

Economic Emergence an Unachieved Concept to Study Economic Development Theoretical and Empirical Investigation

Nedra Shili¹

Abstract

The global economic structure presents a very hierarchical configuration. The analysis of half a century of economic development strategies indicates that a minority of countries have been able to break with underdevelopment without access to the rank of economic powers. This intermediate status was called emergence and has been set as the main focus of economists. A literature treating the determinants of the emergence was proliferated; the characterization of these determinants was built in sine qua non condition of economic development. However, as the vectors and criteria of the emergence vary across countries, a typology of emergence definition was then imposed. Therefore, analysis concerned, financial emergence returning to the depth of financial market emergence, industrial emergence referring to industrial goods component of exports, the cognitive emergence referring to labor productivity, commercial emergence, ... etc. The researches done in this purpose shows that the emergence remains a mutable concept and the categorization of countries based on advances criteria results in a heterogeneous group covering economies with very different levels of development and very distant positions in the world rankings. A refocusing effort then was to be done to standardize the references of emergence. Thus, economists have been devoted to assimilate the economic emergence to development; a theory about the emergence and its strategies is then substituted to the theory and strategies of development. It is all of these reflections that attaches this research which has set the aim of studying the semantic framework and repository for the emergence and confront in an empirical section based on VAR and ECM applied on a panel data, the findings of these references to the reality of a sample of emerging countries.

Key words: economic development, emergence, panel, VAR, ECM.

I. Introduction

The review of the global economic structure presents a very hierarchical configuration. We can distinguish three poles; economic powers, emerging economies and developing countries. This structure has taken decades, even centuries of mutations, changes, and different hierarchies. These latter were not all recommended by the same factors or vectors and were not explained, nor by the terms nor by the same theories.

In their efforts of interpretations of changes in the hierarchy of the global economic structure, economists, historians, and sociologists have endorsed different and sometimes contradictory approaches. The explanations of the economies' statutes change differ among schools and even authors. The literature of mutation sociology shows a great divergence between two main approaches to which are attached two main theories of economic development. The early development theories focused only in one factor for capital formation, such as physical capital or human capital, which is a weakness that limits economic growth. Therefore, according to the same theories, increasing the investments in the factor identified is the best solution. However, History showed that this solution does not guarantee successful economic development.

¹ Nedra Shili University of El Manar Tunis, Tunisia.

However, since the beginning of the 80s, the theory of economic development failed. The analysis of half a century of development strategies indicates that a minority of countries have been able to break with underdevelopment without access to the rank of economic powers. This intermediate status was called emergence and has been set as the main focus of economists.

Therefore, the main objective is to limit the actual outlines of the economic emergence by specifying its meaning, its content, and its determinants.

I- From economic development to emergence

Fifty years after the implementation of different development strategies, the results remain disappointing. Only a minority of countries has found a way out of its underdevelopment. They are now characterized by emerging and research on identifying their trajectories and strategies have proliferated. This work processed output failures reasons of underdevelopment of the majority of countries in advancing the arguments of different schools to establish the distinctive features of the economic emergence and its prerequisites.

1- Explanation of the failure of economic development theory:

The liberal approach has strongly criticized the public company in the interest of greater efficiency of coordination mechanisms by the market: public production does not maximize the private interest at the expense of public interest, at the prices of an economic and social waste². This notion of "waste" focuses on the distortions that can create the intervention of the state, and it is then recommended that economic policy is neutral and that liberalism is the rule. In this sense, regulatory mechanisms of the markets and the benevolence of the invisible hand would be able to ensure optimal operation of the economic system.

Failure to develop, according to neoliberalism, is not due to exploitive external and internal forces as expounded by dependence theorists. Rather, it is the result of too much government intervention and regulation of the economy. Governments are bloated; they are corrupt, they accept bribes for economic privileges generated by government interventions into the market, and they operate by distorting market incentives in mostly unproductive, foolish, and wasteful ways³.

Moreover, their unrestricted interventions into markets by establishing of regulations, tariffs, subsidies, and quotas, improve the rent-seeking activities by private entrepreneurs, which absorb large fractions of GNP and lead to significant economic inefficiencies. Therefore, if the government reduces its intervention in the economy, the development will be more rapid and more efficient. In these conditions, in order to stimulate development, governments should reduce their economic role. The best choice to do is domestic and international market liberalization which could promote the economic development.

Despite the progress made since more than half a century in the understanding of economic processes, and despite the efforts of the IMF and The Bretton Woods institutions which specified an adjustment structural plan (ASP) accompanied by a strengthening of market mechanisms, improving productive efficiency and reducing the discretionary power of the State⁴, crises worldwide have been more recurrent and in some ways probably more serious.

Financial crises being exploded in recent years are typical examples, such as those that occurred in Asia in 1997 and Latin America (Mexico in 1995, Argentina in 2002), Russia and in 2008 in the United States and then in the rest of the world. According to Stiglitz, when a country faces a crisis, funds and IMF prescriptions have not only failed to stabilize its situation, but in many cases, they have deteriorated it⁵. In the same side, Hillyard and Tombs defined neoliberalism as a powerful argument for, the state needing to be held responsible for systematically producing harms⁶.

² Voisin C. 1995.: "the state and the economy, public enterprises today: nationalization, privatization, Single Market." French Books N°271

³ Irma Adelman. 1999: "The Role of Government in Economic Development". California Agricultural Experiment Station Giannini Foundation of Agricultural Economics. Working Paper No. 890.

⁴ Diouf. M. 2002.: "Debt then adjustment". Africa Bretton Woods institutions, the Harmattan.

⁵ Stiglitz J. 2002 : "The great disillusion", Fayard.

⁶ Hillyard, P. Pantazis, C. Tombs, S. and Gordon, D. 2004.: "Beyond Criminology: Taking Harm Seriously." London, Pluto Press.

In 2008, Stiglitz confirmed that the economic, social and politic failure of neo-liberalism which inspired the actions of multilateral institutions is that "neoliberal market fundamentalism was always a political doctrine that served certain interests. It was never supported by economic theory⁷.

In another side, Keynes supported government intervention during times of economic turmoil. Among the theories he presented in "General Theory" was that economies are chronically unstable and that full employment is only possible with a boost from government policy and public investment. Keynes believed that it was up to the government to bridge the gap between the economy's potential and its actual output during a financial crisis, even if that meant taking on debt. Keynesian economics advocates government intervention and demand-side management of the economy to get as close to full employment as possible. In Keynesian thinking, government deficit spending and fiscal stimulus are needed at the time of a downturn, because free markets do not lead automatically to optimal outcomes but may rather result in a spiral of downward developments.

Historically, some considerations have involved the amplification of the active role of state. In fact this latter had to contain the social effects and the negative externalities of the second major crisis. The intervention was based on expansionist policy. The market regulation decreased in favor of the state welfare. Interventionism is a system of private ownership of the means of production in which the government intervenes by orders and prohibitions, in the exercise of ownership. It forces the owner of the means of production to use these means in a different way from what they would do under the pressure of the market. The government intervention is particularly evident in public companies that occupied almost the entire economic landscape. These were created, mostly, at the time when the mainstream view that the development could only pass by the ten-year or five-year plan in which the leading role being played by the economic agent "State". The government intervenes in the economy in four ways. First, it produces goods and services, such as infrastructure, education, and national defense. Second, it transfers income, both vertically across income levels and horizontally among groups with similar incomes and different characteristics. Third, it taxes to pay for its expenses, which can lower economic efficiency by distorting behavior. Finally, government regulation alters economic activity.

Faced with the crisis of 2008, this renewed interest is explicit and recognizable in industrialized countries by the multiplication of support measures for banks, activities with potential jobs and by the remarkable growth of budgetary resources allocated to economic policies. However, experience confirms that "the whole state" leads to failure, as well as "the whole market" encounter obvious limitations on labor (unemployment and inequality), finance (potentially destabilizing role of speculation) or of environment (need for collective standards). As the market, the State meets limits, it is appropriate to combine them than opposing their logic. Further, both, the market and the state are viewed as means to the maximization of welfare. Therefore, it is hoped that the next decade will go above the Dilemma State / market. Therefore, development projects that focus exclusively on either the complete organization of economic life by the State, either the full delegation of collective responsibilities to the market, have experienced bitter failures. Neither neo-liberalism nor Keynesianism is only about macroeconomic management. The solution is therefore to compensate for market failures by adequate public intervention and vice versa, surpass state limits through processes of market competition.

At the beginning of the 20th century, a new economic system called mixed economy emerged due to the process of social development. Mixed economy evolves both social and capitalists' characteristics. However, some of the mentioned systems can tend more towards socialism and some others towards capitalism. The word "mixed economy" describes economic systems which match the free market and the planned economy, forming a sort of "mix" of all these elements. The concept of "Mixed economy" was introduced by P. Samuelson, who defined the American economy as "a mixed system of free enterprise, economic control, which is carried by both the state and private institutions"⁸. It is doubtful whether an economy can contain an absolute balance between these elements, because any mixed economy is usually characterized by the predominance of either private or public property⁹.

⁷ Stiglitz, J. 2008.: "The end of Neo-liberalism?", Project Syndicate, <http://www.project-syndicate.org/commentary/stiglitz101>

⁸ Andrich, H.E., Hodgson Z.M., Hull D.L., Knudsen T., Mokryj, Vanberg V.J. 2008.: "In Defense of Generalized Darwinism". *Journal of Evolutionary Economics*, Vol. 18, No. 5.

⁹ Buchanan J.M. 1949.: "The pure theory of government finance: a suggested approach". *Journal of Political Economy*, No. 57.

A mixed economy seeks to have all the advantages of market and traditional economy. Therefore, most mixed economies have three of the six characteristics of the market economy: private property, pricing and individual self-interest. Even though the government intervenes in need, it still provides incentives to the private sector and facilitates its competitiveness with the public sector. However, government does not interfere in industries where public and private sector coexist. In case of failure of a public enterprise, government encourages private sector to take it in charge in case if it can be better run by private sector. It appears clearly that the government acts as a regulator rather than a business entity.

However, mixed economy has solved some of the problems in *laissez-faire* and Capitalism, but it still lacks an ethical foundation to foster social optimization and development at a grand scale to influence social and human development¹⁰.

2. Economic Emergence

The process of Globalization is affecting the distribution of economic activity and reshaping territorial structures across the world. One of the most important consequences of globalization is the emergence of a new territorial structure leading to the formation of a more heterogeneous and complex socio-political and economic landscape. Hence, a need for an alternative to traditional development strategies has become more evident and local economic development strategies (LED) are increasingly regarded as a valid and viable way to overcome the development problems of territories around the world, regardless of their level of development or institutional conditions.

Thus, poor countries should consider in the definition and implementation of its development strategy, that globalization is offering as many opportunities as constraints. The economic policy tending to evacuate the issue of the fight against poverty comes to establish a form of semantic confusion between the concepts: economic emergence and economic development, thus, the need to clarify the meaning and concepts of emergence and economic development. The successful implementation of investment –Exportation, increases the poor country's chances to be a winner from globalization fits better in the global economy and can legitimately seek for the status of emerging countries.

The concept of economic emergence appeared in the early 1990 in the context of the deregulation of the financial markets in the US and Europe, along with technological and institutional innovations. These changes have favored the creation of new financial instruments and especially the acceleration of the internationalization of capital investments. The major discovery was that emerging market countries were offering capital to these new high-yield investment opportunities (in theory and in practice, the return on investment is higher in less developed countries) and reasonable risk.

The notion of emerging country finds its consecration in 2001, when the investment bank Goldman Sachs notes the significant potential for economic growth in four countries, Brazil, Russia, India and China (BRIC) formerly considered poor powers. Indeed, 1) Brazil is a former dictatorship in Latin America; 2) Russia and China from the communist bloc; and 3) India is an ex- non-aligned countries. The terms of emerging countries and emerging markets have recently appeared in the literature, designating the most dynamic countries among the developing countries and better integrated into the global economy.

According to the economic theory, the economic emergence combines several aspects: economic dynamism of the country, a relative fairness in income distribution, macroeconomic stability, good transformational structure of the economy, etc. Each aspect can be measured by a set of economic variables. Based on what have been mentioned, it is possible to estimate the economic emergence, considering three indexes:

- An index of real GDP (allowing to approach the wealth of nations);
- An investment index;
- An index of exports.

¹⁰ Shaikh. S. 2009.: "A Comparative Study of the Major Economic Systems in the aftermath of the Great Recession". MPRA Paper No, 19588

By combining these three indexes, it is possible to build a Synthetic Index of Economic Emergence (SIEE). The following formulation may be retained:

$$\text{SIEE} = 0.3 * (\text{GDP index}) + 0.34 * (\text{Investment Index}) + 0.36 * (\text{Index exports})$$

The coefficients of the synthetic index and primary indices were determined by the method Principal Component Analysis (ACP). The analysis of the socio economic situation of the emerging countries provides a synthesis that allows us to emphasize the different economic emergence determinants. In the period from 1990 to 2010 BRICs countries have witnessed important positive changes. The economic size of most of them increased in Brazil it went over four times, India nearly five times, China over fourteen times, and South Africa by over three times. Since then, China has emerged as the second-largest economy, then India in the fourth position, Russia in the sixth and Brazil in the eighth.

The emerging powers – China, India, Brazil, Mexico, Indonesia, Malaysia, and South Africa – and many others – Thailand, Chile, and Turkey – are increasingly influencing the pattern and scope of international trade by the creation of new supply and demand which pulls and flexes their influence in international organizations. Trade has progressively become more important for economic activity... if any reversal of global trade growth were to occur; it is believed that it would be more serious for economic performance than in previous decades because trade would fall on a higher base and involve more countries¹¹. Trade liberalization has become essential for stability and improved management of the multilateral trading system.

Emerging economies are very open to international trade, and that is reflected in their growing share in world trade. On the export side, the emerging economies' share has increased from around 19% of world exports in the early 1990s to close to 35% in 2009. On the import side, the share has increased from 20% to 30% over the same period. Trade appears to have played a significant role in boosting the economic growth prospects of BRICs. There is evidence to suggest that trade liberalization has been seen and used as a tool for economic growth and facilitating development in all the BRICs countries¹².

Moreover, over the past decade, emerging markets become major recipients of FDI as multinational enterprises have expanded their global strategies to take advantage of business opportunities. Emerging economies attracts business due to their large and fast growing markets, and because they provide access to resources, notably raw materials and labor not available at the same cost in mature market economies. Emerging economies are in a fast increase process from a transition phase to a market economy¹³. These countries provide investors with opportunities to achieve higher profits more than developed countries.

FDI is likely to be led by market-seeking investments that will search for countries with large markets and promising growth prospects. In this context, participation of emerging countries in free trade agreements and regional trade integration schemes will increase their appeal to investors. From another side, emerging countries should also provide a productivity-adjusted labor costs which will ensure the efficiency-seeking investments. Investors engaged in extractive activities emphasize that investment decisions are driven by the availability of natural resources.

FDI and domestic investment are among the main channels which facilitate to the emerging countries, the access to international knowledge and technology. The mixed application of advanced technology along with entrepreneurial innovative approaches for the development and distribution of goods and services translates scientific and technological advances into more productive economic activity. Due to improvement of technologies and innovations, emerging countries faced a rapid economic growth which typically occurred in two BRICS where manufacturing continues to play a substantial role such as China and India. China's share of manufacturing increased dramatically as in 2008 it has the largest share in GDP. Russia and South Africa's economies remain essentially dominated by natural resource extraction and services, and by difficulties in their political and social transition processes.

¹¹ John Whalley and Colleen Hamilton, 1996.: "The Trading System after the Uruguay Round". Washington DC: Institute for International Economics.

¹² Suresh. P. Singh and Memory. Dube: "BRICS and the World order: A beginner's guide". www.saiia.org.za

¹³ Simon. Y. 1997.: « Encyclopedie des marches financiers ». Paris :Editura Economica.

Brazil has become a major supplier of food and mineral commodities, India has consolidated its presence in the formation technology sector, and industrial China has become the leading manufacturer of mass consumer products, especially electronic goods¹⁴.

The BRICS and other emerging countries showed the important role of industrialization for economic development. The rise of industrialization – manufacturing sector- has been a sine qua none of structural change and development since the first Industrial Revolution¹⁵. It accelerates production, productivity growth, and link with other economic sectors.

Economic emergence can only be sustainable if certain prerequisites are met in the social field. It is now universally accepted that the quality of human capital (an educated population, well-fed and healthy) is one of the most important factors of economic growth, especially in the new environment of globalization, where knowledge and know-how play a central role in the increase in productivity savings. In order to precise which of the mentioned policies and sectors drives more the economic emergence, we will conduct an empirical study of the policies followed by a sample of emerging countries and which policy impacted more the economic emergence of the country.

3. Empirical validation:

4. Literature Review:

There have been few systematic and comparative empirical analyses of the nature of economic development in Brazil, Russia, India, China, and South Africa (BRICS). Wim Naudé¹⁶ and al. did a comparative empirical analysis about the nature of economic development of BRICS. They explored the patterns of structural change between 1980 and 2010, focusing on the manufacturing sector. They showed that three of the BRICS experienced de-industrialization (Brazil, Russia, and South Africa). China is the only country where an expanding manufacturing sector accounts for a significant part of aggregate growth.

They explored the differences in patterns and causes of manufacturing between China and the other BRICS. These differences are due to differences in industrial policy as China's industrial policy supported both foreign and domestic investment for technological catch-up. It is the only country where FDI favored the manufacturing sector and manufactured exports, and where domestic investment started becoming increasingly important compared to FDI from 1995 onward¹⁷.

According to Jayati Ghosh, Peter Havlik, Marcos P.Ribeiro, Waltraut Urban¹⁸ denoted that the term BRIC denoted the four fastest growing and emerging economies Brazil, Russia, India, and China. These countries have many common features like land size, population and economic growth. However, BRICs have also significant differences manifested by their different economic development models and donation of resources.

The authors have discussed in their study the different models of economic development of BRIC countries, their external relations, as well as their possible future developments. They concluded that Brazil is a service economy which is more oriented to domestic sector. Russian economic development is largely dependent on energy and raw material resources. India focuses on service and export sectors. Chinese development is mainly dependent on manufacturing, exporting, and investment. At last, they highlighted in their analysis the opportunities for European Union competitiveness and future challenges for BRICs countries are.

¹⁴ Paulo Roberto De Almeida. 2009.: "The BRICS' role in the global economy". Trade and International Negotiations for Journalists. Rio de Janeiro, 2009, p. 146-154; ISBN: 978-85-89534-05-5.

¹⁵ Szirmai, A. 2012a.: "Industrialization as an engine of growth in Developing Countries, 1950-2005", *Structural Change and Economic Dynamics*, 23 (4), December 2012, pp. 406-20,

¹⁶ Naudé, W., & Rossouw, R. 2011.: "Export diversification and economic performance: evidence from Brazil, China, India and South Africa". *Economic Change and Restructuring*, 44(1-2), 99-134

¹⁷ Naudé, W., & Rossouw, R. 2011. Op. Cit

¹⁸ Jayati G. Peter H. Marcos P.Ribeiro and Waltraut U. 2009.: "Models of BRICS' Economic Development and Challenges for EU Competitiveness", Research Reports 359. The Vienna Institute for International Economic Studies.

Sun Ying, Li Miao, and Chen Yibo¹⁹, using quantitative and qualitative analyzing of export and distribution conduct, studied in their paper the influence of high technology commodity export from BRIC countries to the US. They used a Varying Coefficient Model on tribunal data for BRIC countries from 2000 to 2010, accepting the Seemingly Unrelated Regression estimator to legitimate the cross-sectional heteroscedasticity and serial autocorrelation. They found that BRIC have provisional influence. R&D expenditure and patents are positively associated to the high tech export of the US market while FDI still does not directly advertise the competitiveness. They recommended that BRICs should enroll from each other's successful ways of FDI management, patent utilization, and research adjustment to accomplish better improvement of high tech export competitiveness.

5. Specification of variables and model:

All our data are deduced from WDI 2013.

- GDP: real in constant price \$2005
- IND: approximated by added value of industrial sector and evaluated in constant price \$2005
- AGR: approximated by added value of agricultural sector and evaluated in constant price \$2005
- Commerce: approximated by the gap between exportation and importation in \$2005
- Finance: financial market depth
- Institution: is the democracy
- HDI: This index is produced by the United Nation Development Program (UNDP 2013).

Our sample is constituted by a panel of 11 emerging countries (South Africa, Saudi Arabia, Brazil, China, Russia, India, Indonesia, Iran, Malaysia, Thailand, and Turkey) and a period extended from 1992 to 2013.

Our empirical study follows the Ordinary Least Square applied on dynamic panel. We respected all the required steps necessary for such study.

The test of stationarity shows that all variables are non-stationary in level, so it is necessary to move to the first difference to make them stationary. The transformed variables in first differences are noted respectively DPIB, DIDH, DIND, DFINANCE, DCOMMERCE, DAGR. Based on these variables in first differences, it is important to consider this stationary to make the expected estimates. Indeed, we must verify the existence of co-integration relationship.

◆ Co-integration Test

| | Equation GDP | Equation HDI |
|--------------------|--------------|--------------|
| ADF | 2.004954 | 1.964699 |
| Probability | 0.9775 | 0.9753 |

All the variables have a unit root in level but are stationary in first difference. We then apply the Johansen (1988 and 1991) and Johansen and Juselius (1990 and 1992) co-integration tests²⁰. The co-integration test, shows the existence of a co-integration relationship and then an estimation according to an error correction model (ECM) should be done.

The error correction model describes a process of adjustment; it combines two types of variables²¹:

- Variables in first difference (stationary) that represent short-term fluctuations.
- Variables in a level that ensures the consideration of the long term.

¹⁹ Sun Ying, Li Miao and Chen Yibo, 2014: "High-tech product export competitiveness, BRIC countries in U.S market: a comparative analysis". *Journal of Developing Areas*, 2014 vol. 48, issue3, pages 195-218

²⁰ In the Johansen framework, this is a full information maximum likelihood estimation of a system characterized by π co-integration vectors.

²¹ Sandrine Lardic and Valérie Mignon: "Econometrics of macroeconomic and financial time series." *Economica*.

Recall that, if the residues are non-stationary, the relationship does not exist. While in the opposite case, the estimated relationship is a co-integration.

6. Results and Interpretations

◆ ECM

Our study deals with both short and long-term and requires an ECM explication in order to study the effects of endogenous variables autocorrelation taking into account the variable itself. The equation of the effect of economic and non-economic factors on economic development is as follow:

$$CY_{it} = \alpha_0 + \alpha_1 * X_{it} + \varepsilon_{it}$$

With: **CY** refers to the endogenous variable. **X**: all the explanatory variables IND, AGR, COMMERCE, FINANCE, IDH. The estimation of the equation for the group of three equations by the method of ordinary least square with autocorrelation correction problem is presented in the following tables:

• Short-Term:

GDP equation

| Variable | Coefficient | t-Statistic | Prob. |
|--------------|-------------|-------------|--------|
| RESPIB(-1) | -0.040147 | -4.298844 | 0.0000 |
| DPIB(-1) | 0.183205 | 3.797349 | 0.0002 |
| DIND | 0.107836 | 0.437153 | 0.6622 |
| DIND(-1) | -0.336535 | -1.421412 | 0.1560 |
| DAGR | 0.398338 | 1.939790 | 0.0531 |
| DAGR(-1) | -0.044859 | -0.222894 | 0.8237 |
| DTRADE | 0.170899 | 4.229714 | 0.0000 |
| DTRADE(-1) | -0.055679 | -1.323971 | 0.1863 |
| DFINANCE | -0.016401 | -1.173647 | 0.2412 |
| DFINANCE(-1) | 0.006847 | 0.463952 | 0.6429 |
| DHDI | -0.318144 | -3.316412 | 0.0010 |
| DHDI(-1) | -0.062806 | -0.648424 | 0.5171 |
| INSTITU | 0.014325 | 3.499473 | 0.0005 |
| C | -1.342891 | -3.414878 | 0.0007 |
| R-squared | 0.193566 | | |

$$\text{GDP} = 0.107836 \text{ DIND} + 0.398338 \text{ DAGR} + 0.170899 \text{ DTRADE} - 0.016401 \text{ DFIN} - 0.318144 \text{ DHDI} + 0.014325 \text{ INSTITU} - 1.342891$$

HDI equation

| Variable | Coefficient | t-Statistic | Prob. |
|--------------|-------------|-------------|--------|
| RESPIB(-1) | -0.011620 | -2.397899 | 0.0169 |
| DHDI(-1) | -0.222852 | -4.619959 | 0.0000 |
| DIND | 0.163931 | 1.338370 | 0.1815 |
| DIND(-1) | 0.109345 | 0.917758 | 0.3593 |
| DAGR | 0.190430 | 1.813461 | 0.0705 |
| DAGR(-1) | 0.098893 | 0.962519 | 0.3364 |
| DTRADE | 0.008745 | 0.414573 | 0.6787 |
| DTRADE(-1) | 0.002276 | 0.106219 | 0.9155 |
| DFINANCE | -0.005371 | -0.751468 | 0.4528 |
| DFINANCE(-1) | -0.008715 | -1.159726 | 0.2468 |
| DGDP | -0.083231 | -3.366376 | 0.0008 |
| DGDP(-1) | -0.057603 | -2.359190 | 0.0188 |
| INSTITU | 0.003122 | 4.948609 | 0.0000 |
| R-squared | 0.129220 | | |

$$\text{HDI} = 0.163931 \text{ DIND} + 0.190430 \text{ DAGR} + 0.008745 \text{ DTRADE} - 0.005371 \text{ DFINANCE} - 0.083231 \text{ DGDP} + 0.003122 \text{ INSTITU}$$

Subsequent and re-injected growth into the economy in various forms induces a stimulus effect on the entire economy. This is confirmed in theoretical studies. The non-significance of the positive effect of the industry can be explained on the one hand by the fact that it could be a heavy investment with delayed effect, and the heterogeneity of the sample in the other hand. The selected emergence criterion does not return all to the industrial emergence; some countries are classified emergent consequently to their financial emergence.

It seems that the latter consideration is most probable. Agriculture and trade have a positive and significant effect on economic growth. The sample is composed of less industrially as well as commercially and agriculturally emerging countries. Finance has a negative but insignificant effect on economic growth. It seems that in this sample, the test of the financial emergence is low. Therefore, the negative sign can be attributed to two major factors:

Development comes at the expense of loans distributed and therefore investment. To be noted also that the global financial crisis had a negative impact on some emerging countries' financial systems.

Second, the financial development results of an enhancement of rent and money by some increase in the interest rate which is likely to hinder the bank financing of investments.

Finally, emerging countries generally are characterized by a financial subculture that is conforming to the critic theory of financial liberalization.

The impact of Human Development Index on GDP is significant but negative due to the following considerations:

- The adequacy between the education system and the labor market resulted in a waste and misallocation of resources: the education system does not contribute to the development of human capital.
- The life expectancy longevity appears to induce a deficit of social security funds resulting in social and financial imbalances impeding economic growth which is confirming the findings of some works.

Institution has a positive and significant effect on economic growth because that binary variable translates actually the social and political stability condition which attracts FDI and participates in the prosperity of the business environment.

Our model is significant due to a high R-squared however; the DW value is too low. So we cannot build strong conclusions and we should refer to long-term.

- **Long-Term:**

GDP equation

| Variable | Coefficient | t-Statistic | Prob. |
|-----------------|--------------------|--------------------|--------------|
| IND | -2.010637 | -10.58444 | 0.0000 |
| IDH | -1.139665 | -12.26739 | 0.0000 |
| FINANCE | 0.195868 | 4.880575 | 0.0000 |
| AGR | 3.174331 | 25.27403 | 0.0000 |
| TRADE | 0.867723 | 60.16066 | 0.0000 |

In the long-term, all explanatory variables are significant because their coefficient probabilities are equal to 0.

$$\mathbf{GDP = -2.010637\ IND - 1.139665\ IDH + 0.195868\ FINANCE + 3.174331\ AGR + 0.867723\ TRADE}$$

Industry induces a negative and significant effect on economic growth. This effect can be explained by:

- The non-adaptability of these industries with the sample consumption structure and their non-competitively in a competitive environment due to importations worsen the trade balance and thus constrain growth.
- The effect of pollution caused by industries seems obvious and induces negative externalities on growth.

This pollution is confirmed through the negative effect of HDI on GDP. The pollution seems to have adversely affected life expectancy. The poor articulation between productive industrial structure and consumption structure could be explained by the weakness of income/capita, which is a component of the HDI. Finally the human capital product of the educational system seems also not contributing in the improvement of productivity.

Growth in this sample is still driven by its traditional determinants, namely investment and trade.

The positive and significant impact of finance reflects an efficient financial system in terms of investment financing. These systems are bank oriented having a favorable and commendable contribution of the banking system into the economy.

Trade induces positive implications on growth; the relatively high opening rate is driving growth upwards and in accordance with the theories of trade Liberalization. Agriculture is the main engine of growth. In this sample it seems that the economic orientation has facilitated the emergence of an efficient and effective agricultural sector. These countries seem adapting an agro-centrist economies.

HDI equation

| Variable | Coefficient | t-Statistic | Prob. |
|------------------|-------------|-------------|--------|
| GDP | -0.173748 | -7.147255 | 0.0000 |
| IND | 0.653458 | 7.490759 | 0.0000 |
| FINANCE | 0.038961 | 2.099751 | 0.0363 |
| AGR | 0.442284 | 4.780572 | 0.0000 |
| TRADE | 0.195325 | 11.48143 | 0.0000 |
| C | -12.98600 | -2.759256 | 0.0060 |
| R-squared | 0.945478 | | |

In the long-term, all explanatory variables are significant because their coefficient probabilities are almost equal to 0.

$$\text{HDI} = 0.653458 \text{ IND} - 0.173748 \text{ GDP} + 0.038961 \text{ FINANCE} + 0.442284 \text{ AGR} + 0.195325 \text{ TRADE} - 12.98600$$

GDP has a negative and significant impact on HDI, this can be explained by the bad repartition of growth because of the misallocation of budgets as education and health do not benefit from the growth fruits. Industry has a favorable impact because it creates jobs and absorbs unemployment and consequently it improves the per capita income, life expectancy, and human capital through learning impact.

Finance also has a positive impact on HDI as financial systems are bank oriented. The credits granted to households and the conditions for granting them, benefit to their well-being, and enable them to finance their education, housing and health care. The favorable and significant impact of agriculture on HDI finds its explication in the employability of the sector, the retention of the rural population and its non-marginalization which leads to a positive effect on income per capita. The population evolved in agriculture and/or lives in the country benefited from positive effects on health. The rural environment in these countries endowed basic services: health, education, transportation...

Trade has significant positive effects due to its contribution in improving the revenue per capita through its employability, its nature relatively less harmful to health and the indirect positive effects on education.

Conclusion:

The failure of economic development theory and the culpability of followed strategies happened because of the exclusive approaches: all State and/or all Market. The economies who succeeded their development and were considered as emerging economies are those who pursued strategies combining State and Market. The emergence, a blurred and confusing notion can be reached through the development of different sectors such as technology, trade, industry, finance, education. Many countries became emerging economies by following various strategies focusing on specific determinants. The emergence becomes power only when it is integrated and envelops all aspects and types of emergence determinants. The excellent manifestation of this context is presented by the mutation that witnessed the Chinese economy.

Bibliography

- Hillyard, P. Pantazis, C. Tombs, S. and Gordon, D. 2004.: "Beyond Criminology: Taking Harm Seriously." London, Pluto Press.
- Irma Adelman. 1999: "The Role of Government in Economic Development". California Agricultural Experiment Station Giannini Foundation of Agricultural Economics. Working Paper No. 890.
- Irving. Fisher: "Debt-Deflation Theory of Great Depressions". *Econometrica*, Vol. 1, N°. 4: 337-338
- Jayati G. Peter H. Marcos P.Ribeiro and Waltraut U. 2009.: "Models of BRICs' Economic Development and Challenges for EU Competitiveness", Research Reports 359. The Vienna Institute for International Economic Studies.
- John Whalley and Colleen Hamilton, 1996.: "The Trading System after the Uruguay Round". Washington DC: Institute for International Economics.
- Naudé, W., & Rossouw, R. 2011.: "Export diversification and economic performance: evidence from Brazil, China, India and South Africa". *Economic Change and Restructuring*, 44(1-2), 99-134
- Paulo Roberto De Almeida. 2009.: "The BRICS' role in the global economy". Trade and International Negotiations for Journalists. Rio de Janeiro, 2009, p. 146-154; ISBN: 978-85-89534-05-5.
- Rostow. W. 1960.: "The Stages of Economic Growth". Le Seuil, Paris.
- Sandrine Lardic and Valérie Mignon: "Econometrics of macroeconomic and financial time series." *Economica*.
- Shaikh. S. 2009.: "A Comparative Study of the Major Economic Systems in the aftermath of the Great Recession". MPRA Paper No, 19588
- Simon. Y. 1997.: « Encyclopedie des marches financiers ». Paris: Editura Economica.
- Stiglitz J. 2002 : "The great disillusion", Fayard.
- Stiglitz. J. 2008.: "The end of Neo-liberalism?", Project Syndicate,
- Strange, S. 1996.: "The retreat of the state: The diffusion of power in the world economy". Cambridge university press
- Sun Ying, Li Miao and Chen Yibo, 2014: "High-tech products export competitiveness, BRIC countries in U.S market: a comparative analysis". *Journal of Developing Areas*, 2014 vol. 48, issue3, pages 195-218
- Suresh. P. Singh and Memory. Dube: "BRICS and the World order: A beginner's guide". www.saiia.org.za
- Szirmai, A. 2012a.: "Industrialization as an engine of growth in Developing Countries, 1950-2005", *Structural Change and Economic Dynamics*, 23 (4), December 2012, pp. 406-20,
- Voisin C. 1995.: "the state and the economy, public enterprises today: nationalization, privatization, Single Market." French Books N°271