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Economic Policies in Latin America and the Transition Economies. Different patterns of the Washington Consensus approach application, and their effects on material domestic extraction rates

Abstract: *Has the increase in Gini's coefficient and therefore inequality led to a parallel increase in the domestic extraction and Material Consumption Rates in Latin America and the EBRD region? Or is there a proportional relationship between the Gini coefficient and the resource extraction rates in these regions? Economic growth is considered a fundamental condition for human development. However, economic activities are often accompanied by environmental hazards: climate change problems, biodiversity loss, water scarcity, are phenomena directly linked to the scale of use of materials. The economic policies suggested by the main international institutions (IMF, WB, OECD, EBRD, UNCTAD) have driven the so-called globalization phenomenon in the last few decades, which seeks to exploit the comparative advantages between countries. This article proposes an analysis of the extraction rates of materials, in two regions of the world where the financing conditions of the IMF and WB were applied, with the aim of supporting economic growth. The hyper-liberalization policies applied in the countries of Latin America since the 1980s have been replicated very similarly in the countries considered in transition to the market economy in the early 1990s, following the collapse of the Soviet Union.*

Keywords: Transition Economies; Latin America; Washington Consensus.

Introduction

The Planet Earth is a system open to the entry of solar energy, but substantially closed with respect to the entry of materials. The economy needs energy and material inputs and produces two types of waste: dissipated or degraded (second law of thermodynamics) and material waste, which can be partially reused through re-use or recycling.[1] The policies of the Washington Consensus have been at the center of numerous criticisms in an intense international debate, due to the manifestation of the rate increase of the Gini coefficient, which measures the inequality of a population.

[1] See J. MARTINEZ ALIER - J.J. ROCA, *Economía Ecológica y política ambiental*, México, Fondo de Cultura Económica, 2013[3].

In this work, it highlights the fact that the hyper-liberalization policies implemented under the Washington Consensus not only led to a worsening of the social economic gap that is gripping the global population, but the market globalization policies have increasingly driven the world-wide use and therefore material extraction rates. All this indicates a latent contradiction in sustainability policies promoted everywhere.

Globalization is characterized by policies to reduce obstacles to international trade, which consequently lead to an increase in the comparative advantages of those countries which base their economy on the export of raw materials. Based on this scheme, the central countries, capable of producing products with high aggregate value, also have the possibility of preserving their natural environment, given that imports of raw materials are largely capable of satisfying demand.

Following the sustainable growth approach of Aghion et Al.,[2] it can be observed that sustainable growth intrinsically depends on the exogenous variables connected with technological innovation. A future will be needed in which the productivity of clean technologies can overcome that of the most polluting and highly intensive materials technologies.

The neoclassical economic recipes of development base the policies of liberalization, openness and autonomy of the markets, as the engine of economic growth and therefore human. Inequality would represent a necessary side effect for growth, but should then tend to decrease as an effect of the Kuznets curve law. However, the link between the adoption of these policies aimed at supporting economic growth and the effects that these have produced on the extraction and utilization rates of materials, at the domestic and regional level, remains to be deepened. Also in the environmental field the performances of the advanced countries would demonstrate the validity of the Kuznets curve law, considering its more recent environmental recovery rates, thanks to the reforestation processes. Here, however, that some voices of dissent are beginning to rise from the peripheral regions of the world, as those of some Latin American academics as

[2] See P. AGHION - U. AKCIGIT - A. BERGEAUD - R. BLUNDELL - D. HÉMOUS, *Innovation and Top Income Inequality*, in «National Bureau of Economic Research», Working Paper No. 21247, 2015.

Vallejo & Falconi[3] or Acosta 2011,[4] among the others. These rumors refer to the ecologically unequal exchange present in international trade, or to the persistent negative imbalance in the balance of material flows to the detriment of the countries of the global periphery, a new frontier of ecological debt accumulated by countries of ancient industrialization. At a global level, the data collected by the International Resources Panel on material extraction rates indicate a distinction in three phases: a period of modest growth up to 2002; a period of stagnation caused by the collapse of the Soviet Union and the return of a period of significant increase in the extraction of materials from 2003. Raw materials form the basis of the goods and services consumed and produced by families, governments and companies around the world. Between 1970 and 2017 the global extraction of biotic and abiotic materials increased over 240% reaching the amount of 92 billion tons in 2017.[5]

Since 1980, global extraction of materials has grown on average by 2.4% per year, with aggregate growth of 93.4%, from around 35 billion tons in 1980 to 67.6 billion tons in 2009. The share of non-renewable materials (fossil fuels, ores and non-metalliferous minerals) in global extraction increased from 61% in 1980 to 71% in 2009, while the share of renewable materials (biomass) decreased from 39% to 29%, respectively, during the same period.[6]

Usually, the IMF and the WB have been praised or cursed for their role of imposing economic policies and institutional transformations in extreme forms, through the conditionality to their financial assistance. For different reasons, two different regions, Latin America and the Caribbean (with few exceptions like Cuba) and countries in

[3] See M.C. VALLEJO - F. FALCONI, *¿Sera necesario más papas para preparar el locro? Una reflexión a propósito del TLC*, 2016, in http://www.flacsoandes.edu.ec/biblio/catalog/resGet.php?resId=22577, consulted on 12/03/2019.

[4] See A. ACOSTA, *Ecuador: de la incompleta auditoria de la deuda financiera a la olvidada deuda ecológica*, in «Ecología Política», 42, Deudas y respuestas a la crisis desde la Ecología Política, 2011 pp. 69-73.

[5] See International Resources Panel Report 2016, *Global Material Flows and Resources Productivity*, *Assessment Report for the UNEP International Resource Panel.*

[6] See S. GILJUM - M. DITTRICH - M. LIEBER - S. LUTTER, *Global Patterns of Material Flows and their Socio-Economic and Environmental Implications: A MFA Study on All Countries World-Wide from 1980 to 2009*, in «Resources», 3, 2014, pp. 319-333.

transition after the failure of the socialist experiment culminating in 1989 were pushed to adapt to the globalization policies of the markets, initially driven by the IMF and WB.

The IMF, the WB and the US Treasury have applied to the countries in transition the policies implemented in the 1980s in Latin America with relative success: rapid macroeconomic stabilization, price liberalization and foreign trade, privatization. But the notion that these policies would replicate in transition countries in the 1990s ignored the fundamental differences between the two groups of countries. Latin America, in the 1980s, suffered from open inflation and hyper-inflation, state-owned enterprises were a minority, while the economy actually dragged it into strong international markets. The economies in transition, on the contrary, suffered from repressed inflation, state enterprises were dominant and could not be used in a market economy, the mass of international trade was planned and the state monopoly was in force.

The strong impact of the 2008-09 economic crisis in the European Union and the subsequent negative developments for development, following the European sovereign debt crisis, has led to different proposals compared to the proposed recipes.

1. *Domestic extraction rates and economic policies in Latin America and former Soviet countries, 1970-2017*

Based on data collected by the International Resource Panel and illustrated by the MaterialFlows.net Tool, the Material Domestic Extraction rates (MDE) and the Material Consumption Rates (MCR) in Latin America show an unstoppable increasing trend, with a parallel increase in rates of material exports, the result of the difference between MDE and MCR. In chart (1), the extraction rates of the Latin American and Caribbean region are compared with those of the USSR and the former USSR.

The former USSR trends were obtained from the sum of the rates for the former Soviet Republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine. We observe how the process of Soviet dissolution of 1989-90 caused a simultaneous fall in the intensive production of resources, leading to a decline in extraction rates, which returned to growth only since 1998, following the negative peak recorded in

correspondence with the Russian financial crisis of 1998.[7] Despite a small drop in the extraction rates, found between 2008 and 2010, the years of the global financial crisis, we note that the application of the policies of the Washington Consensus have undoubtedly boosted the increase in extraction rates.

To understand the Latin American historical-economic context, it is necessary to understand the historical colonial processes that were based on the usurpation of resources, leading to the concentration of riches in a few hands, ending with the consequent high coefficients of Gini diffused in the region in modern times. As Engerman & Sokoloff[8] point out, the traditional Latin American inequality in land distribution was partly due to the patterns of political power inherited from colonial regimes, which led to the development of institutions that performed well during the Second World War, the privileges of the small commercial and agrarian oligarchy, facilitating the diversification of its resources from agriculture, mining, and trade, towards industry and finance. Improvements in international trade terms in Latin America during the globalization of 1870-1914 raised land yields and the rent wage ration. This benefited a small class of landowners.[9]

The trend towards increased inequality was interrupted over the years during the wars, due to the decrease in international trade, but started again after the second post-war period. At the beginning of the 1950s the region was characterized by a high structural inequality, which depended on the high concentration of land ownership with Gini coefficients of land distribution ranging from 0.61 (Mexico) and 0.93 (Paraguay), opposites to those of Asia (0.29) and Africa (0.56);[10] in addition to a concentration of capital in the urban context, the result of overvalued exchange rates, price policies that penalized agriculture, a partial spatial allocation of public spending, and the drainage of

[7] See M. FERIDUN, *Russian Financial Crises of 1998. An Econometric Investigation*, in «International Journal of Applied Econometrics and Quantitative Studies», 1-4, 2004.
[8] See S.L. ENGERMAN - K.L. SOKOLOFF, *Colonialism, Inequality and Long-Run Paths of Development*, NBER Working Paper 11057, Cambridge, MA, National Bureau of Economic Research, 2005.
[9] See L. PRADOS DE LA ESCOSURA, *Growth, Inequality, and Poverty in Latin America: Historical Evidence, Controlled Conjectures*, Working Paper 05-41 (04), Madrid, Department of Economic History and Institutions, Universidad Carlos III de Madrid, 2005.
[10] See E. FRANKEMA, *The Colonial Roots of Land Inequality: Geography, Factor Endowments, or Institutions?*, in «The Economic History Review» LXIII, 2, 2009, pp. 418-451.

rural savings, with the result that around 1950 the entries rural per capita, represented from a quarter to half of the urban entrances.[11] Given all this, with the sole exception of Argentina and Uruguay, Gini's input coefficient was among the highest in the world.

The years from 1950 to 1982 were the years of Importation Industrialization, as an industrial development strategy based on the replacement of imported consumer goods with consumer goods produced on the domestic market. This replacement takes place mainly through an industrial and commercial policy that guarantees protection to the national industry, in particular to infant industries (import duties) and also through the direct intervention of the State in industrial sectors considered strategic (nationalization and production subsidies).

In the 1980s, most Latin American countries abandoned the paradigm of industrialization to replace imports to introduce neoliberal policies in the name of stabilization, liberalization and privatization. These measures accompanied the path of liberalization of international trade, FDI and portfolio flows. In line with the predictions of the Stolper-Samuelson corollary and the Thercksher-Ohlin theorem, trade and liberalization of capital accounts would have increased domestic inequality in nations with abundant supply of unskilled labor.[12] During the 1980s, inequality fell only in Colombia, Costa Rica, Honduras and Peru. The concentration of entries in the 1990s worsened in almost two thirds of cases. The average of the increase in the regional Gini index added up from 2.2 points from the early 80s to 90s, to other 1.7 between the 90s and 2000s and 1.2 points during the 2001, 2002 recession; 5.1 points in the two neoliberal decades.

With the economic stagnation of the 1980s, regional unemployment rose sharply from 1990 to 2002, causing a substantial labor movement towards the informal sector. The Skill-biased technical change (SBTC) effect induced by trade liberalization was to increase the demand for workers able to operate with new imported machines, while

[11] See G.A. CORNIA, *Income inequality in Latin America. Recent Decline and Prospects for Its further Reduction*, Università degli Studi di Firenze, DISEI, 2014.
[12] See G.A. CORNIA, *Changes in Income, Education and Health Inequality over the Last 20 Years: Evidence from Latin America, Sub-Saharian Africa and South Asia,* Università degli Studi di Firenze, DISEI, 2017.

supply remained rigid due to the scarce past public spending. While trade liberalization made it easy to import goods with high aggregate value, the prevailing climate of depression in the region offered little incentive to invest in new equipment. The regional investment/ GDP ratio fell from 22% in 1980 to 16% for the rest of the decade and 18% in the 1990s, while it returned to growth of 24% in 2008 in parallel with an increase in know-how.

An excess of inequality was particularly intense on the occasion of domestic financial reforms, the liberalization of capital accounts and progressive tax reforms. Domestic, commercial and financial liberalization generated adverse distributional effects, due to the competition of low-cost imports and the consequent loss of jobs, the immobility of productive factors in the declining sector, the technical skill-oriented change, resulted in the informalization of employment following an increase in the real exchange rate and the devastating macro-financial crisis.

2. *The high Soviet inefficiency*

The old Soviet system, characterized by the dominant ownership of the state, central planning and widespread isolation from international trade and investment, was notoriously inefficient. It ignored consumer preferences, production sustainability and opportunities, as well as the stimuli of the international division of labor. The system had a self-sufficient foundation, with planning that was a cause of great inefficiency even within the CMEA (Council of Mutual Economic Assistance) and COMECON, the block of socialist countries engaged in a process of integration planned since the end of 1950.[13] The allocation of resources and prices were established administratively by the central authority. Politically all countries were governed by a single party, a communist which established precise rules of behavior, thus leaving little autonomy. Janos Kornai calls it a "*State paternalism*".[14]

[13] See M. LAVIGNE, *International Political Economy and Socialism*, Cambridge, Cambridge University Press, 1991.
[14] See J. KORNAI - J. WEIBULL, *Paternalism, Buyers and Sellers' Market*, North Holland, Mathematical Social Sciences, 6, 1983, pp. 153-169.

In international trade there was a state monopoly, all transactions were organized by the Ministry of Foreign Affairs. Businesses had to devolve profits to the state. Most of the exchanges were managed by the COMECON (Economic Association of EE countries) or CMEA (Council for Mutual Economic Assistance) bodies created in 1949, with the task of facilitating and coordinating economic development and foreign trade. The division of labor among CMEA members was organized according to the interests of the Soviet Union. Each country specialized in the production of specific products: Hungary: buses, DDR trains, Poland, ships, CSSR nuclear equipment. Product quality was generally poor. The exchange ruble was used as a convertible ruble, while trade with the West was very limited. Since 1975, imports from Western countries stood at 36% and exports at 27%, with no significant changes over the years. The coins were not convertible, while the FDI were prohibited or subject to strong types of limitations. An exceptional case was the investment that FIAT made in Yugoslavia in 1967.

The Soviet system was also unstable and caused endemic excesses of demand, both in consumption and in the production of goods, prevailing at administrative prices artificially kept below market levels and disconnected from real trade opportunities. Japan, for example, benefited by buying the Soviet machinery to be scrapped and the aluminum from the socialist bloc was sold internationally at a lower price than the accumulated energy.[15] The pulsed economic model prioritized heavy industry also in relation to the political objectives of the Cold War and the arms race, while in light industry, the services and agriculture sector there was underproduction. All this created a distortion of the economic structure that led, in the 1980s, to a worsening of macro and micro economic performances.

Following the Marxist doctrines that concentrated efforts in the industrial sector, the system had achieved rapid industrialization and growth, but was ultimately unable to provide the basic needs of the population, having wasted the windfall of market prices to which they had arrived. Their vast natural reserves in the 1970s, accumulating an unsustainable foreign debt, reaching stagnation and recession in the 1980s. If the typical

[15] See M. NUTI, *Did We Go about Transition in the Right Way?*, in P. HARE - G. TURLEY, eds., *The Economics and Political Economy of the Transition*, London and New York, Routledge, 2013, Ch. 3, pp. 46-58.

problems of capitalism relate to inflation and unemployment, in socialist regimes there was a repression of inflation, conditions of imbalance between demand and supply that did not lead to an increase in prices but in general to a scarcity of goods. Janos Kornai called it *Economics of shortage*.[16] The scarcity of goods was accompanied by an overproduction in the industrial sector, over-employment with people paid to do nothing. On a positive note, education and a good welfare system, with access to health, was guaranteed to the entire population.

The pervasive lack of companies able to operate in international markets led to a reduction in incentives to improve quality. In socialism, businesses were state-owned for 95% of GDP in 1989.[17] Few exceptions were the agricultural sectors in Poland and Yugoslavia, where 80% of the land was in the hands of small producers. The great industrial presence together with the few services offered, were seen as a structural distortion that reflected over-industrialization, considered as a comparative disadvantage.[18] In parallel with de-industrialization, the liberalization of economic activity led to the spread of small-scale services, including new types such as finance, marketing and advertising.

While in capitalism the main objective is the maximization of profits, the private ownership of the productive factors of capital and labor, the market establish the main mechanisms for the allocation of resources, and provided incentives for the efficiency of companies through profits bonuses and loss penalties, in socialism the objective was to maximize the specific objectives set in the annual plans and quinquennials. The companies were owned by the State for which the decisions were taken by the political bodies. Resources were allocated based on central planning. There were therefore neither prizes nor penalties for the behavior of companies.

[16] See J. KORNAI, *Economics of Shortage*, Amsterdam, North Holland Press, 1982, vol. A, p. 27; vol. B, p. 196.
[17] See EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT, *Transition for All: Equal Opportunities in an Unequal World.*, Transition Report, 2016-17.
[18] See G. TURLEY, *Transition Economies: The First Two Decades*, in HARE - TURLEY, eds., *Handbook of the Economics and Political Economy of Transition*, cit.

«Revolutionary socialism – the World Bank has written in a 1996 report – developed in the most agricultural states, where economic and industrial advances were the central concern along with egalitarian distribution. The work of the planned systems was considerable. They brought an increase in production, industrialization, the provision of basic education, medical attention, housing and work for entire populations and an apparent indifference to the great depression of 1930. But planning became largely a form of personalized and hierarchical domain. The planned economies were self-sufficient: limited only to relations with the Council for Mutual Economic Assistance, but nobody could trade freely with the rest of the world».[19]

The fall of the Berlin Wall led to radical economic and political reforms, from a one-party system to a multi-party democracy and a centralized economic system to a system managed by market mechanisms. The transition process has not yet been completed, especially in the Balkan region. A great responsibility is to give to the bad management of the transitory process:[20] the pursuit of a capitalist liberal model, the extension of the Washington Consensus on the basis of development policies operated in Latin America, the application of the *shock therapy*, neglect of the role of the State in creating and supporting institutions in a market economy; poor quality of the policies that were neglected in neglecting macroeconomic measures, independent central banks, reforms of adverse pensions. These factors caused vulnerability to the 2007 economic crisis and a slowdown in market growth. The desertion of public companies and their role, as well as a negligence on the role of institutions, in the naive belief that they would be automatically regulated and developed.

The destination model adopted almost everywhere in countries in transition was that of an open and liberalized market economy that would have reaped the benefits of private property and business. The synchronization of post-socialist transition processes coincided with the general domination of a particular and controversial model of a capitalist market economy, called hyper liberalization, typical of the Reagan and Thatcher era.

[19] WORLD BANK, *From Plan to Market*, World Development Report 1996, cit., p. 1.
[20] See NUTI, *Did We Go about Transition in the Right Way?*, cit., pp. 46-58.

After the collapse of the Soviet Union and the consequent reopening of the markets of the former Soviet countries, the West elaborated a series of mechanisms aimed at facilitating a rapid economic integration of the new markets. The states that have disgraced themselves from the Yugoslav Federation have abandoned the old system of market socialism. Only Slovenia has retained some features such as co-determination, reduced profits. The reforms in Latin America were different, as these countries were already market economies despite various types of distortion. Jeffrey Sachs, the principal consultant to the Yugoslav and Polish governments in 1989, recommended the *shock therapy* or the application of all reforms as soon as possible.

3. *The Integration Process*

The countries in transition have had a deep and protracted recession, partly as an inevitable consequence of the disintegration of COMECON, USSR, Czechoslovakia and Yugoslavia. The transition of Eastern European countries was supported in various ways by the G-24, the European Union, and many international financial organizations. The countries of the East Central Europe (CEEB) were benefited by the best welfare policies by the European institutions. The transition process of the countries of the south-east Europe were instead less involved by these assistance programs, especially due to the strong political instability and the wars that accompanied the transition process of the Balkan countries.

Between 1990-95 there was a financial assistance from the EU of 46 billion Ecu (European unit of account).[21] While from the USA, G24, WB, IMF a total of 86 billion Ecu, of which a third in the form of donations and the rest as loans on favorable terms. In 1991, the PHARE program (Pologne et Hongrie, Assistance à la Recostrucciòn Economique) was launched to provide financial assistance to help implement transition reforms. Specific programs besides PHARE were ISPA (Structural pre-association Instrument) and SAPARD (Special Accession program for agricultural and rural

[21] See M. DAMIANI - M. UVALIC, *Structural Change in the European Union and Its Periphery: Current Challenges for the Western Balkans*, in «Southeastern Europe Journal», XLII, 2, 2018, pp. 1-32.

development). ISPA supported large-scale projects in the transport and environmental sectors, while SAPARD began to prepare countries to fulfill the obligations of entry to the Union in the agricultural and rural development sectors. In 1991, the European Bank for Reconstruction and Development (EBRD) was created, with the task of helping the countries in transition to the market economy, in terms of planning the necessary economic policies. The EBRD created the so-called "Transition indicators", which establish the 4 areas of economic reforms: companies, markets and businesses, the financial sector and infrastructure.

Only a few leading countries experienced a sharp increase in trade (Poland, Czech Republic and Hungary). There was little diversification in the manufacturing of CEEB countries. It was concentrated in the textile, iron, steel, chemical, machinery sectors, a sector already well represented in the rest of European countries. The comparative advantages in agriculture were held back by the protectionism of the common European policy.

In 1998 negotiations began with the Czech Republic, Estonia, Hungary, Poland and Slovenia for accession to the European Union, in compliance with the standards set by the Copenhagen criterion of 1993. In 1999 negotiations began with the five other CEEB countries: Latvia, Lithuania, Slovakia, Bulgaria and Romania. In 2004 and 2007 there was inclusion. In 2013, Croatia became the 28th state of the EU. In CEEB countries, despite an increase in FDI flows, they are still low compared to other EU countries.[22]

After all these efforts, in a few years the EBRD region has reached an impressive amount of inputs that converge with the living standards of the most advanced countries since the beginning of the transition process.[23] According to the EBRD Report, as of 2017, only a minority of people from former communist countries, representing 27% of the distribution of admissions, have achieved an increase in their salaries, while 23% of the population find themselves in an even worse situation than in 1989. Although

[22] See UNCTAD, *World Investment Report*, 2018, in https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2130.
[23] See EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT, *Transition Report 2016-17*, in https://www.ebrd.com/news/publications/transition-report/transition-report-201617.html.

income inequality remains moderate compared to international standards, wealth is concentrated more in the hands of elites than in the rest of other global economies.

The average inputs in the EBRD region have grown considerably since 1990, when the average entry level in the region was only a quarter of those seen in the G7 countries, measured through purchasing power parity (PPP). In 2011 it had reached 38% of that level. The levels of entries per capita in the region are now 50% higher than those that were in 1989. However, convergence has been stationary since 2011. According to EBRD recipes, companies must be privatized and rapidly adopt corporate governance. Markets must be liberalized, open to foreign trade, and adopt competitive policies under the control of anti-trust agencies.

The financial sector provides banking systems with liberalization of interest rates, establishment of stock exchanges of values, and financial intermediaries. Infrastructures such as railways, energy and motorways must be restructured and at least partially privatized. Privatization increases efficiency, strengthens incentives, collects government revenues, disseminates private property. It aims to eliminate the paternalistic relationship that had established itself with the population, creating the conditions for the development of the capitalist market.

Various methods of privatization were applied: the classic method was the sale to the highest bidder, even to foreign investors; then there were the vouchers in favor of the population. They were distributed free to the whole population; these could be worth small portions of privatized companies or new investment funds. These mass privatizations were applied especially in Czechoslovakia, Slovenia and Russia. Sales on privileged terms to workers, also to have the support of the working classes. All this did not activate the processes of modernization, while the problems of the absence of corporate governance were maintained.

The transition process has coincided with a global period of technological progress. During this period, inequality between countries has generally decreased, while levels of entry into emerging markets have increased towards the levels of advanced economies, and inequalities have increased.

Armed conflicts and the civil wars that followed the collapse of the Soviet Union and Yugoslavia contributed to the increase in inequality. The transition process has produced an unprecedented change, from the economic model in favor of manufacturing and agriculture, towards an economic model with service-oriented structures. The service sector has jumped from less than 40% in 1990 to almost 60% today, while agriculture has fallen from 15% in 1990 to 12% today: «The growth in inequalities recorded in the early years of the transition process was inevitable, and even almost desirable. The inequalities of the inputs are partly a reflection of the differences in efforts by individuals. This may be necessary for growth. The transition should have established links between individual efforts and rewards in the event of improving economic efficiency, but the speed of growth of inequalities and the resulting difference in wealth is a cause for reflection».[24]

In Russia, the richest 10% achieved an increase in revenue of six times the average rate while 13% of the population has a worse income situation than in 1989. In China and many other emerging countries of Asia, inequalities have grown sharply, resulting in serious differences between the rich and middle sectors of the population. Although these countries have experienced strong growth without having to go through a transition process, even the poorest sectors of the population have experienced strong growth. Growth in Latin America was weaker, but seems to have benefited indirectly from global growth. This reflects the high levels of inequality recorded at the end of the 1980s, which have partly improved, thanks to fiscal policies, greater redistributions in public spending and increases in minimum wages.

The initial shock of the transition and the subsequent recession afflicted the entire population in the region, more or less at the same levels, while the few people benefiting from technical skills and entrepreneurial visions demanded by the market-based economic system benefited. Countries with low incomes that had less basic industrial development, however, were less conditioned in the transition process. Georgia, Russia and Turkey have the highest coefficients of Gini, at the level of the

[24] EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT, *Transition Report 2017*, cit., p. 13.

United States, while inequalities are lower in Hungary, Slovakia and Slovenia, at the level of advanced European economies.

There was concentration of foreign banks from Sweden, Denmark, Austria, Italy and neighboring countries such as the Czech Republic, Slovakia, but also German, French and Greek banks. The privatization of banks has resulted in better services but also greater vulnerability to external shocks. The agricultural sector remained important in countries such as Poland and Romania, while in countries such as the Czech Republic and Slovenia the industrial sector was down important before 1989. In Yugoslavia there was a fall in GDP of 80% in just three years, producing a hyper-concentrated inflation in Serbia and Montenegro. There was a recession even in the second half of the 1990s except in Bosnia and Herzegovina.

The slow recovery began only after 2000. This instability led to hesitations from the EU. Then in the commercial sector there was the elimination of the 95% tariffs except for some agricultural products and for the textile sector. The CARDS program (Community Assistance to reconstruction, Development and Stabilization) was implemented with financial assistance of 5 billion between 2000 and 2006. Together with the Stability Pact on German initiative with the support of other EEA countries, aimed at democratization and rights human rights, economic reconstruction and security. In 2007 it was transformed into a Regional Cooperation Council based in Sarajevo. Stabilization and Association Agreements were also signed during EU access negotiations. The phenomenon of jobless growth or growth without job creation took place. The informal economy spread with unemployment. Strong deindustrialization processes as the FDI focused on the banking, telecommunications, retail and real estate sectors.

In 1996 the FDI in Albania, Bulgaria, Croatia, Macedonia, Romania and the Yugoslav Federations amounted to only $ 3.4 billion or 5.7% of the FDI invested in the 27 economies in transition.[25] This situation improved after the signing of the Dayton peace agreements in 1995. Since 2000, Romania has attracted the majority of FDI in the

[25] See S. ESTRIN - M. UVALIC, *FDI into Transition Economies: Are the Balkans Different?*, in «Economics of Transition», XXII, 2, 2014, pp. 281–312.

Balkans. Positive political responses in democratic terms, there have been in two key countries like Serbia and Croatia, which have improved economic performance since the beginning of the 2000s.

Economic stabilization, relatively strong GDP growth, caused increases in international trade and a gradual approach to developed countries. Since 2001, trade liberalizations have been implemented with the European Union and within the Balkan region, gradually improving the economic environment, privatizing entire companies and almost the entire banking sector. Bulgaria and Romania joined the European Union in 2007 and Croatia became the 28th EU state in 2013. Macedonia, Montenegro and Serbia are EU candidates, Montenegro started negotiations in 2012, Albania and Bosnia and Herzegovina remain potential candidates, while Kosovo receives special treatment.

Under the impact of the global economic crisis, most EEA countries registered a fall in the FDI in 2007-08. In Bulgaria they decreased from $ 12 billion in 2007 to 2 billion in 2010-2011. Similarly, in Romania from the record of 14 billion in 2008, they passed in half in 2009 and followed decreasing. Serbia reported a fall in FDI flows in the period 2006-2010 but showed strong growth in 2011 when flows doubled to $ 2.71 billion.

The other 4 candidates (Albania, Bosnia and Herzegovina, Macedonia and Montenegro) had FDI flows under 2 billion in the period 2004-2011. Finally, the choice of location is decided by the company that finds the optimal place to combine their legal advantages with local costs. This paradigm is known as the OLI or Eclectic Paradigm[26]. It states that companies expand internationally where they can redistribute their transferable resources and exploration capabilities.

4. *Resource management in transition economies*

In 2007 the United Nations Environment Program launched the International Resource Panel, with the task of spreading knowledge and improving the use of global resources. The areas in which this organization works are those of soil management, the dissociation between economic growth and resource consumption, the health of

[26] See J. DUNNING, *The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions*, in «Journal of International Business Studies», XIX, 1, 1988, pp. 1-31.

ecosystems, urban contexts, biophysical terms of trade, REDD + and environmental impacts in general. The materials can be classified into 4 categories: biomass, fossil fuels, minerals and metals. Exceptional growth rates have been recorded in the industrial and construction minerals sector. These were used to improve the energy infrastructure of transport and construction. Industrial development has depended heavily on materials, particularly in emerging economies. To meet the energy demand there was a 142% increase in fossil fuels and 167% in biomass. The extraction was concentrated mainly in Asia due to the rapid development. In China it is growing by 1400% from 1970 to 2017 and today represents one third of global extraction.

Large quantities of water are consumed, entire areas are occupied, waste products and greenhouse gases are used. They also depend on a wide range of materials such as fossil fuels used for energy and industrial production, building minerals and heavy metals used for infrastructure and manufacturing. Different types of biomass play an important role, not only for food products, but also for other types of bio-products such as fibers, fuels and textiles or general *Bioeconomy*.

In the graph below, we analyze the material extraction trends in countries influenced until 1989 by the Soviet bloc. The Yugoslav Federation is taken into consideration until 1991, year of his dissolution, to then continue as a set of countries that make up the former Yugoslavia. Czechoslovakia is considered until 1993, to then represent the sum of the extraction indices of the Czech Republic and Slovakia. As can be seen from the trend lines, peak levels of extraction were reached around 1988-89 at the time of the Soviet political crisis. From that moment the case generated by political instability led to a structural inefficiency and therefore to a drastic drop in the levels of extractivism. However, these levels have shown modest growth in recent years, especially with the start of the new millennium, and have sought to benefit from high international commodity prices. Of all this region, Romania maintains evidently higher rates of extraction, especially of fossil fuels and non-metallic minerals, while Bulgaria is the country with very low extraction levels, with a few million tons per year. The levels of resource extraction are undoubtedly linked to the Industrialization rates of a country, which needs to extract resources for its domestic use as well as for export purposes.

In the 1990s the Western Balkan countries underwent a strong process of de-industrialization. The process of rapid de-industrialization, together with insufficient investments for modernization and the restructuring of industrial capacity, contributed to the unsatisfactory export trade in the Western Balkan countries. Their slow interaction in the EU economy and global value chains brought growth under potential. In the last few decades, all developed countries have had a reallocation of resources and employment-oriented employment rates, which today contribute to most of the GDP, leaving aside the primary and secondary sectors.

In 2009 the loss of RCA (Revealed Comparative Advantage) registered in the food sector in Hungary, for the textile and chemical sector in other CEEB countries. In the metallurgical sector all the countries that had RCA in 1995 maintained it, even if the specialization had decreased.[27] In the same year some countries had acquired an RCA in new sectors, such as electricity and equipment, particularly in transport.

The armed conflicts that led to the break-up of Yugoslavia contributed directly to the destruction of industrial capacity and to the retreat of the industrial base. The international sanctions against Yugoslavia, initially imposed in 1992 due to the influence in the war in Bosnia and Herzegovina, were removed in 1996 and again introduced in 1998-99, due to the Kosovo crisis, it also led to an isolation of a part important in the Western Balkans. Due to political instability, the Western Balkan countries did not receive financial assistance, access to specific trade and sectoral programs that the EU had offered to CEEB countries.

5. *The problem of sustainable extraction*

Contradictorily, companies continue to strive to increase economic growth. The objectives for sustainable development focus on the harmonization of economic objectives with environmental ones. The first step is to reduce the amount of materials needed to pursue economic development. This decoupling would allow economic prosperity by reducing the pressures on the environment, allowing human development

[27] Cfr. ESTRIN - UVALIC, *FDI into Transition Economies. Are the Balkans Different?*, cit.

in accordance with the limits of the planet. To do this it is necessary to increase the efficiency of the use of resources. Several indicators are taken into consideration; the GDP can relate to the use of resources within a productivity indicator. In the EU Roadmap (2012) to a resource-efficient Europe, the main indicator used is the Direct Material Consumption. However, this does not take into account the use of materials at the value chain level. Since 2009, the trend in increasing the productivity of materials is stagnant. The influence of financial markets must also be clarified.

The convergence of inputs between countries was supported by a long period of relatively high commodity prices, which benefited commodity exporting countries, through improvements in macroeconomic policies in emerging markets and production technologies favored by globalization, based on global value chains.

According to the convergence theory, the most advanced countries tend to grow more slowly. However, there is a convergence of elites, or "Club convergence". Given that very poor countries tend to grow more slowly. Countries like China, South Korea and India have instead entered this club. Kuznets's curves: when a country begins to industrialize, inequality grows but then tends to collapse. Does financial development help fast growth?

The neoclassical growth model is explained by two equations.[28] The first is that production flows are a function of capital and labor.

$$Y = AK^{q}L^{1-a}$$

In this case, technological improvement cannot be explained, so the productivity variable is endogenous.

The second group of theories consists of those based on innovation. In the Romer's model,[29] productivity grows with innovation creating a greater variety of products. In this way the greater availability of capital can be invested in a greater diversity of uses. It does not take into account the creative destruction of the Shumpeterian paradigm. The Shumpeterian model focuses on the quality of the innovations that make old products

[28] See PH. AGHION - P. HOWITT, *The Economics of Growth*, Cambridge, Massachusetts Institute of Technology, 2009, p. 377.
[29] See P.M. ROMER, *Endogenous Techonological Change*, in «Journal of Political Economy», XCVIII, 5, 1990, p. 2.

obsolete. Fast growth implies a high turnover of companies because this process implies the creative destruction of old companies, to make room for new, more innovative ones. The growth of a country varies according to its proximity to the technological frontier. Policies to support technological convergence will therefore be important. Through endogenous innovation it is possible to reconcile the growth objectives with the limits imposed by the purpose of resources, preserving the environment.

R is the resource extraction flow; S stock of natural resources.

S=-R

In the absence of finite resources Y = AK, such an economy could grow without limits. But since R and K fall towards zero, production Y = AKR ^ ∅ also tends to fall towards zero. As stated by Aghion & Howitt, "The AK economy with finite economic resources looks like a snake biting its own tail to survive; whereas technological advances also require capital accumulation and therefore an acceleration in the consumption of productive resources".

In contrast to the AK model the growth can be sustained in the Shumpeterian model. In this way it is possible to conceive technological models distinct from the accumulation of capital, in particular inventions that are able to decrease the use of resources. Assuming that the government can impose that R decreases over time at an exponential rate of R = -QR, growth is possible only if there is enough R&D to create innovation. The condition will be satisfied only if the productivity of the R&D will be large enough compared to the exhaustion of the resources q.

But there are two other variables to consider. The fact that in the world we have a dominant innovation that tends to increase the rate of consumption and extraction of resources. And the fact that at the same time the environment tends to regenerate itself at a rate w.

If time t is a discrete variable, we have:

$$Y_t = \begin{Bmatrix} Y_{et} + Y_{dt} \text{if} & S_t > 0 \\ 0 & Otherwise \end{Bmatrix}$$

Where Y_{ct} is the *clean* production variable, e Y_{dt} is the *dirty process* output. TheS_t is instead the Environmental Stock. Production is not possible if S_t disappears or is equal

to zero. The equation implies a speed limit of the Y_{dt}, which cannot grow faster than the natural regeneration rate w, in the long run. Only if the clean technology sector was more productive than the dirty sector ($A_c > A_d$) the labor would not be allocated to the dirty sector ($L_d = 0$) and there would be no contaminating production ($Y_d = 0$). In this case, following the equation, the environmental stock S_t would remain positive forever, solving all environmental problems. Therefore, the question basically becomes, how to achieve greater productivity in clean technologies? It will be possible?

Conclusions

In Latin America, as well as in the transition countries of the former Soviet bloc, it is necessary to achieve lasting growth that considers the environmental aspects and a partial state intervention to direct development towards sustainability and towards the improvement of public services offered to the population. How to promote economic recovery and technological updating? Stimulating quality domestic investments, towards aggregate value chains. Facilitating the creation of local networks of collaboration between domestic and foreign companies, facilitating funding and investing in research and development and also public innovation.[30]

Manufacturing has been identified as an important strategy for growth and recovery. During and after the crisis, the countries that maintained a strong manufacturing base went better, while the recovery was driven especially by manufacturing exports. The majority of developed regions are heterogeneous. The experience of the most developed European countries, where manufactures are considered as the engine of development, must constitute a guideline. It would be important to implement economic policies that can strengthen the manufacturing sector. Economic development in the developed world indicates extensive models of structural change.

Structural change models in developed countries are generally explained by two groups of theories. The first is based on the factors of supply, identifying rates of

[30] See M. JACOBS - M. MAZZUCCATO, *Rethinking Capitalism: Economics and Policy for Sustainable and Inclusive Growth,* Haboken, NJ, Wiley Blackwell, 2016.

productive growth between the sectors of agriculture, industry and services.[31] According to this point of view, there is a positive relationship between growth and manufacturing, and the productivity growth of the system as a whole. The higher production growth in manufacturing implies that in the long term the manufacturing prices decrease, compared to the services, leading to a lower contribution of the manufacturing in the added value.

The second theory refers to the structural changes of the advanced countries to changes in the composition of the demand, which causes different elasticities of demand in the products and services of the different sectors. According to Engels' law and the Clarck hypothesis, the "Hierarchy of needs", as revenues grow, countries are experiencing a saturation of manufacturing demand and a growing demand for services, causing a reduction in manufacturing and a larger market for services.

Regarding the factors that determine differences in the economic structure between countries, the most important are international businesses driven by innovation and specialization. The economic development of a country is linked to the changes in its exports, where the structural change goes in the direction of a mild but persistent change towards advanced industrial technologies, which tend to be less intensive work and offer more possibilities to build comparative advantages through the product differentiation. The arguments on manufacturing as an engine of growth have been advanced by Greenwald and Stiglitz,[32] who recall how historically the industrial sector has been the engine of innovation: this activity is favored in the context of large, long-lived, stable and densely concentrated geographically. They show high productivity by generating high aggregate value, they pay high wages, they employ highly skilled workers and more capital per worker.

Manufactures are extremely important for the external budget of a country: to improve the commercial balance of an economy, it is necessary to export more

[31] See N. KALDOR, *Strategic Factors in Economic Development*, Ithaca, NY, Cornell University Press, 1967.

[32] See B.C. GREEWALD - J.E. STIGLITZ, *Industrial Policies, the Creation of a Learning Society, and Economic Development*, in J. LIN YIFU, *The Industrial Policy Revolution: The Role of Government Beyond Ideology*, Basingstoke, UK, Palgrave Macmillan, 2012.

manufactured products. Since 1995, the old members of the European Union have increased their specialization especially in the high-tech sectors: chemicals, machines and other engineering products. In parallel with a growing orientation towards foreign markets. In the high-tech manufacturing sectors, Germany has reached the United States.

Substantial structural changes have also taken place in the CEEB countries that joined the European Union in 2004-07. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia, through specific features. Given the similar objectives of economic development that placed a strong emphasis on rapid industrialization, the economic structure of Eastern Europe was typically dominated by industry. The influence of FDI during the second half of the 1990s, particularly towards the Czech Republic, Hungary and Poland, facilitated the transfer of know-how and modern technologies, therefore the profound restructuring of the industry such as chemistry, which allowed a technological upgrade, improving productivity and export performance.

Countries depend on the export of commodities, foreign capital and remittances. They benefited from the high international prices of commodities, the increase in remittances, the financial exuberance and the rapid global growth recorded in the last decade. Structural reforms will be necessary. In economies where agriculture is still an important source of employment, it is necessary to support the competitiveness of small producers, increasing their access to land, investing in rural infrastructure, reducing the urban preference of public policies and adopting an exchange rate that favor the commercial sectors.

Another structural problem that needs to be addressed is the segmentation of the labor market and the growing diffusion of the informal market. Trade liberalization in the last quarter of a century has led to rapid growth in exports but only to moderate growth in GDP and labor productivity, persistent vulnerability to external shocks, return to the primary sector of exports and risk of deindustrialization.[33]

[33] See J.A. OCAMPO, *The Development Implications of External Integration in Latin America*, United Nations University UNU/WIDER, Working Papers 48/2012.

A report by the World Health Organization in Latin America shows an increase in life expectancy and infant mortality rates. The inequalities in the entrances, health and education are interrelated between themselves as well as with the concentration of activity, the level and incidence of public expenditure and the evolution of discriminatory social norms based on caste, tribe, religion, ethnicity, gender and other: «How bad does the economic situation of a country have to be in order to declare it with an economic crisis? Normally the economy is based on the growth rate, the Gini coefficient, inflation for measure their performance. In this case the bad economic situation denotes a state of the economy that maybe it does not meet the economic standards to declare it a crisis (recession), but in terms People are dealing with crisis situations. The economy in Latin America is bright for some, not for everyone. In six countries, regardless of what the economic indicators say, more than half of the population says that there is a bad economic situation. 83% of Venezuelans at first place, Brazil and Argentina with 62% in second place, El Salvador 59%, Nicaragua 58%, Mexico 54% ».[34]

After a beginning of the twenty-first century marked by the rise of left-wing or center-left populist governments, the latest electoral experiences in Latin America are leading again to the concentration of power in the hands of new Latin American right-wing governments. The Latinobarometro Report 2018, highlights how a small minority of the Latin American population is perceiving an improved economic situation.

The recent return of the right to political power is another factor to consider when analyzing economic processes in Latin America. The past shows that liberation policies have been promoted in particular by the national right, with negative effects on social inequalities. On the other hand, the context of environmental exploitation can be influenced more by geopolitics and international economic policies, which should boost the process of transition towards a green economy, and try to reduce the growth gap demonstrated by the phenomenon of the Convergence Club.

[34] See LATINO BARÓMETRO CORPORACIÓN, *Report 2018*, in www.latinobarometro.org/latdocs/INFORME_2018_LATINOBAROMETRO.pdf.

Annexes

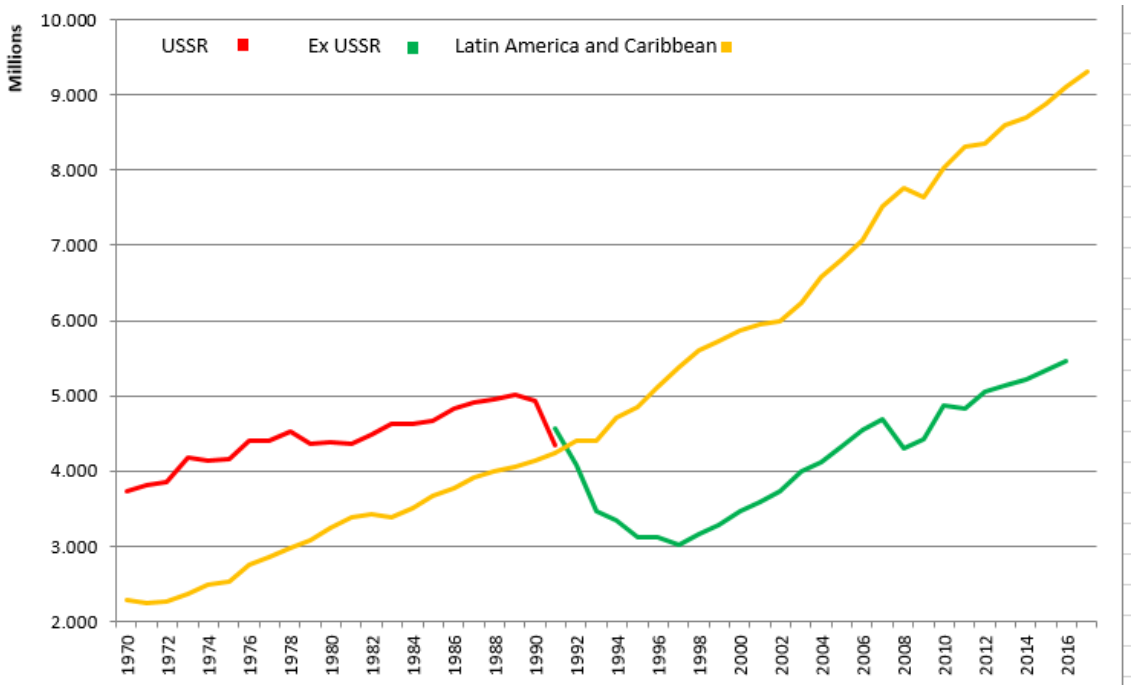

Chart 1. Domestic extraction rates in Latin America, USSR and ex-USSR countries. Self-made based on International Panel Resources data

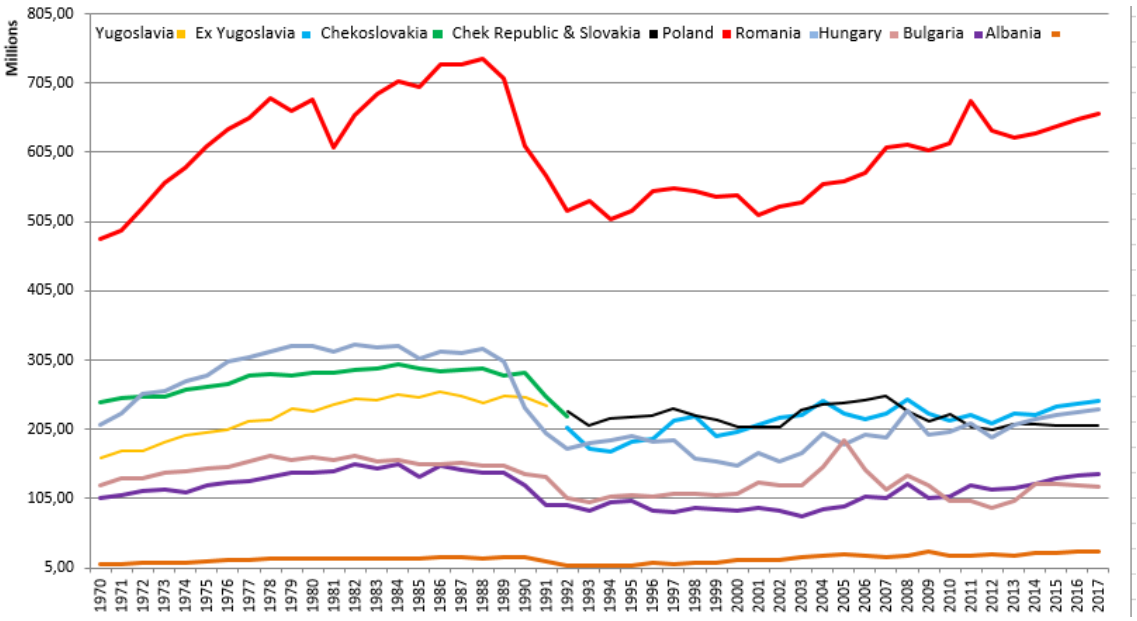

Chart 2. Domestic extraction rates in CEEB and SEE countries.
Self-made based on International Panel Resources data