

**Reprimarization: Implications for the Environment and
Development in Latin America: the cases of Argentina and
Brazil**

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ALLIED SOCIAL SCIENCE ASSOCIATIONS

JANUARY 3-5, 2016, SAN FRANCISCO, CA

Session: Heterodox Approaches to Trade and Development

Jan 03, 2016 2:30 PM,

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Abstract

There has been a tendency throughout Latin America, in recent decades of the expansion of activities associated with reprimarization. The latter refers to all activities of extractivism, such as mining and petroleum, as well as agricultural activities, such as cattle and soy. These are linked to the strong growth of the commodities markets and the amazing growth of China. This paper examines the implications for both the environment and development, in general, and considers the currently active development trajectories critically and presents alternative trajectories of development for the region. In examining the shift to reprimarization in Latin America there are a range of key impacts on the environment.² The following issues are very much connected to the shifts toward reprimarization: (1) deforestation of the Amazon Rain Forest linked to, lumber, cattle and soy; (2) air, water, and soil pollution linked to the use of pesticides, and mining; (3) soil erosion as a result of mining and soy. There are also major socio-environmental issues around the issue of hydroelectric dams, strongly tied to mining. Many progressives are calling into question this extractivist model of development. Beyond the environment, major concerns are with respect to industry, wages, informal work, and the perennial problem of being just primary goods providers to the first world, rather than seeking a means by which a serious alternative development trajectory could be pursued.

JEL: O13, O14, O19

Keywords: Reprimarization environment, Latin America, Argentina, Brazil

I. Introduction

In recent decades there has been a tendency throughout Latin America of the expansion of activities associated with reprimarization or simply expansion of the primary goods sector at the expense of manufacturing industry. The latter refers to all activities associated with the primary sector, such as mining, oil, as well as agricultural activities, such as cattle and soy. These tendencies reflect the strong growth of the commodities markets during recent years and the amazing growth of China. This paper examines the implications for both the environment and development in general as a result of the reprimarization tendency. In addition to discussing the current development trajectories being pursued in Argentina and Brazil, the

² Although there is much discussion around the environmental impacts related to oil exploration and refining and especially given the move toward fracking, due to limitations of space and expertise, these were not examined.

paper presents an overview of the possibilities of alternative trajectories of development for the region. In examining the shift to reprimarization in Latin America there are a range of key impacts on the environment. The following issues are very much connected to the shifts toward reprimarization: (1) deforestation of the Amazon Rain Forest linked to the expansion of lumber, cattle and soy; (2) air, water, and soil pollution as a result of mining and the use of pesticides in agriculture, especially for soy; (3) soil erosion as a result of mining and soy. There are also major socio-environmental issues around the issue of hydroelectric dams, strongly tied to mining in several countries of Latin America. Many progressives are calling into question this "neo-extractivist" model of development. Beyond the environment, there are also major concerns with respect to industry, wages, informal work, and the perennial problem of being just primary goods providers to the first world, rather than seeking a means by which a serious alternative development trajectory could be pursued.

With the outbreak of the crisis in 2008, there came to be a growing consensus that the neoliberal prescriptions had serious problems, resulting in an initial shift towards the adoption of Keynesian policies in many countries of the world.³ In this respect, changes reflecting a break or modification of orthodox neoliberal policies have been pursued by several countries in Latin America with shifts toward left or center-left parties. In the case of the two largest economies of South America, namely Argentina and Brazil, many have argued that the changes that took place constitute a new model of economic development, namely, new developmentalism.⁴

In the next section, a brief summary of neoliberal globalization is presented and how this has led to the tendency of reprimarization in Latin America. In the third section, the relationship between the reprimarization tendency and the environment is presented. In the fourth section, the overall role of the State, TNCs, the WTO, and the international context are critically evaluated. Lastly, in the final section an overall assessment of the socio-environmental impacts as a result of the recent trajectories are considered in light of the debate over reprimarization.

II. Neoliberal Globalization and the Tendency toward Reprimarization

Historically, the role of the foreign sector has had a rather significant importance in Latin America, from the time of the Iberian conquest and colonization through to the domination by the British and U.S. empires. In the particular cases of Brazil and Argentina, the exporting of agricultural products predominated until the first decades of the 20th century. The

³ Unfortunately, in spite of the recessionary trend in Europe, policy makers are still pursuing monetarist austerity measures.

⁴ Authors that have employed this term include Bresser-Pereira, João Sicsu, David Kupfer, Paulo Nogueira Batista Jr., among others. (See Sicsu et. al., 2005).

Great Depression during the 1930s marked a point of inflection regarding the centre-periphery dynamic. As a result, certain countries pursued the policies of Import Substitution Industrialization (ISI), and thus increased their economic autonomy. Based on this policy shift, Brazil and Argentina became two of the most industrialized countries in Latin America.

Neoliberal Globalization

During the 1970s, when the accumulation crisis took place in the first world, as a result of the low rates of profit in all major countries, many capitals from the first world sought ways of improving the profitability of their investments. This situation led to the major transfer of capital from industry and towards the financial sector. Combined with the oil price increase, this crisis came to promote the recycling of petrodollars, resulting from the major increase in oil prices. As a response to the problem of overaccumulation of capital the IMF and other institutions came to promote the taking on of debt in the name of development for countries of the periphery, and as a way to recycle petrodollars. Thus, the IMF came to push or encourage the expansion of debt during the 1970s for countries such as Argentina, Brazil and Mexico; increasing between 3 to 5 times. This led to increased industrialization for Brazil and Mexico, but unfortunately to deindustrialization for Argentina.⁵ In 1979, the U.S. changed the rules of the game with the Volcker interest rate shock; this huge increase directly impacted the rates of interest at which these new loans had to be repaid.

This situation was the principal catalyst for the debt crisis which Latin America had to suffer through, and thus the 1980s came to be known as the "lost decade". Since that time, the IMF and creditors of the 1st world used the debt as leverage for forcing countries to adopt neoliberal policies, often known as Structural Adjustment Programs (SAPs). The dominant ones being liberalization of trade, deregulation of finances, privatization of public enterprises and the flexibilization of labor.

The transnational corporations (TNCs) were key actors in this process of neoliberal globalization. They were able to transform the production processes across the globe with numerous negative consequences for the majority of working classes in most of the world as they achieved major improvements in their profitability. The result was the end of the alternative represented by ISI and the implementation of neoliberal policies, often leading to a general worsening of the living conditions of their respective populations throughout Latin America. Associated with the increasing domination of TNCs across the globe is the emergence of a transnational capitalist class (TCC), as has been argued by Robinson and Sklair. (Robinson,

⁵ For a discussion of the two waves of deindustrialization and their connection to the depression of 2001 in Argentina, see Cooney, 2007.

2004 and 2008, Sklair, 2001) The increasing hegemony of TNCs is transforming national into transnational spaces with major implications for struggle and resistance against these seemingly all powerful global corporations. This has been concomitant with the expansion of transnational commodity chains across the globe, and the subsequent decline in terms of the importance or relevance of national policies, be it industrial, commercial or financial, given the imperative to accommodate the interests of TNCs and the new TCC. This has had a clear impact in terms of the decline in autonomous industrial policies and the shift toward reprimarization.

At the economic level, the transition to neoliberalism implied policies which came to limit or block the development of industry, if not its dismantlement through the processes of deindustrialization, first under the dictatorship in Argentina and later on in Brazil, during the democratic opening. (See below). This also had a major worsening of the conditions for manufacturing workers in these countries, as well as for most of Latin America. Another aspect, which in particular impacted the manufacturing sector, was that of financial deregulation. The latter implied that an increasing portion of productive investment went towards financial speculation and significantly impacting negatively upon manufacturing output and employment. The main result of the twin processes of deindustrialization and reprimarization for the economies of Argentina and Brazil has been an increasing orientation of their economies toward the production of primary goods and thus a greater dependence on the exports of raw materials or *commodities*. In the next section we elaborate further on the specific sectors of mining and then agroindustry.

Large-scale Mining, neoliberal reforms and social conflict⁶

The application of neoliberal policies in the mining sector of countries in the periphery, and in particular in Latin America, is reflected in the changes in mining laws, adapted for the promotion and attraction of foreign investment. This occurred with the neoliberal turn in the 1980s and 1990s, and the implementation of SAPs. Between the end of the 1980s and 2000, under the push by the Bretton Woods institutions (see Campbell, 2010), more than 90 countries adopted new legislation of a neoliberal orientation around the globe. (See Konak, 2008).

In Latin America, at least 14 countries reformed their legal framework with respect to mining investment, inspired specifically by the Chilean model (Chaparro, 2009). The reforms were promoted and implemented, as much in countries with a major mining tradition, such as, Chile, Bolivia, México or Brazil; as those countries which had been almost inactive, such as the cases of Ecuador, Argentina, Uruguay, Paraguay and Colombia. The main measures consisted of

⁶ Much of this section is based upon a recent the paper presented by Cooney and Sacher at the JEC conference in Rio Cuarto, Argentina in 2015 (see Cooney and Sacher, 2015).

i) guaranteeing legal rights for concessions and without a time limit for such transfers; ii) privatization of state mining enterprises and systematic provision of strategic geological information iii) reduction of the minimum tax burden (taxes, state royalties) and the promotion of very lax tariffs; iv) promotion of labor and environmental laws in the interests of the mining companies, without threatening their profits; v) “formalize the reality” of artisanal mining (World Bank, 1992:42, cited in Campbell, 2010), i.e. marginalize, and if possible criminalize such activities, as in Ecuador, recently, in particular, for those sites of high geological potential. By the beginning of the 2000s, the great majority of Latin American countries had promulgated laws and regulations that followed these measures, designed so as to be particularly favorable for foreign investment in mining.

El Dorado, Revisited

Since the beginning of the 1990s, given these legal changes designed or fit to order for TNCs (the majority of which are originally from Canada, but also the U.S, Australia and England) consider the geopolitical South a new opportunity for investment, in spite of the fact that the global markets for minerals were depressed during the second half of the decade, there has been a clear tendency upwards for the prices afterwards. (Roseneau-Tornow *et al.*, 2009: 162). It can be argued that once again, Latin America has returned to be the new *El Dorado* with a new wave of conquistadores, and that it has been converted into the new extractive frontier. Investments in mining exploration increased by 500% between 1991 and 1999 (*Mining Journal*, cited in Borg, 1998). The advance was also significant in absolute terms. In value terms, Latin America was the fourth most common destination for investment worldwide in mineral exploration in 1991 (representing only 15% of expenditures), and by 1997 they were the primary destination (nearly 30% of all expenditure)⁷.

After a period of recession between 1997 and 2002, expenditures for exploration took off again in the decade of the 2000s (MEG, 2011:3). Between 2002 and 2010, they increased by a factor of six at the global level, growing from de \$US 2 billion to US\$ 12 billion (MEG, 2011). These numbers were minimally impacted by the global economic crisis which began in 2008. During this same period, Latin America continued to be the primary destination for new mining investment for exploration at the world level, attaining more than 25% of total investment, and thus passing Canada (MEG, 2011).

The growth of China: a world of opportunities

A major determinant of the recovery observed from the beginning of the 2000s, is

⁷ The numbers for development expenditures of mines (investments for extraction) are less accessible than the activity of exploration. One can assume that the tendency for exploration expenditures are a good indicator of the level of expenditures in general for mining activity.

beyond a doubt, as a result of the amazing economic growth of China, which brought about a significant increase in the prices of minerals. According to Roseneau-Tornow *et al.* (2009:162), the prices of metals at the world level quadrupled between 2002 and 2007. It is worth noting that the arrival of left or centre-left governments in numerous countries in Latin America (e.g. Venezuela, Ecuador, Bolivia, Uruguay, Argentina, Brazil, Nicaragua, El Salvador, etc.) did not lead to any scaling back of the expansion of large-scale mining. In contrast, it should be noted that in many of these countries, the period referred to as "post-neoliberal" has meant a return of the role of the State for mining activities and an increase in the rent associated therewith. This situation has led to several authors to describe this phenomenon with the term neo-extractivism (e.g. Gudynas, 2011; Veltmeyer, 2013). This term implies a type of extractivism in mining without lowering levels of investment but with the socio-environmental impacts concomitant with such activity. The key driver is the increase in profits or mineral rent through efforts on the part of the State, through infrastructural projects and incentives and subsidies for the mining transnationals, whether they be foreign or local.

Tendency towards Reprimarization in Argentina and Brazil

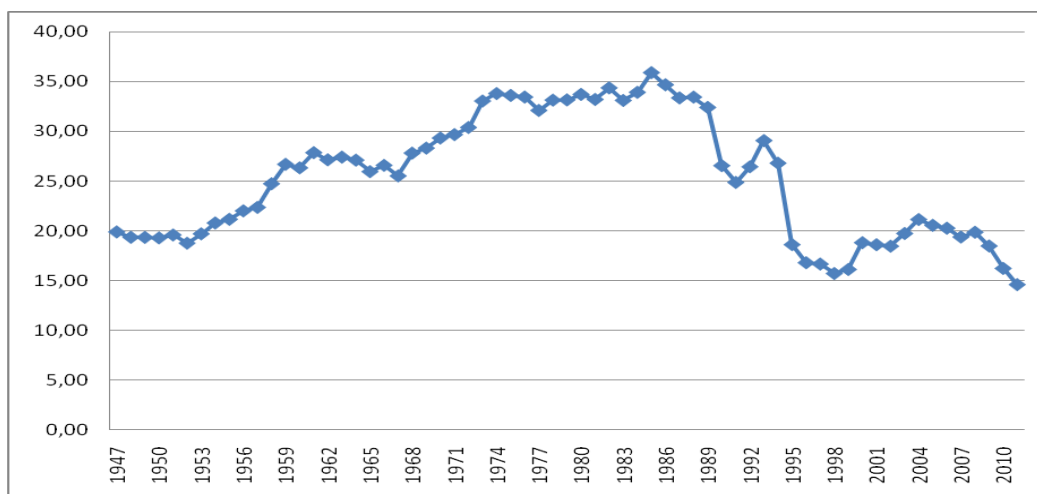
For Argentina and Brazil, as well as for some other countries of the region, recent decades have been marked by a notable decline in manufacturing, while agroindustry, mining and other extractive sectors have expanded significantly. During the last ten years, there has been a particular increase of trade between Argentina and Brazil with China. This is primarily due to China's interest in insuring the supply of raw materials. However, China has not limited their action to the exchange of commodities. They have also been investing and buying land in many countries of the region, linked to several sectors: agroindustry, hydroelectric dams, mining, and engaging in the construction of major infrastructural projects. In part this has been accomplished through major loans either within the BRICs, for Brazil, or outside them for numerous Latin American countries.

The expansion of the agro industrial sector and other primary goods, such as minerals and oil, has been a major factor bringing about reprimarization of the economies of these countries. Nevertheless, for countries which had limited industrialization, it may simply be a re-intensifying of the primary sector and not a reprimarization. Some would argue the same for Argentina as it experienced its most significant deindustrialization, first in the 1970s and then in the 1990s with the government of Menem. On the other hand, the interests and designs of TNCs at a global level has come to dominate the industrial and development policies of both Argentina and Brazil. In addition, adhering to the rules of the WTO significantly reduces the possibility of autonomous industrial policy for any member. Before considering reprimarization, a brief presentation of deindustrialization in Brazil is presented below.

Deindustrialization in Brazil⁸

Given the fact that Brazil experienced several decades of industrial growth, it became recognized as the industrial powerhouse of the region. However, there is less familiarity, both inside and especially outside of Brazil, regarding the process of deindustrialization that has taken place since 1986. Considering the most cited measure of deindustrialization, namely manufacturing's share of GDP in percentage terms,⁹ Brazil's manufacturing industry achieved its maximum percentage of GDP first in 1974 and again in 1986, at 32%. This was followed by a declining tendency until bottoming out at 20% in 1998 and then beginning a slight recovery to 23% in 2005, though followed by a downward trend in recent years. This latter tendency is also clearly evident in the series for value added as a percentage of GDP as presented in Figure 1 below. It can be argued that this series is more relevant than the former, and in any case it is actually more worrisome, having declined from over 35% of GDP in 1986 to only 10.91% in 2014.

Figure 1 Value Added by Manufacturing Industry as % of GDP Brazil, 1947-2011



Source: IBGE, 2012.

A key concern for Brazil, and also for Argentina, is the increase in the degree of dependence of the industrial sector on the development of agro-industry at the expense of traditional manufacturing industry. Both countries have experienced high rates of growth for agro-industry as a result of robust *commodities* markets, given the rather propitious period in recent years. The question is how these markets will behave in coming decades. One need only recall that in the late 1990s, Argentina was expanding its exports of seed oils in physical terms

⁸ This discussion of deindustrialization and reprimarization in Brazil, is in part derived from our forthcoming article in RRPE: Trinidad et al, 2016, currently available online.

⁹ In Brazil, the term *indústria de transformação* refers to manufacturing, although this includes mining.

yet receiving less in terms of foreign exchange; this being one of the factors leading to the crisis of 2001. In the case of Brazil, two of the strongest growth sectors in recent years have been soy and beef,¹⁰ reflecting on the one hand, the particularly high growth rates of the Amazon region, and on the other hand, the increasing reprimarization of the Brazilian economy.¹¹

In the case of Brazil, the main object of economic policies during the 2000s was distinct from that of Argentina, aiming for a strong currency in order to continue to be attractive for foreign direct investment (FDI). Unfortunately, the latter was often of the portfolio variety, and thus associated with financial investment through the mechanism of the overvalued currency and high rates of interest. Although this approach was able to achieve high levels of investment in Brazil, since the Cardoso years, it has also been prejudicial to national industry. As a result, there has been a slow but sure process of deindustrialization which derived from a double phenomenon. On the one hand, a steady shift from manufacturing toward agro-industry and on the other hand, a shift from sectors of higher value added to those with lower value added, as reflected in the increased importance of the production of food and beverages, for example. It is therefore important to recognize that the sectors which have grown most in recent years are linked to the commodity chain associated with agro-industry or to the production of primary goods, such as minerals and petroleum.

This tendency has been in part supported by the expansion of infrastructure, such as that associated with the Program for the Acceleration of Growth (*PAC: Programa de Aceleração do Crescimento*). This program has been strategic in expanding infrastructure investment and thus reversing a decline evident in the 1990s.¹² Nevertheless, much of the new infrastructural projects have been oriented toward agro-industrial expansion and mineral and petroleum extraction, namely directed toward the production of primary goods.

Impact of Reprimarization on Exports

Recent decades have witnessed a clear opening of the Brazilian economy with a noticeable increase in the value of exports, tripling between the years 1999 and 2009, and in absolute numbers reaching over US\$ 100 billion. This trajectory of export expansion has been increasingly dominated by agroindustry and is indicative of policy initiatives oriented toward the primary goods sector. As evident in the Figure below, the ratio of primary goods exports to that of industrial exports has increased substantially. In 1995, this ratio was 0.31, implying that primary goods represented less than a third of industrialized goods. Over the last fifteen years,

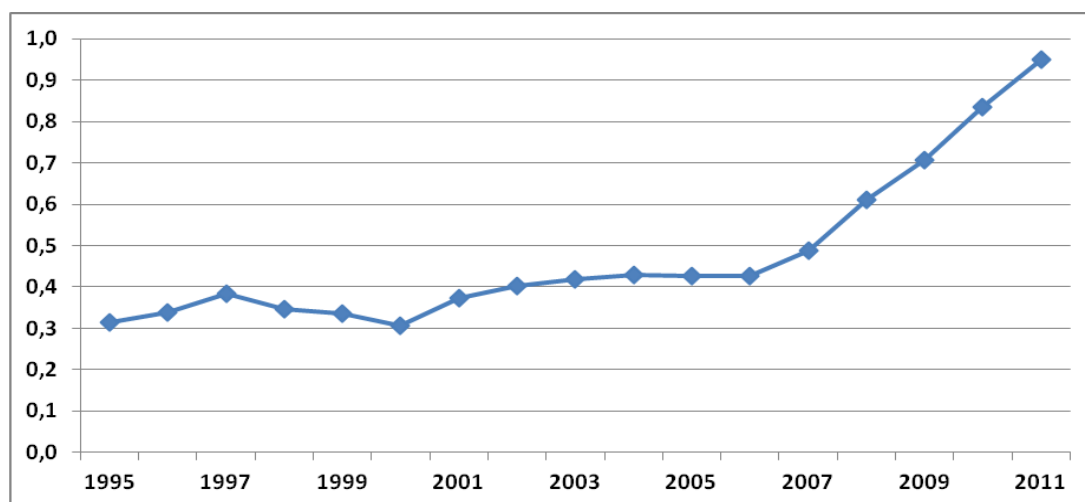
¹⁰ For example the cattle sector grew 180% between the years 1990 and 2006.

¹¹ See Rivero and Cooney, 2010 for a discussion of recent expansion of agro-industry in the Amazon.

¹² See Carneiro, 2008b.

this index has continually increased and reached 0.95 in 2011, such that exports of primary products are approaching 50% of total exports, and this is in clear contrast to the ISI period when exports of manufactured products were much higher. This is the result of the agroindustry and mining sectors having had such strong growth in recent years. The principle products exported by Brazil in 2011 are primary goods: iron, oil and other soy products, sugar, coffee and beef. It is worth noting that at present, Brazil is the country which exports more beef in the world. Brazil's export dynamic is revealing for the period 1991 through 2009. While Brazil's overall exports grew by approximately 318%, the exports of primary goods grew by 525%.

Figure 2: Ratio of Primary exports to manufacturing exports (Brazil - 1995-2011)



Source: MDIC (2012).

III. Reprimarization and the Environment (socio-environmental impacts)

The idea of scaling back industry and moving toward primary goods may initially seem like the environment should be better off. However, as in any generalization, one must look at the details and in the case of the tendency for reprimarization, there are numerous environmental problems given the domination of transnationals extracting minerals, soy etc., and given the fact that TNCs do not have a great track record when it comes to the environment. Below we consider a number of cases in Latin America, mostly for Argentina and Brazil in recent years and the socio-environmental impacts brought about as a result of the tendency toward reprimarization, ranging from deforestation in the Amazon, to problems of air soil and water pollution, to the problems of hydroelectric dams.

Deforestation of the Amazon Rain Forest linked to, lumber, cattle and soy¹³

The Amazon currently constitutes a frontier for capital accumulation, reflecting the confluence of processes both internal to the region and an ever growing presence of transnational corporations, which dominate an ever more globalized world economy. In the last two decades, the economic expansion in the Amazon has been increasingly integrated with world markets, primarily for soy, cattle, lumber, and minerals. For example

A common trajectory is the removal of trees for the lumber industry in order to establish cattle ranching. This is often followed by an intermediate crop prior to the planting of soy, given the need for reestablishing the nutrients in the soil which are undermined during livestock production. Although soy is heralded as a green and environmentally friendly alternative to cattle ranching it is often the motor behind the process of deforestation in the Amazon, given its higher profitability as reflected in the rents extracted.

From 1990-2007, the gross value of soybean production in the Amazon region grew by 21 percent per year, while cattle herds were growing at rates of 7 percent per year, compared to an average annual growth rate of just 0.57 percent for the rest of Brazil.. The combination of the expansion of ranching and soy is a qualitative advance compared to the previous frontiers of colonization and land speculation. Both cattle and soy are strongly integrated with global markets and are far more capitalized than the other activities that dominated the region up through the 1970s and 1980s. In fact, this is an example of a process of accumulation by dispossession fomented by the military government, which laid the groundwork for a qualitatively new phase of capital accumulation. Most of the growth in Brazilian cattle—an increase of more than 180 percent in 16 years —occurred in the Amazonian states of Mato Grosso, Pará, and Rondônia, where deforestation is greatest.

Soy, Pesticides and GMOs

At present, both Brazil and Argentina, are two of the main producers and exporters of soy. Transgenic soy constitutes almost 100% of Argentine production, while Brazil has increased its transgenic cultivation significantly starting in 2005, reaching 93%. The state of Mato Grosso is the region with the highest productivity for soy on the planet, while other Brazilian states also have significant production, such as Rondônia and Paraná. The three states with the highest levels of deforestation are Mato Grosso, Rondônia and Pará. Although the latter has a minimal level of soy production, there has been notable increases in livestock farming (see above).

¹³ For a more detailed analysis and a discussion of accumulation by dispossession in the Amazon, see Rivero and Cooney, 2010.

There has also been a strong expansion of the cultivation of corn, given the increased production of ethanol, for which corn has been an input in recent years.

It is important to recognize the role that the State has played in this process, which has included the expulsion of peasants or indigenous people from their lands over recent decades. Of particular note was the genocides which took place during the dictatorship in Brazil between 1964 and 1985. A major role being carried out by the State has been the development of hydroelectric dams, which are fundamental for the generation of electricity necessary for the processing of minerals. This has brought about a number of serious social and environmental conflicts during recent years. Unfortunately, for lack of space we can not elaborate on these to the extent they deserve, given their impact. However, a few of the most significant cases deserve mention. In the case of Brazil, there have been major conflicts, such as Rio São Francisco in the northeast of Brazil and Belo Monte, in the State of Pará, with the projected displacement of 24,000 people, many of which are indigenous communities. It is also worth noting the major ecological disaster caused by a ruptured dam in the State of Minas Gerais in November 2015, for which damages of more than US \$2 billion are being claimed and for which Vale and BHP Billiton have been charged with corporate negligence.

With respect to Argentina,¹⁴ the role of the State was also key during recent decades, perhaps with less clear examples of dispossession of populations through the use of force and violence, as was the case in Brazil. However, the role of the State was still arguably constitutive of accumulation by dispossession given the manipulation, privatizations and buyouts. The shift toward soy has been strongest as of late, although major TNCs had it in their expansion plans since the 1970s (see Burbach and Flynn, 1980).

It was during the 1970s when the famous Green Revolution took place and they introduced new varieties of grains, cereals and seed-oils and the biotechnology which they applied to production, especially for the bi-annual planting of wheat and soy. This resulted in the displacement of livestock production, progressively substituting corn and sorghum. The recent shift toward a more intensive use of technology reached a more mature stage in the 1990s. This was with the introduction of a technological package including genetically modified zero-tillage seeds (GMOs), more agro-toxins, such as fertilizers, pesticides and herbicides (Teubal, 2006), especially glyphosate. This shift led to a significant replacement of cattle for soy and wheat, especially the former and the increasing role of the ever more dominant GMOs and toxic cocktails.

¹⁴ This section on the role of soy in Argentina has benefitted from discussions with and the text by Mariano Treacy (2014).

"This change to no tillage was quite rapid: from representing less than 25% of the total cultivated area in 1997 it grew to represent almost 80% in 2011, reaching levels of almost 100% in provinces such as Santiago del Estero, Salta and Corrientes" (AAPRESID, 2012). "Roundup Ready" is a variant of a soy seed particularly resistant to glyphosate. As a result, the intensive use of "zero tillage" combined with RR increased productivity and reduced the level of erosion initially. However, afterwards the opposite took place as the toxic cocktail ended up impoverishing the soil in terms of nutrients, particularly impacting the microbial mechanisms necessary for a healthy subsoil. The soil eventually suffers an erosion worse than the initial one and leads to the destruction of key aspects of the biosphere. The use of pesticides also affects the workers and moreover, are transported through the air impacting adjacent communities, causing general health problems as well as more serious illnesses, such as cancer or anencephaly.

The growing expansion of zero tillage, the transgenic seeds and pesticides created a productive agrarian structure in Argentina which was even more concentrated than before. This was in terms of property as well as production. With respect to territorial concentration, 82% of the producers occupy only 13% of the land, while 4% of the producers occupy 65%. Currently, 6 major export companies dominate all the value chain production of soy and 50% of the lands are in the hands of 2% of the property owners. (CIFRA, 2011). As it turns out, the expansion of the agricultural frontier and the soy monoculture does not only benefit the private sector, but has been significant in generating income for the Argentine state. (See Treacy, 2014)

The changes that have taken place in the sector can be attributed in part, to the transnationalization of the market of inputs, in which the small clique of TNCs achieved a consolidation as providers of seeds, fertilizers, and pesticides and thus capturing an increasing portion of the ground rent generated by such activities. The TNCs associated with agrochemicals include Monsanto, Syngenta, Nidera and Bayer, while those which dominate the grain business are referred to as *ABCD*: Archer-Daniel Midland, Bunge, Cargill and Dreyfus, which in recent years have gained a considerable presence. (Kejsefman, 2014). Although this issue is not being treated here explicitly, it is worth noting the extent to which these mostly foreign TNCs have come to capture a major portion of ground rent through the imposing of GMOs, pesticides, zero-tillage technology, while the agro sector of the past was able to secure the grand majority of rent for within the country, be it Argentina or Brazil, Paraguay, Uruguay, etc. These have fundamental implications with respect to control of the economic surplus and the real possibilities or not of sustainable development in the future.

Environmental Impacts and Resistance in Mining

The environmental problems range from toxic waste being generated through the increased usage and necessity of several inputs. The inputs include water, energy, and chemical reagents, which are often toxic. There is also the problems brought about through processing and chemical treatment; thousands of tons of rock of which more than 90% are solid and liquid waste. In addition, the tendency toward open pit mining and larger and larger scale mining and the subsequent implications for the environment are quite pessimistic in terms of the environment. The activity related to the different phases of large scale modern mining imply the transformation and destruction of material; impacts of a major scale, both physically and socially. These include diverse forms of chronic contamination and accidents that impact the air, soil and water, deforestation, and irreversible changes to the water table, etc. Also sound contamination and impacts for ecosystems and biodiversity. These are all issues generating negative effects for public health.

As a consequence, the massive intrusion by mining TNCs and their activities, be it exploration or extraction, has led to a major increase in social conflicts. According to the Observatory of Conflicts in Latin America (OCMAL),¹⁵ in 2014 there were around 180 social conflicts around the mining areas in Latin America. The latter is the region on the planet with greater indices of conflicts of this type, reflecting the negative impacts on peasant and indigenous communities. These conflicts are brought about with respect to various dimensions: the environment, working conditions, economic policies and even spiritual issues. In the particular case of Argentina, OCMAL documented 26 social conflicts linked to large scale mining projects over the period of the last 2 decades, from the provinces in the north, such as Jujuy through to Patagonia, such as Santa Cruz. There are numerous examples of communities becoming organized around environmental issues related to mining and soy among other activities. Just to give an example in Argentina, there is an organization called the Union of Citizen Assemblies (Unión de Asambleas Ciudadanas-UAC), composed of concerned communities all over Argentina.¹⁶ In their recent 25th meeting in November 2015, they strongly criticized the neo-extractivist model, and the increasing criminalization of environmental activists. The main issues they were addressing were the use of pesticides for fumigations near communities and schools, superseding national laws in terms of regulations, as well as a recent toxic spill. Barrick Gold admitted their negligence regarding a spill of 15,000 liters of cyanide mixing with over 5 million liters of water, in the province of San Juan.

¹⁵ http://basedatos.conflictosmineros.net/ocmal_db/, accessed on the 9th of May, 2014.

¹⁶ See the article in Página 12, 18.12.2015. "Por el crecimiento pero verde."

IV. Reprimarization and Implications for Development in Latin America

Role of the State, the WTO, TNCs, and the emergent TCC

As discussed above, the tendencies toward both deindustrialization but especially reprimarization in recent decades, are arguably the result of the increasing transnationalization of the global economy associated with the current period of neoliberal globalization. In addition to the role of the State, there has been the key role of international institutions, especially the IMF and the more silent, yet perhaps more sinister role that the WTO has come to play. The rules have changed extensively, as well documented by Chang (2002). At present, most countries in the periphery have minimal chances of seriously competing on the world market in the area of manufacturing other than TNC assembly plants and are thus forced to rely on those exports which have an associated differential rent, namely primary goods. In fact, if the WTO rules were in effect in the 19th century, neither the U.S., nor Germany could have come to have the success they did in competing against Great Britain. The US, having the most extensive protection and system of subsidies ever by any country, from the time of its inception until WWII, would not have been able to promote nascent or low productivity industries so as to compete against England. Of course such inconvenient historical facts are dismissed by the free traders and neoliberals who dominate the international institutions of the present-day.

The result of the expansion and ever-increasing hegemony of transnational corporations in the global economy, has been fundamental in undermining the possibilities of autonomy and national industrial policies. In fact, peripheral economies are strongly conditioned by the dynamics of the accumulation processes of the TNCs, whose interests are increasingly less associated with the accumulation processes or industrial policies of individual nation states. As argued by Sklair and Robinson, this increasing transnationalization of the global economy is bringing into being a new order and a major shift in class alliances: namely the emergence of a transnational capitalist class.

Evaluation of Current Trajectories

As referred to above, recent changes reflecting a break or modification of orthodox neoliberal policies have been pursued by numerous Latin American countries since the turn of the century as left or center-left parties came to power. In the case of the two largest economies of South America, namely Argentina and Brazil, many authors have come to describe these changes as constitutive of a new model of economic development, namely, new

developmentalism.¹⁷ Although it could be argued that both Argentina and Brazil have made changes along these lines, the case of Argentina's clear break with most neoliberal policies and the effort to resuscitate industry and the internal market, presents a stronger case.

After the crisis of 2001-2002, Argentina achieved annual growth rates of roughly 8-9% from 2003 through 2008, but since then the results have been more mixed and most recently troubling, with the growth of GNP being an anemic 0.5% in 2014 and a predicted 0.4% in 2015. Besides rates of inflation of at least 25%¹⁸ concerns over employment, the informal economy and wages have also increased, and thus contributing to the election victory of the neoliberal opposition, namely the current President, Mauricio Macri.

In the case of Brazil, during the period of Lula's government, from 2003-2010, the growth of GDP was 4.0 % and during the government of Dilma from 2011-2014, it was slightly more than 2 %. However, it was a mere 0.1% in 2014 and in 2015 Brazil has been in recession, with an estimated decline of 3%. ECLAC is predicting a contraction of roughly 1% for all of South America in 2016, mainly due to the recessions being experienced in Brazil and Venezuela, although other countries may very well experience a recession, given the decline in commodity prices and the recessionary trend globally.

Thus, the expectation of higher growth and strong advances in real wages associated with new developmentalism is not reaching fruition in either Argentina or Brazil. Nevertheless, infrastructural projects did experience reasonable growth during Lula's second term and Dilma's first term, as a result of efforts to increase the role of the state in directing development and industry, though mostly toward projects linked to reprimarization. In the case of Argentina, a recent agreement with China reflects the latter's increased role supporting infrastructure in Latin America, where it facilitates the production and transport of the primary goods it is seeking to guarantee access to for coming decades.

In terms of models of development there were some shifts away from the orthodox neoliberal model, however, the support of the elites or the emerging transnational capitalist class within Latin America for an agro industrial or neo-extractivist model with emphasis on raw material or primary goods production implied the continuity of the tendency of reprimarization, which historically implied lower wages and greater volatility and instability for these economies. The argument made by defenders of new developmentalism is that what is necessary is simply a strong market and a strong state, fomenting solid growth and also social inclusion. In contrast to what developmentalists used to argue, many of them claim that the protection of industries

¹⁷ See footnote 3 above.

¹⁸ There is much debate about the best estimates of inflation and other economic variables given the dubious numbers being generated by Argentina's national statistics office in recent years, namely INDEC.

associated with the ISI of the 20th century is unnecessary and that today one must have a more market friendly or neoliberal economy. The reality is that any country that is a member of the WTO has by necessity a neoliberal trade policy, the result often being deindustrialization. To be fair, there have been certain industrial niches which have had success, such as satellites in Argentina and military airplanes in Brazil, but these are few and far between.

In addition, there is also the negative impacts for manufacturing employment levels and wages. The upshot has tended to be an increasing informal sector and less job security for workers, even when there is growth and yet the present trajectory is referred to as new developmentalism. In spite of the claims of both countries being in a phase of new developmentalism,¹⁹ both these economies have seen a major reduced role for industry compared to the ISI period. In spite of the advances of industry in the ISI period for both Argentina and Brazil, neither were able to fully consolidate their processes of industrialization; even though Brazil had a third stage of industrialization during the 1970s while Argentina was undergoing its first wave of deindustrialization. Although real wages in Argentina experienced major improvements prior to the dictatorship of 1976-1983. In evaluating the current trajectories and potential for Argentina and Brazil, the hopes of greater autonomy in the region are strongly tied to the potential of the regional trading bloc, namely Mercosur.

Mercosur

In recent years Mercosur continues to function and has had the addition of Venezuela but a truly dynamic expansion has not taken place. Although there is a substantial amount of trade between Brazil and Argentina via Mercosur, the most significant sector is automobiles and this is dominated by the interests of foreign TNCs. In spite of the limitations of Brazilian industry, in terms of competing in First World markets, there is a much greater potential for Brazil to export manufactured goods within Latin America and more specifically within Mercosur. This possibility seems rather distant from the present reality, in spite of some rhetoric by politicians during Mercosur or Unasur meetings. The reality is that the potential for a general expansion of Mercosur, would have to be led by Brazil and at present this is not the priority of an increasingly transnationally-oriented Paulista (from São Paulo) elite.

Alternative Trajectories for Development

The evaluation of the current situation of Mercosur and the economies of Brazil and Argentina are by no means optimistic in the short or medium term. There is a need to examine more closely the specific limitations that derive a result of WTO membership: limiting the

¹⁹ See the following paper presented at the *Jornadas de Enseñanza de Economía* at the UNGS (Cooney, 2015).

options individual countries previously had regarding trade policies, tariffs, subsidies, etc. This has resulted in many countries losing their autonomy or flexibility and margin of maneuver in order to establish their own appropriate policies aimed at fomenting national development. This is particularly relevant when considering the discussion of neo-developmentalism.

Unfortunately, breaking from the WTO at present would mean suicide for any single country and will only be successful if done by a bloc of 20 or more countries; either exiting en masse or threatening to exit unless an overhaul is carried out. In my view, the former would make more sense but this is not on the table politically or economically at present and would only become feasible after a major crisis or shake up in the world economy analogous to what took place in the 1930s occurred.

Another aspect which we cannot forget is that of the class alliances as discussed briefly. In this sense the current trajectory referred to as new developmentalism corresponds much more to the interests of the elites linked to the transnationalization of the economy, namely the emergent transnational capitalist class, than to the working classes or the possibilities of a class alliance associated with industrialization.

Thus, the Kirchners' governments in Argentina and Lula and Dilma in Brazil carried out changes which broke from the neoliberal orthodoxy; more so in Argentina and were able to achieve improvements with respect to social inclusion, but there is much more needed once we take into account the situation of the many unemployed, or underemployed worsening in recent years with stagnant or negative growth. And those that do have jobs have lowered wages compared to the ISI period and this is worsening in 2015 and moving into 2106 with adjustment programs being pursued by Dilma and the new government of Macri in Argentina. The possibilities of higher wage jobs is less likely in the short term. It is necessary to recognize that the elite base of economic power is often the same for progressive governments, needing to accommodate these increasingly transnationalized elites, which have placed their bets on the processes of reprimarization and on the global financial markets.

Although the possibilities of changing these trajectories by developing a regional industrial policy and pursuing complementarity instead of direct competition so as to allow for the possibility of pursuing a more meaningful and serious development program, there has been limited evidence that such a shift could become a reality. Therefore, there seems to be more evidence supporting the continuity of reprimarization with economies dominated by agro-exports and mining instead of the optimistic view of both Brazil and Argentina forging new ground in the pursuit of a truly new developmentalism. The biggest challenge to achieve development is still ahead of us.

V. Conclusions

This paper sought to present the evidence regarding the tendency of reprimarization throughout Latin America, though emphasizing the cases of Argentina and Brazil. The processes of deindustrialization took place at different period for these two countries though the reprimarization tendency has been present for both from the 1990s on. As argued, the reprimarization tendency has often been at the expense of manufacturing industry. The arrival of neoliberal policies impacting a range of laws, especially in the case of mining codes, facilitated these shifts toward the primary sector, with expansion of petroleum, cattle and most notably soy and mining. Clearly, increasing hegemony of TNCs and the growth of China since the 2000s has been fundamental in terms of the increased global demand for commodities and in particular, fomenting the expansion of mining and agroindustry in Latin America. The acceleration of mining ventures throughout Latin America, becoming the primary destination of investment was quite noteworthy and came to have serious environmental impacts.

The implications of reprimarization for the environment was examined in the mining sector. The major concerns were with respect to air, water and soil pollution, in addition to the socio-environmental impacts of hydroelectric dams, promoted for the high levels of electricity needed for mining. Problems of toxic spills, mud slides and the like have become an increasing concern and communities across the continent have been organizing to confront these problems, with mixed results. Unfortunately, many of the progressive governments, end up employing violence against their own populations, taking the side of the TNCs. Consider the current example of the violent uprooting of the indigenous people in Tundayme, Ecuador, taking place at the end of 2015, to accommodate the interests of the Chinese mining TNC, Ecuacorriente.

The case of deforestation is paramount given the concerns of climate change for the planet. This and other environmental problems taking place in the Amazon were examined, reflected in the expansion of lumber, cattle and soy in recent decades. Another major sector receiving attention and resistance is the incredible expansion of soy, especially genetically modified soy, with the Roundup Ready zero-tillage seeds and the extensive use of pesticides, in particular glyphosate. The major concern is regarding communities and worker's health, especially as local governments often attempt to accommodate the TNCs and make special breaks for them, jeopardizing the quality of life of the local populations. In addition to these health problems, there are concerns over the medium term regarding soil erosion and a depleting of the soil's nutrients given the intensive use of toxic chemicals in agriculture. Although Argentina and Brazil dominate the export market and production in South America, there has been the expansion of soy to Paraguay, Bolivia and Uruguay; thus a continent wide

concern. This is particularly troubling as soy comes to replace wheat and cattle and other crops which could be used for local food consumption, in contrast to soy; especially if exports decline.

Lastly, an evaluation was made of the allegedly new model of new developmentalism and how, besides the environment, there are numerous problems with respect to industrial production and employment, wages, and the informal economy, reaching between 35-50% of employed labor in Argentina and Brazil respectively. In my opinion, the shifts that took place in Argentina, could be argued as steps in the direction of a new model of development, but that it is not yet a new model, especially given the neoliberal trade policy which derives from any country being a member of the WTO.

Therefore, in any discussion of an alternative to neoliberal development, there needs to be a plan for an exodus from the WTO or a less likely scenario, of changing the rules to accommodate the periphery. Even though a post capitalist alternative would be preferred, this is even further from the present political reality in Latin America, in spite of the rhetoric of some. Instead there is a need to push for progressive governments to open up space for non-capitalist activities, such as cooperatives and to insure the well-being of their populations, especially with respect to safe water and food supply. None of these discussions of alternatives reflect the short run, given the threatening push by the right within Latin America in 2015. However, there is a need for more serious discussion regarding the limitations of the trajectories being pursued and the tendency toward reprimarization and its impacts environmentally, socially and its limits as a strategy of "development".

As Latin America appears to be on the brink of a potentially extended recessionary period, there is all the more need to strengthen the social movements and to maintain their autonomy with whatever government is in power, given the tendency for their weakening when progressive governments have been elected. This was very evident in both Argentina and Brazil, the latter seeing a major depoliticizing, with the encouraging exception of the MST (Movimento sem Terra), while in Argentina we witnessed the coopting, and at times the criminalizing of resistance movements, such as the piqueteros or unemployed workers movement. Of paramount importance is the issue of class alliances for any development strategy and the emergence of a transnational capitalist class, and the subsequent transformation of national into transnational spaces cannot be ignored. The terrain for social struggle has been shifted by the TNCs and this emergent TCC, and the adequate response leaves no alternative for working classes other than to organize transnationally as well, in spite of the seemingly insurmountable task this implies.

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