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Alternative Ways of Growth and
Institutions: A focus on Brazil

Summary

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Capitalism has been the dominant model in the last centuries, evolving in the years and giving extremely good results mainly in the western powers. It has been challenged by the financial crisis and the soviet revolution, but after the end of the cold war it was affirmed as the shared economic model at a global level. Some domestic models tried to detach from orthodox capitalism, and China is the most important example. China's development model has been successful, and it entailed features quite in opposition with capitalism. However, the Chinese leadership has structured a model to stimulate internal growth and to make the country competitive on an international level. The objective was to utilize a nationalized model to be an influent economic power in the capitalistic world. The target seems to have been achieved, and now China is rejecting more liberal democracy than the market economy, showing that the two are necessarily correlated. We do not go deep into Chinese development model, but it is useful to understand that an alternative economic system has been necessary to stand up in the international arena.

The aim of this work is to understand the limits of current capitalism, mainly the one related to the paradigm of growth. This concept will be called into question, with the result of reaching a standstill, where the whole paradigm becomes paradoxical. The paradox of growth opens to the necessity of finding new ways for humanity to pursue a way to increment its well-being. The first thing is to separate the strict relation between GDP and well-being, redefining some parameters. Later on, two alternative models will be presented. One, an alternative to growth inspired by Andean philosophy, is more utopian and extremely difficult to be considered in the short-time. The second, alternative growth based on sustainable economics, is the most realistic option to overcome the paradox of growth. The question is: what characteristics do we need to develop a successful model based on sustainability? Are there any actual possibilities for this to happen and which efforts have already been made? This dissertation identifies Latin America as a good area to experiment sustainable growth as the dominant economic model. The real challenge is to understand which is the impact of the institutional quality on the process of implementation of sustainable economy. A case study on Brazil will help to draw the conclusions, picturing what is the real weight institutions have and how they can influence the implementation of sustainable policies.

Western capitalism, successful also in Japan and South Korea, has failed in many other environments, enriching the rich and giving no benefits to the population, without reaching the astonishing performance it provided in Europe or in the United States. The real merit of this economic system was to ensure high standards of life to the vast majority of population, cutting inequalities and fomenting the rise of a powerful middle class. However, the model that has given such satisfaction in the west has been facing one of the worst crises since its development. First the United States, then Europe and the Eurozone in particular, have been hit by economic turbulence, both in the financial area and in the real sector of the economy. The worst period seems to be over, but the years of recession have stimulated the debate over the quality and the adequacy of the current economic system. To list and understand the criticisms it is appropriate to briefly describe the main features of the current system. Capitalism is mainly based on the accumulation of capital with the aim of pursuing constant growth. Growth is the way for the system to fulfill itself and to provide positive dividends. Money makes money, but if the process stops, then the money already produced is at risk. The model works on the combination of two factors of production: capital and labor, whose combination generates growth. If you increase one, or both factors, the output increases and growth is ensured. In the short-run the model works perfectly, and such short-run lasted a couple of century, but it is now nearly at the end. Why? Because both labor and capital cannot be increased in an unlimited way. Labor gives negative marginal results, meaning that, after a certain threshold, the output given adding one unit of labor starts decreasing, with the final result the sum of one unit makes the overall output decreasing. Capital has the imperfection of being finite. Capital, that could also be financial, is in any case related to the resources the planet provides. And world resources are getting scarcer, while population keeps increasing. Less resource for more people has the result of questioning the model. Economists knew the deficiency of the Solow model (from the name of its first designer), and solved the problem of growth in the long-run by introducing a new element: technology. Technology improvement, according to this adjustment, is limitless, and it can ensure growth despite capital and labor remaining constant. Research and development are the key factors to ensure positive growth, which has the role of making the system work. Indeed, without growth the economy fall in crises, with the risk of many people to lose their jobs.

Growth has the role to keep employment high so to generate a circle with consumption. We produce more to employ people, who then consume, and more they consume, more production is required. If the circle stops, the real sector of the economy suffers. That is what has happened in Europe in the last six years, due to a combination of causes and circumstances that had originated the crises. The issue is that, taken for granted technology does its job, the system foments a spiral of consumerism, extremely difficult to exit from. The necessity to produce always more is challenging the capacity of the planet to absorb the whole impact of human activities. Climate change and other sustainability issues like the degradation of urban environments are the effects of our footprints. For instance, carbon footprint is the impact a subject has in terms of CO₂ emissions, responsible of climate change, greenhouse effect, and other short-term effects like crops damaging. Therefore, technology is not only responsible to ensure growth, but also to make growth having less impact on the environment where we live. Efficiency, both in economic and environmental terms, has been the answer to the new challenges. But, is it the proper answer? Several doubts have been coming out in the last years, and here we present three main criticisms - or paradoxes - to the paradigm of growth. First, technology utility is questioned, specifying why it cannot be the only viable answer to the challenges. Then, the core concept of growth will be called into question, asking if growth how we know it is really needed. After that, far from ethical considerations, we simply ask whether the current paradigm could have a long future or not.

The Jevons paradox explains that, despite production efficiency increases, the utilization of natural resources in the process does not act accordingly. The paradox originates from the studies of a British scholar (Jevons) during the industrial revolution. He realized that the demand of coal sharply augmented after the introduction of new devices that made it much more productive. Jevons' analysis led to another intuition, very important at our time. In spite of the technologic innovation, natural resources use will not decrease, rather the opposite will happen. Data on global carbon emissions are the empirical example of this simple intuition. They have been consistently increasing year over year, although many efforts have been made to improve efficiency in every sector. Efficiency has been achieved, but consumptions kept on going up. The theory according to which efficiency should determine carbon emissions to diminish is called decoupling.

Decoupling can be relative, meaning that the quantity of output per emission increases, and absolute, meaning that overall emissions should lower. Relative decoupling is reality, but absolute decoupling – which was the real aim – has not been achieved. The reason is given by Jevons' paradox implications.

The second challenge to the paradigm of growth comes from the Easterlin paradox, better known as well-being paradox. There is a common custom to associate income to personal well-being. This is easy to be demonstrated on an individual level, since even if it is not true that money ensures happiness, it helps for sure. Money is the way to purchase what increases personal well-being, and it is common that richer classes are better off than lower ones. Exceptions exist, but this is the general trend. Such situation leads economists to identify a logical consequence: as well as it works for people, there must also be a direct relation between income (GDP in this case) and well-being on an state level. Richer is a country, higher will be the well-being its people experience. So, from a direct relation between income and well-being, we moved to a superior relation between GDP and well-being. According to such relation, also growth becomes related to well-being, being it fundamental for a country to grow to be better off. However, Easterlin finds out that this relation is completely false. Easterlin deduction is counterintuitive, but it is supported by evidence, being the scholar capable of identifying the reasons of the lack of correlation between growth and well-being. Looking at the level of well-being perceived in the world, there is a relation between rich countries and happy countries. The relation is not perfect, since there are middle zone countries which are better off than other nations , but there are not total sad rich countries, nor very happy extreme poor countries. However, what Easterlin challenges is not the – loose – direct relation between richness and happiness at a given moment but its relation over time. If a country grows will it be happier? For countries whose conditions are extremely low, the answer is yes. For all the other countries, which are above a certain threshold of guarantee of needs satisfaction, there is not empirical match. GDP in all western countries has increased from the end of the cold war until now, but happiness in the fifties' was at the same level it is now. A quite more impressive example is given by a study on the Chinese boom. Despite the astonishing economic performance on the edge of the century, Chinese population not only is not better off than few years ago, but also its perceived well-being has gone down. Why is it so? The most effective answer Easterlin finds runs

over a relativistic concept. In a closed society, if a person gets richer his/her well-being increases because of his /her potential augments with respect to the other members of the society. Therefore his /her perception of well-being is higher than before. However, if the whole society gets richer, the person in question does feel better off because of lack of terms of comparison. He has more, but everybody else does as well, so that his improvement does not have any effects on his happiness (to make the reading more fluid here happiness and well-being are utilized as synonyms, even though there are slight differences between the two terms. However it is not in the interest of this work to go deep in such features).

Finally, the paradigm of growth reaches a sort of standstill. Tim Jackson analyzes the issue, giving the frame of the all situation: we need growth to avoid crisis in the real sector of the economy, but at the same time growth will be unsustainable soon, facing the limits of the environment. The time horizon is not clear yet, but population is increasing, first effects are manifesting and new powers are raising on the international scene. They want to catch up with their western competitors and to do so they must augment their industrial production. Is the system ready to resist to the hit of several new industrial powers? Either traditional powers step back, renouncing to some of their benefits, or the overall footprint will be peaking in a short time. If traditional powers seek to maintain their predominance, it is not difficult to imagine a dramatic scenario, involving a war for scarce resources and new clashes of civilizations.

The alternative is to draw different economic systems, able to ensure the pursue of well-being and contemporarily good enough to avoid dramatic scenarios.

Alternative to growth and alternative growth are the two proposals shown in this dissertation, entailing long-term policies to overcome the deficiencies of the current system.

Alternatives to growth appear way too utopian and optimistic, but they deserve a mention due to the constitutional reforms two Latin American countries made in accordance with such principles. The two countries are Bolivia and Ecuador, which included in their constitutions the concept of “vivir bien” (good living), inspired by the Native Americans communities of the Andean region. The principle reflects the need to get more in touch with nature, respecting the environment we live in , and also improving people’s quality of life. The innovative idea, in a certain sense, is the rediscovery of the importance of the relation between well-being and the living

environment. Capitalism is accused to abstract too much the pursue of well-being, attaching it completely to a number, that is growth and GDP. “Vivir Bien” refuses growth and it is based on community’s concept of arrangement of the economy, with the main challenge of cutting consumptions. The concept is inserted in the constitutions as a leading principle for further decisions in matter of political economy, even though it is “cleaned” of all its naïve and utopian features.

A world completely deprived of growth is hard to imagine nowadays, especially because any transition cannot be of too much impact, with the necessity of allowing the population to adapt. That is why alternative to growth is not a real option now, but it could be in a very distant future. What is quite ready to become a real economic model is sustainable development, a form of alternative growth, easier to realize in the short term with respect to the suggestion of “vivir bien”.

Sustainability is the way to ensure growth, but at the same time able to preserve the natural and environmental patrimony we own. The growth sustainable development aims at is not related exclusively to GDP as well as capitalistic growth. Rather, the parameters change, and the main objective of sustainable growth turns to be well-being. GDP does not disappear from the scene, but according to the Stiglitz-Sen-Fitoussi report (2009), it just becomes one item of a bigger basket. The parameters of growth must be weighted according to whom is the subject in question. The practical application of the concept of sustainability is represented by sustainable economics. This is the overarching branch defining what are the general features a policy should have to be considered a sustainable policy. Stefan Baumgärtner and Martin Quaas (2009) listed four main points sustainable economics should be concerned of: long-term orientation, the idea of justice, the relationship with nature and the idea of non-wastefulness, giving the guidelines to the draft of adequate policies. Moving to fields of application, we can arrange four categories of different types of sustainable economics; they are not in contraposition and one does not exclude the other, rather their effectiveness on the economy could get higher if applied jointly. The four kinds of sustainable economics are: green economy, circular economy, sharing economy and knowledge economy. The fields of application are different, the first two belonging more to the energetic and the industrial sector, the third to the provision of services, while the last one with public investment on human capital rather than natural capital.

Green economy is the most famous and probably the one that has already a decent appeal to administrations around the world. Still, it is not of major impact yet and its potential has not been released so far. Green economy is strictly related with green energy and the idea of utilizing renewable sources to produce electricity. Hydropower, solar, wind and biomasses technology are improving and they could ensure a consistent reduction of fossil fuels deployment. Green energy does not generate any emission, guaranteeing a good quality of the air and a reduction of global carbon footprint. However, if renewable resources and electricity production are the main features of this kind of sustainable economy, another important characteristic is represented by efficiency. Energetic efficiency and the reduction of consumptions are important as well, targeting the same aim green electricity production does. The transition to a green economy may include a kind of transformation of the labor market, creating many new job opportunities, but at the same time closing several positions. The public sector could be extremely important to render the transition less painful as possible, giving assistance and education to the ones willing to gain new competences to work in the green sector. The private sector is also fundamental to invest in the field of green economy, both in the production of the new devices, and in the area of service provision. The public sector might not have the economic capacity to finance the transition, but it could stimulate it through regulation and incentives. Promoting public transportation or the consumption of 0 km products are just some examples of green policies easy to implement, without the requirement of important amount of money to put on the table.

Circular economy challenges the idea of a linear economy and the current practice of “take-make-dispose”. This kind of economy is based on the well-known concept of recycling, but it goes over simple households’ recycling, getting to the industrial relevance of the phenomena. Industrial recycling is the main objective of circular economy, but, still households’ recycling remains a component. Factories can settle systems to re-use their waste in productive ways saving resources and generating profits. Waste must not be the end of the cycle, but a part of it, with the aim to re-insert the highest percentage of disposed materials in the production cycle. For instance, Fibria – the largest world producer of paper pulp – in cooperation with Veolia – a group specialized in resources optimization – started converting the waste generated during the industrial process into a fertilizer for its eucalyptus

plantations. The company is not doing it just for the sake of the environment, but because it is economically convenient for it.

The sharing economy starts from the idea of the commons, sort of shared goods where the role of the producers and the consumers perfectly overlap. In our days, Internet made it possible the creation of quite pure commons, especially concerning the sharing of knowledge and information. Along with pure commons, where the fruition of the product is free, a market-integrated kind of sharing economy has been developing. The concept is to share goods or services at a certain price, giving the user the possibility of not owning directly all the goods he needs. The most common example is car sharing, a successful experience in many important cities like Rome and Milan. Sharing has the result of lowering emissions by lowering overall consumptions, but ensuring people with the same services they are accustomed to have.

Finally, knowledge economy refers to the importance on investing in human capital, rather than merely in natural capital. Human capital can be divided into two main categories: education and society. Education is the base of any successful economy, with the increase of know-how as the base of it. However, knowledge economy is not only the provision of a good educational system, but also all those features granting to citizens access to information and access to technology; it concerns also the idea of giving people proper space and time to interact, to share ideas, to fulfill themselves through the spread of knowledge. Differently from all the other sectors of sustainable economy, state and public administrations in general have a more important weight in the development of a knowledge economy. Private initiatives in the field are not so easy to be undertaken, nor they present wide margins of profit. A knowledge society goes through public planning and investment, able to stimulate the population fomenting a virtuous cycle based on constant knowledge increment. In all the other fields, private investments are extremely important, better if coordinated and regulated by governments.

Where to implement such policies in a successful way? What could be the international avant-guard in the application of sustainable development as the dominant economic model?

Here we chose Latin America as an optimal geographical area to the development of an economy based on sustainability. The reasons why the region could be innovative in the field are mainly three:

- Capitalism has failed in giving the positive results it provided in Europe and in the United States;
- The countries of the region, after being subjected to political and economical colonization, are seeking for independence and a role in the new multipolar world;
- The soil has an astonishing abundance of resources, giving the area the natural capabilities to develop sustainable practices.

Latin countries have the necessity to find a new economic model, since capitalism has not fully satisfied its population. Few have benefitted from it domestically, and many in the traditional powers had taken advantage of the opening of Latin markets. Now the population is demanding more and the leaders do not have the will to count less than their peers coming from other parts of the globe. Brazil is currently the most advanced economy in the area, the country with the highest population, and also the one that is making the biggest efforts to adopt sustainable policies. These are the reasons why it has been chosen as a case study to later understand how important institutions are in this process.

Brazil is being analyzed from two aspects: the achievements it has realized in the field of sustainable economy; then a description and evaluation of its institutions will be provided.

Brazil is performing extremely well in two sustainable fields: the energetic sector and the planning of sustainable urban areas.

The government has been investing a lot of resources in the development of the hydropower field. Many power plants are already working and many others are planned to be constructed in the next future. More than 83% of the electricity in the country is produced using waterpower, and only 30% of the natural potential of the soil has been exploited in this sense. Hydropower provides fully clean energy, and Brazilian performance is among the best at world levels. The country, however, is not only focusing on hydropower, but also on other renewable sources. The plan is to double the impact of other sources on electricity production from 8% to 16% in the decade 2010-2020. Truth is that the country is also making heavy investment in the exploitation of pre-salt oil fields, but the government is planning to export the half part or more of new oil production.

The planning of a sustainable city is still in its embryonic state, being it a 20 year plan going from 2010 to 2030. It takes place in Curitiba, the capital of Paraná state, and it shows the will of the public sector to tackle the issue represented by the waves of urbanization and the overpopulation of the city. The mission is to provide a better environment for the citizens to live in, according to the principles of green, circular, sharing and knowledge economy. Education, health, public transportation and requalification of urban degraded areas are the main points of the project.

Turning to institutional quality, this work analyses three main areas: corruption, education and protection of property rights.

The country performs extremely badly in all the three indicators, showing profound deficiencies in its institutional assets.

Brazil appears to be a very corrupted country, both at its higher levels, and at the level of local administrations. Transparency of the public sector is an exception rather than the rule and several scandals related to top class politicians have been coming out in the last years. One of them, the Petrobras scandal, implicated responsibilities by leaders of the governmental party, making it increasing people distrust towards the political class. Corruption is not only affecting top level chairs, but it is also a common practice in daily transactions, with more than 4000 public employee fired in the period 2003-2012 due to reasons related to corruption and dishonesty.

The education system does not show positive results either, being it one of the worse in Latin America. Many entrepreneurs and companies complain about the lack of high skilled labor force, being obliged to look for alternative ways to fill their open positions. Either they overpay the few adequate workers on the market, or they have to look for them abroad. Another common practice is to train the employee directly inside the company, charging on the enterprise all the costs in terms of money and time to provide the worker with the required skills.

Basic education is granted, but universities are few and the level of many of them is not satisfactory. The better institutes are all located in the southern regions, leaving behind a wide part of the country.

Property rights protection is another main issue. The situation is not dramatic, but jurisdictional times are extremely broad and informality is more than an option. The country does not have a high score in the property right index, lining behind both Chile and Uruguay.

The Brazilian experience shows how the institutional quality is not so relevant in the implementation of sustainable policies. Rather, sustainable development is an opportunity rising from the market in its broadest meaning. It comes from a mix of political attraction, a way to stand in the international arena, being leaders in an innovative sector. Secondly, it is an opportunity to improve the domestic economic performance, both for the private and the public sector. Institutional deficiencies are not an impediment, and the quality of it overall is not a *conditio sine qua non* for the achievement of a sustainable economic model.