: Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Mexico, Peru, Uruguay and Venezuela;
- in Sub-Saharan Africa with SAPs: Central African Republic, Cote d'Ivoire, Ethiopia, Gambia, Ghana, Guinea-Bissau, Kenya, Malawi, Mali, Mozambique, Senegal, Tanzania, Togo, Uganda, Zambia and Zimbabwe.

As illustrated in Figure 15, the upward trend of HDI continued for Latin American countries during the decade of the Washington Consensus, showing a slight downturn in the first half of 2000. The African countries where SAPs were more applied appeared to have decreasing values of HDI in the first part of the 90's, and then a recovery.

The development growth rates of Latin American and Sub-Saharan Africa countries applying the prescriptions are on average of 5%, a little higher than the rest of the countries not interested in the Washington Consensus paradigm (see Table 26)

Fig.15



Source: Our elaboration on UNDP data

Table 26 - Comparison of HDI growth

	1990	2000	Growth rate[150] in percentage (1990-2000)
Latina America	0.68	0.72	5%
Africa	0.35	0.37	5%
Average	0.62	0.65	4%
Average* (without the selected countries)	0.64	0.67	4%

Source: Own elaboration on UNDP database

Considering food security in the selected countries, Table 27 shows that the percentage of undernourished population decreases almost in all the Latin American countries interested (with the exception of Bolivia), even though it remains often higher than the regional average.

The same cannot be said for African countries that seem not to have a homogenous path in reducing the level of undernourishment.

[150] Growth rate= (Value 2000 – Value 1990)/Value 1990

Table 27- Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008
Bolivia	29	24	22	27
Brazil	11	10	9	6
Chile	7	—	—	—
Colombia	15	11	10	9
Dominican Republic	28	26	25	24
Ecuador	23	16	17	15
Peru	27	21	18	16
Uruguay	5	—	—	—
Venezuela	10	14	13	7
Central African Republic	44	47	43	40
Côte d'Ivoire	15	17	17	14
Ethiopia	69	62	48	41
Gambia	14	23	21	19
Ghana	28	13	9	5
Guinea-Bissau	22	26	25	22
Kenya	33	32	33	33
Malawi	43	36	30	27
Mali	27	25	18	12
Mozambique	59	47	46	38
Senegal	22	26	26	19
Tanzania	29	42	40	34
Togo	43	36	36	30
Uganda	19	23	19	22
Zambia	35	38	43	44
Zimbabwe	40	44	41	30
Latin America and the Caribbean	**12**	**11**	**10**	**8**
Caribbean	*25*	*28*	*22*	*23*
Latin America	*11*	*10*	*9*	*7*
Sub-Saharan Africa	*31*	*31*	*29*	*27*

Source: Food and Agriculture Organization of the United Nations

Despite the support of much economic theory, the Washington Consensus paradigm has been criticized for the *insufficient* **development outcomes** that it brought to the participating countries.

Despite the individual importance of each policy measure proposed, the Washington Consensus had many points of failure (Birdsall et al, 2010). GDP growth was almost two percent lower than what it had been in the '50s and '60s[151] (Weisbrot, Naiman and Kim, 2000). During the '90s , higher growth rates were observed only in countries that had

[151] Weisbrot, Mark., Robert Naiman, and Joyce Kim. 2000. The Emperor Has No Growth: Declining Economic Growth Rates in the Era of Globalization, Briefing Paper. Washington, D.C: Center for Economic and Policy Research. Published November 27, 2000.

diverged from the policy prescriptions of the Washington Consensus, such as the East Asian tigers and Chile, the only Latin American exception that became "the poster child of the Washington Consensus agenda" [152](Birdsall et al, 2010). Birdsall et al (2010) note that poverty reduction and income inequality were equally disregarded; only in Chile did poverty rates fall while income inequality remained mostly unchanged.

The general drawbacks led to dissatisfaction with market-oriented reforms, especially in Latin America, and the realization "that these reforms have paid too little attention to mechanisms of social insurance and to safety nets"[153] (Rodrik, 2001)

4.6. Comprehensive Development Framework

The Comprehensive Development Framework was proposed as a paradigm for the first time in 1997 during the Annual Meeting of the Board of Governors of the World Bank and International Monetary Fund in Hong Kong. The Bank's President at the time, James D. Wolfensohn, raised the need to explicitly deal with balancing sound macro-economic policies and growth with effective poverty reduction with a greater attention to institutions.

The failures of the Washington Consensus and of its driven development strategy made more evident the need for a participatory set of policies (Stiglitz, 1998)[154]. Indeed, it was quite clear that the "stabilize liberalize and privatize commandments" breakdowns were mainly due to their incapacity to fit into the country context (Rodrik, 2004)[155].

In January 1999 the aim to pursue a more integrated approach to development based on a framework articulated and owned by each country led to the Comprehensive Development Framework (CDF) proposal. This plan was rooted in the guidelines suggested by the work of Stiglitz[156] (1999) and was proposing not only a more holistic vision of development, but also strategies and policies that countries should implement in order to achieve a successful path of development.

The **vision** of the CDF paradigm is based on a long-term multidimensional approach to development, grounded in a set of principles decided voluntarily by each participating

[152]Birdsall, Nancy, De la Torre, Augusto and Valencia Caicedo, Felipe, The Washington Consensus: Assessing a Damaged Brand (May 4, 2010). Center for Global Development Working Paper No. 213. Available at SSRN: http://ssrn.com/abstract=1622246

[153] Rodrik, D. (2001). Development strategies for the next century, Annual World Bank Conference on Development Economics 2000

[154] Stiglitz, J. (1998) "Towards a New Paradigm of Development: Strategies, Policies and Processes" The World Bank, October 19

[155] Rodrik, D. (2004) "Rethinking growth policies in the Developing World" Draft of the Luca d'Agliano Lecture in Development Economics to be delivered on October 8, 2004, Torino, Italy

[156] For a deeper analysis of the relationship between the CDF and Stiglitz's work see: Stiglitz, J. (1999) "Participation and Development: Perspectives from the Comprehensive Development Paradigm" The World Bank, February 27

country. Following Stiglitz's guidelines, the CDF has to promote development strategies that facilitate the transformation of society by identifying the barriers to the change and its potential catalysts. The development path of each country has to ground its roots in the needs of the country itself; it has to take into account the strengths of the country as well as its weaknesses.

The development goals of the CDF approach are the elimination of poverty, the reduction of inequality and the general improvement in the opportunities for people in low- and middle-income countries. This approach aims to enhance the interdependence of all dimensions of development: economic, social, human, financial and environmental.

Since its inception, the CDF has held together with the targets of the Millennium Development Goals of the United Nations. The Poverty Reduction Strategies (PRS) and the Poverty Reduction Strategies Paper (PRSP)[157], in particular, describe the countries long-term vision and boost the ownership and achievement af a coherent, growth-oriented macroeconomic policy strategy. The paper needs to be prepared by a country's own government and it has to make explicit its macroeconomic, structural, and social policy goals, emphasizing the role of different stakeholders, such as civil society and the private sector in the process. As most countries still experience a disconnection between their short and long-term plans, one of the main goals of the CDF is to harmonize the long-term development vision process with the medium or short-term development strategy.

The **common set of ingredients** of the CDF strategy includes the *institutions*, the *civil society* and the *infrastructure system,* as well as more strictly economic variables, such as *macroeconomic stability*, *trade* and *privatization*. Great emphasis on achieving results was given to the determinants of human capital accumulation, such as *education*, *health*, *gender* and *labor issues*. These elements are considered essential for a long-term holistic development strategy. In addition to the participation of social institutions and civil society, a country should have control over its instruments, achievements and over the level of involvement of external stakeholders, in order to have full realization of ownership over its development process.

We differentiate the countries participating to the Comprehensive Development Framework in two groups: one constituted by the countries participating to the pilot project and the other including a greater number of countries.

The pilot project has been launched during 1999-2001 in Bolivia, Cote d'Ivoire, Dominican Republic, Eritrea, Ethiopia, Ghana, Jordan, Kyrgyz Republic, Morocco, Romania, Uganda, Vietnam and West Bank and Gaza.

[157] The World Bank provides training and technical and financial assistance to support the design and of national poverty-reduction strategies. For example, it helps countries improve their poverty analysis, public expenditure management, and service evaluation. It also offers Poverty Reduction Support Credits (PRSCs), annual programmatic loans, to support the implementation of these strategies. Both the World Bank' International Development Association (IDA) and the International Monetary Fund (IMF) require a Poverty Reduction Strategy Paper in order for low-income countries to receive lower cost financial assistance from the Bank (through IDA) and the IMF (through its Poverty Reduction and Growth Facility).

In 2000, the countries interested by the Comprehensive Development Framework increased and included: Albania, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Democratic Republic of Congo, Republic of Congo, Djibouti, Dominica, The Gambia, Georgia, Guinea, Guinea-Bissau, Guyana, Honduras, Haiti, Kenya, Lao PDR, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Moldova, Mongolia, Montenegro, Mozambique, Nepal, Nicaragua, Niger, Pakistan, Rwanda, Sao Tome and Principe, Senegal, Serbia, Sri Lanka, Tajikistan, Tanzania, Timor-Leste, Yemen and Zambia.

Since the CDF promotes policies being tailored to each country individually, it is not possible to describe the policies adopted for all countries. In general, however, its suggestions are grounded in a common set of principles whose goals are to guide development and poverty reduction as well as coordinate the provision of external assistance. All the elements of development listed above have been set into policies according to **four** interrelated key principles and objectives to be pursued at the country level[158]:

- A long-term and holistic vision and strategy (prerequisite for sustainable development);

A long-term perspective for national development means to provide an essential guide for policymakers focused on achieving short- and medium-term results. The vision has to be widely shared within the country and be a crucial reference point. It has to remain valid and to maintain the focus on common goals, even when the country is affected by economic shocks, political turmoil or government changes. Countries have to embed PRS into both long-term and medium-term perspectives.

- Enhanced country ownership of development goals and actions;

A key element of PRS ownership is a solid leadership role guiding PRS content, accompanied by strong participation across the executive through inter-ministerial coordination mechanisms at the policy level.
A clear entity leading national development strategy avoids the confusion of different central ministries preparing competing strategies. Indeed, the government initiative should be made concrete through strong, up-front participation of ministries; having local governments responsible for implementation helps paving the way for a smoother realization of development and, hence, for stronger results. This principle includes policies devoted to a greater involvement of the civil society, of the parliament, of the private sector and of any other stakeholder in the society.

[158] World Bank Group (2000) "Comprehensive Development Framework Country Experience March 1999 – July 2000" Report on Country Experience, September 2000

- A country-led framework through a more strategic partnership among stakeholders;

According to the CDF, a clear strategic framework and a solid government leadership are needed in order to align the support of development assistance agencies with country priorities. It is important for them to harmonize their working methods within the country's systems and to avoid overlapping, competing, or non-priority efforts. Partnerships among different actors should act both on a financial and on an analytical level.

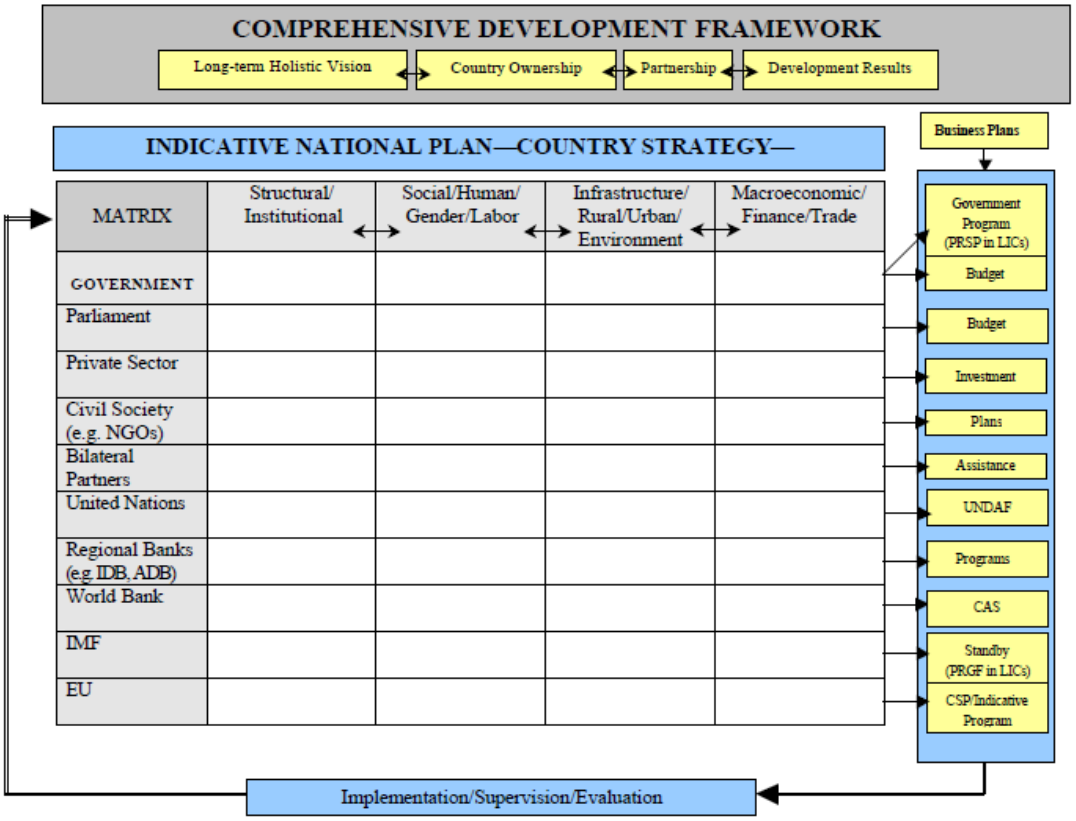
- Focus on development results through an efficient system of monitoring and evaluation.

The PRS should incorporate accurate information on inputs, outputs and outcomes of any strategy implementation as well as information on budget expenditures and poverty data. This coordination of the evaluation and monitoring process allows policymakers to monitor the effectiveness of their PRS.

Even though the role of any single element is not specified, each country involved in this programme has to verify its level of achievement through the application of the Transitional Result Matrix (TRM)[159]. This matrix, shown in Figure 16, lays out the relationships among the "ingredients of development" involved. A good and efficient strategy should involve all actors of society, including the Parliament, regional institutions, the private sector, civil society and International Organizations, and it should be devised with debate and involvement from these different shareholders (the different actors are listed in the first column of the matrix). In elaborating the development strategy, these actors need to consider the macrostructure of the economy, the social aspects (education, health, gender and labour) and the configuration of the country itself (infrastructure and urban and rural aspects). Only the interaction among all these aspects can lead a country to a successful path of development.

[159] "The Transitional Results Matrix (TRM), also referred to as a Transitional Calendar or Results- Focused Transitional Framework (RFTF), is a planning, coordination, and management tool that national stakeholders and donors can use to better prioritize actions necessary to achieve a successful transition in fragile states. The TRM helps launch a poverty reduction strategy (PRS) approach in these environments either by acting as an early framework to lay the groundwork for a PRS or, later, as a way to operationalize poverty reduction strategies in low capacity countries" definition provided by the United Nations Development Group – World Bank in "An Operational Note on Transitional Results Matrices – Using results based frameworks in fragile states" January 2005

Figure 16: The Transitional Result Matrix



Source: http://www.worldbank.org/cdf

The CDF principles are prevalent in the international development agenda and are implemented through several development programmes, such as the Paris Declaration on Aid Effectiveness[160] (February, 2005), the Millennium Project Report of the UN Secretary General on achieving the Millennium Development Goals (2006), the 2004 IMF review of the PRS initiative, and the Global Monitoring Report (2005). The latter is built on the Monterrey Consensus[161] and serves to link actions to MDG achievements in country-owned national development strategies.

[160] The Paris Declaration of Aid Effectiveness is a comprehensive attempt to change the way donor and developing countries do business together, based on principles of partnership. Nowadays it is the norm for aid recipients to shape their own national development strategies with their parliaments and electorates (**ownership**); for donors to support these strategies (**alignment**) and to work to streamline their efforts in-country (**harmonisation**); for development policies to be directed to achieving clear goals and for progress towards these goals to be monitored (**results**); and for donors and recipients alike to be jointly responsible for achieving these goals (**mutual accountability**).

[161] The Monterrey Consensus is one of the major reference point for the international development cooperation and it comprehend six areas of financing for development including the mobilization of resources, international financial and technical cooperation for development and the coherence and consistency of the international monetary, financial and trading systems in support of development. The Global Monitoring Report of 2005 is the

For what concerns the **development outcomes,** the very first experiences of the pilot CDF program, as the one implemented in Bolivia and Ghana, were based on a learning-by-doing approach. They led to positive overall outcomes in terms of ownership of the goals of development and in terms of the participation of civil society and the private sector in the policy debate.

More recently, a new report of the World Bank Group[162] assessed the operational impact of the CDF in the other [163] countries through the implementation of the PRSP and the application of Transitional Result Matrices (TRMs). The results were positive for most of the countries in the process of consolidating the medium- and long-term country-owned development processes.

According to this last report, there is evidence that the PRS process is improving national capacities to design effective development strategies and the CDF principles are successful in this process of strategy formulation. As displayed in Figure 17, by 2005 the governments made some progresses in taking into account each principle, in implementing the actions needed to eventually realize them and in reaching successful achievement of the objectives of the CDF paradigm. However, it is important to look closely at the experiences of individual countries, in order to better understand the real impact of this approach on the different measures of economic performance and well-being.

The two most interesting cases are those of the initial two pilot countries: Ghana and Bolivia where the program has been implemented since 1999. Since the program has been in place for a longer period of time, interpretations of their performances may be both more accurate and informative.

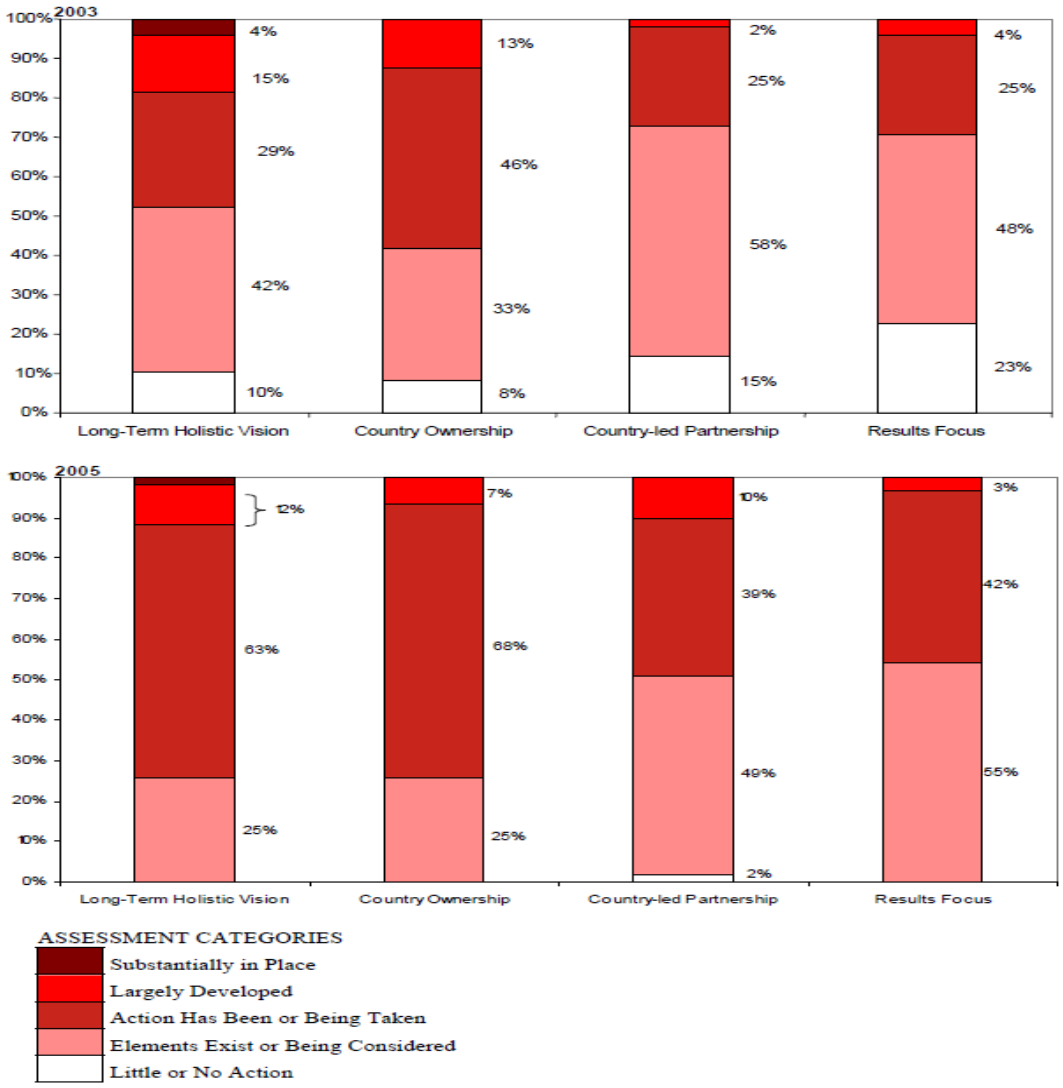
Figure 17: CDF implementation progress 2003 and 2005

second in a series of annual reports assessing progress on the policy agenda for achieving the Millennium Development Goals (MDGs) and it is based on the principles established in the Monterray Consensus.

[162] World Bank Group (2005), "CDF Progress Report 2005, Enabling Country Capacity to Achieve Results"

[163] The report shows the results of the countries own both to the first and the second group

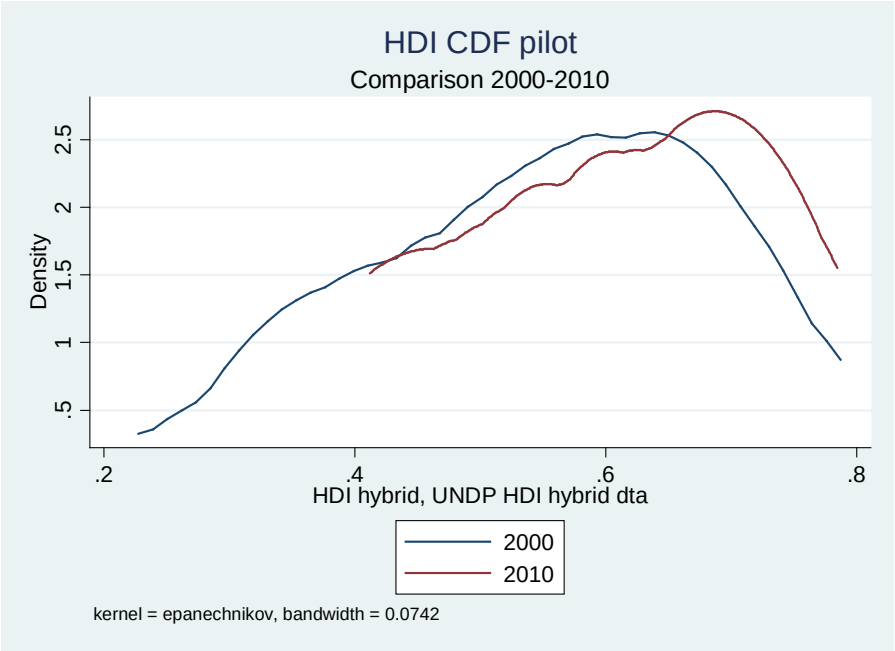
(Percent of observations failing within each assessment category)



Source: World Bank operations policy and country services "ENABLING COUNTRY CAPACITY TO ACHIEVE RESULTS VOLUME I: OVERVIEW 2005 CDF PROGRESS REPORT" The World Bank, Washington D. C. 2005

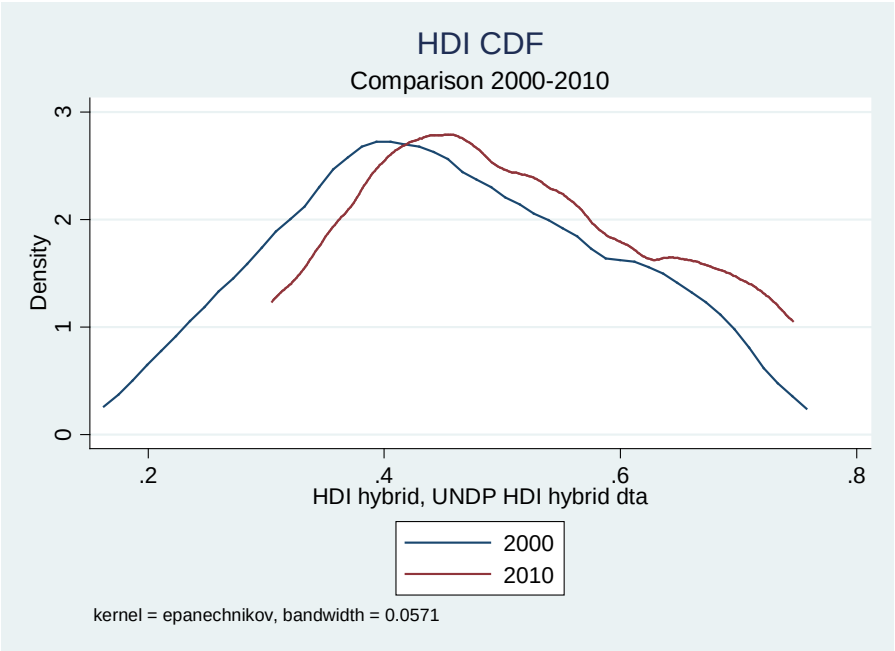
As it can be seen in Fig.18 and Fig.19, the change in the distribution of HDI from 2000 to 2010 for the two groups of countries that joined Comprehensive Development Framework show an upward shift of the minimum and maximum values of the HDI. This is slightly more evident for the pilot group that comprises a shorter number of countries with a higher average level of development. The nature of this descriptive analysis however make considering these improvements not as the exclusive outcome of the paradigm identifies, but as a partial track of it, given the long term nature of this development strategy.

Figure18



Source: Our elaboration on UNDP data

Figure19



Source: Our elaboration on UNDP data

From the Table 28 emerges clearly a larger HDI growth for the countries involved in the Comprehensive Development Framework strategy, even though their level both in 1970 and 2010 remain quite far from the rest of the countries.

Table 28

	2000	2010	Growth rate[164] in percentage (2000-2010)
CDF pilot	0.549	0.605	10%
CDF 2000	0.452	0.510	12,8%
All without CDF	0.743	0.777	4,6%
All countries	0.652	0.694	6,4%

Source: Our elaboration on UNDP data.

Tracking food security, most of the countries involved experience a lower level of undernourishment over the total population, even though in most of the cases the decreasing trend started before the application of the Comprehensive Development Framework. However the level of undernourishment remains higher than the average values for the geographic group of reference.

Table 29 - Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008
CDF pilot				
Bolivia	**29**	**24**	**22**	**27**
Côte d'Ivoire	**15**	**17**	**17**	**14**
Dominican Republic	**28**	**26**	**25**	**24**
Eritrea	**67**	**64**	**70**	**65**
Ethiopia	**69**	**62**	**48**	**41**
Ghana	**28**	**13**	**9**	**5**
Jordan	**–**	**5**	**5**	**–**
Morocco	**6**	**6**	**6**	**–**
Uganda	**19**	**23**	**19**	**22**
Viet Nam	**31**	**22**	**17**	**11**
CDF				
Armenia	**45**	**36**	**28**	**21**
Azerbaijan	**27**	**27**	**11**	**–**
Bangladesh	**38**	**41**	**30**	**26**
Benin	**20**	**18**	**15**	**12**
Burkina Faso	**14**	**12**	**12**	**8**
Burundi	**44**	**56**	**59**	**62**
Cambodia	**38**	**40**	**29**	**25**
Cameroon	**33**	**34**	**26**	**22**
Cape Verde	**12**	**14**	**15**	**11**
Central African Republic	**44**	**47**	**43**	**40**
Chad	**60**	**53**	**43**	**39**
Congo, Republic of	**42**	**41**	**20**	**13**

[164] Growth rate= (Value 2010 – Value 2000)/Value 2000

Djibouti	**60**	**50**	**40**	**26**
Gambia	**14**	**23**	**21**	**19**
Georgia	**58**	**19**	**12**	**6**
Guinea	**20**	**19**	**20**	**16**
Guinea-Bissau	**22**	**26**	**25**	**22**
Guyana	**20**	**11**	**7**	**8**
Haiti	**63**	**60**	**53**	**57**
Honduras	**19**	**16**	**14**	**12**
Kenya	**33**	**32**	**33**	**33**
Lao People's Dem Rep	**31**	**29**	**26**	**22**
Lesotho	**15**	**16**	**14**	**14**
Liberia	**30**	**32**	**36**	**32**
Madagascar	**21**	**26**	**28**	**25**
Malawi	**43**	**36**	**30**	**27**
Mali	**27**	**25**	**18**	**12**
Mauritania	**12**	**9**	**8**	**8**
Mongolia	**28**	**33**	**27**	**27**
Mozambique	**59**	**47**	**46**	**38**
Nepal	**21**	**20**	**18**	**17**
Nicaragua	**50**	**38**	**25**	**19**
Niger	**37**	**37**	**27**	**16**
Pakistan	**25**	**20**	**24**	**25**
Rwanda	**44**	**53**	**38**	**32**
Sao Tome and Principe	**14**	**15**	**8**	**–**
Senegal	**22**	**26**	**26**	**19**
Sri Lanka	**28**	**25**	**20**	**20**
Tajikistan	**34**	**42**	**46**	**26**
Tanzania	**29**	**42**	**40**	**34**
Timor-Leste	**39**	**32**	**28**	**31**
Yemen	**30**	**31**	**31**	**30**
Zambia	**35**	**38**	**43**	**44**
Africa	**26**	**26**	**24**	**23**
Northern Africa	**–**	**–**	**–**	**–**
Sub-Saharan Africa	**31**	**31**	**29**	**27**
Latin America and the Caribbean	**12**	**11**	**10**	**8**
Caribbean	**25**	**28**	**22**	**23**
Latin America	**11**	**10**	**9**	**7**
Asia	**20**	**16**	**16**	**15**
Caucasus and central Asia	**16**	**13**	**17**	**9**
Eastern Asia	**18**	**12**	**10**	**10**
Eastern Asia - excluding China	**8**	**11**	**13**	**13**
Southern Asia	**22**	**20**	**21**	**20**
Southern Asia - excluding India	**26**	**26**	**23**	**22**
South-Eastern Asia	**24**	**18**	**17**	**14**
Western Asia	**6**	**8**	**8**	**7**
Oceania	**12**	**11**	**13**	**12**

Source: Food and Agriculture Organization of the United Nations

One of the best examples a good practice of this paradigm is given by Ghana, where the PRS approach has been integrated into the constitutional, legal and traditional development strategies and where the government has tried to establish an institutional mechanism for the stakeholders' participation (World Bank Group, 2005).

Moreover the Ghanaian government has tried to implement a country-led partnership taking a strong lead in development assistance coordination around a specified policy framework. Looking at the results the government has also developed a set of communication strategies to provide broad access to information on the PRS achievements (IMF, 2009)[165]. HDI and GDP per capita in Ghana show a sensitive increase from the 1999 and the food security improved since the beginning of the available data.

Conversely the experience of Bolivia was not completely successful. By 2005, indeed, Bolivia did not complete its Poverty Reduction Strategy Paper and the action plans drafted by 2003 were not implemented yet. Despite the advanced monitoring and evaluation systems of the Bolivian government, the strategies have not been put in place either at the central level, across the executive, or at the decentralized level (SIDA, 2008)[166]. The number of undernourished as percentage of the population increased during the last decade.

Considering the **drawbacks**, the CDF has been criticized by some authors because it has been induced by external forces as well as the Washington Consensus, and that it is not an answer to the countries' needs (AFD, 2006)[167]. In his contribution to "Financing Development: What are the Challenges in Expanding Aid Flows?" Easterly points out the ambitious nature of the PRSP: "The preparation of the PRSP requires planning that would overwhelm the most sophisticated government bureaucracy anywhere, much less the under-skilled and under-paid government workers in the poorest countries" (AFD, 2006, p.6).

[165] IMF (2009) "Ghana: Poverty Reduction Strategy Paper—2006 Annual Progress Report" IMF Country Report No. 09/237, July 2009
[166] De Jong, N., Aguilar, J. C. and Komives, K. (2008) "Evaluation of the Poverty Reduction Strategies in Latin America – 2007 Executive Summary of Country Report – Bolivia, 2007 Effective External Aid for Poverty Reduction?" Project commissioned by the Swedish International Development Agency (SIDA)
[167] Agence Française de Développement.(2006) "Financing Development: What are the Challenges in Expanding Aid Flows?" Proceedings of the 3rd AFD-EUDN Conference, 2005

4.7. Pro-Poor Development Paradigm

Economic growth has been conceived for a long time as the primary "ingredient" for development in the belief that, even if it accrues to the rich, it trickles-down to the poor. According to this vision, this mechanism should happen through the income distribution channels and thanks to the functioning of free markets, brought for example by the liberalization of foreign trade and by the promotion of foreign investments. This view configures a *"free market, trickle-down growth"* development paradigm, according to which, other development ingredients besides them are relatively of secondary importance (Bellú, 2011).

However, even when trickle-down mechanisms work, an efficient allocation of resources can't be fully guaranteed and it leaves room for government interventions to redistribute income (Aghion and Bolton, 1997)[168] . Indeed, in the last decades, the view of economists and development institutions about growth as the only ingredient for development has changed; the prevailing idea is now that growth is possible only if associated with an equitable distribution of income. This concept is the *"pro-poor (broad-based or balanced) growth*" development paradigm[169].

According to the **vision** of the pro poor paradigm, growth matters for development only if associated with an equitable distribution of income. This can be achieved through the promotion of activities generating a broad-based primary income distribution or through institutional mechanisms (e.g. fiscal systems) that ensure an equitable secondary distribution of real income. In other words, what is necessary to this paradigm in order to be realized is a more committed form than the reliance on the "automatic" trickle-down mechanisms.

The two main ingredients characterizing this paradigm are *poverty* and *inequality reduction*, which represent the main goals of the paradigm itself. However, the mechanism underneath this paradigm involves a wider **set of ingredients** of development such as: *fiscal system*, *institutions*, *democracy*, *education*, *health*, *gender issues*, *agriculture*, *FDI*, *natural resources*.

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[168] Aghion, P. Bolton, P., 1997. A Theory of Trickle-down Growth and Development. The Review of Economic Studies, vol. 64, Issue 2 (Apr., 1997), 151-172

[169] However the vision of growth linked to income distribution has been anticipated by other authors in the past. In his work of 1955, the Nobel Prize Simon Kuznets, states:" *Because they may have proved favourable in the past, it is dangerous to argue that completely free markets, lack of penalties implicit in progressive taxation and the like, are indispensable for the economic growth of the now underdeveloped countries. Under present conditions, the results may be quite the opposite:* (a) *withdrawal of accumulated assets to relatively "safe" channels, either by flight abroad or into real estate; and* (b) *the inability of governments to serve as basic agents in the kind of capital formation that is indispensable to economic growth. It is dangerous to argue that, because in the past foreign investment provided capital resources to spark satisfactory economic growth in some of the smaller European countries or in Europe's descendants across the seas, similar effects can be expected today if only the underdeveloped countries can be convinced of the need of a 'favourable climate' "*

In order to understand the role of the pro-poor paradigm in the process of development, it is important to define the concept of "broad-based"[170] growth, according to which, only growth processes that include the large majority of individuals and households are assumed to be poverty reducing. However, it is not always clear whether this "broad-based" growth, in order to be considered "pro-poor", has to lead to a reduction of absolute poverty or to a reduction of the relative poverty. In the first case the poverty is measured on the basis of an "absolute" poverty line, whilst in the second one the poverty is measured on the basis of an income or expenditure inequality index. This issue is reported in literature as the debate on the definition of "pro-poor growth".

In his work of 2004, Lopez (2004)[171] summarizes this debate, identifying two main positions. The first one supports the definition of pro-poor growth as a link between poverty and growth: growth is pro-poor if it reduces poverty, where poverty is defined on the basis of some absolute criterion[172]. This is the view carried out by Ravallion (2004)[173]. The second definition qualifies growth as beneficial for the reduction of poverty only if it advantages the poor proportionally more than the non-poor, *"i.e. growth results in a re-distribution in favour of the poor*" (Kakwani and Pernia, 2000) [174]. They explicitly admit that a growth process may not be characterized as "pro-poor", even if it generates a reduction of poverty. This means that it is not absolute poverty which matters, but *relative poverty*. Moreover analyzing poverty and informing policy processes by making use of relative rather than absolute poverty may also help to capture *"...a wider range of factors such as powerlessness, survival, personal dignity, security, self-respect ..."* (Carvalho and White 1997, p.5)[175].

For our empirical analysis, however, we encountered some problems in, identifying the countries adopting a "pro-poor development approach". Problems of data availability and accuracy led to a construction of an unbalanced dataset of variables such as income distribution or poverty. Those variables include a lot of missing values and this make it hard to carry out a descriptive analysis for all the countries over the same time span.

For this reason, in order to pursue this kind of analysis, we follow Ravallion and Chen[176] (2003) suggesting that: *"a more direct approach is to look at growth rates for the poor [...]*

[170] The use of the term "broad-based" firstly appeared in the World Development Report 1990: World Bank (1990), Washington D.C.
[171] Lopez, J. H. (2004) "Pro-poor growth: a review of what we know (and of what we don't)" paper prepared in the context of the "Pro-poor Growth" program sponsored by the World Bank's PREM Poverty Group
[172] For a discussion on absolute versus relative poverty, see, e.g. Bellù L.G., Liberati P (2005) Impacts of Policies on Poverty The Definition of Poverty. EASYPol Module 004 FAO, Rom
[173] Ravallion, M., 2004. Pro-poor Growth: A Primer. Washington ,D.C.: Development Research Group, The World Bank
[174] Kakwani N., Pernia E.M., 2000: What is Pro-Poor Growth? Asian Development Review, vol. 18, no. 1, Asian Development Bank
[175] Carvalho, S., White H., 1997. Combining the Quantitative and Qualitative Approach to Poverty Measurement and Analysis. The Practice and the Potential. World Bank Technical Paper 366
[176] Ravaillon, M. and S. Chen (2003). Measuring Pro-Poor Growth. Economics Letters 78 (2003) 93–99

(comparing) mean incomes across the distribution ranked by income. To assess whether growth is pro-poor, a natural step from Pen's parade[177] *is to calculate the growth rate in the mean of the poorest quintile"*. Although we are not adopting the same methodology[178], we approximate our descriptive analysis to their linkages.

Considering the countries that in World Development Indicators (WDI) database have at least two values in time for "Income share held by lowest 20%"[179], we calculated and then compared the CAGR[180] for GDP per capita (from Penn World Tables 7.0) and the Income share held by lowest than the 20%. A pro-poor development approach occurs, tentatively, when the income per capita growth rate is lower than the growth rate of the income share owned by the lowest quintile.

Table 30 lists the countries where the income per capita grew less than the proportion of total income held by the poorer in the period considered.

Table 30 - PRO-POOR DEVELOPMENT PARADIGM

	GDP growth rate in %	Lower income quintile growth rate in %	Time period
Algeria	-1.36	0.83	1988-1995
Belize	-0.99	12.99	1995-1999
Burkina Faso	3.06	3.47	1994-2003
Burundi	-1.36	0.87	1992-2006
Central African Republic	-1.35	10.10	1993-2003
Cote d'Ivoire	-0.95	0.05	1985-2008
Ecuador	1.27	1.33	1987-2009
El Salvador	2.63	3.35	1989-2007
Ethiopia	0.70	0.29	1982-2005
Gambia, The	1.72	3.57	1998-2003
Guinea	0.17	4.60	1991-2007
Guinea-Bissau	0.04	12.09	1991-2002
Kenya	0.41	2.55	1992-2005
Kyrgyz Republic	1.11	9.39	1993-2007

177 Pen, (1971). Income Distribution. Praeger Publishers, New York.

178 Their analysis for China requires calculations from household surveys and is carried thanks to the greater amount of information available about distributional issues. Our calculation is different: it is less precise and based on data already available on the World Development Indicators.

179 Percentage share of income or consumption is the share that accrues to subgroups of population indicated by deciles or quintiles. Source: World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database.

180 The **Compound annual growth rate (CAGR)** is a growth rate that is mainly used for business or investment revenue calculations to compare growth rates smoothing over a period of time.
We used it in this analysis because of the lack of the data allows just for a comparison over few values in time, being necessary only the first and the last values in time.

$$CGAR_{t,t+n} = \left(\frac{A_{t+n}}{A_t} \right)^{\frac{1}{n}} - 1$$

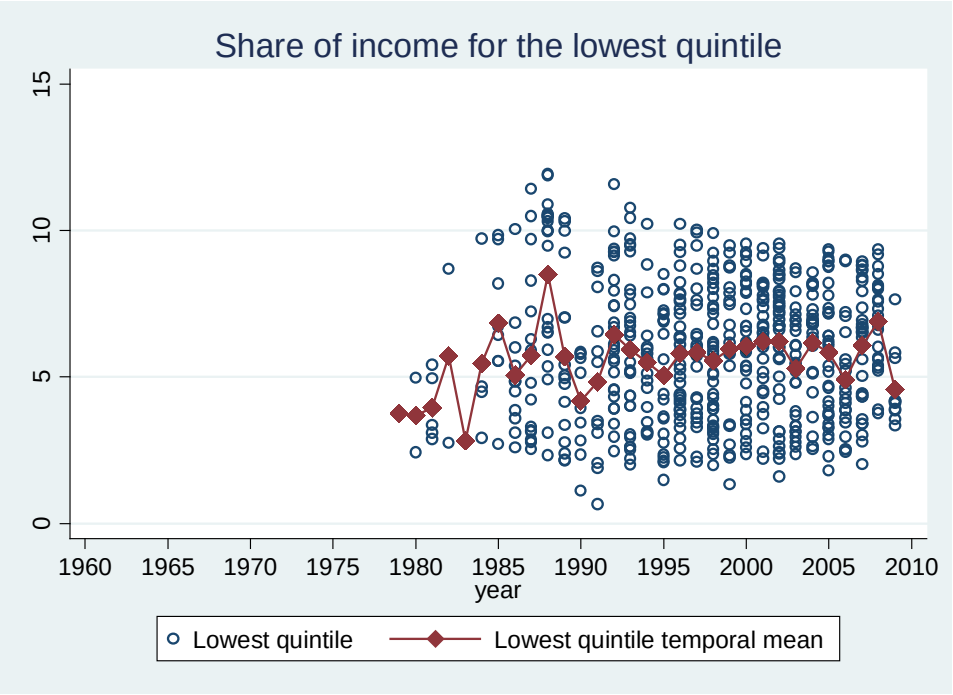
Where A_{t+n}, A_t are respectively the last and the first values in time of the variable we want to calculate the growth rate for. *n* is the time span considered.

Madagascar	-0.35	0.86	1980-2005
Malawi	-0.92	6.29	1998-2004
Mauritania	-0.29	2.98	1987-2000
Nicaragua	1.13	3.19	1993-2005
Niger	0.53	0.72	1992-2007
Senegal	2.13	4.19	1992-2005
Sierra Leone	-3.10	13.91	1990-2003
Swaziland	0.43	8.42	1995-2001
Timor-Leste	-3.70	4.94	2001-2007
Trinidad and Tobago	1.83	2.98	1988-1992
Turkmenistan	-6.08	-2.60	1993-1998
Uzbekistan	2.69	12.80	1998-2003
Venezuela, RB	-0.13	1.86	1981-2006
Zambia	1.12	14.01	1991-2004

Source: Our elaboration on WDI and Penn World Tables database.
Note: In bold the countries that showed positive GDP per capita growth rate. The high income countries are not present (having in most of the case just one value for the Income share held by lowest 20%"

Some cautions should be taken in commenting the data for the trend of the lowest income share considering the unbalanced panel nature of this variable. As Figure 20 shows, the behavior of the variable is erratic and few observations are available until '90s. From the mid '90s the trend seems to be smoother accounting an average of 6% of total income owned by the lowest quintile. In the graph are included all the countries that have at least two observations of the "Income share held by lowest 20%" variables and not only the countries identified as pro-poor in Table 30.

Figure 20



Source: Our elaboration on WDI data.

The primary **development outcome** expected from this paradigm is the overall growth of the country tied to poverty and inequality reduction.

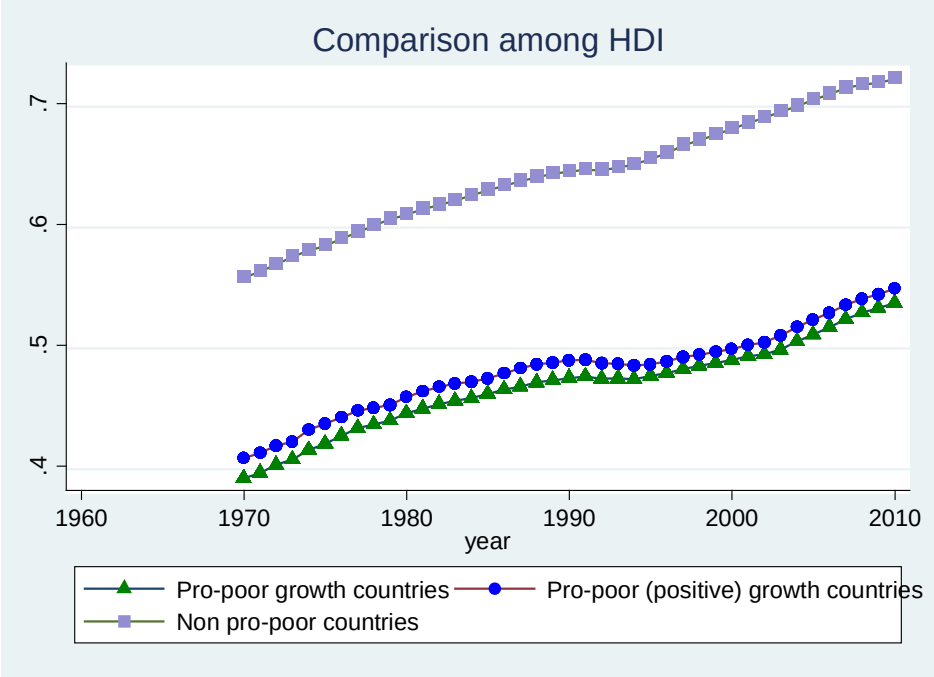
Income inequality reduction achievements have implications concerning the non-income aspects of well-being, such as the position of each individual or household within the society, their empowerment, and the effective role and functioning of institutions, including the improvement of the participatory and democratic mechanism. Strong income inequality may instead lead to an erosion of the substance sustaining any democratic institution, given the power disparities of different groups and individuals in a society.

As an extra remark on the links between growth and poverty reduction, it is worth mentioning the findings of De Janvry and Sadoulet (1998)[181]. After analyzing the causal relationships between growth and poverty using panel data on twelve Latin American countries between 1970 and 1994, they concluded that "*Growth only reduces urban and rural poverty if the initial levels of inequality and poverty are not too high. In the Latin American countries where this is not satisfied, growth is totally ineffective in reducing poverty/inequality*". In other words, 'growth' (without any qualifier) is good for poverty and inequality only if we do not talk about elevated levels of poverty and inequality (Bellú, 2011).

[181] De Janvry, A. Sadoulet, E., 1998. Growth, Poverty, and Inequality in Latin America: A Causal Analysis, 1970-1994. Department of Agricultural and Resource Economics Working Paper no.784. Berkeley, University of California USA

Figure 21compares the trend of the HDI of "pro-poor growth" economies[182] with the non "pro poor" ones[183]; the graph shows that both paths are uniform and constantly growing with a downturn of both in the mid and early '90s. The pro-poor economies that have a positive GDP growth rate have a slight higher average value of HDI during the same time span.

Figure 21



Source: Our elaboration on UNDP data.

Table 31 compares the growth rate of the HDI in "pro-poor growth" with the one of the other countries; the "pro-poor" ones are then divided in two sub-groups on the basis of their growth rates. The countries adopting the paradigm have a higher growth rate than non "no pro-poor" ones, even though the levels in 1970 and 2010 remain definitively lower for both the sub-groups of pro-poor economies.

Table 31 - Comparison of HDI growth

	1970	2010	Growth rate (1970-2010)

[182] All the graph interpretation should take in consideration the amount of heterogeneous countries included.
[183] It can be worth an extra warning considering the specification and the terminology used. With this paradigm we do not mean to be exhaustive about the pro-poor status, considering the heavy lack of data and accuracy of this variables

Pro-poor growth countries	0.39	0.53	36%
Pro-poor positive growth countries	0.40	0.54	35%
All countries	0.53	0.69	30%
All without pro-poor countries	0.55	0.72	30%

Source: Our elaboration on UNDP data.

Among development circles, it is widely recognized that the importance to give poor people the chance to participate to the production processes in order to allow them to reduce their poverty status. This is possible thanks to the defeat of food insecurity and poverty through policies rooted in sustainable and broad-based growth and development (FAO 2006)[184].

Considering the situation of pro-poor countries in terms of *food security*, Table # shows a general decrease of food insecurity among the countries interested by the paradigm. The few exceptions concern the countries where the share of the population undernourished remain stable and the ones registering higher values that the regional average.

Table 31- Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008
Algeria	–	5	5	–
Belize	7	8	7	5
Burkina Faso	14	12	12	8
Burundi	44	56	59	62
Central African Republic	44	47	43	40
Cote d'Ivoire	15	17	17	14
Ecuador	23	16	17	15
El Salvador	–	–	–	–
Ethiopia	69	62	48	41
Gambia, The	14	23	21	19
Guinea	20	19	20	16
Guinea-Bissau	22	26	25	22
Kenya	33	32	33	33
Kyrgyz Republic	17	13	17	11
Madagascar	21	26	28	25
Malawi	43	36	30	27
Mauritania	12	9	8	8
Nicaragua	50	38	25	19
Niger	37	37	27	16
Senegal	22	26	26	19
Sierra Leone	45	39	43	35
Swaziland	12	21	18	19
Timor-Leste	39	32	28	31

[184] Kidane,W, Maetz, M., 2006. Food Security and Agricultural Development in Sub-Saharan Africa: Building a Case for More Public Support. Policy Assistance Series 2, FAO, Rome

Trinidad and Tobago	11	14	11	11
Turkmenistan	9	9	9	7
Uzbekistan	5	5	19	11
Venezuela, RB	10	14	13	7
Zambia	35	38	43	44
Africa	26	26	24	23
Northern Africa	—	—	—	—
Sub-Saharan Africa	31	31	29	27
Latin America and the Caribbean	12	11	10	8
Caribbean	25	28	22	23
Latin America	11	10	9	7
Asia	20	16	16	15
Caucasus and central Asia	16	13	17	9
Eastern Asia	18	12	10	10
Eastern Asia - excluding China	8	11	13	13
Southern Asia	22	20	21	20
Southern Asia - excluding India	26	26	23	22
South-Eastern Asia	24	18	17	14
Western Asia	6	8	8	7
Oceania	12	11	13	12

Source: Food and Agriculture Organization of the United Nations

The debate about the effectiveness of the "pro-poor development" had generated an internal discussion among the supporters of this paradigm on how to exploit the instruments at hand to achieve development. The discussion incorporates three important questions: firstly, whether it is important to give the right weight to the promotion of small-scale activities, notably smallholder *agriculture*, agro-processing in rural areas and small scale industrial activities in urban areas. Secondly, it has been questioned whether it is important to support large-scale activities, which are necessarily linked with strong *institutions* and ensure the appropriate functioning of factor markets and *natural resources* (capital, labour, land, water, ores, oil, etc.), granting decent working conditions and remunerations to the human capital and protecting the natural resource base and social sustainability through an efficient *fiscal system*. Finally, whether it is important to promote *social policies*, safety nets and direct support to the poorest through the provision of services (*health*, *education*, housing etc.) associated with policies to ensure inclusion, empowerment and self-reliance of the weakest layers in society (*gender issues*).

Among the other project involved, this paradigm has been pursuing also by the Millennium Development Goals (MDGs)[185] of the UN, which aim to encourage development by

[185] The eight international development goals have been settled by all the 193 United Nations member states after the Millennium Summit in 2000. At least 23 international organizations have agreed to achieve these objectives by the year 2015.

improving social and economic conditions in the world's poorest countries. The MDGs incorporate most ingredients of this paradigm into eight objectives, meant to be reached by the end of 2015: (1) Eradicate extreme hunger and poverty, (2) Achieve universal primary education, (3) Promote gender equality and empower women, (4) Reduce child mortality, (5) Improve maternal health, (6) Combat HIV/AIDS Malaria and other diseases, (7) Ensure environmental sustainability, (8) Develop a global partnership for development. The concrete action plan for the achievement of the MDGs has been carried out by ten thematic task forces and it involved he work of researchers, scientists, policymakers, representatives of NGOs, UN agencies, the World Bank, IMF and the private sector.

In the recent report of the Secretary-General, ''*Accelerating progress towards the Millennium Development Goals: options for sustained and inclusive growth and issues for advancing the United Nations development agenda beyond 2015,*'' the latest progresses made towards achievement of the MDGs and outstanding challenges en route to 2015 are discussed. The report recognizes, among other things, that the global economic crisis has slowed down progress toward achieving the MDGs and that it is necessary to further implement sustained and inclusive economic growth as an integral part of the development strategies. Indeed, during the crisis, developing countries suffered substantial deceleration in their economic growth. Many economies have since then seen a recovery, assisted, in many cases, by fiscal stimulus measures, including social protection plans and other measures encouraged by the MDGs.

The MDG report states that the most successful countries followed strategies to overcome their constraints to development, but that, most importantly, they ensured a fair degree of coherence among economic, social and environmental policies. Individual country contexts and initial conditions are both important and diverse and past development experiences suggest that there are many pathways to overcome obstacles to sustained growth and development. Taking these factors into account, the report suggests four key elements for sustainable and inclusive growth and development strategies: a development-oriented macroeconomic framework; the adoption and diffusion of green technologies and sustainable national resource management strategies; the implementation of coherent and inclusive social policies; the protection of human rights and the assurance of good governance.

Concluding the update about the achievements of the MDGs, the report states that sustainability of the goals has to play a central role. Not all MDGs are expected to be achieved by 2015, "but even if they were, much further progress would be needed to achieve higher levels of sustainable development beyond 2015 (to eradicate, rather than halve, poverty). Nowadays, discussions could focus on whether and in what sense goals need to be broadened or accelerated (pp.16-17).

The **drawbacks** of this paradigm may be found in the difficulties of concrete plans of actually being effective.

4.8. Natural Resources Export-Led Development

Natural resources are defined as the factors of production provided by nature, like land, water, mineral and oil. In many poorer countries, dependence on natural resources is very often linked with small industrial and service sectors development, making agriculture and natural resource-based activities the main sources feeding the economy. This phenomenon stimulated the debate among researchers and policy makers about the long-term growth effects of the natural resource *production*, about their nature and about its linkages with the other socio-economic aspects, such as rent seeking behavior and low rates of education.

The Natural Resources paradigm sees the pursuit of development mainly as a result driven by the revenues from the export of natural resources. Since we already analyzed the Agriculture Based paradigms we now concentrate the attention on countries endowed with a significant amount of mineral and oil which rents can be a revenue source and, eventually, an economic stimulus for the entire economy.

Several are the countries that currently rely on natural resources. However, this is not a new development strategy; many countries adopted this paradigm in the past. Indeed, the literature observes low economic growth and development associated with the exploitation of resource endowments as early as the seventeenth century in the Netherlands and in Spain. The phenomenon is noted again in Switzerland and Japan, in Russia in the nineteenth and twentieth century's.

The **vision** of the paradigm is based on the fact that countries endowed with an abundance of natural resources can enjoy the possibility of accumulating them and initiating or feeding development processes through their exploitation and their subsequent trade. Hence, their abundance is seen as an instrument of development.

The **set of ingredients** involved in this paradigm comprises: *education*, *trade*, *financial development* and the role of *government.*

The main element engaged in the natural resources paradigm is *trade*. Even though the positive linkage between natural resources abundance and wealth increase seems to be straightforward, many authors, such as Sachs and Warner (1997), have showed the existence of a negative relationship between the country endowment and its economic growth. They argued, in fact, that natural resources-rich economies have tended to grow slower than the other economies, showing that the abundance can be good for consumption but not for the overall growth[186]. Along the same line, it has also been discussed that both

[186] Sachs, J. D. and Warner A. M. (1997) "Natural Resources abundance and Economic Growth" Center for International Dataverse, Harvard University

natural resource endowments and exports of manufactured goods do not necessary lead to broader development outcomes (Berge et al., 1994)[187].

Looking closer at the relationship between natural resources and economic growth, in the countries with an abundance of natural resources it has been shown that foreign inflows, social, human and physical capital are overcame by natural capital, which can slow economic growth over time (Gylfason and Zoega, 2001)[188]. Indeed, these countries tend to be characterized by weaker flows of trade and of foreign investment, by more *corruption*, and by lower levels of education and domestic investments than other nations.

However this mechanism is not valid for each well-endowed country. In Botswana, for example, the export of natural resources has led to important improvements for the entire development process.

Another element influencing economic development in this context is *education*. In countries characterized by an abundance of natural resources, there are often lower incentives to invest in human capital, mainly because of high levels of non-wage income (Gylfason, Herbertsson and Zoega 1999)[189]. In such countries, indeed, the public expenditures on education relative to national income, as well as the expected years of schooling and the secondary-school enrolment rates are found inversely related to the share of natural capital in national wealth across countries (Gylfason, 2001)[190].

Many countries relying on this paradigm are experiencing an *exhaustible-resource, export-led development*. Most oil- and mineral-endowed countries enjoy the possibility of accumulating financial resources to set in motion or feed development processes through the export of primary resources. This type of development path has been adopted, for instance, by most oil producing countries, particularly in the Middle East and Africa (Bellú, 2011). Africa as a whole is experiencing its highest economic growth in twenty years. According to the African Development Bank (ADB) (2007)[191], this increase is close to 6% for 2007. This increase is mainly due to a high demand of natural resources and a huge investment in these sectors, and especially oil.

In order to define the countries following a "natural resources development paradigm", we considered the mineral rents and the oil rents as a percentage of the GDP. Looking at the statistical distribution the minerals and/or oil rents, we selected an appropriate cut-off point to define natural resources rich countries.

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[187] Berger D. J. and Zelditch, M. (1994) "Theoretical research programs: studies in the growth of theory" Stanford University Press, Stanford, California

[188] Gylfason, T. and Zoega, G. (2001), "Natural Resources and Economic Growth: The Role of Investment," CEPR Discussion Paper No. 2743, March

[189] Gylfason,T., Herbertsson, T. T. and and Zoega, G. (1999) "A Mixed Blessing – natural resources and economic growth" Macroeconomic Dynamics No.3 pp 204-225

[190] Gylfason, T. (2001) "Natural Resources and Economic Growth: What Is the Connection?," CESifo Working Paper Series 530, CESifo Group

[191] Africa Development Bank (2007) "ADB Statistics Pocketbook"

We identified mineral rich countries the ones that have a value for the mineral rents higher than 10% of the GDP at least for one year; this percentage corresponds to a value between the 95th up to 99th percentile of the mineral rents statistical distribution[192].

Table 33 - MINERAL RENTS PARADIGM

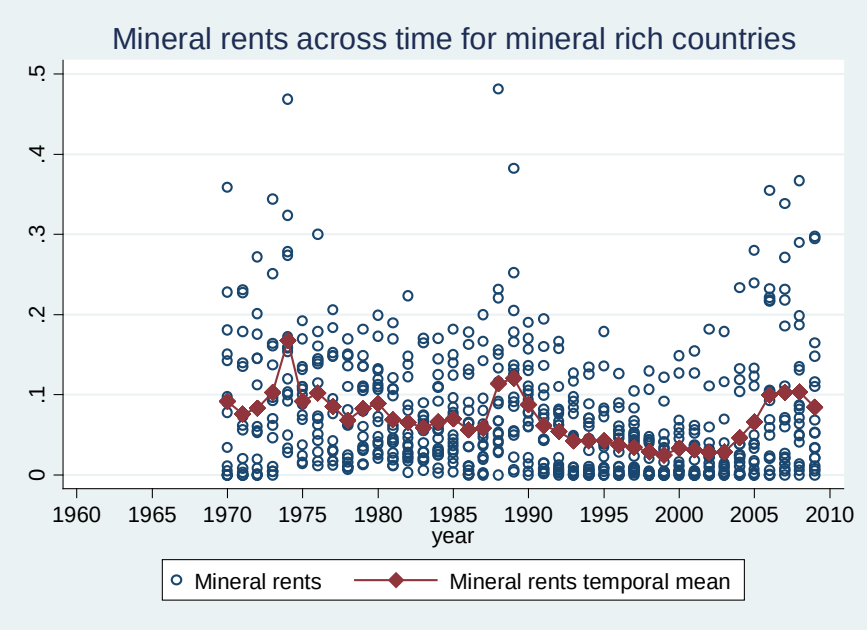
	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	00-04	05-10
Botswana										X
Chile				X		X				X
Congo, Dem. Rep.										X
Greenland				X		X				
Guinea						X	X			
Guyana			X	X	X	X				
Jamaica				X	X					
Liberia			X	X	X	X				
Mauritania			X	X	X			X	X	X
Mongolia								X	X	X
Morocco			X							
Namibia						X				
Papua New Guinea			X	X	X	X	X	X	X	X
Peru						X				X
South Africa					X					
Suriname			X	X	X	X	X			
Togo			X							
Zambia			X	X		X				X

Source: Our elaboration on WDI data.

As it can be seen in Figure 22 the behavior of mineral rents over GDP for mineral rich countries has a general decreasing trend until the mid of 2000. Three peaks are recognizable: in the mid- '70s, at the end of the '80s and in the second half of the 2000. It is worth noting the dispersion of the mineral rents amount over GDP, with some countries accounting more than 30% of their GDP from mineral revenues.

Figure 22 - Trend of mineral rents for mineral rich countries

[192] In general, during the five years periods, even though mineral rents over GDP is equal or above 10% only for one year, the other value are not distant from the threshold value decided



Source: Our elaboration on WDI data.

For the oil rich countries we used a criterion identifying the threshold of oil rents at the 20% of the GDP that corresponds to the 90th up to 95th percentile of the distribution.
This leads to the following list of countries:

Table34 - OIL RENTS PARADIGM

	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	00-04	05-10
Algeria				X	X					X
Angola						X	X	X	X	X
Azerbaijan							X	X	X	X
Bahrain					X	X				X
Brunei Darussalam	X	X	X	X	X	X	X		X	X
Cameroon					X					
Chad										X
Congo, Rep.				X	X	X	X	X	X	X
Ecuador					X					X
Egypt, Arab Rep.					X					
Equatorial Guinea								X	X	X
Gabon			X	X	X	X	X	X	X	X
Indonesia					X					
Iran, Islamic Rep.			X	X	X	X	X		X	X
Iraq			X	X	X	X		X	X	X
Kazakhstan									X	X
Kuwait	X	X	X	X	X	X	X	X	X	X
Libya							X	X	X	X
Monaco					X					
Nigeria				X	X	X	X	X	X	X

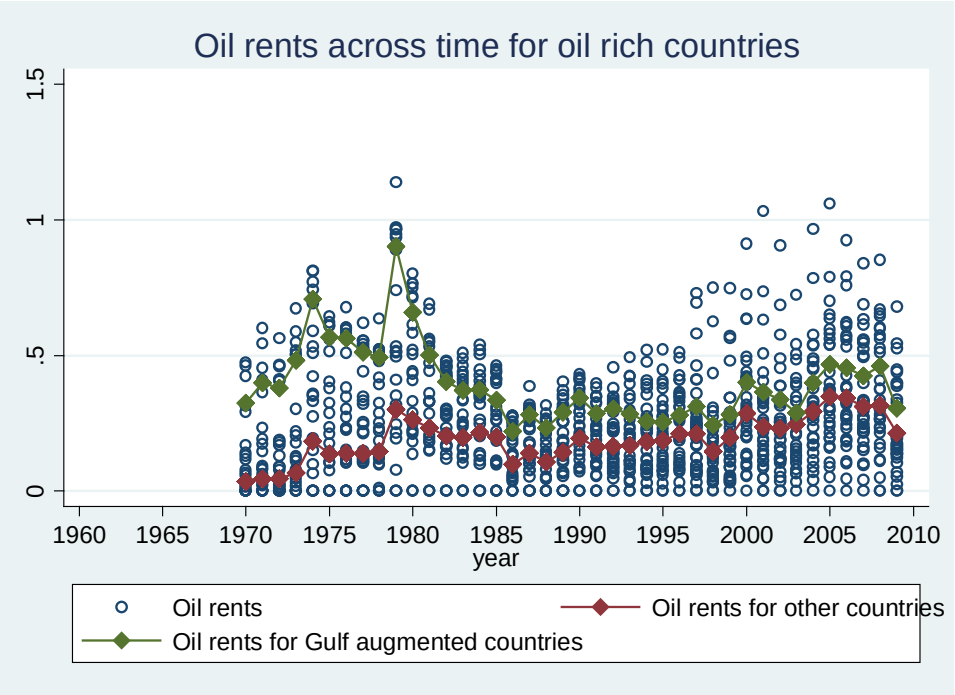
Oman	X	X	X	X	X	X	X	X	X	X
Papua New Guinea							X			
Qatar	X	X	X	X	X	X	X	X	X	X
Russian Federation									X	
Saudi Arabia	X	X	X	X	X	X	X	X	X	X
Sudan										X
Syrian Arab Republic							X	X	X	X
Trinidad and Tobago				X	X					
Turkmenistan									X	X
United Arab Emirates			X	X	X	X	X	X	X	X
Venezuela, RB				X	X	X	X	X	X	X
Yemen, Rep.							X	X	X	X

Source: Our elaboration on WDI data.

Since the list comprises a group of heterogeneous countries, ,it can be worth to separate countries that rely basically on oil and built up their economic structure on its revenue, like Gulf countries and some others (Gulf augmented countries)[193], from the other countries endowed with oil. Oil rents follow the same path for all the oil rich countries: the trend is non constant over the period considered with two peaks in the '70s in correspondence to the oil crises and one in 2005. The oil rents for the Gulf augmented countries is definitely higher than the one of the other countries endowed, with a difference decreasing over time. The oil endowment revenues are on average greater than the mineral rents, accounting for an average of around 30% of GDP for oil rich countries.

Figure 23

[193] The Gulf countries are United Arab Emirates, Oman, Bahrain, Qatar, Saudi Arabia, and Kuwait. In this classification we also include Iraq, Iran and Brunei Darussalam that, even though they have never been a Gulf State, are rich in oil and oil reserves and found their economy mainly on this natural resources, We called this sub-sample Gulf augmented countries

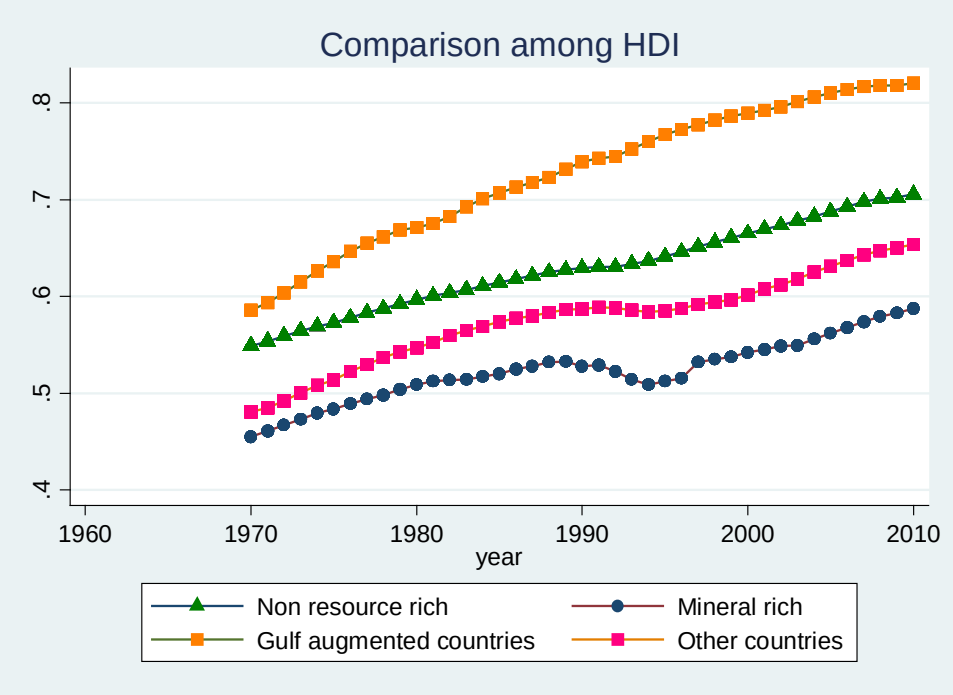


Source: Our elaboration on WDI data.

Considering the **development outputs** of this group of countries, from this analysis we can see a general positive trend of their HDI. The lower levels of the HDI are attributable to mineral rich countries, which experienced a persistent decrease in HDI in the nineties, driven by the downturn of HDI in countries such as Democratic Republic of Congo and Liberia.

The non Gulf augmented countries show a slowdown of HDI trend at the beginning of the '90s, due to the presence of the ex-Soviet Republics in the sub-sample. Shifting our attention to Gulf augmented countries, here the HDI divide between them and non resource countries boosted through the considered decades, mostly because of the higher level of income per capita characterizing the oil rich economies.

Figure 24



Source: Our elaboration on UNDP data.

The growth rates are higher for the oil rich countries in general and in particular for the Gulf augmented countries. The non resource rich countries held a lower level of HDI, especially if compared with the Gulf augmented ones.

Table 35 – Comparison among HDI growth

	1970	2010	Growth rate[194] in percentage (1970-2010)
Mineral rich	0.45	0.59	31%
Gulf augmented countries	0.58	0.82	41%
Other countries	0.48	0.65	35%
Non resource rich	0.55	0.71	29%
Average (of all countries)	0.53	0.69	30%

Source: Our elaboration on UNDP data.

For what attains the *food security* status, the following tables show that the percentage of undernourished in resource rich economies decrease on average during the decades considered, with few exceptions concerning the mineral rich countries. Moreover the overall levels of undernourishment seem in general to be lower than the regional average values.

[194] Growth rate= (Value 2010 – Value 1970)/Value 1970

Table 36 - MINERAL RENT PARADIGM
Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008
Botswana	19	23	27	25
Chile	7	—	—	—
Guinea	20	19	20	16
Guyana	20	11	7	8
Jamaica	11	6	5	5
Liberia	30	32	36	32
Mauritania	12	9	8	8
Mongolia	28	33	27	27
Morocco	6	6	6	—
Namibia	32	30	21	18
Peru	27	21	18	16
South Africa	—	—	—	—
Suriname	14	13	15	15
Togo	43	36	36	30
Zambia	35	38	43	44
Africa	**26**	**26**	**24**	**23**
Northern Africa	—	—	—	—
Sub-Saharan Africa	*31*	*31*	*29*	*27*
Latin America and the Caribbean	**12**	**11**	**10**	**8**
Caribbean	*25*	*28*	*22*	*23*
Latin America	*11*	*10*	*9*	*7*
Asia	**20**	**16**	**16**	**15**
Eastern Asia	*18*	*12*	*10*	*10*
Eastern Asia - excluding China	*8*	*11*	*13*	*13*

Source: Food and Agriculture Organization of the United Nations

Table37 - OIL RENT PARADIGM
Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008

Algeria	—	5	5	—
Angola	67	61	52	41
Azerbaijan	27	27	11	—
Brunei Darussalam	—	—	—	—
Cameroon	33	34	26	22
Chad	60	53	43	39
Congo, Rep.	42	41	20	13
Ecuador	23	16	17	15
Egypt, Arab Rep.	—	—	—	—
Gabon	6	—	—	—
Indonesia	16	11	15	13
Iran, Islamic Rep.	—	—	—	—
Iraq	—	—	—	—
Kazakhstan	—	—	8	—
Kuwait	20	5	6	5
Libya	—	—	—	—
Nigeria	16	10	9	6
Russian Federation	—	—	—	—
Saudi Arabia	—	—	—	—
Sudan	39	29	28	22
Syrian Arab Republic	—	—	—	—
Trinidad and Tobago	11	14	11	11
Turkmenistan	9	9	9	7
United Arab Emirates	—	—	—	—
Venezuela, RB	10	14	13	7
Yemen, Rep.	30	31	31	30
Africa	**26**	**26**	**24**	**23**
Northern Africa	—	—	—	—
Sub-Saharan Africa	*31*	*31*	*29*	*27*
Latin America and the Caribbean	**12**	**11**	**10**	**8**
Caribbean	*25*	*28*	*22*	*23*
Latin America	*11*	*10*	*9*	*7*
Asia	**20**	**16**	**16**	**15**
Caucasus and central Asia	*16*	*13*	*17*	*9*
Eastern Asia	*18*	*12*	*10*	*10*
Eastern Asia - excluding China	*8*	*11*	*13*	*13*
Southern Asia	*22*	*20*	*21*	*20*
Southern Asia - excluding India	*26*	*26*	*23*	*22*
South-Eastern Asia	*24*	*18*	*17*	*14*
Western Asia	*6*	*8*	*8*	*7*
Oceania	**12**	**11**	**13**	**12**

Source: Food and Agriculture Organization of the United Nations

Turning the attention to the **drawbacks** of this paradigm, it is well know that the natural resources abundance can negatively impact development, increasing the risks of *civil wars*

and affecting institutions and governance (Karl, 1997)[195]. Indeed, it has been shown that there is a strong interaction between natural resource abundance and the autocratic regimes in Africa (Jansens and Wnatchekon, 2004)[196].

The abundance of natural resources can also undermine or trap the development process affecting countries' stability through *wars over the control of the natural resources* themselves (Collier and Hoeffler, 2004)[197]. However, looking at the correlation between natural resources and conflicts through econometric analysis, it has been concluded that countries dependent on agricultural commodities face similar risks, regardless of their endowments of natural resources (Humphreys, 2005)[198].
Another drawback of natural resource endowments is *rent seeking* in natural resource extraction (Gelb, 1988)[199]. When rent seeking persists, exclusive exploitation privileges are granted to specific groups, impeding the utilization of those natural resources by the whole society and, hence, impeding the economic growth of the country (Krueger, 1974)[200].

The increase in exploitation of natural resources linked to a decline in the importance of the manufacturing sector is referred to as the *Dutch disease phenomenon*[201]
As explained by Pegg[202] (2010), the Dutch disease results *"from the hard currency inflows associated with surging resource exports leading to an appreciation of the real exchange rate. This coincides with a sectoral reallocation of economic resources. Capital and labor are drawn away from agriculture and manufacturing and they flow into the extractive sector. The prices of non-tradable goods such as construction and many other services also* rise*. The end results are higher costs and reduced competitiveness in the tradable agricultural and manufacturing sectors which face competitive international prices for their goods*" (p.15).
In other words, an increase in revenues from natural resources will make a given nation's currency relatively stronger and will result in more expensive exports. Other countries will be less willing to buy exports and the manufacturing sector will become less competitive.

Looking at this relationship and at the relationship between natural resource booms and the associated surge in raw-material exports, it can be easily concluded that the high, real exchange rate of the currency will reduce manufacturing and service exports (Corden, 1984)[203].

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[195] Karl, T. L. (1997) "The Paradox of Plenty: Oil Booms and Petro-States" University of California Press, 1997
[196] Jansens, N. and Wnatchekon, L (2004) "Resource Wealth and Political Regimes in Africa" Comparative Political Studies 2004, Vol. 37, No. 816
[197] Collier, P and Hoeffler,A. (2004) "Greed and grievance in civil war" Oxford Economic Papers, Oxford University Press, vol. 56, No.4, pp 563-595, October
[198] Humphreys, M. (2005) "Natural Resources, Conflict, and Conflict Resolution: uncovering mechanism" Journal of conflict resolutions, Vol. 49 No. 4, August 2005 pp. 508-53
[199] Gelb, A.H., (1988) "Oil Windfalls, Blessing or Curse" Oxford University Press, Oxford
[200] Krueger, A. O. (1974) "The Political Economy of the Rent Seeking Society," *American Economic Review* 64, (June), pp. 291-303.
[201] The term was coined in 1976 by *The Economist* to describe the decline of the manufacturing sector in the Netherlands after the discovery of a large natural gas field in 1959
[202] Pegg, S. (2010) "Is there Dutch disease in Botswana?" Resources Policy No. 35 (2010) pp.14-19. Elsevier
[203] Corden, W. M. (1984) "Boom Sector and Dutch Disease Economics: Survey and Consolidation". Oxford Economic Papers 36, p.362

However, there are successful experiences of the Natural Resources paradigm. Norway[204], for example, presents one of the best practice examples of this paradigm and it has often been cited in the literature as a country able to manage its natural resource abundance well and, henceforth, to convert it into economic growth. Even though recession was not unavoidable for a few years, they were able out nearly unscathed from the trying economic times, as their exploitation and use of present and future natural resources was carefully planned[205].
Natural resources can present a great opportunity for economies in pursuing economic growth and development, even if managing them may not be a simple or straight-forward task. States in Latin America and the Caribbean endowed with natural resources also have the potential to found such a development strategy (Ramos, 1998)[206]. Development depends on how quickly countries engage in industrialization and the processing of their natural resources and on how quickly they develop the necessary inputs, engineering services and equipment. Development as such will not be seen as based on the extraction and trade of primary natural resources as it is today in many endowed countries, but rather as one based on the processing of such resources and the development of the activities that naturally tend to create positive spillover effects. Endowed countries that today stand developed as results of this model are: Norway and other Scandinavian countries, Canada, Australia and New Zealand. The development strategy stands in stark contrast with those of the recently industrialized Asian countries that have few natural resources (Ramos, 1998).

Looking at the single country experiences, it is worth to mention the case of Botswana, one of the most important producers and exporters of diamonds that managed to register the world highest rate of growth of gross national product per capita from 1965 to 1998. Sierra Leone[207], on the other hand, though too "blessed" with diamonds, has remained in poverty, with severe conflict over natural resource control (Gylafson and Zoega, 2001); according to the World Bank (2000)[208], Sierra Leone was the world's poorest country in 1998.

In Botswana, the mining sector is largely dominated by diamonds and, to lesser extent, by copper-nickel. The main diamond company assures stable revenue for the country and invests in the community, building hospitals, schools, and recreational facilities for employees and local residents. Compared to other commodity producers, Botswana benefits from a relatively stable rent stream, but it has not been immune to periodic revenue

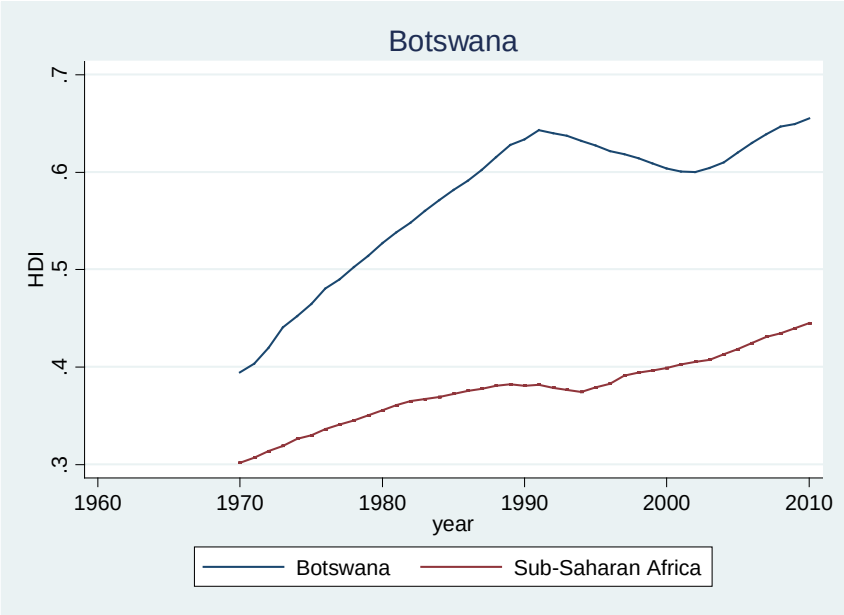
[204] Norway is not present in the list of oil paradigm countries because in the lat decades the highest value of oil revenues did not overcome the 15% of GDP.
[205] Papyrakis, E. and Gerlagh, R. (2003) "Natural Resources: A Blessing or a Curse?," Working Papers 2003.8, Fondazione Eni Enrico Mattei
[206] Ramos J. (1998) "A development strategy founded on natural resource-based production clusters" Economic Commission for Latin America and Caribbean Review
[207] Sierra Leone is not present in the list of mineral rich countries because in the lat decades the highest value of oil revenues did not overcome the 5% of GDP
[208] World Bank (2000) "World Development Report" World Bank

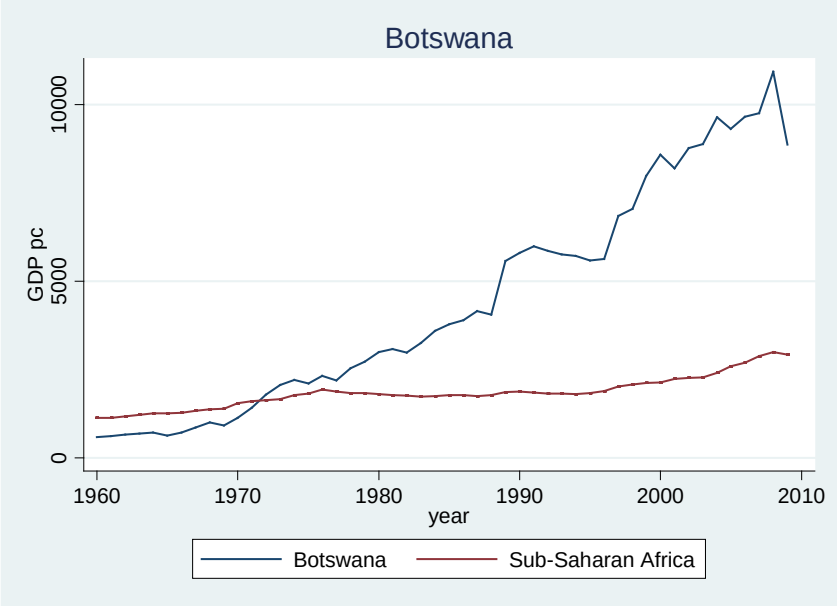
volatility. Through good government policies, strong political leadership, and a sound long-term development plan, Botswana has seemingly avoided the effects of the resource curse[209] and managed to provide quality public services such as education and healthcare to its citizens. Effective anti-corruption laws and high civil engagement have forced representatives to be more transparent about how they are spending and distributing the country's natural resource wealth. Botswana avoided "resource curse" problems through better control over local currency appreciation, a massive investment of the mineral revenues in education, health, roads and basic infrastructure, and the adoption of measures to stabilize growth and avoid debt. Specifically, in order to avoid increases in public expenditure, the government accumulated international reserves and ran a budget surplus, in order to circumvent cutting expenditures in bad years. This policy allowed Botswana to reduce the inflationary pressures. Moreover, the Botswana government put efforts into diversifying economic activities and creating employment in manufacturing and services. It did not, however, always succeed in these processes due to weaknesses of the agricultural sector, which was subjects to frequent droughts, to privileged large-scale livestock breeding, and to the many problems characterizing the manufacturing sector, including Botswana's tiny domestic market, its landlocked location, high transportation costs and a lack of entrepreneurs. The government also tried to better manage environmental issues, including environmental protection as a part of concessional agreements with mining companies. The weaknesses characterizing the Botswana economy also led to high levels of inequality as much of the population did not benefit from the overall growth of the economy, higher level of undernourishment, high wages in the public sector and a decrease in the employment levels[210].

Graphs 25 and26 display respectively the higher trends of Botswana's Human Development Index and income per capita, compared to Sub-Saharan Africa as the geographic region of reference. This may be due to the quality of public services provided by the country. As mentioned above, the strong government has indeed managed to provide its citizens with high quality education and healthcare systems. The small decrease of the GDP per capita registered in the last years can be attributed to the closure of most of the mines of the major diamond company in 2008.

[209] Analyzing the natural resource course, Internet Document, www.pbs.org/newshour/extra
[210] Sarraf, M., Jiwanji, M. (2001) "Beating the resource curse: the case of Botswana" Environment Department Working Paper 83, Report 24753. The World Bank Environment Department, Washington, DC

Figure 25 and 26: Comparison between Botswana and Sub Saharan Africa (HDI and GDP per capita 2005 constant price)





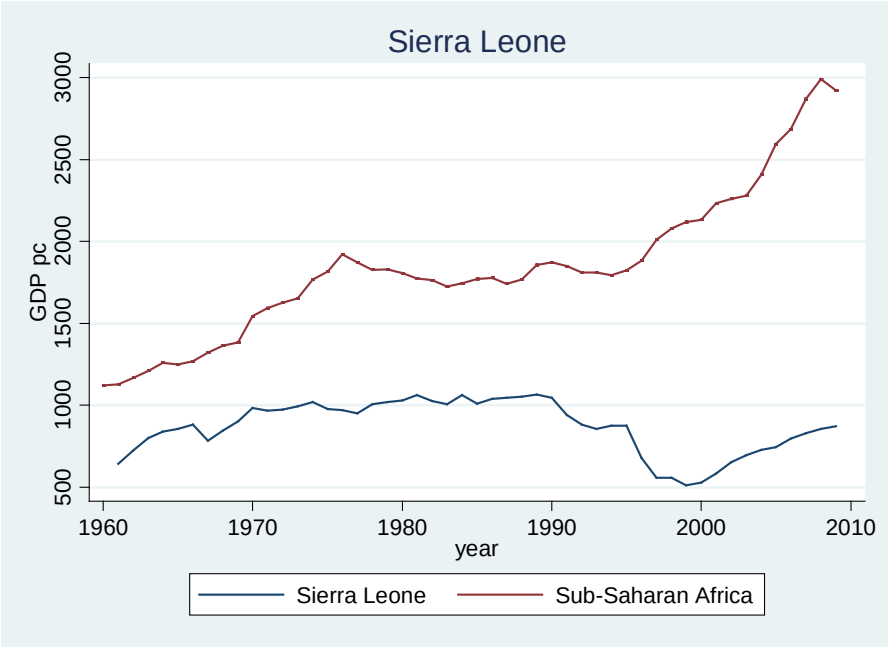
Source: UNDP; Penn World Table, 7.0

Sierra Leone has had the opposite experience, though also, endowed with diamonds. the country has always been vulnerable not simply because it was endowment with a natural resource, but because it had not yet experienced industrialization and had weak market connections between communities. Moreover, Sierra Leone is characterized by weak state structures not able to manage strong leadership and to implement a long-term development plan, allowing natural resources to have negative effects on growth. In this situation, a change in policy orientation is needed. Protecting natural resources from capture is not

enough; it is important to focus on greater management of the resources and extraction processes and to better investment and redistribute the revenues from the natural resources that controlled by the government.

Graph 17 shows the trend of GDP in Sierra Leone. It is much lower relative the level and the trend of Sub Saharan Africa average, reflecting the low rate of growth of the country. The eruption of the Civil War for the control of large swathes of territory in eastern and southern Sierra Leone, rich in alluvial diamonds, led to a further decrease in the level of GDP during the 90s. Sierra Leone has experienced substantial economic growth in recent years, although poverty and unemployment remain major challenges. Since the end of the war in 2002, economic recovery has been slow and has needed the help of external aid. Indeed almost half of its government revenue today comes from donors. Data for HDI in Sierra Leone are not available.

Graph 27: Comparison between Sierra Leone and Sub Saharan Africa GDP per capita (2005 constant price)



Source: Penn World Table, 7.0

4.9. International Capital Flows

Since the end of the Second World War, the increasing importance of financial inflows directed to lower income countries has led to the idea that the development itself can be implemented through international capital injection.

Several economic and political events have affected the amount and the composition of financial inflows during the last decades. Starting at the end of the Second World War and continuing with the decolonization of most of the African countries in the '50s and '60s, the mechanism of development aid has been gradually institutionalized delivering monetary and technical assistance to less industrialized countries. Then, the extension of financial provision has been further influenced by the opening of the Eastern European market economies to the rest of the world with the end of the Cold War and the several financial crises started with the Latin American debt crisis in the '80s.

Development financial assistance steadily decreased during the 90's and, at the same time, the structural reforms concerning financial liberalization adopted by developing countries began encouraging private capital injections[211]. It has been argued that the changes in the pattern of financial inflows during the '70s and the '90s can be considered the most important development of "financial globalization" (Schmukler and Zoido-Lobatòn , 2001)[212].

Private capital inflows became more important relatively to the development assistance and the composition of private capital inflows themselves had changed. During the 90's in fact Foreign Direct Investments (FDI) increased sharply due to mergers and acquisitions connected to public enterprise privatization: once this happened, World Bank Loans became relatively less important.[213]

The **vision** of this paradigm is based on the idea that is possible to implement development through the injections of capital flows from abroad in the economy of a country. If a country is able to "attract enough", the capital flows stimulate its economic growth and all the other welfare achievements. The idea of generating development through capital transfers is promoted by various viewpoints. One among them for example is that the today's advanced countries can only grow if poorest countries do the same, due to international linkages. A second motivation is more "strategic" one: the financial assistance directed to foreign governments could help to reinforce the political partnership among countries.

The three main drivers of this paradigm are *foreign aid*, *remittances* and *foreign direct investment* (FDI)*;* the delivering and effectiveness of these factors involve a **set of**

[211] World Bank (1998) (ref missing)
[212] Schmukler S.L. e Zoido-Lobatòn P. (2001). "Financial Globalization: Opportunities and Challenger for Developing Countries", World Bank
[213] It should also be remarked that the big bulk of private capital inflows to developing countries were directed to only 12 countries, such China, India and Brazil.

ingredients, including *trade*, *government*, *financial development*, *education*, *private sector*, *R&D*.

Together, *foreign aid, remittances* and *foreign direct investment (FDI)* are the external financial sources used to fund capital accumulation to start up and feed development processes, at micro and macro level. Selected countries follow a *"foreign aid-based" development*, if the main part of the capital injections comes from foreign development assistance, while others rely more heavily on remittances or FDI, experiencing respectively "*remittances-based*" and *"FDI-based" development paradigm*s.

The trend of the HDI for the countries involved in the international capital inflows paradigms are going to be analyzed together at the end of the paragraph.

a. Foreign aid

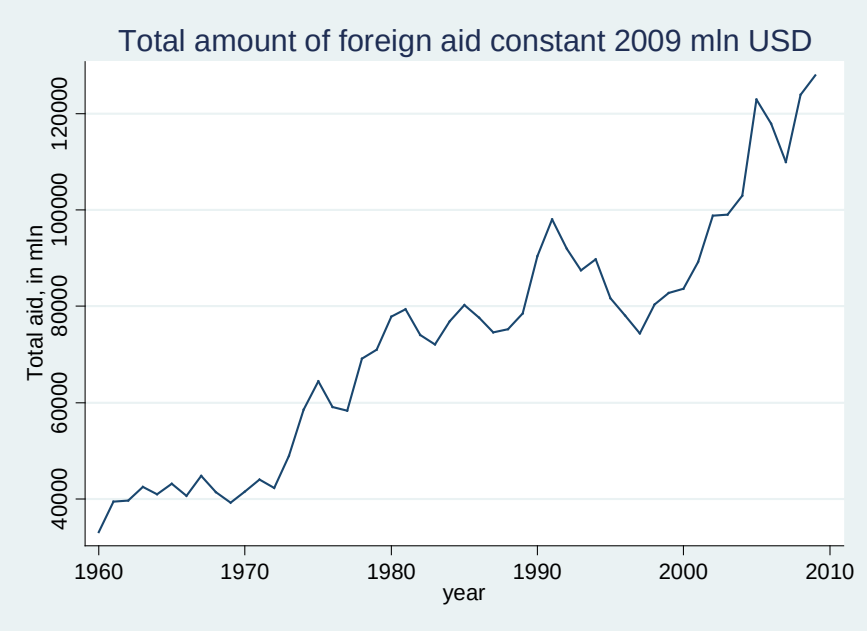
The most common type of *Foreign Aid* is the *Official Development Assistance* (ODA), defined by the OECD[214] as the "flows to developing countries and multilateral institutions provided by official agencies, including state and local governments, or by their executive agencies". According to this definition, each transaction has to meet three criteria:

1. being administered with the promotion of the economic development and welfare of less industrialized countries as its main objective;
2. being concessional in character and containing a grant element of at least 25 per cent (calculated at a rate of discount of 10 per cent) and
3. being undertaken by the official sector.

Foreign aid can be delivered for immediate emergency-related reasons or can finance programs and projects to fund a medium-long term development. Considering the flow of official aid in monetary terms (in millions, constant 2009 USD) and as percentage over GDP of the recipient countries, the ODA trend has been generally increasing until the early '90s, but a downturn followed by a recover during the last decade (Figure 28). It is worth noting that the amount of foreign aid from 2005 is the highest among all the years, but in general the percentages of aid over GDP are lower compared to the level of the peak registered in the '90s (Table 38). This can be a further cause of the increase of the overall GDP in less industrialized countries throughout those years.

[214] Glossary of Statistical Terms, OECD

Figure 28



Source: World Development Indicators

Table 38 summarizes the trend of the ODA, disaggregated by the countries income level: the low and middle income countries are naturally the main receivers of foreign aid, even though some of the today's high income countries benefited in the past of the development assistance. The flow of foreign aid for low and middle income countries in the 90's is higher than the flows of the '60s in the same countries, then aid as percentage of GDP decreases.

Table 38 - Net ODA received (as percentage over GDP) by income level of countries

	1960	1990	2009
Low Income	2.71	19.46	14.38
Middle Income	2.68	9.24	5.35
High Income	0.22	1.39	-

Note: Average for the countries with available information, based on the World Bank classification for income level (revision November 2011)
Source: Own elaboration on OECD, QWIDS

As for the other paradigms not historically identified or shaped by the literature, we propose a subjective criterion to evaluate if a country followed or is still following the "foreign aid development paradigm". Considering the statistical distribution of the foreign

aid variable[215], we choose a threshold value of 20% to define the reliance to the capital flow for development; the threshold stands between the 90th and the 95th percentile of the distribution.

Table 39 compiles the list of countries pursuing a "foreign aid development paradigm" and periods when they strongly relied on foreign aid, followed by Figure 29 that shows the average aid over GDP for the countries included in the paradigm.

Table 39- AID PARADIGM

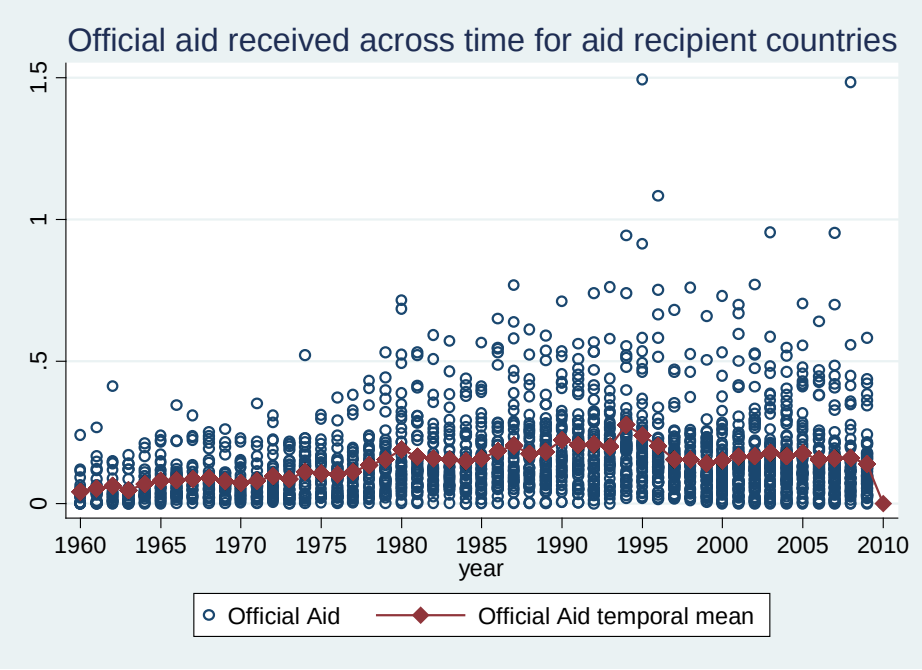
	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	00-04	05-
Afghanistan									X	X
Albania							X			
Bhutan							X	X		
Bosnia and Herzegovina								X		
Botswana		X								
Burkina Faso							X			
Burundi							X		X	X
Cambodia			X							
Cape Verde						X	X	X		
Comoros					X	X	X			
Congo, Dem. Rep.									X	X
Djibouti						X	X			
Dominica					X					
Equatorial Guinea						X	X			
Eritrea								X	X	
Gambia, The					X	X	X			
Guinea-Bissau				X	X	X	X	X	X	
Guyana							X			
Iraq										X
Jordan			X	X						
Kiribati					X	X	X	X	X	X
Lao PDR								X		
Lesotho				X	X	X	X			
Liberia							X	X	X	X
Malawi						X	X	X	X	X
Mali						X	X			
Marshall Islands							X	X	X	X
Mauritania				X	X	X	X	X	X	
Micronesia, Fed. Sts.								X	X	X
Mongolia								X		
Mozambique						X	X	X	X	X
Nicaragua							X		X	
Niger						X	X			

[215] The variable is Aid over GDP summing the grant or loans to countries and territories on the DAC (Development Assistance Committee) List of ODA Recipients (developing countries) and to multilateral agencies. divided by the country GDP (source QWIDS, OECD and WDI)

Palau								X	X	X
Papua New Guinea		X	X							
Rwanda							X	X	X	X
Samoa					X	X	X			
Sao Tome and Principe									X	X
Seychelles			X	X						
Sierra Leone							X	X	X	X
Solomon Islands		X	X	X						X
Somalia				X	X	X				
Swaziland	X									
Tanzania						X	X			
Timor-Leste									X	X
Tonga					X	X	X			
Uganda							X			
Vanuatu					X	X	X			
Zambia							X	X	X	

Source: Own elaboration of OECD and WDI database
Note: The following countries have not been listed because of few and/or not consecutive values of the variable greater than the threshold. They are Central African Republic, Congo Rep., Grenada, Haiti, Kyrgyz Republic, Madagascar, Maldives and New Caledonia

Figure 29



Source: Our elaboration on QWIDS and WDI data
Note: Some outliers have been eliminated from the graphs (when the aid over GDP was greater than 150%)
Note: Aid is expressed in fraction of GDP.

In the last ten years, numerous global campaigns have been pleaded for an increase of

foreign aid, with the intention of promoting economic growth as well as improving human welfare in poorer countries[216], considering also its relevance as tool to achieve the Millennium Development Goals.

There is still debate around the role of aid inflows within the development process, especially on what concerns the use and the improving effectiveness of development assistance. Particularly, the effectiveness of ODA has been one of the core questions of the economic debate and may have influenced the actions of policymakers and donor countries. The notion of aid as the "cure" for less developed countries is in fact built upon the notion that these countries cannot, on their own, pull themselves out of their own situation, since they are caught in a "low-level equilibrium trap". Accordingly, their only hope for development should be through investments financed by foreign aid (as summarized in Easterly, 2003)[217].

The most recent debate on the impact of foreign aid on development has been influenced by the work of Burnside and Dollar (2000); they claimed that aid has a positive impact on growth of developing countries only if the country itself showed to deliver "good fiscal, monetary, and trade policies". This contribution has been very influential and its conclusions gave a clear address to the policies of the international institutions in the following years. However, rebuttals were soon to follow: Easterly, Levine, and Roodman (2004) reduced confidence in the conclusion that aid promotes growth in countries with "sound policies", widening the debate toward the same *raison d'être* of this modality to deliver assistance. From then on, the development community and practitioners has continued to investigate the causal relationships between foreign aid and development achievements.

These developments of the discussion over the past few years have led the discussion to switch from *whether* to provide aid but to *how* to do it better (Moss, 2009)[218].

Looking at **development outcomes** after decades of foreign aid, development achievements (especially in Africa) are still under observation.

From empirical investigation, it has emerged that foreign aid does not work in the same way everywhere, nor have a unique shape, and that emergency aid, aid for short and long term investments should be distinguished from one another (see Clemens et al., 2004)[219]. Aid's effects depend on the macroeconomic settings and institutions of the countries to which

[216] Kofi Annan and James Wolfensohn circled the globe campaigning for doubling spending on aid. Even the most recent *"Obama*-Biden Plan" embraced the Millennium Development Goals to "help the world's weakest states to build healthy and educated communities, reduce poverty, develop markets and generate wealth" (http://www.notatypewriter.com/Obama-ChangeGov/Foreign_Policy___Change.pdf) (Nov, 2008)

[217] Easterly, W. (2003), "Can Foreign Aid Buy Growth?", *Journal of Economic Perspectives*, Vol 17, No.3, Summer, pp23-48. Easterly does not support this idea of foreign aid as the only hope for poorest countries, but with this concept he wants to clarify the position of other economists considering the foreign aid as the only hope for development.

[218] Moss, T. H. (2009)

[219] Clemens, M. A., Radlet, S. and Bhavnani, R. (2004) "Counting Chickens when they Hatch: The Short-Term Effect of Aidon Growth" Center for Global Development Working Paper No. 44

they are delivered, on the aid practices implemented by the recipient countries and by the donor's ones and on the conditionality issues raised by the donors themselves (Stiglitz, 2002)[220].
Moreover, especially in very poor aid-dependent countries, high volatility of inflows renders inner macroeconomic issue hard to manage, considering that their delivering procyclical nature does not act as a stabilizing force or as an insurance mechanism[221] (Bulir and Hamann, 2008) not contrasting, but exacerbating the international shocks.

Another issue related to the foreign aid is the "micro-macro paradox" (Mosley, 1987). With this expression, Mosley (1987) meant to underline that, according to the empirical results, most micro projects financed by foreign aid (microcredit, conditional cash transfers, etc.) have a clear positive impact on development, while macro-level foreign aid supports could provide no such clarity in their outcomes (see also McGillivray et al., 2005).

Considering food security situation, table # displays the percentage of undernourished over the population for countries that were following the foreign aid development. The picture is not homogeneous among the countries, both with the respect to the years and to the correspondent geographical group of countries involved. We assist for example in the Sub-Saharan African countries to both an increase and a decrease of the percentage of undernourished over the population, as respectively shown for Zambia and Sierra Leone.

However, it is worth noting that the countries involved in the paradigm have, in most of the cases, a higher prevalence of undernourishment than the countries included in the geographic group of reference.

Table 40 - Prevalence of undernourishment in total population (%)

	1990-1992	1995-1997	2000-2002	2006-2008
Botswana	19	23	27	25
Burkina Faso	14	12	12	8
Burundi	44	56	59	62
Cambodia	38	40	29	25
Cape Verde	12	14	15	11
Comoros	38	47	54	47
Djibouti	60	50	40	26
Eritrea	67	64	70	65
Gambia, The	14	23	21	19
Guinea-Bissau	22	26	25	22
Guyana	20	11	7	8
Jordan	—	5	5	—
Kiribati	8	6	5	5
Lao PDR	31	29	26	22

[220] Stiglitz, J. E. (2002) "Globalization and its Discontents" New York : W. W. Norton
[221] Bulir, A. and Hamann, A.J. (2008), "Volatility of foreign aid: from frying pan into the fire?", World Development Vol. 36, No. 10, pp. 2048–2066

Lesotho	15	16	14	14
Liberia	30	32	36	32
Malawi	43	36	30	27
Mali	27	25	18	12
Mauritania	12	9	8	8
Mongolia	28	33	27	27
Mozambique	59	47	46	38
Nicaragua	50	38	25	19
Niger	37	37	27	16
Rwanda	44	53	38	32
Samoa	9	10	—	—
Sao Tome and Principe	14	15	8	—
Seychelles	11	10	8	8
Sierra Leone	45	39	43	35
Solomon Islands	21	13	12	11
Swaziland	12	21	18	19
Tanzania	34	42	46	26
Timor-Leste	39	32	28	31
Uganda	19	23	19	22
Vanuatu	10	9	8	—
Zambia	35	38	43	44
Africa	**26**	**26**	**24**	**23**
Northern Africa	—	—	—	—
Sub-Saharan Africa	*31*	*31*	*29*	*27*
Latin America and the Caribbean	**12**	**11**	**10**	**8**
Caribbean	*25*	*28*	*22*	*23*
Latin America	*11*	*10*	*9*	*7*
Asia	**20**	**16**	**16**	**15**
Caucasus and central Asia	*16*	*13*	*17*	*9*
Eastern Asia	*18*	*12*	*10*	*10*
Eastern Asia - excluding China	*8*	*11*	*13*	*13*
Southern Asia	*22*	*20*	*21*	*20*
Southern Asia - excluding India	*26*	*26*	*23*	*22*
South-Eastern Asia	*24*	*18*	*17*	*14*
Western Asia	*6*	*8*	*8*	*7*
Oceania	**12**	**11**	**13**	**12**

Source: Food and Agriculture Organization of the United Nation

Considering the **drawbacks** of the 'foreign aid development paradigm', the provision of aid has raised the concerns of creating dependency cultures in less industrialized countries, a behavioral aspect of aid-recipient economies that can potentially affect the positive impacts of foreign aid. Again, it has been claimed that the direction of the capital flows of foreign aid is directed by economic needs of the recipient countries and also by political and strategic

reasons [222] (Alesina and Dollar, 2000), pointing out that the 70% of the total foreign aid flows is accounted by four donors (U.S, Japan, France and Germany).

It has been argued that aid has rarely helped and sometimes damaged the capacity of Africans to govern their own affairs. Indeed, aid has been propped up by autocratic, winner governments and by violent civil movements. Another important theme related to the foreign aid concerns its relationship with democracy which is still a matter of investigation. Data displayed in Table 13 shows that between the 60's and the 90's the increase in the ODA has been accompanied by a lowering of democracy. In the following 20 years the data registered an opposite trend. However, it is necessary to read these data carefully since, as mentioned above, on one side the effects of ODA highly depend on the macroeconomic settings and institutions of the recipient country, while on the other side it might take some lags of time for democracy to develop.

Table 41- Democracy score and net ODA received as percentage of GDP in Sub-Saharan Africa

	1960	1990	2010
Democracy*	-1.72	-2.85	2.11
ODA received**	3	17	11

* Average Democracy score for 49 Sub Saharan countries
**Average net ODA received for 49 Sub Saharan countries
Source: Polity IV Project

Even though the question of whether aid is an useful instrument for development has not been univocally solved, the development community should take the great challenge of renewing its role, with loans, less conditionality and the promotion of decentralization (Ranis, 2004). Better links between the provision of aid to private investments, technology transfers, migration and trade could have additional spillover effects.

b. Remittances

Another flow of capital contributing to development is represented by *remittances*. Whether immigrant remittances play the same role in economic development as the other capital sources is still an open question. However, it is widely agreed that the effect of remittances on development depends on whether they are seen as profit-driven or considered, on the contrary, as compensatory transfers.

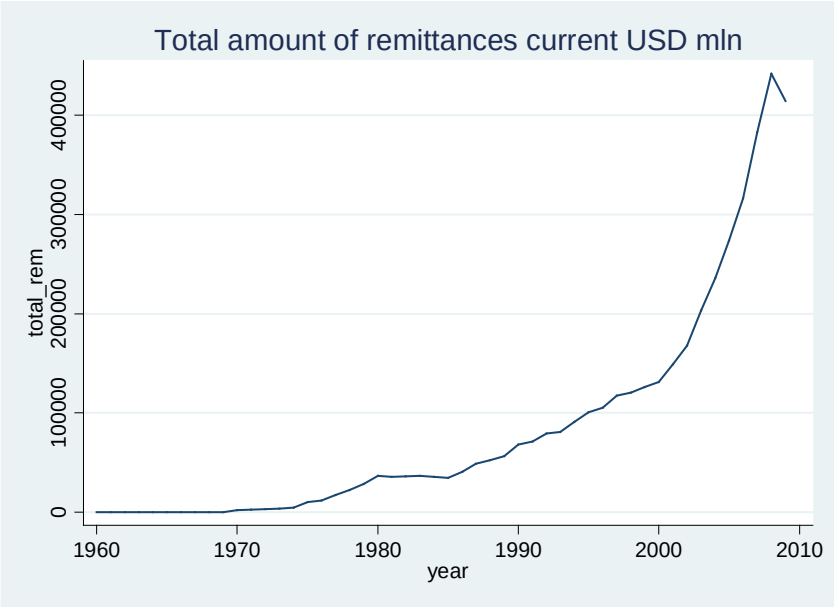
Remittances are among the largest sources of external capital flows for low and medium industrialized countries, being on average below FDI but higher than capital market flows

[222] Alesina, A. and Dollar, D. (2000). "Who is giving foreign aid to whom and why?", Journal of Economic Growth, 5, pp.33-63

and official development assistance in quantity (ODA) (World Bank, *Global Development Finance*; IMF, *Balance of Payments Yearbook* in Ratha[223], 2003).

The total amount of remittances toward countries in monetary terms has constantly increasing since the 60's and it became even sharper from the beginning of the '90s (Fig. #). However, this phenomenon can be easily attributable to the improvements in data collection and in related information for the capital flows within the countries. Indeed, the amount of observation for countries receiving remittances has increased throughout the years (as shown in Fig.#).

Figure 30



Source: World Development indicators

Data confirms the important increasing contribution of remittances in the determination of GDP for low and middle income countries. Table 15 displays in fact how the remittances from abroad employees received in low income countries sharply increased from a percentage of 0.4% over GDP in the '70s, to 7% in 2009 for the low income countries. The trend of remittances received by middle income countries has followed an increasing trend since the '70s. however the data registered show a slightly decrease the trend during the last years.

Table 42 - Workers' remittances and compensation of employees, received as percentage over GDP

[223]Ratha, P. (2003), Workers' Remittances: An Important and Stable Source of External Development Finance, Global Development Finance

	1970	1990	2009
Low Income* **	0.45	1.70	7.07
Middle Income**	1.33	6.61	5.35
High Income*	0.8	0.9	0.8

Note: Average for the countries with available information, based on the World Bank classification for income level (revision November 2011)
Source: Own elaboration on World Development Indicators

As for the previous paradigms, we propose here a criterion to evaluate whether countries has followed or are still following a "remittances-based development paradigm". Considering the statistical distribution of the remittances variable[224], we choose a threshold value of the 10% to define the reliance to the migration capital flow; the threshold stands between the 90th and the 95th percentile of the distribution.

Table 43 lists the countries and the periods of the "remittances development paradigm".

Table 43- REMITTANCES PARADIGM

	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	00-04	05-10
Albania							X	X	X	X
Armenia										X
Bangladesh										X
Bosnia and Herzegovina								X	X	X
Botswana				X						
Cape Verde						X	X	X	X	X
Dominica				X	X	X				
Dominican Republic									X	
Egypt, Arab Rep.				X	X	X	X			
El Salvador							X	X	X	X
Gambia, The									X	X
Georgia								X		
Grenada						X		X	X	
Guatemala									X	X
Guyana									X	X
Haiti									X	X
Honduras									X	X
Jamaica								X	X	X
Jordan				X	X	X	X	X	X	X
Kiribati						X	X	X		

[224] The variable is defined as the workers' remittances and compensation of employees including the current transfers by migrant workers and the wages and salaries earned by nonresident workers. Data are the sum of three items over GDP (source WDI)

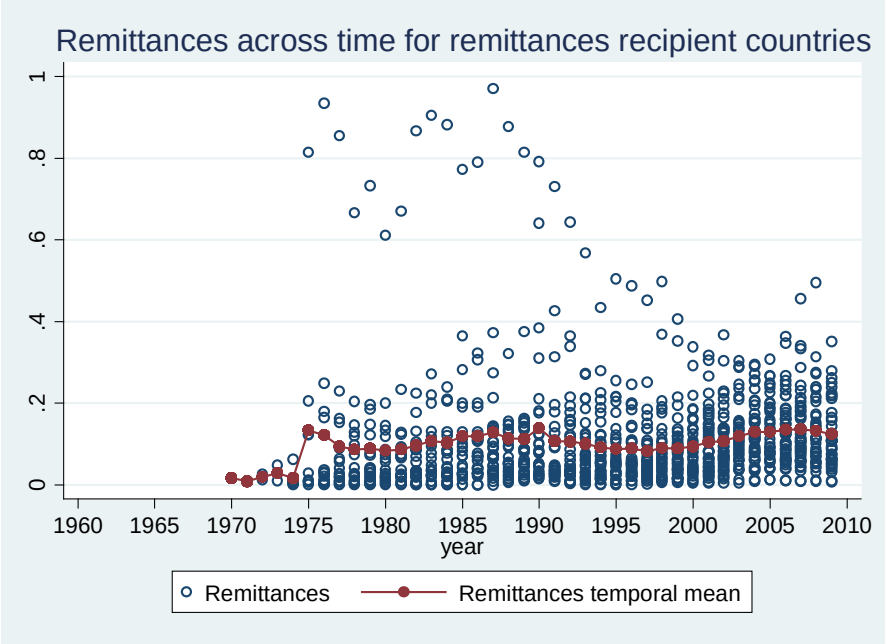
Kyrgyz Republic										X
Lebanon							X	X	X	X
Lesotho				X	X	X	X	X	X	X
Moldova									X	X
Nepal									X	X
Nicaragua									X	X
Philippines									X	X
Samoa					X	X	X	X	X	X
Senegal										X
Serbia									X	X
St. Kitts and Nevis						X				
St. Vincent and the Grenadines						X				
Swaziland					X	X				
Tajikistan										X
Togo										X
Tonga				X	X	X	X		X	X
Yemen							X	X	X	

Source: Own elaboration WDI database

Note: The following countries have not been listed because of few and/or not consecutive values of the variable greater than the threshold. They are Belize, Liberia, Mongolia, Pakistan and Vanuatu

Figure 31 shows the percentage of remittance over GDP of the countries involved in the paradigm. As it can be seen, there is a great dispersion of the values since the '90s, followed by a decrease from the mid '90s and from a subsequent stabilization of the average remittances percentage over GDP, among the recipient countries, around the 10%.

Figure 31



Source: Own elaboration on WDI database

Overall, remittances have had an increasing trend and appear to be more stable than the other capital flows; they have been found to be positively related to the economic conditions of the host countries since they remained stable even during the downturns of the economy, acting as safety nets.

In several cases, remittances have also been countercyclical[225] with the economic cycle of the recipient countries, indicating that economic downturns may stimulate migrants abroad to work more or encourage new migration waves. However, according to the UNRISD document "Combating Poverty and Inequality: Structural Change, Social Policy and Politics"[226], remittances have been of growing importance to many countries, even though they lost their countercyclical role during global shocks, such as the 2008–2009 economic crisis (UNRISD, 2010).

The **development outcomes** expected from remittance flows are poverty reduction, higher income security and an increase in the social expenditures of the recipient households (UNRISD, 2010).

Depending on what type of international migration developing countries are experiencing, the remittances can have positive or negative effects on inequality. The profile of a migrating worker and the costs that he/she is be able to afford is relevant to understand

[225] It has been claimed that remittances lose their countercyclical role during recent global shocks, such as the 2008–2009 economic crisis (UNRIDS, 2010)
[226] UNRISD(2010)"Combating Poverty and Inequality: Structural Change, Social Policy and Politics"[226] UNRISD/2010/4 Geneva, Switzerland

which household income group is receiving capital from abroad and, consequently, to determine the effect of it on the income distribution. Remittance flows, in fact, can also contribute to lasting inequalities and social structures, since the migration process can be considered as a selective mechanism. Moreover, the non-poor often benefit more from them while the benefits for poorest people have to be indirectly found in the positive effects on wages, prices and employment in the communities and countries (UNRISD, 2010).

Considering their characteristic stability, remittances encourage, especially in emerging markets, employment, since they are used as collateral for international capital borrowing, to improve private agent-bank relations for other businesses[227], and give more confidence in stimulating FDI flows inside the country itself[228] (Ratha, 2003).

Moreover, they can be substituted for other capitals flows, considering that, to the contrary of other international capital flows, remittances are not negatively affected by country risk levels. Remittances also provide recipient economies an extra source of foreign exchange reserves that can be used for trade in inputs and commodities not available internally.

Besides providing an extra source of money, remittances are also a source of technology and knowledge that can be assimilated via trade through a positive spillover mechanism.

It has also been observed that remittances are more important when public social protection programs are less developed and welfare provision is largely informal. Guatemala and Haiti are two low-income countries where agriculture is important in terms of employment and livelihoods. The remittance expenditure patterns in these two countries show that households spend a considerable portion of transfers from abroad on social services such as health and education. In Guatemala, for example, households receiving remittances use them to finance more than half of their expenditures on health and education. However, the impact on out-of-pocket payments (or insurance contributions) is not the only link between remittances and social protection. UNRISD research reveals that remittances can lead to higher tax receipts, which, in turn, contribute to the financing of public policies.

Looking at the food security, it is worth noting that in the majority of the countries involved in the remittances-based paradigm the level of undernourishment decreased during the decades analyzed and that, in general, the proportion of undernourished of the population in those countries is lower than in ones of the "foreign aid paradigm". However level of undernourishment remain on average higher than the average values for the geographic group of reference.

Table 44 - Prevalence of undernourishment in total population (%)

[227] For example, Woodruff and Zenteno (2001) found remittances accounted for almost 20% of the capital invested in microenterprises in urban Mexico

[228] Ratha, P. (2003), Workers' Remittances: An Important and Stable Source of External Development Finance, Global Development Finance

	1990-1992	1995-1997	2000-2002	2006-2008
Armenia	45	36	28	21
Bangladesh	38	41	30	26
Botswana	19	23	27	25
Cape Verde	12	14	15	11
Dominican Republic	28	26	25	24
El Salvador	13	12	7	9
Gambia, The	14	23	21	19
Georgia	58	19	12	6
Grenada	13	18	24	21
Guatemala	15	20	22	22
Guyana	20	11	7	8
Haiti	63	60	53	57
Honduras	19	16	14	12
Jamaica	11	6	5	5
Jordan	—	5	5	—
Kiribati	8	6	5	5
Kyrgyz Republic	17	13	17	11
Lesotho	15	16	14	14
Nepal	21	20	18	17
Nicaragua	50	38	25	19
Philippines	24	20	18	13
Samoa	9	10	—	—
Senegal	22	26	26	19
Serbia	-	-	-	-
Swaziland	12	21	18	19
Tajikistan	34	42	46	26
Togo	43	36	36	30
Yemen	30	31	31	30
Africa	**26**	**26**	**24**	**23**
Northern Africa	—	—	—	—
Sub-Saharan Africa	*31*	*31*	*29*	*27*
Latin America and the Caribbean	**12**	**11**	**10**	**8**
Caribbean	*25*	*28*	*22*	*23*
Latin America	*11*	*10*	*9*	*7*
Asia	**20**	**16**	**16**	**15**
Caucasus and central Asia	*16*	*13*	*17*	*9*
Eastern Asia	*18*	*12*	*10*	*10*
Eastern Asia - excluding China	*8*	*11*	*13*	*13*
Southern Asia	*22*	*20*	*21*	*20*
Southern Asia - excluding India	*26*	*26*	*23*	*22*
South-Eastern Asia	*24*	*18*	*17*	*14*
Western Asia	*6*	*8*	*8*	*7*
Oceania	**12**	**11**	**13**	**12**

Source: Food and Agriculture Organization of the United Nation

Considering the **drawbacks,** remittances have been addressed as a vehicle for the brain drain. However less industrialized countries can take the opportunity of temporary migration of higher skilled workers to help fill the North-South technology gap and improve human capital skills and this phenomenon can also promote the technology diffusion that renders the general investment mechanism more profitable [229](Burn and Mohapatra, 2008).

Another drawback already mentioned before is the selectivity of the remittances mechanism favoring more the non poor. Moreover in high-income countries, migrants tend to be concentrated in low-paid, precarious and unprotected forms of employment. In the United States, for example, noncitizens account for a disproportionate share of day workers, part-time workers and temporary hires, categories of work that tend to be significantly more precarious. In some cases, migrant workers are even caught up in highly exploitative, illegal employment arrangements.

Despite these labor market disadvantages, remittances financed through employment income and sent back to the migrant's country of origin often constitute a sizeable component of household income, thereby reducing the risk of poverty. For example, it has been argued that for countries with high levels of out-migration, such as Philippines, remittances from employment constitute a sizeable inflow of financial resources.

c. Foreign direct investment (FDI)

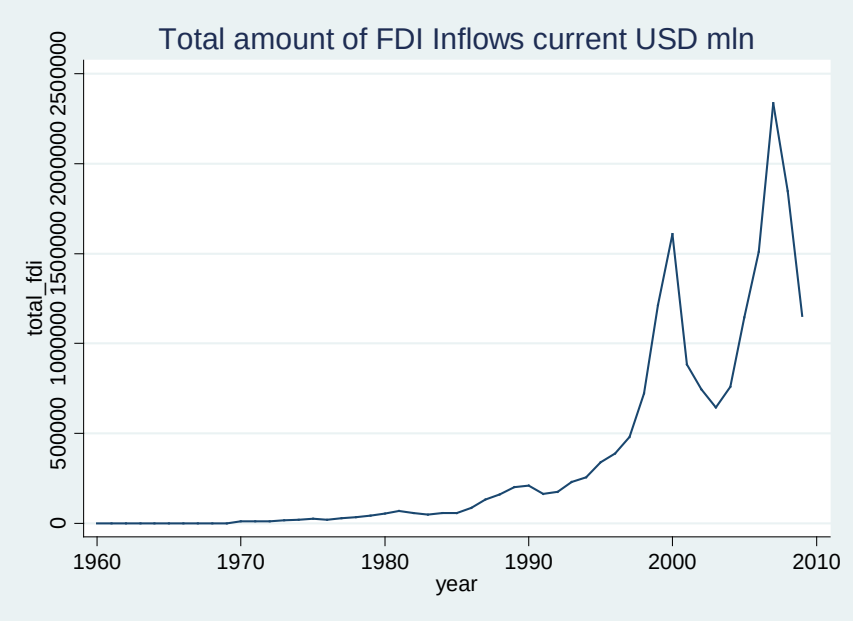
The third main element of this paradigm is represented by the *Foreign Direct Investments* (*FDI*). Their impact on the development of a country has been a matter of discussion in the economic debate: on one hand, given appropriate policies and a basic level of development, FDI can play a key role in the process of creating a better economic environment but on the other, FDI can have potential drawbacks, such as a deterioration of the balance of payments and, once profits are repatriated, a negative impact on the competition in national markets[230] (Hansen and Rand, 2006).

The total amount of FDI in monetary terms is the international capital flow that experienced the most rapid changes in its total amount during the 50 years considered in our analysis. It increased over time until 2000, then it experienced a downturn for the first half of the decade followed by a rapid recovery in 2005 and by another sharp slowdown in 2008 (Fig. #).

Figure 32

[229] Burn and Mohapatra (2008), International Migration and Technological Progress, Migration and Development Briefs World Bank

[230] Hansen, H., & Rand, J. (2006). "On the causal links between FDI and growth in developing countries". World Economy,
29(1), 21–41.



Source: our elaboration on UNCTAD data, WITS

The rapid increase in FDI inflows during the 1990s in almost every region of the world and for all the levels of income (Table 45) has revitalized the debate on the costs and benefits trade-offs of FDI. It is worth noting however that the data register a rapid growth and a largest amount of FDI for the higher income economies in the last two decades.

Table 45 – Foreign Direct Investment, inflows as percentage of GDP

	1970	1990	2009
Low Income	2.03	3.09	3.62
Middle Income	2.21	2.08	5.48
High Income	2.45	3.28	12.64

Note: Average for the countries with available information, based on the World Bank classification for income level (revision November 2011)
Source: our elaboration on UNCTAD data

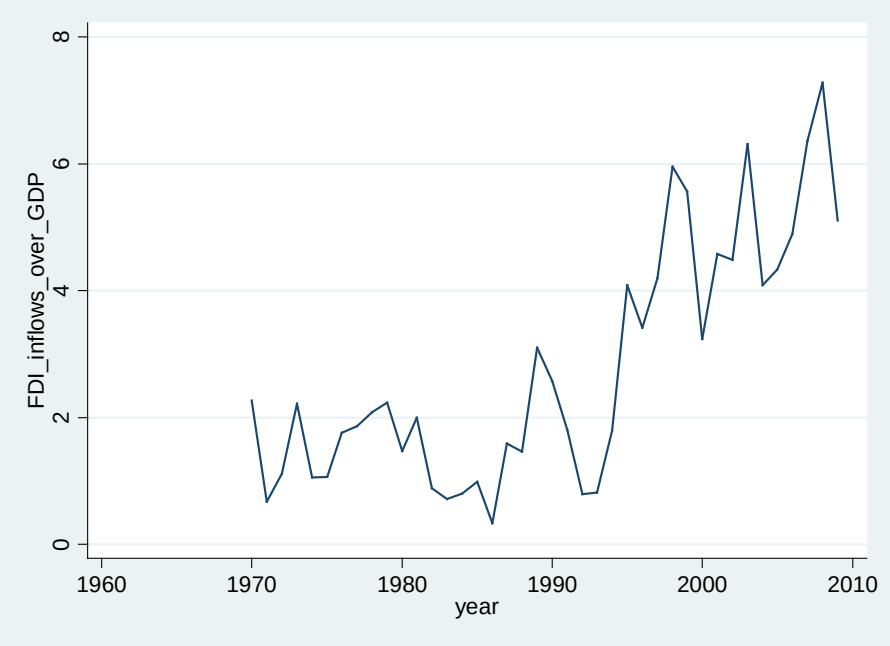
During the '90s, African countries significantly liberalized their economies and revised their national laws governing FDI lifting controls on capital. However, in the same period, the Sub-Saharan part of the continent has not received the expected amounts of FDI (UNCTAD, 1998)[231]. One possible explanation may be found in the "skepticism" toward FDI, which Africa has developed over time, due to historical, ideological and political reasons. These sentiments have manifested themselves through a range of barriers to foreign investment,

[231] UNCTAD (1998) "World Investment Report 1008: Trends and Determinants" Geneva, United Nations

nationalization of foreign firms, heavy intervention of the state in the economy, direct legal restrictions to foreign investment and a host of indirect barriers[232] (Moss et al., 2005).

This phenomenon may be one of the main causes of the erratic behavior of foreign direct investment in Sub-Saharan Africa. This region has seen a general increase in the levels of FDI, during the '70s, followed by a sharp drop in the early '80s and by a general positive trend since the late '90s. The loss registered in the '80s coincided with the phenomenon which saw other developing regions around the world attracting more FDI, at the expenses of the Africa's share.

Figure 33 – FDI in Africa



Source: Own elaboration on UNCTAD and WDI

A large portion of the FDI received by Africa has been on the part of enclave projects and has limited the integration of the flows with the local firms and the local economy. However, this isolation has allowed them to avoid some of the barriers to foreign investment, especially those linked to security issues or infrastructure weakness. Indeed, many African countries have restricted sectors in which foreigners are not allowed to have their own businesses. In some cases this is linked to the phenomenon of parastatal monopolies which has seen liberalization occurring alongside privatization, though this is not always the case[233].

[232] Moss, T. J., Ramachandran V. and Shah M. K. (2005) Ïs African Skepticism for Foreign Capital justified? Evidence from East African Firm Survey Data" in "Does FDI promote Development?" by Moran, T. H., Graham E. M. and Blömstorm, M, May 2005

[233] Ethiopia legally excludes foreigners from the financial sector and Tanzania has allowed foreign bank to enter only from the '90s. Also Ghana, which has gone through a significant liberalization process since the '80s, still does not allow foreigners to trade with certain sectors.

As for the other capital flows, Table 47 lists the countries and periods involved in the FDI-based development paradigm. Considering the statistical distribution of the foreign direct investment inflow[234], we choose a threshold value of the 10% to define the reliance on this capital flow for development; the threshold stands as usual between the 90th and the 95th percentile of the distribution.

Table 47 - FDI PARADIGM

	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	00-04	05-10
Angola								X	X	
Antigua and Barbuda					X	X			X	X
Azerbaijan								X	X	
Bahamas										X
Bahrain										X
Belgium									X	X
Belize										X
Bolivia								X		
Botswana					X					
Bulgaria										X
Cape Verde										X
Chad									X	
Congo, Dem. Rep.										X
Congo, Rep.										X
Cyprus									X	X
Czech Republic									X	
Djibouti										X
Dominica						X	X	X	X	X
Equatorial Guinea							X	X	X	X
Estonia								X	X	X
Fiji										X
Gambia, The										X
Georgia										X
Grenada							X	X	X	X
Guyana							X	X		
Hong Kong SAR, China							X	X	X	X
Hungary								X		X
Iceland										X
Ireland									X	
Jordan										X
Kazakhstan									X	X
Kiribati								X	X	
Lebanon										X
Lesotho								X	X	
Liberia				X				X	X	X

[234] FDI inflows comprise capital provided (either directly or through other related enterprises) by a foreign direct investor to a FDI enterprise. FDI includes the three following components: equity capital, reinvested earnings and intra-company loans (source UNCTAD).

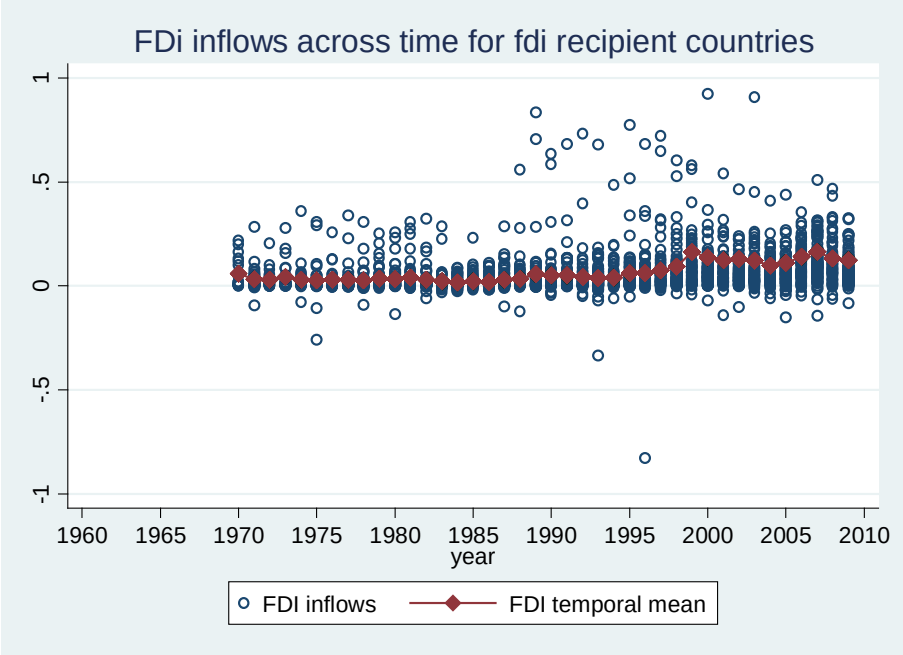
Luxembourg			X	X	X	X	X	X	X	X
Macao SAR, China										X
Malta									X	X
Mauritania										X
Mongolia										X
Montenegro										X
Netherlands									X	
Panama								X		X
Sao Tome and Principe										X
Seychelles			X	X				X	X	X
Singapore					X	X	X	X	X	X
St. Kitts and Nevis					X	X	X	X	X	X
St. Lucia					X	X	X	X	X	X
St. Vincent and the Grenadines							X	X	X	X
Trinidad and Tobago								X	X	
Vanuatu							X	X		

Source: Own elaboration of UNCTAD database

Note: The following countries have not been listed because they had few and/or not consecutive values of the variable greater than the threshold. They are Armenia, Austria, Bosnia and Herzegovina, Cambodia, Chile, Denmark, Eritrea, Germany, Guinea, Israel, Jamaica, Macedonia FYR, Madagascar, Maldives, Moldova, Nicaragua, Niger, Papua New Guinea, Serbia, Slovak Republic, Solomon Islands, Swaziland, Sweden, Switzerland, Tajikistan, Togo, Tunisia, Vietnam, Yemen and Zambia

Figure 34 shows the percentage of FDI inflows over GDP for the countries already identified in the paradigm. The percentage of FDI over GDP is quite low until the '90s; then it registered a greater level of dispersion of the values among the countries followed by an upward shift of the average values of the FDI. Since 2000 the average of the percentage of FDI over GDP stabilized around 15%.

Figure 34



Source: Our elaboration on WDI data.

Looking at the **development outcomes** of FDI, it has been shown that the conflicting results are due to in the peculiarities of the host countries, such as different levels of *indigenous human resources*, of *private-sector* sophistication, of competition, and such as dissimilar policies toward *trade* and *investment*.

An increase of the FDI toward a country often coincides with the increases of its *trade* and with a subsequent expansion of its economy. The host country's economy, indeed, expands once FDI is integrated into the global supply network of parent multinationals. On the contrary, FDI oriented toward protected domestic markets are not beneficial.

Usually the trade protection and the market distortion, characterizing the poorest countries, render FDI harmful to *economic welfare*. Conversely, in countries with low barriers to trade and few restrictions on trade operations, foreign firms can increase the efficiency of existing economic activities and introduce new ones with strongly favorable effects on host country development. Consequently, in order to benefit from the flows of FDI, host governments should adopt open trade and investment policies. It has also been shown that openness should lead host countries not only to limit their domestic economic relationships, but to open themselves to the global economy and to benefit from the externalities and spillovers coming from the FDI flows. If this is not the case, inefficient production processes as well as

outdated technology will spread into the economy, and waste the host country's resources[235].

At the macroeconomic level, FDI should bring capital for investments, contributing to the balance of payments, adding to the country capital stock and possibly enhancing the country's growth. At the microeconomic level, FDI should bring higher productivity through a higher investment in human and physical capital, increased employment, enhanced management and the transfer of technology. FDI investments have also important spillover effects on local firms through supply and distribution chains, trading and outsourcing (Blömstorm and Kokko, 1997, 1998; Markusen and Venables, 1997)[236].

Host countries should avoid competing to give the best tax incentives to foreign investors. Available resources for promoting investment are better spent on improving local infrastructure, the supply of information to investors, and education and training that benefits foreign and local firms alike.

Looking at the relationship between the public and the private sectors, the *government authority*, in order to enhance benefits from FDI, has to look closely at each project, including those of foreign investments, to determine which would produce positive externalities or spillovers. This analysis would help the government understanding which project should grant subsidies. These could include managerial and worker training, technological learning that is transferred outside the firm, an increase in supplier efficiency, and demonstrations through which the success of one investor persuades others to invest in the host country[237] (Moran et al., 2010).

FDI can indeed be an important conduit for the transfer of technology in the form of both the most productive techniques embodied in their capital goods and the upgrading of the skills of the local labour force. . Flows of capital can, hence, facilitate the transfer of knowledge to technologically backward countries that would otherwise need much time to produce the same technology independently. Thus, investments by multinational enterprises may provide developing country affiliates and partners with access to more efficient foreign technologies that may result in technological spillover to other local firms.

In this context, transnational corporations as driver to development have been in general not welcomed in the economies that host substantial foreign investment and they have been

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235 Moran, T., Graham, E. M. and Blomström, M. (2005) "Does Foreign Direct Investment Promote Development?" Institute for International Economic Center for Global Development

236Blomstrom, M. and Kokko, A. (1997) "How foreign investment affects host countries," Policy Research Working Paper Series 1745, The World Bank; Blomstrom, M. and Kokko, A. (1998) " Multinational Corporations and Spillovers," Journal of Economic Surveys, Wiley Blackwell, vol. 12(3), pages 247-77, July; Markusen, R. J. and Venables, A.. (1997) "Foreign Direct Investment as a Catalyst for Industrial Development," NBER Working Papers 6241, National Bureau of Economic Research, Inc

237 Moran, T.H. (2010), "Enhancing the contribution of foreign direct investment to development: a new agenda for the corporate social responsibility community, international labor and civil society, aid donors, and multilateral financial institutions", World Trade Organization, mimeo

blamed for the national economy's manifest shortcomings in less industrialized countries[238] (Caves, 1982).

As stated by Lall[239] (2000), in the last years, the maturation process of the theory of international production has led to a better appreciation of the nature and advantages of TNCs in host countries. Successful experiences of some poor countries drawing heavily on FDI and many regimes restrictive to TNCs faring poorly, led to serious rethinking of the role of TNCs (Lall, 2000). More advanced countries showed the ability to absorb cutting-edge technologies transferred from TNCs, and to even attract R&D facilities.

The ability to provide the necessary immobile assets is a critical part of FDI and of competitiveness strategy for host countries. While a large domestic market remains a powerful magnet for investors, TNCs serving global markets increasingly look for other attributes, which are changing in response to policy liberalization and technological change. The opening of markets creates new opportunities and challenges for TNCs and gives them a broader choice of procedures to access those markets. It also makes them more selective in their choices of potential investment sites. Apart from primary resources, the most attractive immobile assets for export-oriented TNCs are now world-class infrastructure, skilled and productive labor, and an agglomeration of efficient suppliers, competitors, support institutions and services.

Considering the food security, the Table # is reporting the available data for low and middle income countries relying to the “FDI-based paradigm”. For what attains income level and undernourishment outcomes, the countries of the “FDI paradigm” constitute clearly a heterogeneous group. Some economies of this paradigm are in fact high income countries (for which the percentage of undernourishment is less than 5% and are not reported by official statistics) and so they are omitted from the Table. The values of undernourishment of the remaining countries increase and/or decrease through time and the undernourished over the population register data both above/below the regional average.

Table 49 - Prevalence of undernourishment on total population (in %)

	1990-1992	1995-1997	2000-2002	2006-2008
Angola	67	61	52	41
Antigua and Barbuda	12	29	35	21
Azerbaijan	27	27	11	—
Bahamas	7	8	5	6
Belize	7	8	7	5
Bolivia	29	24	22	27
Botswana	19	23	27	25

[238] Caves, R. E., (1982) “Multinational enterprise and economic analysis” Cambridge: Cambridge University Press.
[239] Lall, S. (2000) “FDI and Development: Policy and Research Issues in the Emerging Context” Queen Elizabeth House Working Paper Series, WP N. 43, University of Oxford

Cape Verde	12	14	15	11
Chad	60	53	43	39
Congo, Rep.	42	41	20	13
Djibouti	60	50	40	26
Fiji	8	5	—	—
Gambia, The	14	23	21	19
Georgia	58	19	12	6
Grenada	13	18	24	21
Guyana	20	11	7	8
Jordan	—	5	5	—
Kazakhstan	—	—	8	—
Kiribati	8	6	5	5
Lesotho	15	16	14	14
Liberia	30	32	36	32
Mauritania	12	9	8	8
Mongolia	28	33	27	27
Panama	18	20	19	15
Sao Tome and Principe	14	15	8	—
Seychelles	11	10	8	8
Trinidad and Tobago	11	14	11	11
Vanuatu	10	9	8	—
Africa	26	26	24	23
Northern Africa	—	—	—	—
Sub-Saharan Africa	31	31	29	27
Latin America and the Caribbean	12	11	10	8
Caribbean	25	28	22	23
Latin America	11	10	9	7
Asia	20	16	16	15
Caucasus and central Asia	16	13	17	9
Eastern Asia	18	12	10	10
Eastern Asia - excluding China	8	11	13	13
Southern Asia	22	20	21	20
Southern Asia - excluding India	26	26	23	22
South-Eastern Asia	24	18	17	14
Western Asia	6	8	8	7
Oceania	12	11	13	12

Source: Our elaboration on UNCTAD and WDI data.

The main **drawbacks** toward FDI can be found on the potential crowding out effect of the foreign investors on local firms, preventing them from competing because of size, financing, marketing power and other unfair advantage (Dunning, 1993, ActionAid, 2003)[240]. The government-owned *Times of Zambia* has argued, "The uneven played field has led to local

[240] Dunning, J. H. (1993) "Multinational Entreprisee and the Global Economy" Wokingham, UK: Addison-Wesley; ActionAid (2003) "Unlimited Companies. The development impacts of an investment agreement at the WTO". London: ActionAid

industries and product failing to compete effectively [...] there are far too many cases of investors coming into the country and diverting into ventures that should be best left to the locals [...] It is such issues that investment legislation needs to address."[241].

There are in fact risks that foreign firms do not utilize local labor not contributing to the widening of the economy either by creating jobs or by using local suppliers (Oxfam, 2003b)[242]. This is because foreign firms may be more likely to import materials and to remit profits (Oxfam 2003a, Chudnovsky and Lopez, 2002)[243]. Moreover, it has been argued that the interest of foreign firms can diverge from national social development objectives or limit the government's ability to promote economic development (Chudnovsky and Lopez, 2002, South Center, 1997 and Kolodner, 1994)[244]. Finally another common critique of FDI regards its impact on the environmental management of the host countries (Oxfam, 2003a).

Looking at the overall paradigm and considering the three "international capital flows", we identified some countries that respect simultaneously all the criteria fixed for each capital flows. Looking at the Table 50, it is interesting noting the timing of the countries in adopting the three different capital flows paradigm. In general it seems there are regularities in the passage from a paradigm to another: countries started accounting a higher percentage of foreign aid over GDP, then they moved to a '"remittances paradigm" for relying more on FDI in the end of the historical series considered.

Table 50- INTERNATIONAL CAPITAL FLOW PARADIGM

	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	00-04	05-
Botswana		A		R	F					
Cape Verde			A			R	R	R	R/F	R

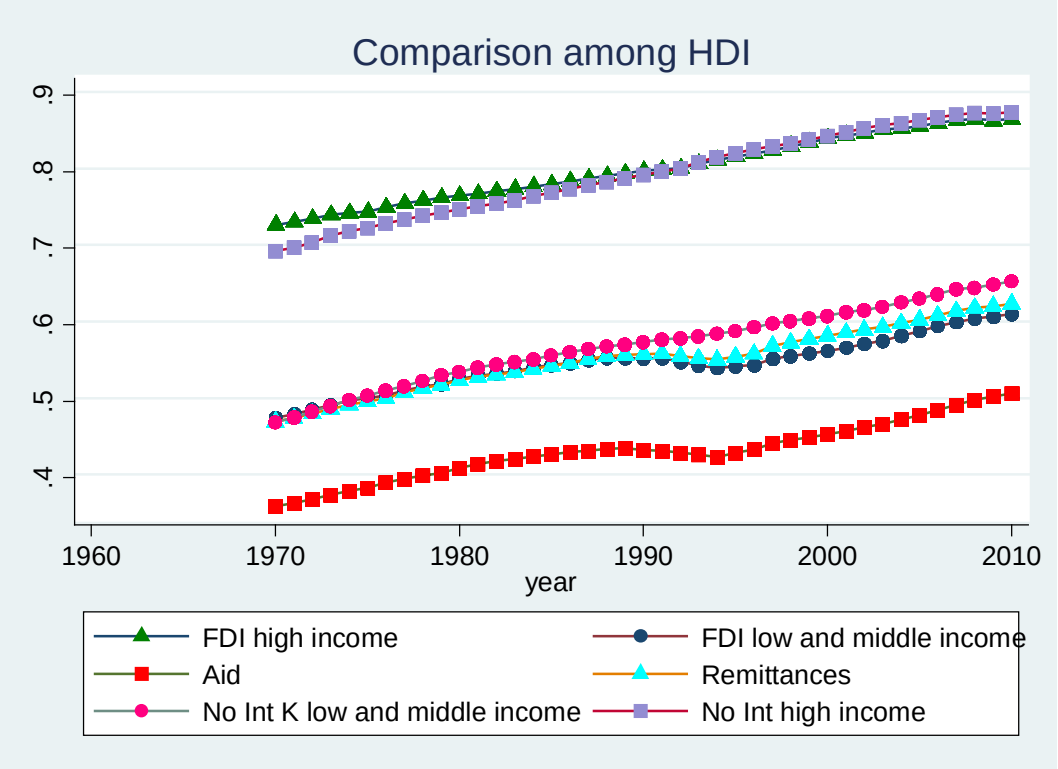
[241] Times of Zambia, March 4th, 2004
[242] Oxfam (2003b) . "Running into the sand" Oxfam Briefing Paper 53 (August). Oxford, UK: Oxfam International.
[243] Oxfam (2003a) "The Emperor's new Clothes" Oxfam Briefing Paper 46 (April). Oxford, UK: Oxfam International
Chudnovsky, D. and Lopez, A. (2002) "Globalization and Developing Countries: Foreign Direct Investment, Growth and Sustainable Human Development" UNCTAD Occasional Paper. Geneva: United Nations
[244] South Center (1997) "Foreign Direct Investment, Development and the New Global Economic Order: a Policy Brief for the South" Geneva: South Center
Kolodner, E. (1994)_"Transnational Corporations: Impediments or Catalysts of Social Development?" United Nation Research Institute for Social Development, Occasional Paper No.5 World Summit for Social Development. Geneva

Dominica				R	A/ R	R/F	F	F	F	F
Gambia, The					A	A	A		R	R/F
Guyana							A/F	F	R	R
Jordan			A	A/R	R	R	R	R	R	R/F
Kiribati					A	A/R	A/R	A/R/F	A/F	A
Lesotho				A/R	A/R	A/R	A/R	R/F	R/F	R

Source: Own elaboration of OECD, UNCTAD and WDI database
Note: A- Foreign Aid paradigm; R- Remittances paradigm; F- FDI inflows paradigm. Also Bosnia and Herzegovina, Grenada, Liberia, Mongolia, Nicaragua, Swaziland and Vanuatu have been detected to follow all the paradigms, but they have been no reported considered few and/or not consecutive values of the some variables recognizing the paradigm greater than the threshold

Figure 35 shows instead the trend of the HDI divided by categories and sub-categories of countries that are receivers of the selected international capitals, in contrast with the not receivers. The sub-categorization is considered more appropriate due to the heterogeneous countries adopting the paradigms.

Figure 35 - Comparison among HDI



Source: Own elaboration of UNDP data
Note: One single country can be present in more than one sub-groups considering that there are countries that can follow two or more international capital flows paradigms at the same time.

Looking at the graphics, we can divide the countries involved in two groups on the basis of the HDI level. In the first group, the aid receivers correspond to the countries with the lowest level of HDI for all the time spans, followed by the remittances receivers and FDI

receivers classified as lower income countries[245] . The low income countries that do not benefit from the international capital flows complete the first group.

The second group is composed by the OECD and non OECD high income countries that appear to have the same level and trend of the respective receiver of the foreign direct investment. However, high income countries not receiving FDI are located at the slight higher level in terms of development of the group average after the '90s.

Table 51 shows the HDI levels and growth rates for the countries aggregated on the basis of the capital flows and the level of income. As expected the lower income countries experienced higher growth rates: in particular the countries identified as aid receivers and the countries that do not receive and capital from abroad show a HDI increase next to 40%. Then considering the growth rates it follows remittances receivers and low-middle income countries of the FDI paradigm.

Table 51

	1970	**2010**	**Growth rate [246] (1970-2010)**
Aid Receiver	0.36	0.5	39%
Remittances Receiver	0.47	0.62	32%
FDI receiver			
low-middle income	0.47	0.61	30%
high income	0.73	0.87	19%
No International Capital receiver			
low –middle income	0.47	0.65	38%
high income	0.69	0.87	26%
Average*	0.57	0.74	30%

Source: Own elaboration of UNDP data

5. EMERGING PARADIGMS

5.1. Green Growth Programme

Green Growth is a globally relevant approach to sustainable economic growth. It was developed in Asia in 2005 when, after the 5th Ministerial Conference on Environment and Development, some 340 delegates, including representatives from 52 member and associate

[245] In this graph, it is meant both low and middle income countries as classified by the World Bank.
[246] Growth rate= (Value 2010 – Value 1970)/Value 1970

member countries of ESCAP (Economic and Social Commission for Asia and the Pacific) embraced the approach of Environmentally Sustainable Economic Growth, or Green Growth. Indeed, in the Asian and Pacific regions, where the alleviation of poverty and the achievement of social progress through growth are main issues, environmental sustainability is challenged by a scarcity of resources. In the last decades, increased environmental degradation, climate change and diminishing natural resources have led to a need for a new approach to growth. As the economies of these countries are mainly export-driven, their production expansion requirements, coupled with the environmental impact of production itself, have enhanced the urgency for a sustainable pattern of development[247].

The axiom "*grow first, clean up later*" that led the policies of the past decades can no longer be applied; policies need to be reshaped to take into account the fact that natural resources are limited and the growth rates of the populations depending on those resources are rapidly growing. The recent fuel, financial and food crisis started in 2007has further enhanced the urgency for a change in the old axiom. In order to achieve Green Growth, policies must emphasize environmental and societal concerns and have a long-term perspective[248].

The Green Growth Programme is directly linked to the Sustainable Livelihoods Approach (SLA)[249], a rights-based approach that recognizes poor people as key stakeholders in the development process. The SLA supports vulnerable communities by providing pro-poor social services and by creating an enabling environment for sustainable development. As a part of the SLA, the Green Growth approach encourages a participatory role of civil society in the policy planning and implementation cycles, in order to identify the main constraints, opportunities and concerns faced by the poor people. This Green Growth method of approaching development addresses the environment while improving opportunities for the poor to participate more fully in society and improve their quality of life.

Indeed Green Growth is mainly about rethinking growth in a more sustainable way. It considers sustainability as the core of the growth process, rather than as an ancillary aspect of it. Indeed, an important stream of economic literature has started to question what it means to base policy decisions solely on potential impacts on GDP.

One of the first contributors of this approach was the Nobel Prize winner Simon Kuznets[250], who included social elements in his study of growth. He studied how to measure income, inequality and the relationship between the two and elaborated a new way to measure economic growth from a social perspective. Grossman and Krueger[251] expanded on this by

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[247] ESCAP (2006) "The Second Green Growth Policy Dialogue: the role of public policy in providing sustainable consumption choices: resource saving society and green growth"23-25 May 2006, Beijing, China

[248] http://www.greengrowth.org/

[249] For a deeper analysis on the Sustainable Livelihood Approach look at Serrat, O. (2008) "The Sustainable Livelihood Approach" Asian Development Bank (ADB) November 2008/15

[250] Kuznets, S. (1955) "Economic Growth and Income Inequality," American Economic Review 65, (March), pp. 1-28.

[251] Grossman, G. M. and Krueger, A. B. (1994) "Economic Growth and the Environment" (February 1994). NBER Working Paper Series, Vol. w4634

applying Kuznet's ideas to the environment; they developed theories about the effects income growth can have on the environment. An important background paper on the type of approach beyond "the GDP measure for development is the Commission on the Measurement of Economic Performance and Social Progress'[252] 2008 report that underlines the need for a shift in the focus of statistics from a production perspective to one of "well-being" and sustainability[253].

Green Growth has its roots in these contributions. It tries to assess the link between growth and the social and environmental aspects of a country, e.g. the GDP of a country may increase but are resources' being depleted quicker than income is growing? What is the effect of GDP growth on the environment and what are the environmental resources available to each segment of society? How does each segment of society affect the environment?

Countries of the Asian and Pacific regions are trying to revive and reinstate traditional cultural values in ways that promote the sustainable, eco-efficient use of natural resources and enhance the competitiveness of their enterprises. This process involves social justice and harmony between and within the countries assessed, for example, by Vandana Shiva, an Indian scientist and sustainability activist who elaborated a model of *Earth Democracy* based on living economies and compassion, justice and sustainability[254].

The Green Growth Programme proposes six different Growth Paths countries can follow to achieve sustainable growth. Each is a different approach regarding a different aspect of growth, all of which present environmentally sustainable objectives that governments should reach with the implementation of these Green Growth paths:

i. Sustainable consumption and production

In order to better confront the challenges of growth, it is important to take into account the limits to the capacity of the Earth's ecosystems to absorb pollution, provide natural resources and separate economic growth from environmental degradation. Growth policies should incorporate getting more from less, including implementing more efficient and profitable production, using fewer raw materials, creating less pollution and waste in the process and, most importantly, fulfilling more consumer needs, with less waste of energy and water.

ii. Greening business and markets

[252] http://www.stiglitz-sen-fitoussi.fr/en/index.htm
[253] Stiglitz, J., Sen, A. and Fitoussi, J. (2008) "Report by the Commission on the Measurement of Economic Performance and Social Progress", February 2008
[254] Sheva, V. (2005) "Earth Democracy: Justice, Sustainability, and Peace" South End Press

Enterprises should consider environmental protection as an essential component of their long-term business objectives. That is, they should both promote eco-efficient production activities and by put sustainable products and services on the market.

iii. Sustainable infrastructures

A sustainable infrastructure system is one that facilitates a higher-quality delivery of transport, energy, water, waste, sanitation and housing services, while using fewer resources and supporting social and economic development in an integrated, eco-efficient and inclusive manner.

iv. Green tax and budget reform

Green Tax and Budget Reform (GTBR) is a fundamental fiscal policy instrument for reducing poverty, raising fiscal revenues and improving eco-efficiency, public health and environmental quality. It is a key driver for sustainable infrastructure, greening businesses and sustainable consumption and production. Indeed, the tax places the tax burden on environmentally relevant products and activities (and not on income, savings, and capital gains) and redirects subsidies from environmentally perverse activities toward activities that promote Green Growth and poverty reduction. The aim of this reform is to maintain revenue neutrality, that is, a net-zero increase in the level of taxation on the economy.

v. Eco-efficiency indicators

The purpose of Eco-efficiency Indicators (EEI) (proposed by UNESCAP) is to measure and compare the eco-efficiency of the economic growth of different countries and to identify policy measures for improvements. The EEI will strengthen the role of the public sector as well as provide a powerful policy formulation tool to increase the influence of eco-efficiency on the pattern of economic growth at the national level[255].

vi. Investments in natural capital

Natural capital is defined as the "stock of natural ecosystems that yields a flow of valuable ecosystem goods or services into the future" (Costanza 2008)[256]. Investments in natural capital lead to a reduction in climate change impacts, providing a crucial service to humanity.

The wave of globalization characterizing the last years is playing a key role in spreading ideas of environmental and social sustainability all over the world. Nowadays, leaders of other regions outside ESCAP are adopting more sustainable development patterns in their countries and Green Growth strategies are becoming more and more successful. Indeed, in

[255] ESCAP (2009) "Eco-efficiency Indicators: Measuring Resource-use Eciency and the Impact of Economic Activities on the Environment" United Nations publications - ST/ESCAP/256

[256] Costanza, R. (2008) "Natural capital". In: Encyclopedia of Earth. Eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). [First published in the Encyclopedia of Earth July 31, 2008]

September 2011 the OECD published a book, entitled "Fostering Innovation for Green Growth", which provided a practical framework for governments to grasp the opportunities that arise when the economy and the environment work together.

5.2. Ecological growth

One of the major issues in the sustainability of economic growth debate concerns threats of environmental constraints.

The use of the standard Solow growth model, represented as an aggregated function of capital and labor, for years "refused" the problem of natural resources, considering them to be almost perfectly substitutable by physical capital in the production process[257] (Solow, 1974). As pointed out by Georgescu-Roegen, the "Solow-Stiglitz variant" that included natural resources as direct inputs in a standard Cobb-Douglas production function did not solve this issue of natural resource scarcity, as natural resources are the "sap of the economic process" and they cannot be "created", replaced or substituted, as for capital and labor[258] (Georgescu-Roegen, 1979; Daly, 1997).

The concept of substitutability among factors of production, the problem of the scarcity of natural resources the role of technology in using renewable energy, and the price mechanism in response to shortages are all linked to the discipline of ecological economics, a field that began with the pioneering works of the broad-minded economist and thinker Nicholas Georgescu-Roegen. Having recognized since the '30s some of the limitations of standard economic theory[259], he explored the possible incorporation of *natural science postulates* into *the economic discipline.*

In his work, "Energy and Economic Myths" (1975), Georgescu-Roegen employed the laws of thermodynamics (especially the Entropy law) to analyze some standard economic myths such as the "mechanistic dogma" of the economic process, the exhaustion of resources and waste, and the concept of a steady state.

He contested that the discipline of economics had been relegated to a "mechanical" movement in which economic processes became exercises of maximization behaviors and were dominated by the principle of conservation (transformation). Defining standard economic theory as a science "reduced to a timeless kinematic", he stressed the impossibility of the complete reversibility of any process: no event is isolated but enters into a more complex process from which it cannot be brought back "mechanically" to its ex-

[257] Solow, R. (1974). The economics of natural resosurces or the resources of economics, American Economic review
[258] Georgescu-Roegen, N. (1979). Comments on the papers by Daly and Stiglitz. In Smith, V.K. (ed.), Scarcity and Growth reconsidered. RFF and John Hopkins Press, Baltimore, MD; Daly, H.E. (1997), Georgescu-Roegen versus Solow-Stiglitz, Ecological Economics, 11, pp.261-266
[259] He started with the neoclassical consumer theory, questioning the utility functions (1936) and then demonstrating the impossibility of existence of the indifference curve in case of lexicographic preferences (1954)

ante economic conditions. According to the second law of Entropy[260], all production processes involve "qualitative changes" and move from self-sustained processes in a "definite direction", using an amount of the available energy that consequently produces unavailable energy (or waste), rendering "the material universe [as] subjected to irreversible change"[261].

In this way, he clearly posed not only the issue of limited (accessible) energy resources but also the problem of waste creation during the production process (e.g. pollution) and its successive costly conversion "in terms of energy" (in the case, for example, of the recycling interventions that consume energy). In addition, he saw only a limited intervention of the existing technology for using the "fixed amount" of energy in more intensive and extensive way. He believed that shifting to the use of "non terrestrial" energy sources, such as solar power, could be the remedy for energy scarcity and the limited amount of fossil fuels. .

He also elaborated what he called a "minimal bio-economic program", consisting of a set of rules for development and the survival of mankind that comprises:

- Avoidance of all war and production war-related activities;
- Urgent help for lower income countries, to encourage them to participate in the transformation and convergence of society changes, also with the inclusion of free movement of migrants policies;
- Promotion of organic agriculture that can render the population adequately fed;
- Regulation policies, instead of proposing taxes and subsidies - to limit, for example, resource depletion but also to contain population growth;
- Use of solar energy;
- Elimination of unnecessary consumer habits, assisted by the production of more durable (and repairable) goods;
- Giving heightened importance to leisure time spend in an 'intelligent' way.

In regards to agriculture, Georgescu-Roegen proposed a shift in production "from agro-industrial complexes" to an organic one, in order to avoid what he called the "ecological cul-de-sac from which there would be no return":

> *"There is no other salvation from the calamities of under-nutrition and starvation than to force the yield on the land under cultivation by an increasingly mechanized agriculture, an increasing use of chemical fertilizers and pesticides, and an increasing*

[260] He defined Entropy Law as "the most economic in nature of all natural laws". The law states the principle of the increase of entropy and explains the thermodynamic phenomenon are irreversibile in nature

[261] Georgescu-Roegen, N. (1975). Energy and Economic Myths, Southern Economic Journal, Vol. 41, No. 3, pp. 347-381

> *cultivation of the new high-yield varieties of cereal grains. However, contrary to the generally and indiscriminately shared notion, this modem agricultural technique is in the long run a move against the most elementary bio economic interest of the human species".*

The final conclusion of Gergescu-Roegen is more meditative in nature:

> "Perhaps, the destiny of man is to have a short, but fiery, exciting and extravagant life rather than a long, uneventful and vegetative existence. Let other species-the amoebas, for example-which have no spiritual ambitions inherit an earth still bathed in plenty of sunshine".

The principles of bioeconomics, which owe much to Georgescu-Roegen and other subsequent contribution, lead not only to the idea of "responsible energy" production, but to the necessity to see the possibility of development without growth. This does not encourage a lower level of wellbeing nor support a return to "primitive society", but does incorporate a conception of development that eschews a preoccupation with growth in favor of providing intergenerational transfers, more equality between different countries and less resource depletion.

The theory of "la décroissance" - as it was originally coined by Georgescu-Roegen, or "de-growth" under the English translation of Grinevald, was a contemporary of the MIT report by Meadows et al. (1972), entitled "The limits to growth". The theory strongly contributed to the surge in the belief that the "overdevelopment of the West and the biosphere limits of world economic growth" gave growth no future since it does not solve the ecological problem [262].

The concept of de-growth is distant from the notion of sustainable development à la Brundtland report and even more so from its modern interpretation endorsed by 'green companies', viewing them as false and unfeasible projects that delay the urgent changes needed to address, , for instance, climate change.

The central issue of this thinking is that "continuous environmental and economic crises compounded by a growing disjuncture between the real economy and the fictitious paper economy of finance" necessitates switching to a different economic approach[263] (Martinez-Alier et al., 2010).

According to Serge Latouche (2003) - the main Francophone intellectual on de-growth - a society of de-growth should be understood as a "society built on quality rather than on

[262] Grinevald, J. (2008). Introduction to Georgescu-Roegen and Degrowth, First international conference on Economic De-growth for Ecological Sustainability and Social Equity, Paris, April 18-19th 2008

[263] Joan Martínez-Alier, Unai Pascual, Franck-Dominique Vivien ,Edwin Zaccai (2010), Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm. Ecologica Economics, 69 , pp. 1741–1747

quantity, on cooperation rather than on competition … humanity liberated from economism for which social justice is the objective..." [264]. De-growth aims primarily at bringing to light the flawed objective of growth for growth's sake. It does not imply negative growth, a concept that would be contradictory, but an understanding that in order to move forward, the world needs to take a step backward.

6. FAO APPROACH TO DEVELOPMENT

The Food and Agriculture Organization of the United Nations' (FAO) mandate is to work for achieving food security for all, "to make sure people have regular access to enough high-quality food to lead active, healthy lives" and also "to raise levels of nutrition, improved agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy" [265].

FAO was created in 1943 by forty-four governments meeting in Hot Springs, Virginia (United States) that committed to fund a permanent organization for food and agriculture. It was on 16 October 1945, at Château Frontenac in Quebec City (Canada), however, that representatives from 42 countries signed the *Constitution of the Food and Agriculture Organization of the United Nations.*

An American businessman, David Lubin, was among those who convinced states of the importance of this type of organization because of national governments' failure in supporting their own agricultural sectors. Indeed, at that time, agriculture was experiencing excess in production that had led to speculation activities at the expense of farmers. Lubin came up with the idea of a compensation mechanism that could divert the excess output to countries where food was more needed. The organization's creation was intended to coordinate production and distribution at an international level and to overcome the threat of protectionism and partisanship[266].

In January 1905, Lubin convinced the King of Italy, Vittorio Emanuele III, who then wrote to the Prime Minister, Giovanni Giolitti, that "(...) It might be extremely useful to set up an international institute which, without any political designs, would study the conditions of agriculture in the various countries of the world and periodically issue information on the quantity and quality of crops…"[267].

Then, in 1935, McDougall, an Australian nutritionist, highlighted the close link between community welfare, nutrition, agricultural development and economic growth and, therefore, the importance of having an organization that would deal with those issues. From

[264] Latouche, S., 2003. Pour une société de décroissance: Le monde diplomatique, pp. 18–19. http://www.monde-diplomatique.fr/2003/11/LATOUCHE/10651
.
[265] http://www.fao.org/about/en/
[266] Fairs of the Italian Republic (MFA)
[267] FAO/Italy History in the making, FAO and Minister of International Affairs of Italy

this thought, it can be seen that FAO's role is clearly linked to the central role that agriculture plays in promoting development.

The following sections will describe five approaches FAO adopted throughout the years to promote development and to achieve the objective of its mandate. One of the first approaches embraced by FAO was the Sustainable Livelihood Approach, which shone a light on the multidimensionality of poverty and was directed to promote a better understanding and response to the multiple sides of poverty. The RIGA, Twin Track and the Right to Food approaches adopted later focused on the food security objective and on the development of agriculture. They concern rural development, the relationship between short and long term goals in addressing the food security, and the more cultural and social aspects of the hunger issue, respectively. Finally, emerging issues regarding climate change and environmental sustainability have led FAO to adopt a Climate Smart approach directed to prevent the negative effects of climate change.

6.1. Sustainable Livelihood Approach

Sustainable Livelihoods Approaches (SLA) emerged as a means for more effective and more relevant poverty reduction actions through understanding the phenomenon of poverty from the perspective of the poor.

Originally conceived in the 1980s in the context of Farming Systems Research and Education, the approach was developed through the 1990s and crystallized as SLA in the late 1990s by the Department for International Development (DFID) (Carney, 1998; Ashley and Carney, 1999)[268]. The two key components of the SLA are: a *framework* that helps in understanding the complexities of poverty and a set of *principles* to address action for poverty reduction.

A number of organizations have employed the Sustainable Livelihoods Approach and Framework. The framework has been used, for example, as a programming framework (UNDP), for programming analysis, design, monitoring and evaluation (CARE Household Livelihood Security), and for integrating environmental sustainability (The SL Approach to Poverty Reduction, SIDA; Ashley and Carney, 1999).

The original idea was to advance poverty reduction through mainstreaming good development principles associated with the SLA (people-centeredness, responsiveness, multi-levelness, partnerships, sustainability, a dynamic approach) and by applying a holistic perspective in programming support activities to ensure relevance to the improvement of peoples' livelihoods.

The SLA is a broad, multidisciplinary approach that aims to promote a better understanding and response to the multiple dimensions of poverty. The underlying ideas are built from

[268] Ashley and Carney (1999). Natural Resources Advisers' Conference report progress in implementing SLA approaches: "Sustainable Livelihoods: Lessons from Early Experience", Natural Resources Advisers annual conference: "Sustainable Rural Livelihoods: What Contribution Can We Make" (Carney (ed.), 1998).

ongoing development trends and combine concepts borrowed mainly from the fields of economics and ecology. These include Amartya Sen's capability framework and concepts from New Institutional Economics with regard to the importance of institutions in economic growth and development (Allison and Horemans, 2006; World Bank, 2007)[269]. The approach includes a set of six principles that provide a guide for practitioners to design and implement people-centered initiatives to help address sustainable livelihood concerns[270].

The Food and Agriculture Organization of the United Nations has built upon the SLA to find ways and means to improve the sustainable livelihoods of rural populations.

In 2003, for example, during its 17th Session, the FAO Committee on Agriculture (COAG) discussed the role of SL approaches in FAO programmes and projects. As an outcome, the Committee "requested FAO to identify and document specific examples where applications of the rural livelihoods approach had led to success in reducing rural poverty."

In an initial effort to respond to this request, the Livelihoods Support Programme carried out a study, reported in the work by Neely, Sutherland, and Johnson (2005), which assessed the impact of the SLA on the rural poor through the analysis of twelve cases[271]. Looking at a series of poverty indicators, they assessed the positive effects of this approach on the income distributions in Honduras, Nepal, Indonesia, Ethiopia, Myanmar and Gambia. In most of these countries, the success was due to an improvement in the access to education and health systems, financial services and credit (Neely, Sutherland, and Johnson, 2005 p.9).

Another project concerning the SLA is the Forum on Operationalizing Participatory Ways of Applying Sustainable Livelihoods Approaches, implemented by FAO together with DIFID, UNDP, IFAD and WFP. The main goals were: to carry out inventory, analysis and evaluation of FAO's experience, to capitalize on FAO 's best normative and field experiences, to raise awareness and increase capacities within FAO, and to stimulate "cross-fertilization" within the international community.

6.2. RIGA

In 1979, FAO called the World Conference on Agrarian Reform and Rural Development (WCARRD) meeting in Rome to promote rural development as part of the process of structural transformation that should conceive the agriculture-based activities in a broader way.

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[269] Allison, E. H. and Horemans, B. (2006) "Putting the principles of the Sustainable Livelihoods Approach into fisheries development policy and practice" Marine Policy, No 30 (2006), pp. 757–766

[270] The six principles are: (1) putting people's social and economic activities at the centre of the analysis,(2) assessing options for management and development intervention that transcend sectoral boundaries, (3) Making micro–macro links, (4) being responsive and participatory in addressing management priorities, (5) building on strengths, (6) Taking a broad view of sustainability. For a deeper explanation of these principles look at Neely C, Sutherland K, Johnson J. (2005) "Do sustainable livelihoods approaches have a positive impact on the rural poor? A look at twelve case studies. Livelihoods support programme" Working paper 16. Rome: Food and Agriculture Organisation; 2005.

[271] Neely C, Sutherland K, Johnson J. (2005) "Do sustainable livelihoods approaches have a positive impact on the rural poor? A look at twelve case studies. Livelihoods support programme" Working paper 16. Rome: Food and Agriculture Organisation; 2005.

Through the Rural Income Generating Activities (RIGA), FAO promotes the importance of non-agriculture-related activities for poverty reduction and development. The RIGA project is a collaborative effort of FAO, the World Bank and American University. It is mainly focused in two areas: providing a database on sources of income, with 32 surveys covering 18 countries in Africa, Asia, Eastern Europe and Latin America; and providing research papers that look at key policy issues based on the data collected.

The analyses done out of the RIGA database provide broad answers to questions on: how much heterogeneity there is in household activities, particularly in rural non-farm (RNF)[272] activities, across different countries; to what degree agriculture remains an important activity, although less important in income generation; the linkages between assets and activities, particularly schooling; the importance of wage employment to the rural economy; and identification of countries that face significant challenges in designing policies.

Davis et al. (2007) [273] used a cross-country database to look at a complete set of income generating activities carried out by rural households. The aim was to see the relative weight of the gamut of income generating activities in general and across wealth categories, the relative weight of diversification versus specialization at the household level, the linkage between key household assets and the income generated from those activities, and the effects of rural income-generating activities on poverty and inequality. The analyses of the RIGA showed multiple activities across rural areas and diversification across rural households. That was confirmed in countries across all four continents, to a lesser extent in the African countries included in the FAO dataset.

For most of the countries, the largest share of income comes from off-farm activities, and the largest share of households has diversified sources of income. Diversification, not specialization, is the most common, although most countries also show notable levels of household specialization in non-agricultural activities. Nevertheless, agricultural-based sources of income are still very important for rural livelihoods in all countries, both in terms of the overall share of agriculture in rural incomes as well as the large share of households that still specialize in agricultural sources of income.

RIGA allowed for the development of the strong links that agriculture has with other sectors in many countries: a productivity-induced agricultural expansion can "pull" other sectors with it and increase economic activities and employment opportunities in rural areas. It also enabled observation of the regional and spatial approach to development of the rural economy as a reasonable proposition for countries with good infrastructures and functioning of labor and other markets. Davis et al. (2007) concluded that a decline in agriculture might be accompanied by an increase in rural activities, considering the

[272] The Rural Non Farm activities comprehend all the activities not related with the rural environment; it is also used as a synonymous for the non-agricultural activities, and includes all rural economic activities outside of agriculture. As such, it does not include agricultural wage income, which is part of agricultural activities
[273] Davis et al, (2007). Rural Income Generating Activities: A Cross Country Comparison Background paper for the World Development Report 2008

agriculture-rural link. Recommendations also consider the fact that public policies should encourage improvement in human capital for the rural poor, access to modern technology and the promotion of higher quality food.

6.3. Twin Track Approach

Since 2003, FAO, IFAD and WFP have shared a new vision to create food-secure countries through a twin track approach: giving food to hungry people to meet their basic needs, in the short term, and building medium and long-term sustainable livelihoods through agricultural and rural development.

Table 16 - Twin Track Approach

Twin Track Approach	Availability	Access	Stability	Utilization
Rural Development and Productivity Enhancement	- Improving productivity and production capacity, esp. of small-scale farmers - Investing in rural markets and infrastructure - Enhancing urban food supplies - Improving the functioning of input and output markets	- Promoting income earning opportunities - Enhancing access to assets - Facilitating the creation of rural non-farm enterprises - Improving the functioning of rural financial systems and labor markets	- Improving transition and sequencing of emergency rehabilitation-development efforts - Facilitating diversification - Reducing production variability (irrigation, water harvesting, pest control etc.) - Monitoring production and consumption shortfalls Improving access to credit and saving services	- Food handling and storage infrastructure - Food safety regulation and institutions - Safe drinking water and sanitation
Direct and Immediate Access to Food	- Food aid - Market information - Transport and communication	- School meals - Food-for-work programmes - Cash transfers - Community and extended family structures	- Emergency food relief - Safety nets	- Nutrition intervention and education programmes
Cross Cutting Conditions	**- Growth, Trade, Macroeconomic stability, Governance institutions,** **- Participation, Secure access to Natural Resources, Right to Adequate Food,** - **Market Institutions.**			
Policy Framework	- International trade - Agricultural pricing policies - Macroeconomic stability	- Integration of labor markets - Asset redistribution (incl. land reform) - Food price policies	- Credit policies - Management of food stocks	- Food safety policies and regulation

Source: FAO 2003. . Strengthening Coherence in FAO's Initiatives to Fight Hunger. Rome, Italy. http://www.fao.org/docrep/meeting/007/J0710e.htm

FAO, in particular, promoted the twin track approach, not only to provide quick responses in terms of agricultural growth led by farmers, but to simultaneously implement safety net programs to make sure that hungry people, who do not have the possibility to produce or buy their own food, can receive adequate supplies.

The twin track approach responds to the four dimensions of food security as shown in Table 16: availability, access, stability and utilization. These dimensions are considered in both the short and long term. Through them, the approach provides a conceptual and policy framework that shows where interventions are needed to increase rural development and productivity, and also gives direct and immediate access to food.

Table 16 sums up possible actions and policies that could be implemented under each track of the twin track approach and relates them to these four dimensions. It also describes general policies and conditions that should be implemented and the critical cross-cutting policy issues to be addressed for any food insecurity strategy to achieve hunger reduction.

The table also shows how a supportive, pro-poor policy environment is critical for an investment programme in order to succeed in reducing hunger.

The setup of each country determines the way the twin track approach is implemented, as it requires good governance, political will and solidity of institutions. The most vulnerable groups have to be represented in policy decisions and targeting them must be done in the most transparent way.

The main instruments used to implement the twin track approach are National Programmes for Food Security, National, Agriculture, Rural development, Food Security strategies and policies, and other initiatives that look at achieving food security, such as Zero Hunger programmes [274].

With regards to implementation of the approach, by the end of 2009, 17 National Programmes for Food Security and another 40 programmes, at different stages of the formulation process, were being implemented in Africa, Asia and the Pacific, Latin America and the Caribbean, and the Near East.

From its inception until more recently, the twin-track approach - advocated by the Rome-based agencies (Food and Agriculture Organization of the United Nations, World Food Programme (WFP) and International Fund for Agriculture Development (IFAD) since 2003[275] - was considered the main approach that FAO employed to apply its technical assistance in the area of food security for countries facing crises.

It has been argued that to effectively implement the policy instruments requisite of a twin track approach, certain elements are required, including solid institutions with good

[274] Da Silva (2003), Zero Hunger and Territories of Citizenship: Promoting Food Security in Brazil's Rural Areas http://www.ifpri.org/sites/default/files/publications/oc63ch30.pdf

[275] On world food security thirty-seventh session Rome, 17-22 October 2011 high-level experts forum on addressing food insecurity in protracted crises

governance, and a participatory approach that allows the needs of all stakeholders to be included. Moreover, the latter should be included in a missing track of the approach regarding institutions, governance and the Right to Food.

6.4. The Right to Food

In 1996, at the World Food Summit in Rome, governments reaffirmed the right to food and committed themselves to cutting in half the number of people suffering from hunger and malnutrition by 2015. The 1996 Rome Declaration set the hunger reduction target at 420 million undernourished by 2015. Five years later, the 2002 World Food Summit was held to measure progress.

The FAO approach to the Right to Food was first introduced in 2002 by a UN Special Rapporteur who defined it as a "human right, inherent in all people, to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of people to which the consumer belongs, and which ensures a physical and mental, individual and collective fulfilling and dignified life free of fear"[276].

The Right to Food was made concrete in 2004 with the adoption of the *Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security* (FAO, 2005)[277].

The Voluntary Guidelines are directed towards States Parties to the International Covenant on Economic, Social and Cultural Rights (ICESCR) and are intended for stakeholders working towards a better implementation of the Right to Food the national level.

It is generally accepted that the right to food implies three types of state obligations: the obligation to respect, to protect and to fulfill. According to these obligations, governments must not take actions that result in increasing levels of hunger, food insecurity and malnutrition, they must protect people from the actions of others that might violate their right to food, and they must invest in the eradication of hunger. Again, states agreed to take steps to the maximum of their available ability to progressively achieve the full realization of the right to adequate food, acknowledging at the same time the essential role of international cooperation and assistance in this context.

An important aspect of this approach, which plays a key role in its realization, is the absence of "any form of discrimination that may manifest itself in greater food insecurity and vulnerability to food insecurity, or in a higher prevalence of malnutrition among specific population groups, or both, with a view to removing and preventing such causes of food insecurity or malnutrition." (Guideline 13, FAO 2005)

[276] http://www.fao.org/righttofood/principles_en.htm
[277] FAO (2005) "Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security" Adopted by the 127th Session of the FAO Council, November 2004. FAO, Rome

The Right to Food is strongly related to the Right to Water, named as well in the Voluntary Guidelines. The intrinsic link between the right to water and the right to adequate food is perhaps most evident in the case of peasant farmers: it is crucial to ensure sustainable access to water resources for agriculture in order to realize the right to food.

Whereas the normative framework of the right to food is clearly established in international law, in the past years, regression rather than the progressive realization of the right to food has been observed in practice. The right to food is considered a human right and, even though a large portion of international law is devoted to promoting and protecting human rights at national, regional and domestic levels, the statistics still assess failures in the achievements of the Right to Food on a universal basis. In 2009, undernourishment was recorded for more than 1 billion people worldwide. Asia and the Pacific is the region with the largest number of hungry people (642 mil), followed by Sub-Saharan Africa with 264 mil, representing 32% of its total population (FAO, 2009)[278].

UN experts and agencies, as well as several NGOs, have repeatedly pointed out that the current political economy of food fails to protect the most needy in society. The food crisis, economic turmoil and environmental risks of the last years have reinforced this argument since they had and still have a disproportionate impact on poorer economies. Looking at the statistics, it is easily arguable that existing inequalities between the world's regions and levels of vulnerability of the poorest members of developing countries are growing. During the High-Level Conference on World Food Security convened in June 2008, in Rome, biofuel policies and agriculture subsidies were called into question with regards to their negative impacts on the reduction of hunger[279].

In November 2009, at the World Food Summit, state leaders agreed: "to work to reverse the decline in domestic and international funding for agriculture and promote new investment in the sector, to improve governance of global food issues in partnership with relevant stakeholders from the public and private sector, and to proactively face the challenges of climate change to food security"[280]. It is important that the commitment to the Right to Food be followed by a series of clearly articulated and targeted actions which can allow agriculture to bridge the de jure stipulations regarding the right to food and the tragic de facto realities[281]. Already, before the spike of food prices and the economic recession, most households below the extreme poverty line lived in rural areas[282] (WB, 2009). Hence, investment in agriculture - if targeted to address the needs of this particular group of people - can have real and significant effects in terms of realizing the right to food. An example of the realization of this approach is in India, where the "Right to Food Campaign" is an

[278] FAO (2009) ""More people than ever are victims of hunger", FAO Background Note, 2009
[279] High-Level Conference on World Food Security: the Challenges of Climate Change and Bioenergy - http://www.fao.org/foodclimate/hlc-home/en/
[280] FAO (2009) "Declaration of the World Summit on Food Security" World Summit on Food Security, WSFS 2009/2, Rome 16-18 November 2009
[281] World Bank (2009) "Global Economic Prospects - Commodities at the Crossroad" The International Bank for Reconstruction and Development / The World Bank
[282] World Bank (2009). Global Economic Prospects: Commodities at the Crossroads, the World Bank, Washington, DC

informal network of organizations and individuals committed to the realization of the right to food in their country. [283]

6.5. Climate Smart Agriculture

It has been argued that food security and climate change are closely linked to the agriculture sector and are considerably affecting poverty [284].

Since 1960, FAO has worked on climate-related issues with the World Meteorological Organization (WMO), with an official agreement called the Interagency Agro-climatology Project, created to promote agro-climatological studies. The main reasons for this partnership were due to two factors: *climate variability* that affects food production in the short run and *climate change* that affects agriculture production in the long run.

In 1972, FAO started to closely monitor, through its Global Information and Early Warning System on Food and Agriculture, crop prospects and the food situation together with climate databases and methods for assessing the climate impacts on agriculture for planning (Land and Water Development Division), and monitoring purposes (Commodities and Trade Division).

Climate variability[285] refers to dynamic and naturally-occurring changes over seasonal, decadal, centennial, and longer time periods. Indeed, climate variability has direct implications on operations that FAO follows at the country level. There is a strong impact of weather fluctuations on yields and production[286]. Droughts and floods are issues that Emergency units of FAO closely monitor so that immediate responses can be brought to countries when necessary.

In 1988, FAO formally started its work on climate change issues through an ad hoc Interdepartmental Working Group (IDWG) on Climate Change and Variability in Relation to Food Security. This group's primary tasks are gather data and contribute to the assessment of possible effects of climate change on agriculture and food production. The IDWG also has

[283] http://www.righttofoodindia.org/campaign/campaign.html
[284] Bockel, L. et al.(2011) "Natural Resources and Development" Food and Agriculture Organization of the United Nations. EASYPol Issue Paper. Background note prepared in occasion of the 3rd High Level Policy Learning Programme, Rome, 7th -11th November 2011
Resource Management and Policy Series, Vol. 31, Springer, London, UK, 2009 (jointly published with Food and Agriculture Organization of the United Nations)
Schmidhuber, J., and Tubiello, F. N. (2007) "Global food security under climate change", in Proceedings of the National Academy of Sciences, USA (PNAS), Volume 104, Number 50, December.
Thornton, P.K., P.G. Jones, T. Owiyo, R.L. Kruska, M. Herrero, V. Orindi, S. Bhadwal, P. Kristjanson, A. Notenbaert, N. Bekele and A. Omolo. 2008. "Climate change and poverty in Africa: Mapping hotspots of vulnerability", AfJARE, Vol 2 No 1 March
[285] Office of Oceanic and Atmospheric Research (OAR)
[286] Climate variability and climate change: Implications for agriculture, Richard M. Adams, C.C. Chen, Bruce A. McCarl, David E. Schimmelpfennig

the role of defining FAO positions at global meetings, such as UNFCC and Kyoto, within the IPCC (Intergovernmental Panel on Climate Change) framework.

Climate change may be due to natural, internal processes, external forces, or persistent anthropogenic changes in the composition of the atmosphere or in land use[287]. In this area, FAO provides assessment of data while monitoring its collection, and providing a neutral platform for negotiations and technical discussions. These are connected to the responses that FAO gives to its member countries with respect to long-term trends for environment and policy issues.

To prevent climate change's negative effects, FAO and other organizations have put in place an approach to agriculture that adopts "climate smart" practices in order to address food security[288]. The Climate Smart Agriculture Approach consists of promoting production systems that are used by farmers and food producers to reduce greenhouse gas emissions, adapt to climate change and reduce vulnerability to the negative effects of climate change.

As pointed out by Lipper et al. (2010)[289], effective climate-smart practices already exist and can be further implemented in poorer agriculture systems. This is possible through the adoption of an ecosystem approach, allowing policymakers to work at landscape scale and ensuring intersectional coordination and cooperation. Moreover, the realization of a Climate Smart Agriculture requires investment directed to filling gaps in data and knowledge, and to research and develop sustainable technologies and methodologies.

In this approach, institutions play a key role in the production and dissemination of information, ranging from production and marketing conditions to the development of regulations and to standards of the production itself. In doing so, they may be required to coordinate large areas and numbers of farmers. In the process of adopting a Climate Smart Agriculture, institutions are to provide support to smallholders in order to enable them to make the transition to climate-smart agriculture. In this context, financing mechanisms will need to take sector-specific considerations into account to be effective in channeling fast-track financing to agriculture,

The Climate Smart Agriculture Approach is directed to the achievement of development outcomes such as food security; greater consistency between agriculture, food security and climate change policy-making is, thus, requested at both national and international levels.

While it is too early to evaluate the effects of the Climate Smart Agriculture Approach promoted by FAO, it is widely recognized that agriculture is becoming key in climate change

[287] http://www.ipcc.ch/ipccreports/tar/wg1/518.htm
[288] http://www.fao.org/climatechange/climatesmart/en/
[289] Lipper et al, 2010. Climate-Smart" Agriculture Policies, Practices and Financing for Food Security http://www.fao.org/docrep/013/i1881e/i1881e00.pdf

discussions because of its significant contribution to global carbon dioxide and nitrous oxide emissions.

7. KEY FINDINGS AND LESSONS LEARNED

We have learned from our closer look to different development paradigms that development is not a linear process, requiring a single economic recipe. Implementing the same policies does not always lead to the same development results, and most development performances are better explained if viewed in the context of country-specific characteristics and initial conditions.

No "X-factor" can be singled-out as the cause of underdevelopment or effective development. Consequentially, policy advice should be more state-specific and differentiated, with increased emphasis on correct sequencing and appropriate packages (Adelman, 1999).

Furthermore, development achievements, even when correlated, do not necessarily lead to one another: different policies are conducive to different outcomes, and the existence of potential trade-offs should also be taken into account. Considering the enhancement in MDG achievements, Bourguignon et al. [290](2008) state there is no correlation between growth and non-income MDG, suggesting that growth is not enough. Uganda and Ghana, for example, between the end of the 1990s and the first years of the 2000s, had comparable GDP growth rates, but experienced, respectively, an increase and a decrease in their poverty rates.

Domestic policies matter: stabilizing macroeconomic environment, reinforcing the role of institutions and creating a favorable setting for private investments are among the most important factors leading to development. Moreover, by exploiting their own comparative advantage and putting efforts and investments in the area of specialization, countries can improve production patterns and development progress for themselves.

However, country development targets cannot be pursued by only considering the national or regional economic level. Global context plays a major role in facilitating or impeding development. The financial and economic crises that, during the last decades, increasingly exposed countries to complex interdependencies, showed how the global economy and its deficiencies harm the weakest economies. Uncertainty needs to be taken into greater account to secure fragile macroeconomic environments.

[290] Bourguignon et al.(2008). Millennium Development Goals at Midpoint: Where do we stand and where do we need to go?. Centre D'Etudes Perspectives et D'Informations Internationales, Nov.2008

In the global context, economic policies, with respect to trade, often make the difference in the development process: OECD countries' trade policies, for example, are claimed to "take back with a hand what has been given through development assistance," mostly in relation to their agricultural support policies or recent policies related to the production of bio-fuel. In considering foreign aid it is important to recognize that it does not work in the same way everywhere, does not have a unique shape, and its effects depend on the macroeconomic settings the geo-strategic location and interest, and institutions of the countries which deliver and in which they are delivered. The development community should take the great challenge of renewing its role, with less conditionality and promotion of decentralization[291] (Ranis, 2004). A better linkage between aid provision to private investment, technology enhancements, migration and trade could have large effects, when considering the spillover effects of these components.

A key feature of the global economy is the increasingly role of big, emerging countries, International flows of labor which affect poor economies though, on one hand, remittances as sources of external capital flows, and, on the other hand, contributing to lasting inequalities and social structures, and impoverishing the country's human capital/skill endowment. Favoring the migration of unskilled and semi-skilled workers could help low and medium income countries.

Both at the global and national levels, efforts should be put toward minimizing adverse impacts by employing countercyclical macroeconomic policy frameworks. Commodity price volatility, climate change and global warming are the most harmful occurrences for the poorest regions. Agricultural and rural development must be prioritized to achieve inclusive growth. Revitalizing the role for agriculture and, consequently, helping rural poverty should be integrated with measures of risk coverage for climate change and productivity shocks, with climate-resilient technology and improved natural resource management. There are vast win-win opportunities to increase farmers' productivity and incomes, reduce malnutrition, restore fragile environments, and help mitigate climate change[292] (UN General Assembly, 2011).

Realistic targets for development should depend on each country's characteristics: successful development requires understanding and combining the effects of micro and macro, local and global environments.

Overall, new thinking about development is required because we need to recognize that "*... fundamental changes in the way societies consume and produce are indispensable for achieving*

[291] Ranis, G. (2004), "The evolution of development thinking: theory and policy", Economic Growth Center, Yale University, Discussion Paper no. 886

[292] United Nations (2011), Accelerating progress towards the Millennium Development Goals: options for sustained and inclusive growth and issues for advancing the United Nations development agenda beyond 2015, Annual report of the Secretary-General, July 2011

global sustainable development (Rio + 20, The future we want, paragraph 224) ". New thinking can also come from revisiting old thoughts, notably conceptual contributions that did not fall in the mainstream in the last century. These comprise contributions on different development aspects such as: Prebish-Singer's Strategic openness, Kutznets' concerns about the limits to affordable inequality, Vandana Shiva's ecological approach, Georgescu-Roegen's low-energy de-growth, Meadows' "limits to growth" Shumacher's "Small is beautiful", Harsanyi-Rawls "veil of ignorance" regarding how to share income and welfare in a society or the way of defining and measuring development as suggested by the "happiness approach" promoted by countries like Buthan.