Finance for Development:

theoretical concepts, practical evidence and new concerns (RESUME)

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Chapter one - Development Issues

CONCEIVING DEVELOPMENT AS AN INTEGRATED PROCESS OF DYNAMIC FACTORS

The main purpose of my thesis is to deepen the matter concerning the link among finance and development with specific reference to the advantages this relationship could bring to the poor countries. Usually, as I mention in the work, countries are divided in poor (developing) and rich (developed). However the first question I tried to solve concerns with the meaning of the word "development". It is indeed commonly used to split countries according to their level of industrialization (advanced or on) that, reflects also the income differences (rich/poor). The first conclusion I got is that this division just deals with the economical situation of a country and not with the entire process of the development. A development process, in respect of A. Sen`s idea, it is supposed to involve other dynamic factors as a more integrated mechanism in a total level. Basically, I explained this passage by focusing my attention on those common features characterizing LDCs, namely, the socio-economic factors that could hamper development. In this sense, I have specifically divided them in two macro-variables that are efficiency and income redistribution, coping with the sub-categories for each one. In particular, efficiency is a concept strictly due to productivity. Indeed it is just the results of T times E, where T stands for level of technology and E stands for level of efficiency. While the first element is a bit more easier to measure (for example in term of patents, R&D expenditures and so on), so that a country can increase it by investing more in technologies (one way is represented by foreign investors), the second is more difficult since its relative definition, so one could find a country as benchmark and derive the relative parameter. Conversely, as suggested by D. Weil in his book ("Economic *growth*"- 2007) another way to think about efficiency is that one to look at those inefficiencies that affect a country, that for example are the erroneous allocation of resources. With this term, one refers to both those resources employed in unproductive assets, as well, as those resources underutilized or not completely exploited (i.e. the possible comparative advantage LDCs have in terms of natural resources, land and people). At the same time, efficiency is a concept that in LDCs deals also with health conditions, food access and education that are part of the second macro-variable: the redistribution of income. According to some scholars (Kuznets in particular), redistribution of income can be linked with economic growth process, namely, a relationship can be found, since it increases at the beginning and then after reaching the highest value it starts to decrease while per capita income still continues to increase. Moreover, one recent study in this sense, is the one of the Italian economist C. Gini who developed the so-called "Gini index" as

measure of income redistribution (namely higher it is and more income inequality exists), represented by the area between the bisector and the Lorentz curve.
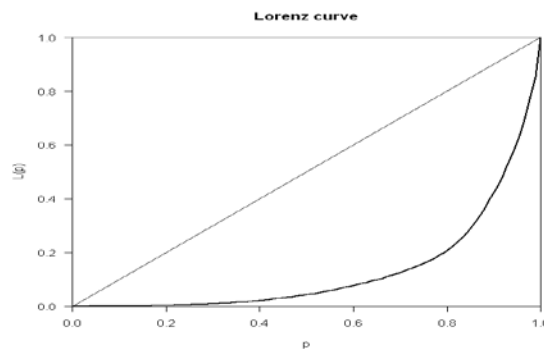
The Lorentz curve

Finally, I also reported an interesting study of P. Aghion & P. Bolton who developed the theory of trickle-down economy explaining a possible way to move wealth from rich to poor according their initial stock of endowment. Briefly, what can be underlined it is that through capital markets where interest level is endogenously generated, making people able to decide to lend money or to borrow (access to credit is denied, since moral hazard effect exists). However, a better exploitation of the model in practical terms can happen just with a good financial system (specifically financial institutions able to reduce the cost for acquiring information) as well as permanent wealth redistribution policies.
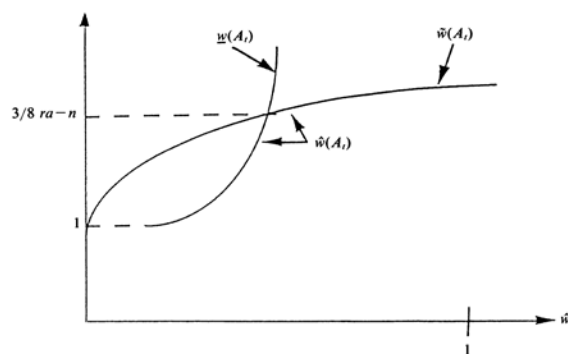
The credit rationing in equilibrium (P.Aghion & P. Bolton)

From the facts explained above, a lot of factors are due to income redistribution, better LDCs are characterized by common features that I will explain summing up the content progressed in the complete paper. Basically, recalling the definition of development in a more broad sense (that is considering the also the social factors affecting those countries), they seem to experiment:

- A lack of industry base but agricultural dominance implying that great part of the overall GDP comes from the primary sector (from 45% to 70% in some cases), absorbing also the main part of the total work force. Moreover, an element to be underlined is that the overall production could cover the entire national demand if adequate infrastructures and machineries would exist. In this regard, I also report the dual economy theory provided by Lewis which cover deeply the problem of income distribution starting from the presumption that industry workers are paid their marginal utility while the agricultural workers are paid the average utility. Thus, he hypothesized a process of economic growth (each time investing more and more), that makes transfer workers from one sector to the other, up to when these differences disappear. Finally, once again the role of financial system is recognized as vital for the mechanism of an efficient resources allocation.
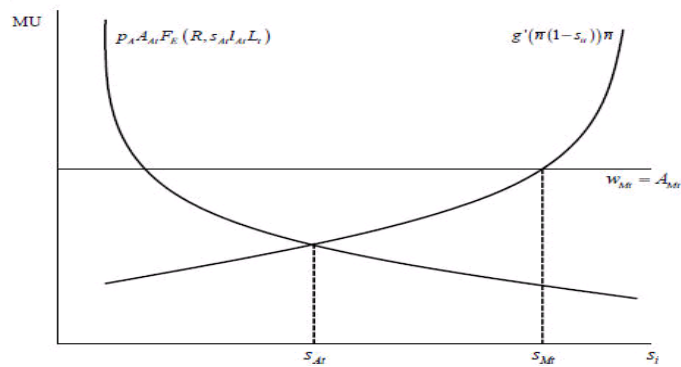
The dual economy (Lewis)

- The second common characteristic is the political situation since power seems to be held by specific military or royal family elite. Basically it represents a hamper to growth since this elite is not open to change (i.e. technology) because the spread of a more educated population can diffuse new "revolutionary" ideas. IMF also reinforces this idea claimed for an excess of corruption level, lack of regulatory scheme, lack of infrastructural investment, clientelism situation and so on, thus namely lack of democratization! Due to this inefficiencies I also focused on the Kalecki's theory and Stiglitz`s point of view about the role of the State. In particular, local government`s intervention is precisely requested in market failures situation or in any kind of externalities and Kalecky derives out a set of central objects to be covered by authorities in LDCs.

- The third one is represented by population issues, which basically means that LDCs experiments high fertility rates (even if high mortality rates), sometimes leading urban areas to be overpopulated. Linking demographic aspect with economic growth, it seems,

from one side, to be an obstacle, since the great demand of resources (and also food), that may results into pressures in the domestic demand. Conversely the economist Simon supported by Thirlwall highlights the positive impact it could have on the overall economy (and I strongly share this idea). Namely, higher population can be seen as a big labor force that can imply an increase in the total productivity fostering so the economic growth of a country.

- Another factor is due to health services present in LDCs, that namely due to demographic issues, with particular reference to the spread of malnutrition and illness (HIV/AIDS and malaria above all), which accelerate mortality rates. It also refers to the lack of adequate infrastructures and instruments as well as appropriate medical knowledge.

- Education is another factor extremely important especially regarding the development of modern theories of growth. The lack of education is strictly connected to the lack of an adequate education system which in most cases doesn`t guarantee primary education unless for few people. Moreover, as it will be expressed in Galor & Zeira model education has a cost, and it constitutes an obstacle for many poor individuals. New efforts should be spent in this way, and I support the Nafziger belief that education is fundamental for poverty alleviation since it implies an income increase, improving health and nutrition conditions, increasing productivity and reducing fertility rates. Once again, these efforts depends on the local government`s motivation and aim at least for a great part (indeed international organization intervention may be useful).

- One another really important factor is the fact LDCs experiments low international trade activity implying negative balance of payments (due to low level of exports). The basic assumption behind it is that the total welfare could benefit from increasing exchanging activity as reported by several authors (i.e. Chenery, Thirlwall), who split gains in dynamic (mainly growth of production possibilities, increasing return to scale in long run) and static (from trade, namely the law of comparative advantage). Moreover, a more regional integration could make exploit these benefits, as well the scarce presence of technology diffusion in the country implies a low production of industrial commodities (conversely to a great agricultural production).

- Lack of technology is the final element of they linked features. Its contribution is broadly shared in literature (as I will explain later), and this lack of technical progress is one of the reason because LDCs are not able to experiment high and fast growth rate. At the same time technological progress is affected by the lack of a strong education system, as well as it is the results of low exchange activity with other countries, that impedes to import the so called "know how" or "learning by doing" from abroad (i.e. through FDI). One example in this sense, is the Chinese case which experiments high level of growth once it opens to new technologies in particular due to the renewable energy sector.

KALECKI'POINT OF VIEW

To these mainly social issues, one can add some financial common aspects in LDCs as pointed out by M. Kalecki (*"Essays on developing economies"* - 1976). In particular he identifies three main features expressing in a low level of saving rate, that doesn`t allow to accumulate capital in the future leading to low level of investment. Another strictly correlated feature is the lack of a banking (intermediation) system, that would be functional for saving collection and could redistribute capital through credit mechanism. Finally, these countries seem to lack effective fiscal policies that could at least attain the problem of income redistribution, that prevent hyperinflation, encouraging savings and maintaining the economy at full employment.

ROSTOW`S STAGES OF DEVELOPMENT

Within this framework, I complete the chapter with one theoretical model explaining a possible pattern of growth (namely Rostow`s stages of development) and a specific brief focus on African countries (which are among the poorest in the world). The Rostow`s theory is not a model of economic growth but just lists the possible stages through which a country passes during its process of development. In particular he identified those steps: *traditional*, characterized by the predominance of agricultural sector; *transitional,* investment starts to increase with particular reference to infrastructure allowing to set up an entrepreneurship activity as well; *take-off*, that is the most important one since technical progress and investment increase lead to make a big jump (in growth terms); *maturity*, where a sustainable economic growth is achieved and finally *mass consumption*, that is the level in which the country has consistent welfare politics and it is present in the global economy. However, many critics were moved to this theory since it doesn`t provide analytical explanations of how a country moves from one phase to the other.

A BRIEF FOCUS ON THE AFRICAN COUNTRIES

Finally, in order to highlight those elements affecting African countries due to financial issues I used the paper drafted out form the 8th Session of the ECA Conference of Ministers of Finance named "Finance for development", which underlined kinds of solution to the three main African obstacles that are low savings, low exports and underexploited foreign direct investment. In this regard, I want just to mention the extents of the Conference that consists in supporting an economy more oriented to commercial activity fostered by an agricultural modernization as well as experimenting new economical policies in terms of inflation, volatility stability and market liberalization (at regional and broader level). Fry (*"Financial repression and economic growth"* – 1978) in this sense provides his important theoretical contribution by suggesting innovative financial instruments to encourage technological progress and higher saving rates as well.

Chapter 2 – Economic Growth Theory

Models of economic growth

Once having seen all the aspects which affect the process of development of a LDC in a comprehensive way, I will specifically focus on the economical aspect, namely on models explaining economic growth. Moreover, basically theories can be split in those models explain economic growth in absolute terms, and those models instead focusing on the differences among countries.

THE MALTHUS MODEL

The first theory concerning the first category, is the Malthus model which together with Ricardo is one of the first economists of classical theory. Without entering in the analytical process and methodology, I analyze it by pointing out the most important achieved results. In this regard, Malthus as first model used as inputs, land and labor characterized by the law of diminishing return which affect negatively output growth when labor force expands. However, just integrating its model with the Ricardian theory of labor market, it possible to reach a point where the economy is able to expand, since wages are equal to marginal (and no more average) productivity of labor and landlords` surplus are eroded. Moreover, wages increase with increases in population even if at the same time, it can offset the gain from technological progress (and wages come back to the subsistence level). Malthus model is assumed to be applied before industrial revolution since for instance, the link with the theory of population no longer applies.

THE SOLOW MODEL

Next to this model I've analyzed one of the most important contributions that is the Solow model. The passage from Malthus to Solow in particular consists in the replacement of land with capital, and in the relationship among saving and investment that is: $i_t = s\,f(k)$. Than Solow considered that investment depreciates at a constant rate δ so that the optimal level of output derives from the intersection of the two linear curves, namely implying that the optimal Y/K is equal to δ/s. After including other factors as population growth and technological progress (even if exogenously), it reaches the conclusion that if $sf(k) > (\delta+n+g)$ the capital stock increases, conversely it decreases up a point where the final Y/K becomes equal to $(\delta+n+g)/s$ and MPK= dY/dK= $\delta+n+g$, that is called steady state to which all economy converges. Graphically:

y = Y/L
y*
yo
$yt = Ak\beta = A\,f(K)$
δK
$sy = s\,f(k)$
0
ko k* k1 k = K/L
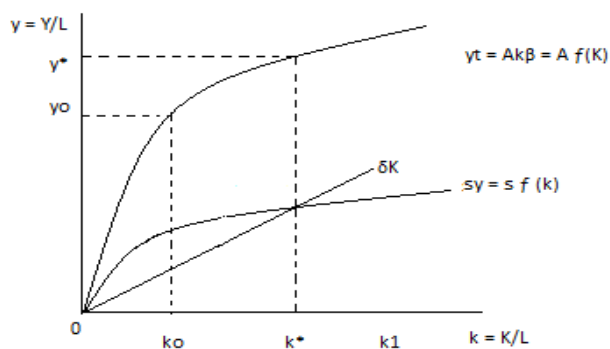
The Solow model

The main important conclusion broadly discussed in literature, concerns with this steady state, since, according to Solow's view, lower capital is and faster countries grow (conversely they reduce capital stock back to the steady state level). Moreover, from one side it is possible to derive the so called "golden rule" which is the level of output maximizing private consumption and, on the other side, I made further considerations concerning poverty traps which in real terms can become a dangerous long-run steady state.

Solow model is one of the main important one, but at the same it was criticized on the basis of few elements that are: first of all the conclusion that countries with low per capita income (k), namely poor countries, growth faster than rich countries (absolute converge) to a steady state, while empirical evidence doesn`t s confirm it. However, as I mention in the work, my personal point of view, is that one way to look at Solow model is conceiving it by regarding poor countries as those countries which could grow faster than rich countries if they were able to exploit their potentialities (i.e. comparative advantage). Besides, further critics were moved against the

assumption of constant increase in population and technology which would imply that, also capita per worker has to increase at the same rate as well as government should maintain the proportional level of investment. Thus, in long run it becomes an unsustainable situation!

ENDOGENOUS THEORY

With particular reference to Solow assumption of exogenous technology progress and its difficulties due to diminishing returns, literature started to think about technology as an endogenous variable, which it is internally determinated by economic agents! In this sense, the first "revolutionary" idea was pointed out by Rebelo (1991) with his Ak model where output equation becomes: $Y=Ak_t$ where A (assumed to be constant) stands for endogenous technological progress and k is the capital stock. Graphically:
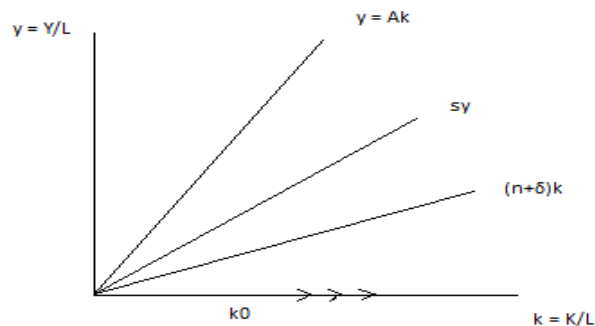
The Ak model

As it can be easily seen production is linear in k so that saving line will never cross the break-even investment line, namely the model doesn`t predict steady state but output increases proportionally (to k) and permanently over time.

Another model regarding due to endogenous technological progress is the one of Romer (1986) represented by the equation below:

$$Y = A(R) * F(R_j, K_j, L_j)$$

where the "new" term R stands for aggregate knowledge stock and R_j, measures expenditure in R&D of the firm j. With this formula, Romer explains why countries have different growth rate that namely is because rich countries invest more resources in research and acquire skills through learning by doing. Thus, in other words, knowledge acting as an external factor, is able to prevent diminishing returns.

Finally another solution is the Lucas model (1988) which tried to include human capital (h) in the Solow model by getting the following equation:

$$Y = K * (uh)^{1-\alpha} * h^{\alpha}$$

implying that part of the output depends directly and actively to education and related issues. Moreover, even if Lucas follows the pattern of Solow model in predicting a convergence to a steady state, his model assumes that countries whit higher initial level of human capital, always will experiment higher per capita income. Namely:

$$y_r > y_p \text{ if } h_r > h_p \text{ with } y_r = K(uh_r)^{1-\alpha} h_r^{\alpha} > y_p = K(uh)^{1-\alpha} * h_p^{\alpha}$$

Models explaining differences among countries

Basically, literature focuses on two elements as main explanations of differences among countries in terms of economic growth, that are: education and technology.

HUMAN CAPITAL WITHIN THE SOLOW MODEL

The first model I covered is the Solow model with human capital so that output depends on it on the basis of the following equation:

$$Y = A_t K_t^{\beta} H_t^{\alpha} L_t^{1-\alpha-\beta}$$

namely human capital and physical capital have the same properties and are very interdependent, since for example, an increase in physical capital will lead to an increase of income, maintaining the human capital constant. This is a typical example for explaining why large differences in per capita income exist between countries.

THE CASELLI MODEL

Caselli model is the model that is derived the conclusion that almost 40% of the differences in income across countries are explained by differences in human capital and gives proof of that by starting from the per capita income equation:

$$Y = Ak^{\alpha} h^{1-\alpha}$$

He takes the assumptions that each year of schooling implies a higher wage and the variable h is equal to $e^{(\phi s)}$ where s stands for the average years of schooling. Then, he calculates the variation in

logarithmic terms and finally derives the variable Success= Var[log y_{kh}]/Var[logy]=40% as explained above.

THE GALOR-ZEIRA MODEL

First of all the two academics started from the presumption that education is beneficial for all the individuals but it has a cost that some people cannot sustain. Each individual`s utility is given by consumption (c) as well as by a bequest to child (b):

$U = \alpha*\log(c)=(1-\alpha)*\log(b)$

Moreover, financial markets are supposed to be imperfect, meaning that since the cost of borrowing money is too high, just some people will able to access to high level of education implying two different level of productivity namely:

$$Y^s_t = F(K_t,L^s_t) \text{ and } Y^n_t = F(K_t,L^n_t)$$

where borrowers pays the interest rate i_d plus a cost in terms of reputation, immobility β so that i_d = i = (1+β)/(β-1) > r where r is world interest rate. Now, considering the inter-temporal line, generations are affected by the initial level of inheritance, one obtains the following chart:
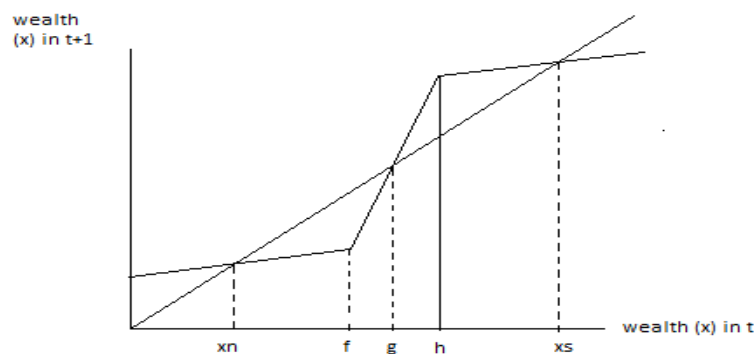
The long run dynamics of the economy due to education investment

Simply people that are able to invest in education at a level bigger than g will get the wealth equilibrium x_s, people that are able to not invest at least f will tend to the level x_n, and people who invest more than f but low than g since their bequest is too low and borrowing cost is too high will experiment education benefits, after some generations, their descendents become unskilled workers and their inheritances will converge to x_n. I personally think that is model deals very well with the dynamics of education, since sometimes empirical proves of the situations described

above can be found. In practical terms, new politics concerning financing help for poor in LDCs should be promoted.

OTHER FACTORS AND SACHS`INTUITION

Other studies to find other possible explanation are for example due to technology cost (Parente), or due to political class (Acemoglu) or geography (Sachs). Particular emphasis has been given to the latter which derive a table showing the percentage change in GDP per capita (on average) among countries which belong to tropical, not-temperate or temperate zone. Namely temperate zones shows higher positive values. The main reasons of that can be found in the link among climate and agriculture, as well as climate and health conditions.

ENDOGENOUS SAVING MODELS

The final pages of the second chapter were instead devoted to theories concerning the assumption of endogenous determination of the saving rate as supported by Thirlwall and above all by Harrod-Domar. Thirlwall derived the equation g=s/c so that the growth rate is something dependent from the saving ratio s (which is composed of voluntary, involuntary and forced savings) and c that is the capital-output ratio, that is the amount of required capital to increase output by one unit. Given this equation, government once having chosen the goal in term of economic growth and observing c, can derive the optimal level of savings required to reach the expected growth rate.

Consequently the Harrod-Domar model results from the Domar's intuition, who hypothesized the optimal rate of growth of investment as equal to:

$$dI/I = (1/ICOR) * (ş)$$

with ICOR and ş constant so that an increase of investment is extremely important for future aggregate demand. But, since investment depends on income, Harrod, at the same time derived the growth rate equation as equal to:

$$G_w = dI/I = dY/Y = s_d/C_r$$

that is the growth rate depends on savings as part of income, and on C_r that stands for the incremental capital-output ratio (ICOR). Thus putting together the equations one gets a target growth rate, where a unique saving rate exist s*. When savings are not enough to reach that target Harrod suggests, then aid (a) can compensate it for an amount equals to s*-s = a.

Finally, I concluded chapter two, by providing a study of professor Pagano who derived a rate of growth strictly dependent on the financial development of a country since:

$$g= (A * \phi * s)$$

where A is the marginal productivity of capital, ϕ stands for the proportion of saving funneled to investment, s represents the private saving rate and δ stands for the depreciation of capital. In order to see how financial development affect the growth rate of a country, Pagano explained that since collecting saving is a costly activity part of ϕ it is absorbed by financial intermediaries and higher it is and higher is the contribution of the variable ϕ to growth. At the same time financial system affects also A due capital allocation opportunities and also saving rate s, concerning their activity due to risk sharing reduction and saving pooling. The relationship highlighted by professor Pagano was the starting point to deep the relationship among economic growth and financial development in one specific chapter.

Chapter 3 – Finance's role in the growth process

BRIEF OVERVIEW AND FINANCIAL ASPECTS IN DEVELOPING COUNTRIES

I started to analyze how financial markets are characterized in LDCs that usually are associated with distortions and wrong capital allocation by reporting the link among economic growth and financial development through a study of World Bank which in one paper addresses the relevance of private capital flow, since 1% increase leads to about 0.25% increase in the total GDP growth. In particular, from the Thirlwall and Fry papers (see bibliography), at least four elements seems to be commonly spread across several LDCs. To this group, specifically belong the domination of the scarce presence of commercial banks, the heavily taxation (in term of inflation cost), high reserve ratios used to allow expansionary monetary policies to the government and finally, the scarce development of debt instruments and presence of capital control. Within this framework, when we talk about efficient financial markets, we have to take in regard that LDCs lack established financial institutions/intermediaries, whose role is broadly recognized as vital for economic activity for basically three reasons that are:

a) *Producing information and allocating capital*: since high information costs single investors have to face, capital may be affected negatively, by not flowing to its highest value use. Thus, one main role of financial intermediaries is that one of reducing these costs due to

information acquisition and processing, that as underlined by Greenwood and Jovanovic (*"Financial development, growth and the distribution of income"* - 1990) implies inducing a more efficient capital allocation leading to higher economic growth;

b) *Risk amelioration*: the second element is due to the fact that efficient financial intermediaries can make easier for people the possibility to diversify risk, moving their investment to higher expected return projects. In this sense, as suggested by King&Levine (*"Financial intermediation and economic development*" - 1993; "*Finance, entrepreneurship and growth: theory and evidence*" - 1993), one implication in technological terms is that, since innovation is risky, holding a diversified portfolio may reduce risk and promotes investment to more innovative projects, thus namely affect positively the rate of technological progress, and once again, economic growth. Similarly, financial intermediaries also help economic agents to reduce their liquidity risk;

c) *Pooling of saving*: is the last main element as highlighted by Levine (*"Finance and growth: theory and evidence 2004")*. Transaction costs due to the collection of savings from different individuals and informational asymmetries can be attained just with help of financial intermediaries. Besides, collecting efficiently savings acts directly on capital accumulation since resource allocation can be optimized.

HOW FINANCE CAN AFFECT ECONOMIC GROWTH

Once having seen the basis upon which the theory of intermediation was born, I want to show how literature supports the financial system-economic growth relationship since, several authors have spent their efforts in trying to figure out empirical proves of that. In particular Levine started from the assumption that financial intermediary size is proportional to the size of the economy as a whole, and together with King developed four financial indicators to measure the quality of the financial services that are: variable DEPTH which measures the size of the financial intermediaries (namely liquid liabilities divided by GDP), BANK which measures the relative degree to which the central bank and commercial banks allocate credit (namely ratio of bank credit divided by the sum among bank credit plus bank's domestic assets), PRIVATE measures how much credit is taken from government and public firms and redistributed to private sector (and it is equals credit to private enterprises divided by credit issued to central government plus credits to private and public enterprises), and finally PRI V/Y which equals to credits to private enterprises

divided by GDP and measures the credit supplied to private sector as percentage of GDP. After that they draft out some growth indicators they started to study their relationship with financial ones, through cross-country regressions for the period 1960-1989 on the basis of the following equation:

$$G(j)= \alpha + \beta F(i) + \gamma X + \varepsilon \qquad \alpha= \text{constant; } \varepsilon= \text{standard error}$$

where F(i) represents the value of the financial indicators i, G(j) is the value of the growth indicator, X is a matrix of conditioning information to control for other factors associated with economic growth (i.e. income per capita, education, political stability, indicators of trade, fiscal and monetary policies). From their analysis, the two economist derived positive consistent results about the relationship among financial and growth indicators. Specifically, they found that countries with high rates of physical capital accumulation, investment rates and more rapid rates of technological advancement grow faster. In conclusions the role of financial intermediation has been show to be much linked to economic growth even if as Levine highlights, intermediaries can operate efficiently only if a legal system, that rigorously enforces contractual agreement, exists. Even World Bank itself, remarks that "building financial institutions requires policymakers to focus on the security property rights for outside investors and efficient contract enforcement mechanism". It is the first element from which the Organization develop further considerations, indeed after showing how finance can affect economic growth, next (not solved) dilemma is promoting financial liberalization or financial repression? Generally, supporters of financial liberalization complain against financial repression since lowering interest rate may encourage people to spend their savings in unproductive real assets, may favorite rent-seeking and finally may encourage potential investors to be indulgent; thus in conclusion they argue that financial repression reduce resources allocation retarding economic growth. Conversely, financial repression supporters argue that financial liberalization by raising interest rate may reduce investment retarding so economic growth. Within this framework, it is important to make a presumption as suggested by World Bank, namely two pre-conditions in any case are required, and they are: stabilization of the economy and prudential regulation. Stabilization in important because an unstable macroeconomic background may make the instability worse. In this regard, high and unstable inflation, balance of payments crises, high external debt are all symptoms of macroeconomic instability and they increase real interest rate. Basically LDCs suffer from this event since they lack of output diversification and because the restrictions on the international

free-trade in favor of central control. At the same time, prudential regulation to reduce adverse selection and moral hazard events is required. In particular World Bank suggests establishing bodies able to manage directly the credit system, but also an authority that controls the quality of loan portfolio, addresses capital adequacy and the soundness of bank management. Within this theoretical framework, authors are still discussing upon which regime is better, by providing empirical support. In this sense, I've specifically selected the model of McKinnon and Shaw for financial liberalization support and, Stiligtz's point of view as the main opponent to liberalization theory.

Let's see briefly what McKinnon and Shaw have reached. They started from the belief that low interest rate reduces savings in favor of consumption and credit is not allocated in the most efficient way. Namely, from the figure above we see that imposing a low interest rate (namely financial repression represented by the area among F and F`) the total amount of investment will be reduced from I_1 to I_0.
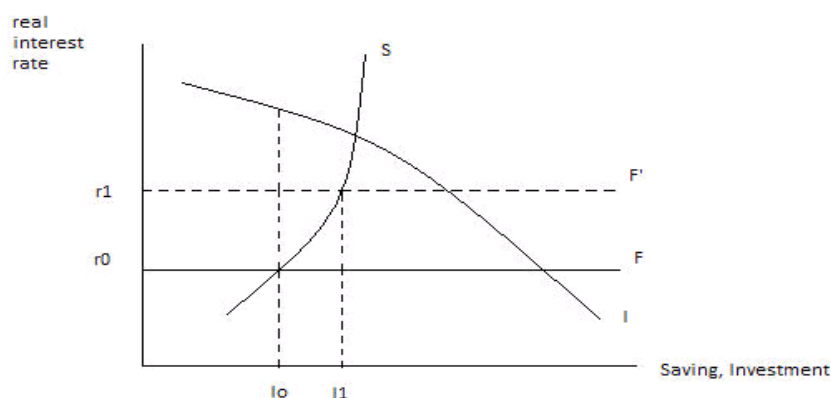
Saving and investment under interest rate ceilings (McKinnon&Shaw)

Thus they suggest to increase investment efficiency by raising institutional interest rate or to reduce the rate of inflation. In particular Shaw developed a concept strictly due to financial liberalization that is financial deepening with the idea to underline the fact that opening financial frontier, allows to other financial institutions to enter in the market. In this way, the following increased competition tends to provide more accurate investment choices as well as higher private savings so that in long run, economic growth could exploit positive benefits from that.

Conversely Stiglitz which the main supporter of financial repression, outlined three reasons supporting it, and they are: a low interest rate may reduce the cost of capital, that could imply an excess of credit demand so that credit policy can be used as an incentive. Moreover, he supports the fact that directed credit programs encourage lending to sector with high technological

spillovers. From an empirical point of view there are not successful episodes but at the same time, sometimes also financial liberalization policies have led to an increase in the degree of fragility of financial institutions. The debate thus is still open, even if almost all academics share the idea that macroeconomic factors, and governments' efforts are the key vehicles for a successful implementation of any reform.

WHAT ARE THE MONETARY AND FINANCIAL POLICIES IN LDCs?

Continuing the argument started before, I want to deepen in this paragraph, the issue about what monetary and financial policies should be put in places by LDCs, since if they fail their short term roles, problems (i.e. high inflation, balance of payments) will adversely affect the long run objective of increasing savings and investment rate. In this regard, the first remark (from World Bank) deals with recognizing interest rate as the key variable that will affect the economy's behavior, and the Organization in particular suggests that, a lower interest rate associated with a lower inflation rate, may have positive impact on economic growth. Starting from this, I specifically analyzed the short-run maneuvers promoting economic growth, which in practical terms means that interest rate and inflation are strongly affected by economic cycles (cyclical variation of output), since a positive demand or supply may create a positive real output gap and vice-versa. Thus, basically the problem lies around how is possible to stabilize these fluctuations. Conversely on the long run, policies are more focused on technical progress and capital deepening. In this sense, in literature exist two views that are: the Keynesian's one, who shows how repressive financial policies promote growth by inducing shifts in individuals' portfolios from financial assets to real capital assets; and the McKinnon and Shaw one, which supports the belief that inflationary monetary policies and financial pressure, are causes of saving discouragement and efficiency reduction. In this regard, I want to recall the linkage among inflation and growth since several academics focused on it. Empirically, as it has been showed an inverted U shaped curve can be derived. In particular, Mundell can be defined a supporter of inflation, since he believes inflation lowers real interest rate implying investment to increase. At the same time, I want to mention also the Tobin effect, that consists of an acceleration of inflation associated with a money supply increase that reduced the real return of money, implying portfolios to shift from money itself into capital. In this case, the last effect is an increase in output through capital deepening. Finally, another perspective is offered by Sidrauski (and reported by Houssain & Cowdhury) who assumed money as an independent variable within the production function

equation. Thus, the main implication of that is a decrease in productivity because of inflation as well as lowered real balances in the steady state.

FINANCE AS A TOOL FOR PREVAILING POVERTY

In this part of the chapter I started to enter more deeply in the LDCs' problems, since my effort was that to cover how finance can affect (positively) poor people. In this sense, I want to start from World Bank, which suggests that, improving financial access to poor, helps these agents to enhance their productivity and potential sustainable livelihoods. Now, next passage is to analyze how to realize that, and what are the obstacles to do it. Indeed is commonly sustained that market failures strictly affect the no realization of an efficient financial system (Stiglitz) and that informational asymmetries restrict poor from exploiting investment opportunities, within a context where they don't have neither enough resources to fund themselves or the collateral to access the bank credits. Thus, financial development has two potential poverty impacts: one indirect effect through the rate of average income growth, and one direct effect, by improving credit supply and access to poor. Empirically Hulme and Mosley, after analyzing several countries for the period 1988-1992, reach several interesting conclusions. For example, they prove that a unit change in financial development improves income of poor by almost 0.4 %, within the implementation of the financial liberalization reform. In particular, they specifically focus on the impact of credit upon production and technology, starting from the fact that investing in technology is costly and thus risky. Then with help of a graph, they reached the conclusion that poor people can improve their living standards by investing credits they receives; in particular the repayment of the loan makes poor able to get more fund next time they will ask, and the process can be repeated again and again. However, this "successful" story ends when people starts to spend money for consumption, since basically, it is regarded as an unproductive activity. Moreover, within the pattern they explain in their paper (*"Finance against poverty"* - 1996*)*, they show how this increase in investment leads to exploit also employment opportunities, with final beneficial effects for all the economy, which is supposed to reach a level over the poverty line. However, Hulme & Mosley pointed out also why credit fails the poor, and in this respect, they identified (replacing what explained before) the fact that credit market is unable to borrow for socially beneficial projects, because lenders are no willing to lend money to unknown customers and because possible losses are bigger than expected return. Thus deriving the break-even condition they get that:

$$r* = (I + a + \alpha p) / (1-p)$$

with:

i = interest rate paid per unit of principal on borrowing and saving deposits;

a= administrative cost per unit of principal;

α = is assumed to be equal to 1;

ρ = is the default probability

Than after substituting for the World Bank values (coming from research studies), they get that for poor people in LDCs the applicable interest rate is equal to 85%, thus extremely high and impossible to repay! Nevertheless, they figure out concrete solutions that are: lowering the value of variable "a" (administrative costs) by reducing market externalities as causes of market failures; and/or lowering the effect of ρ (default probability) that in one way means reducing monitoring cost, under the condition that a supervisory and regulatory authority exists and, there are no economic or political obstacles. Moreover, they also derive out how to increase credit financial performance and sustainability, making reference to two instruments in particular that are: incentives, supposed to be able to reduce financial costs of default, and progressive lending that is the increase in the credit limit of borrowers by a proportion dependent on their previous payment record as experimented positively by countries as Thailand, Kenya, Indonesia. Finally, the two authors suggest the division of borrowers in three groups (solidarity, cooperative and individual approach).   Thus, at the end I derived the conclusion that according specific required conditions (in macroeconomic and regulatory terms), one can agree with the two authors who suggest: "the more that credit is subsided, the more likely is the outcome to occur".

Chapter 4 – Aid's dynamics, the World Bank and future perspectives

After having seen the features of LDCs, the possible models explaining how they can reach economic growth and what role finance can have to increase income and push forward the overall economy, the final chapter of my thesis has been dedicated to an element strictly due developing economies that is aid. Obviously, my first concern was to highlight the role of aid in an economy. Indeed, for example from the previous pages aid can be regarded as the compensating element of saving (Harrod-Domar model), that if used in effective ways (not in unproductive consumption), may lead to increase investment and so favouring economic growth. Aid can be also used by

government to finance public works or as well as it represents a potential leverage of inflation by using it to increase money supply. In this framework, I reported a study of Chenery and Strout, who from their model (called "financial gap") derive the following formula s/ICOR = g, with s standing for savings, ICOR the productivity of capital and g the growth rate. Moreover, I also discuss how this model interacts with the main economic growth theories seen in chapter two, by following Easterly's considerations (*"The ghost of financial gap: testing the growth model used in the international financial institutions"* - 1999) upon that. After deriving a positive relationship among aid and growth (Chenery), I started to analyze a bit more why aid sometimes results to be inefficient. What I've discovered, is that social-political factors, stability of institutions and the lack of a legal mechanism are the main elements hampering aid to be efficient; in this sense I specifically propose the Burnside & Dollar study. From their research, indeed, comes out that a main contribution to aid's effectiveness comes from good government policies! Namely, aid appears to have no significant impact on growth (almost zero), unless the interaction of aid and policies is introduced (in particular it is enhanced if outliers are dropped).

Policy = 1.28 + 6.85*Budget Surplus - 1.40*Inflation + 2.16*Openness

Thus, the index can be negative if inflation is high or the budget deficit is very large!
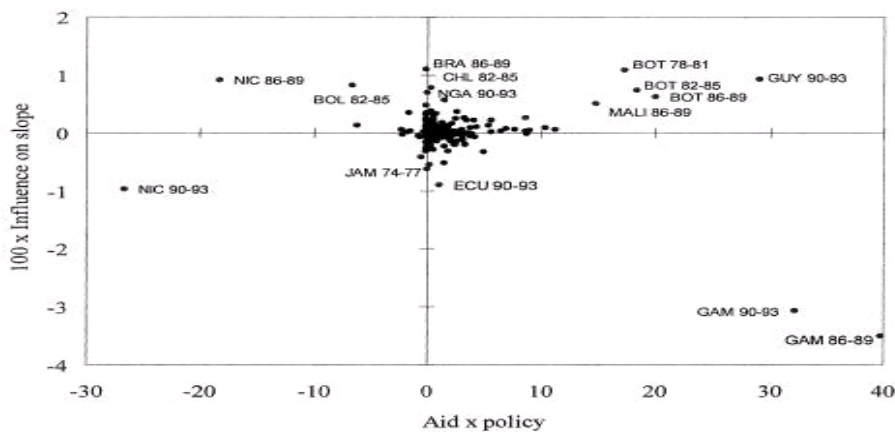
Outliers in the aid x policy dimension (Burnside&Dollar)

This conclusion, is the explanation why they found that countries with little aid amount experiment higher growth than countries which receive larger amount of aid. Also World Bank supports this view with an its own study, which revealed that aid is more successful in a good institutional and policy environment, leading to a 0.5% increase in GDP terms. After deepening the argument with other graphs likes one above, I briefly mention the concept of conditionality as a tool to guarantee efficiency, since borrowing government after having get funds may not have

adequate incentives to abandon their wrong past policies. However, progresses in this sense, can be achieved in future meetings and forums as the next one in Busan (Korea - Nov. 2011).

After facing aid in deep, I mention of course World Bank which is the primary actor in this sense, since its role in the international aid context and its primary goal to fight poverty. This organization has been established through Bretton Wood agreement in 1944 and its initial role was that of facilitating cooperation by serving as commitment mechanism as well as by helping the reconstruction of the main needs of the countries devasted by the II world war. Then, the role of World Bank changed focusing on supporting the balance of payments of the developing countries by providing the so called Structural Adjustment Lending (SAL); thus without any kind of conflict of interest with IMF. Indeed, SAL is typically divided in two areas: one focused on the macroeconomic stabilization due to reduce domestic demand to a level consistent with the level of external resources available for the country; and another due to supply-side reforms, namely supporting market liberalization, removal of price control, deregulation of the domestic goods-market and financial market, and finally the removal of barriers to foreign direct investment. However, actually World Bank is moved to focus more on the achievement of Millennium Development Goals (MDGs) and in particular on the MDG1 due to the eradication of poverty which the Organization defines as the inability of people to attain a minimum standard of living (indicated as something due to a subsistence level of income). In particular, I deepen the matter about how World Bank works, namely according to which criteria it provides monetary aid. In this regard, I specifically reported its lending policies basically based upon two elements that are: *per capita income* and *creditworthiness*. The first is regarded as a proxy for poverty, and countries receive funds from International Development Association (IDA) if their income per capita lies between $1,445 and $2,000 (but not from IBRD). The second, is defined as the ability to service new external debt at market interest rates over long term, and in this case they have access to IBRD's commercial credits (but not from IDA). However, the eligibility of a country to benefit the different forms of World Bank lending, has always been a key point of discussion, since for example GDP doesn't capture the social-economical structure of a society. In this context, several other indicators are proposed to replace the existing ones, and the main important proposals are: the Social index, which is the outcome of the combination of a set of eight indicators among which the primary school enrolment, infant mortality rate, under-age-5 malnutrition, thus enter in more delicate issues covered in the first part of my work; or another possible parameter has been suggested by UNDP can be the Human Development Index represented in following formula:

$$HDI = \sqrt[3]{(LEI*EI*II)}$$

where LEI stands for life expectancy index; EI stands for educational index and II stands for income index. These are just two examples, but the general belief is that more transparent criteria are needed. In particular, one critic was moved by Lerrick (*"Are World Bank claims of success credible?* - 2002), who claims for an external performance audit organism within World Bank, which would denote more freedom from control or influences (i.e. political, military) enhancing the quality of the procedures. Finally, I provide a brief overview about what in deep are the financial products offered by World Bank. Basically they are divided in Financing & Risk Management products that includes loans, guaranties for credit enhancement, swaps for hedging and other insurance products, and Bond & Investment products which basically includes debt products as global bonds, non-core currencies, notes and sustainable investment products.

However, before entering in the specific case of Cameroon, I want to conclude what said until now by using one claim made by Thirlwall that is: growth in possible without development (and vice-versa)? The answer seems to be that income growth without social changes is (unfortunately) achievable as experienced in India and China, but development itself is hardly possible without growth, namely it would be possible without income growth, even if income itself is the primary (but not the only) reason leading a country to be developed or not. Thus, in this framework, what the case of Cameroon tells us?

The reality of Cameroon can be resumed in few words, namely the country is a poor country but not one of the poorest. North and South are not integrated since the lack of communicating infrastructure and almost al people live near to urban areas so that they are overpopulated. Moreover, the main activity contributing to GDP is agriculture, but since the scarce means of transport and machineries for food processing , a lot of food (that could satisfy domestic demand) is destroyed. In this context, the government of Cameroon which has been always stable over these years, has realized that for pushing forward economic growth, it has to intervene to support the most productive and social sectors, namely enhancing the rural one. Indeed, by fully exploiting it, some key goals can be achieve as ensuring security and sufficiency in domestic consumption, providing raw materials to the industry sector, and increasing exports at local, regional and international level. Basically for these reason the government put, as first point of the entire Growth and Employment Strategy Papers (GESP) the development of infrastructure, with the aim to establish building and public works as well as means of transport. The first deals with road expansions, new tarred road and road rehabilitation. The second, instead, is more focused on

developing seaports, railways, one oil yard as well as renewable energy plants.

From this first analysis two elements are important to be underlined. The first is that Cameroonian government strictly supports the theory I exposed in the work, due to the extreme importance of infrastructure as the starting point for the achievement of a more comprehensive and fast process of development. Secondly, in this regard, increasing public works means increasing employment opportunities for all, implying to increase income as well (so stimulating the entire economy).

At the same time, was also my aim make a brief analysis on the budget plan of the paper, namely what kinds of financial products are been chosen. In this sense, Cameroon government is perfectly in line on what expressed in my thesis. Indeed, among the possible tools, it identifies the need to restructure the banking system as a whole, which as theoretically demonstrated provides a better allocation of capital (since the reduction of information cost and risk sharing, as well as implementing saving pooling and monitoring activity). Cameroonian government also expresses its efforts in making finance an instrument accessible to poor people, recognizing the role of microfinance with the goal to promote Microcredit agencies and making them quasi-banks. Moreover, it has been also identified a plan to reduce the outstanding debt, in order to reduce the dependency from foreign countries. Finally, economic policies with particular reference to fiscal and monetary ones, are been other selected channels at a more general level, to follow also international (World Bank and IMF in particular) suggestions. Moreover, in this sense, even if not really directed expressed, it can be noticed the will to make more efficient and productive the aids received at any level. Just to conclude, I also focused on highlighting the extent to which, once again, the role of private investors assumes great importance for the economy, especially when you talk about foreign direct investment (FDI). In particular, it has been individuated the need to link more the private sector with the overall economy, by establishing an economic environment able to attract foreign investment. However, the paper doesn't exactly explain what kinds of financial instruments are used (i.e. debt products, joint ventures or simple partnership), thus maybe it is something evolving with the program's implementation, leaving an open window to deepen this issue (from a theoretical and practical point of view) in future. However, the hope is that this program will able to reach positive results, so that other LDCs could start, with the help of super-national authorities and with new financial tools, an own patter of growth or more broadly, a comprehensive process of development for the final goal of guaranteeing sustainable local living conditions.

Sector growth trends							
	2008	*`09*	*`10*	*`11*	*`12*	*`13-`15*	*`16-`20*
Total GDP growth	3.1%	2.5%	3.0%	4.8%	5.3%	6.0%	5.9%
Building construction (growth rate)	-6.2%	11.3%	6.5%	7.5%	7.6%	7.8%	8.0%

Table 6, GESP from MINETAP.

Building and public work key figures				
GDP TREND IN BUILDINGS AND PUBLIC WORK	*2008*	*2011*	*2015*	*2020*
	196.9	253.1	364.2	711.6
GDP PERIODICAL VARIATION (past period based)	*2008*	*2011*	*2015*	*2020*
	/	28.5%	43.9%	95.4%
GDP PERIODICAL VARIATION (2008 based)	*2008*	*2011*	*2015*	*2020*
	/	28.5%	85%	261%

Table 3, GESP from MINEPAT

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OTHERS

My personal notes taken from courses attended during past years (Labor Economics, Storia Economica, Global Macroeconomics, Macroeconomic Policies).