The great depression in Argentina, Brazil and Uruguay: revisiting vulnerabilities and policies

Gerona Morales, M.E.; Sosa Clavijo, S.M.

Authors: Marcelo Esteban Gerona Morales and Silvana María Sosa Clavijo

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I. Introduction

The interwar period was a special period for humanity characterized by the deepest worldwide economic depression and disintegration of international relations of the twentieth century. The Great Depression was so persistent that it prompted the collapse of the previous liberal economic order and stimulated the dawn of totalitarian regimes. Every country in the world was affected, but the effect was very different depending on domestic policies and the soundness of economic fundamentals. Some countries had a mild recession, others a deep recession and the rest a depression[1]. However, in practically all cases, one outstanding feature is their individual contribution to the most serious recorded breakdown of trade and financial flows, induced by the most severe defensive reactions and retaliations worldwide. That is why many researchers chose this period as a landmark for testing comparative analysis of the different governments' responses in face of major economic worldwide downturns, including the latest Financial Crisis signalled by the collapse of the giant US investment bank 'Lehman Brothers' on September 2008. In spite of the fears brought about by this latest event, the worst scenario has not materialized, and the Great Depression remains the worst worldwide contraction in time.

[1] Marseille (2009, p. 53) argues that a country is going through a recession when its GDP decreases two consecutive months and it is a depression –making reference to a psychological pathology- when the GDP decreases by more than 10% or the contraction lasts for three consecutive years. On the other hand, in line with The Economist (2012b) the popular rule of thumb for a recession is two consecutive quarters of falling GDP. But, some economists such as Saul Eslake, chief economist at ANZ bank, prefer a definition for recession of a 1.5% rise in unemployment within 12 months. However, certainly America's National Bureau of Economic Research (NBER) has officially declared a recession based on a more rigorous analysis of a range of economic indicators. Thus, there is no widely accepted definition of recession or depression. Even a recent analysis by Saul Eslake concludes that the difference between a recession and a depression is more than simply one of magnitude or duration. The cause of the downturn also matters. A standard recession usually follows a period of tight monetary policy, but a depression is the result of a bursting asset and credit bubble, a contraction in credit, and a decline in the general price level. In the Great Depression average prices in America fell by one-quarter, and nominal GDP ended up shrinking by almost half. America's worst recessions before the Second World War were all associated with financial panics and falling prices: in both 1893-94 and 1907-08 real GDP declined by almost 10%; in 1919-21, it fell by 13%. Moreover, Eslake suggests that a depression does not have to be 'Great' in the thirties sense, instead, on his definition, depressions, like recessions, can be mild or severe.

Taking into account the relatively scarce literature on the Latin American region during the Great Depression and with the idea in mind of doing research in depth, we committed to focusing our work on a sample of three highly interconnected South American countries: Argentina *(República Argentina),* Brazil *(República Federativa do Brasil)* and Uruguay *(República Oriental del Uruguay)*. Our choice is not casual and is based on various considerations. Historically, these countries have been closely linked not only because of their geographical position as bordering countries, but also because of social and cultural common ties. In particular, Buenos Aires -the capital of Argentina and the province of the same name-, the Argentine provinces of the '*mesopotamia*' region, Uruguay and the southern federated states of Brazil -Rio Grande do Sul and Santa Catarina- shared deep economic and social interactions. These relations can be illustrated by the fact that the '*caudillos*' or strongmen of the nineteenth century used to cross the borders and fight in each other's internal conflicts. They have always competed for similar markets (notoriously meat) and to attract foreign investment. During the thirties they were highly vulnerable export driven economies dependent on very few core market destinations for very few basic products, so that they could not escape the contracting impact of the international breakdown of trade and capital flows. Economically, they suffered the downturn of commodity prices, global demand, gold value, and the withdrawal of foreign capital, a set of factors that affected negatively their terms of trade and caused severe difficulties in their balance of payments. They reacted with active policies to counteracting the downturn and failed to coordinate international positions. Politically, they suffered remarkable regime changes, in part motivated by the economic hardships, and turned their policies towards more nationalistic approaches.

The picture is not the same in the present because there is a higher degree of productive diversification of the economies, especially in the case of Brazil. They differ in their economic specific weight and market size, and their relative position also changed over time: Brazil a world leader and big economy now; Argentina a South American big player then; and Uruguay, a small country with solid institutions and significant legislative achievements. The latter historically adapted its policies to maximize the benefits of its geopolitical position and to smooth the potential negative effects of the ups and downs of its bigger neighbours. In a way, the Uruguayan position between these countries bears some resemblance to the position of the Netherlands between its bigger neighbours, France and Germany. The case of Brazil, which changed dramatically, is very interesting. From being the world's largest supplier and mono-producer of sugar in the seventeenth century; gold and cotton in the eighteenth, cacao and rubber during the nineteenth, and coffee at the beginning of the twentieth, nowadays this country exports commodities such as petroleum, iron, soya and by-products, poultry and coffee, along with industrial products and high tech jet airplanes. In contrast, the Argentine export structure is still highly natural resource intensive, while the Uruguayan one shows the smallest change in the degree of diversification of the three. The difference in size (large, medium and small), but yet interconnected, export oriented and active economies, enriches the analysis of the thirties and make the comparison appealing with the present.

i. The focus of our work

The problem tackled in our research is the relative vulnerabilities of Argentina, Brazil and Uruguay (ABU), which contributed to a strong impact of the Great Depression, as well as the nature of the policy responses to the economic emergency. The study also explores the a priori relative disadvantages of Uruguay as a small country between its two major neighbours. This problem entails three main elements that influence our research in many ways. Firstly, we concentrate our analysis on three case countries during a specific timeframe (1928-1934). Secondly, we limit our study to the effects and applied policies in the framework of the Great Depression. Finally, we talk about 'vulnerabilities' in general as a concept transversal to many paradigms[2].

Latin America was a dependent area, whose countries were led by changes in spending and lending in Europe and the US. Argentina, Brazil and Uruguay, heavily dependent on the external world, were not the exception. They shared similar problems regarding conflicts around foreign capital, balance of payments and national budget. They also shared the risk of breakdown of national unity and instability of their institutional frameworks. They were open economies, debtor countries, with high dependence on few products and few markets. Moreover, the particular productive structures of ABU were highly concentrated on products of rural origin. Their fortunes depended on seasonality (harvests affected by weather conditions) and the livestock cycle. Other important factors of influence were the swings of global demand and, as mentioned, the policies in major destination markets, such as the US and the UK. Furthermore, the rise of nationalism and the decline of *laissez-faire* led governments to adopt non-cooperative strategies and this also contributed to the collapse of trade and capital flows. For Argentina and Uruguay, the UK was the main export partner. This meant that their problems were compounded by the preferential policies of the UK that directly benefited competitor dominions such as Australia, New Zealand or South Africa. The Great Depression also helped to change the internal balances among emerging pressure groups and traditional landed oligarchies, which in turn prompted regime changes in these countries. Political conflicts, institutional tensions, regional frictions, struggles of interests and social-economic antagonisms were common characteristics of that time. In the case of Brazil, its main export and import partner was the US and the UK was in second place, still a source of sizeable imports. However, Brazil's most striking feature is that its export trade was concentrated around two-thirds in only one product: coffee. Argentina, by contrast, was, along with Mexico, one of the most diversified economies in Latin America. In between these two extremes lay Uruguay, which followed a path of strong government intervention in the economy and self-determination. The presence of Uruguay in the analysis is particularly enriching because it allows us to compare the performance and reaction of a small country vis-à-vis major partners in every possible economic

[2] Here we take the term paradigm used by Kuhn (1970), but it is also possible to work with the terms research programs (Lakatos, 1970), research traditions (Laudan, 1977) or research strategies (Harris, 1979). According to Sanderson (1987, p. 318), these are highly abstract global networks of ontological and epistemological assumptions, theoretical principles and concepts and interlocking theories.

and political aspect. In any case, ABU governments reacted asymmetrically against the global crisis which also had an asymmetrical impact; with differences in timing and policy modalities. For example, Argentina and Uruguay were more negatively affected by the slump in grains and wool prices, but Brazil by the coffee price. In addition, while Brazil defaulted in 1931, Uruguay suspended the amortization of the foreign debt in 1932, and Argentina preferred not to default on its debt and to plan a financial reform. However, they resorted to a range of policy instruments by applying measures such as suspension of the gold standard, control of their foreign trade through exchange controls and tariffs, devaluation of their national currencies, enactment of expansionary policies and more stringent protectionist policies. These all contributed to the process of industrialization based on import substitution.

In the second place, our analysis of ABU addresses these countries from 1928 to 1934, a particularly traumatic period for humanity. The most frequently cited causes of the economic instability during the interwar period were the war-debts and reparations, the global imbalances, the collapse of world trade and the policy mistakes inspired fundamentally by the gold standard orthodoxy. Indeed, during the twenties and early thirties the gold standard was more than a policy. It was a dogma that influenced national policies in the wrong direction and paralyzed the world economy. In this regard, ABU were also constrained by financial reasons. The international community pressured the peripheral countries to adhere strictly to the gold standard and to maintain tight fiscal controls. In return they could expect to obtain some tangible benefits, such as access to main financial markets (London and New York) and therefore the ability to attract foreign direct investments.

Thus, the international context in which each country tried to fulfil its national interest is determinant and makes us look for either statistical information or historical documents regarding foreign policy and decision makers’ thinking. In this way we can expand our assessment of the specific vulnerabilities created by the particularities of the time. And in addition to the structural and political factors that make the Great Depression mainly difficult to analyse, we cannot lose sight of the political drivers operating in each of the countries studied.

Our third element, the analysis of the issue of the vulnerability in our research problem, entails multiple components. A priori, it involves the analysis of the trade figures from 1928 to 1934 to test the relative vulnerability of ABU to the most important transmission channel of external shocks emanating from the major commercial partners at the time. It also leads us systematically, using available macroeconomic data, to compare and contrast short-term effects of the Great Depression. Furthermore, we incorporate in our research the analysis of the applied policies to face the Great Depression, and consequently see if our case countries had at their disposal efficient tools to mitigate its negative effects.

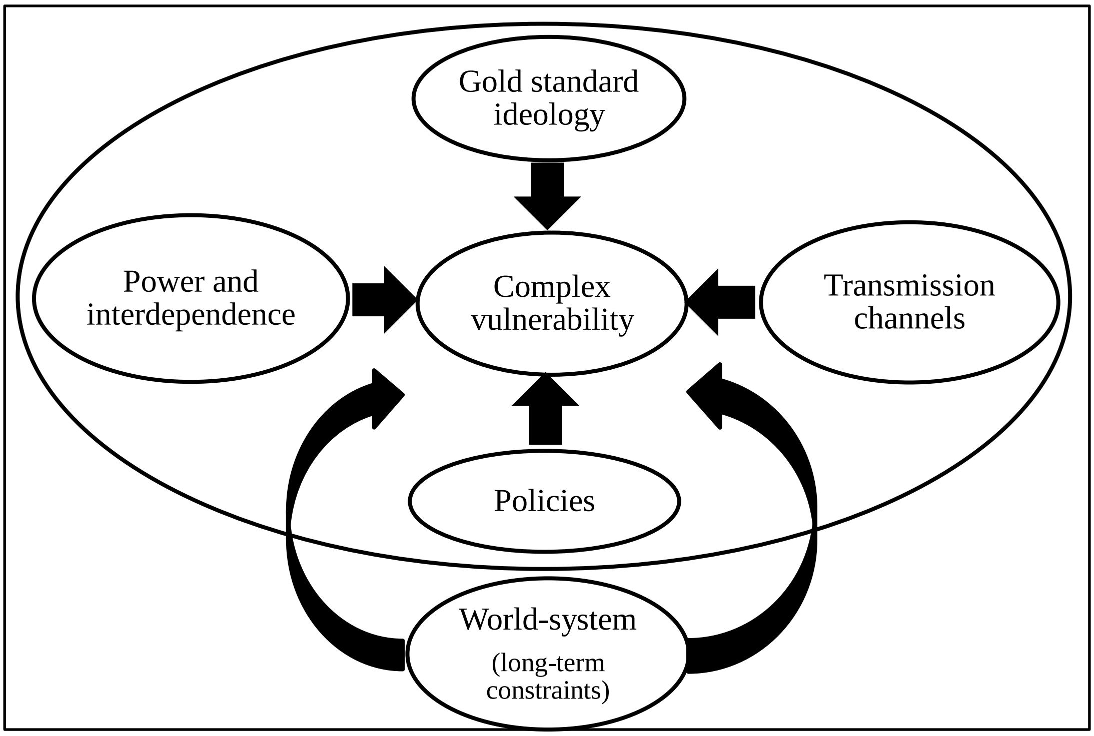
However, our research is more ambitious. And for this reason, we consider our concept of vulnerability complex. These countries were connected to the world in ways more complex than macroeconomic figures and policies can tell. Thus, we need to take into account the influence of multiple structural links to the world and the internal social and political actors that could change the nature of things. We think that an eclectic approach is required, because for us 'vulnerability' is included in many paradigms and as such it can be assessed from different perspectives. Each paradigm is logically constructed and capable of providing sound conclusions for understanding the complexity of the challenges faced during the early thirties. However, each one starts with key simplifying assumptions that do not necessarily correspond to reality or that might overlook other useful elements to comprehend the phenomena that we seek to analyse, and consequently can lead to wrong or partial conclusions. The originality of this work lies in taking concepts from different paradigms and using them to explain the different aspects of the experience of ABU during the thirties. The main objective is to make adequate connections among those concepts in order to obtain a better picture of the complex reality. In this regard, we agree with Immanuel Wallerstein in that it is possible to use core concepts borrowed from different disciplines, such as history, economy, sociology and politics. Similarly, Deugd & Hoen (2010, p. 3) use international political economy (IPE) concepts from the perspective of the basic paradigms of the international relations theory, namely realism, liberalism, Marxism, mercantilism and structuralism, among other schools of thought. At this stage, it is important to point out that our aim in this work is not to expand on the reasoning behind relevant paradigms, but to extract and interact with key economic and political concepts that can guide us during the rest of this text, following an eclectic approach[3].

Our reasoning is illustrated in Figure 1. We believe that our concept of vulnerability is built on four pillars. Firstly, we need to start our analysis with the transmission channels of a crisis. In

[3] There is philosophical debate about the use of eclecticism in the Academy. On the one hand, most of the scholars tend to work under sets of assumptions that fit a certain paradigm. Accordingly they pose research questions, establish boundaries for investigations and evaluate research products that fit those assumptions (Sil & Katzenstein, 2010, p. 1). For example, Kuhn (1970, 1962) affirms that the basic unit guiding scientific research is the paradigm, a constellation of ontological, methodological and theoretical notions represented by an outstanding, prototypical piece of research and associated to a concrete body of researchers interested in a particular research speciality, and that in a period of normal science one of those paradigms tends to be dominant. On the other hand, some authors believe that the strict adherence to single paradigms tend to be counterproductive because they disregard the complementarity among paradigms (Dahrendorf, 1959, p. 163); the complexity of the reality and forces at work (Hirschmans, 1970, p. 341; Tetlock, 2005, p. 214); and the flight from reality among academics that distance their findings with the demands of policy relevance and practicality (Shapiro, 2005, p. 2). In general, eclecticism proposes that multiple theoretical approaches must be used jointly in order to arrive at acceptable explanations (Sanderson, 1987, p. 316). Sil & Katzenstein (2010b, p. 1) believe that it is possible to work in the framework of an analytic eclecticism that looks for middle-range theoretical arguments, incorporate more complexity and messiness of particular real world situations and generates complex causal mechanisms. However, this eclectic approach has been criticized by many authors. Sanderson (1987, pp. 314-315) argues that eclecticism is a seriously flawed perspective that leads to hopelessly self-contradictory arguments, increases unnecessarily the number of explanatory concepts and principles and fails to fulfil the basic mechanism of rationality that implies theory testing and evaluation in a comparative context. Harris (1979, p. 290) holds that eclecticism results in theories that do not link up or interpenetrate each other and that are often mutually exclusive. There is also the argument of incommensurability, meaning that because different theories drawn from different paradigms are based on distinct ontologies and epistemological assumptions, the specific concepts, terms and standards used in one ontological approach are not interchangeable with those used in another (Feyerabend, 1962; and Kuhn, 1962). However, this criticism is less compelling when it comes to integrating elements from different theories (Sil & Katzenstein, 2010, p. 14, Davidson, 1974; Putnam, 1981; and Hattiangadi, 1977). Beyond this debate, we think that there are some research programs such as ours that necessarily need not to compromise one single paradigm, but to use and link concepts from different paradigms to analyse the issue of vulnerability from different points of view.

this respect, we focus on the effects on ABU. Secondly, we introduce the comprehensive concepts of ‘power’ and ‘interdependence’ borrowed from realism and neoliberalism within the theory of international relations. This helps us to situate these countries in the international context of the time. Thirdly, the analysis of the gold standard ideology constitutes a specific source of vulnerability during the twenties and early thirties. And finally, we put emphasis on the reactions of the respective governments mirrored in the implemented policies. This approach to relevant concepts shall not, however, be done in a vacuum. Indeed, we need a long-term conceptual framework that can give some insight into the forces working in the background, that meets the academic standards and that fits the particular context of our three case countries. There are several paradigms that we can use for the analysis of the long-term structural elements that shape and enlighten our wide definition of vulnerability. But in this case, we take some of the concepts contained in Immanuel Wallerstein’s world-system analysis.

Figure 1 A scheme for our eclectic reasoning



We can explore the related paradigms that we could make use of. The Marxist paradigm is indeed useful to give some explanation to the role of landed classes in the political events and the new role of working classes and urban bourgeoisies of ABU during the thirties. It also contributes to better understanding the role of the accumulation of capital among social classes[4].

[4] The Marxist framework of analysis explains that in the capitalist system the imbalanced accumulations of wealth and over-accumulations of capital creates booms and busts that encourages intensified class conflict and eventually would force societal change. Accordingly, the experience of ABU during the thirties was just the outcome of free-market capitalism. Marx was firmly opposed to blaming crises on financial speculation, or on the recklessness of single individuals (Marx & Engels, 1975, p. 401). Speculation and panic may trigger crises, but to trigger something does not mean to cause it. For Marx, the ultimate origins of all crises lie in the ‘real’ economy of production and exchange, and consequently the inherent contradictions of capitalism are beyond human control (Ivanova, 2011, p. 2).

However, it does not explain the short-term vulnerabilities so clearly, or other elements regarding the complex interaction among each of ABU. Furthermore, it is not conclusive about the role of other actors different from social classes and the effects of wrong policy decisions. Similarly, Latin American structuralism led by Raúl Prebisch follows the idea of unequal distribution of capital among nations and gives an explanation to underdevelopment. For that it uses the perception that terms of trade tend to be unfavourable to mainly food and raw materials exporting peripheral countries, which get poorer and poorer, for the benefit of the ever-industrializing developed world. Indeed, in many academic circles there is an immediate association of Latin America to an almost deterministic underdevelopment of peripheral countries created by the unfair links controlled by core countries[5]. These perspectives do help to analyse ABU as belonging to the peripheral or semi-peripheral countries which were vulnerable to the asymmetric links with greater powers. These nations used the stronger accumulation of capital in their own benefit and imposed detrimental conditions on others.

Certainly there are more elements to consider than the terms of trade, the accumulation of capital or the possession of the means of production to explain why one country manages its policies better than another. That is why we consider that the approach of Immanuel Wallerstein's (1974) 'world-system analysis' as a method of studying the social sciences approximately fits our needs[6]. As a neo-Marxist approach that led the field of the new international political economy into the critical research paradigm[7], it rejects the existence of free markets, affirms that imperfect competition is the rule and builds on the Marxist tradition of

[5] See Baran (1973).

[6] It is worth mentioning that Wallerstein (2004) does not consider his approach as a theory, but a method of studying socio–economic phenomena.

[7] The objectives that we define for this work entail the resource to concepts related to a specific discipline, known as International Political Economy (IPE). In general, political economy starts with the problem of choice in a society with heterogeneous agents, but with a very different focus than multi-agent welfare economics. The focus is on the process by which it is decided what policy to adopt and on what policy choice emerges from a specific political process. The society as a whole may have preferences over economically efficient outcomes, but the political process may be different from what society finds optimal. Moreover, the political process by which economic policy is chosen generally absorbs resources in one way or another, leading to an economically inefficient outcome (Drazen, 2000, pp. 15-16). The international branch of political economy developed specially since the seventies as a consequence of the need for international relations theorists to find new tools to scrutinize relations and the perception that world politics could not be longer characterized as state-dominated action, given the increasing influence of market forces at the expense of state power. As a consequence, more and more authors moved away from political science and started to incorporate the rationale of economic science. Ultimately, political economy is geared towards topics connected with the mutual influence of the State, seeking redistribution of wealth within the society; and market, seeking allocation of scarce resources between individuals. State and markets in this view are always in tension in the international context (Deugd & Hoen, 2010, pp. 2-10). As a reaction to earlier studies of international relations that allegedly placed unwarranted emphasis on law and politics, during the last decades IPE has been significantly shaped by the critical paradigm, which focuses on identifying and stressing patterns of inequality, and asserts that forms of social inequality are historically created and therefore can be changed. One of the main works under this umbrella is the world-system analysis of Immanuel Wallerstein, which, in line with Marxists, dismissed the singular State as a unit of analysis, and emphasized one international system. Finally, and in line with our eclectic approach, as Gills (2001, p. 236) asserts, IPE individual scholars choose their own combinations of contributory disciplinary frameworks and traditions. There is, therefore, not one single IPE, but many, depending on how conceptually hybridised choices are made and deployed.

uneven capital accumulation[8]. Likewise to Latin American structuralism, it maintains that there is a structure of unequal exchange between strong states at the centre and weak ones at the periphery, but includes an interesting additional ‘semi-periphery’ that emerges between the other two, constituted by newly industrialized countries[9]. This feature is especially appealing because it fits the need to give a conceptual framework for our semi-peripheral case countries during the Great Depression. And in line with our previous discussion, Wallerstein’s (2004) analysis is holistic in that sense. That is why it borrows the concept of ‘world-system’ from history, ‘unequal exchange’ from economy, ‘social classes’ from sociology and ‘balance of power’ from politics. But although it departs from the structural time or secular long-term trends that explain the emergence, development and demise of a world-system, it does not invalidate our analysis of the ups and downs that occur within it. It recognizes a role to the intervention of the State, including the trade, industrial, fiscal and foreign policies, all elements that we seek to analyse for the particular time span of our research[10].

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[8] However, it is important to point out that Wallerstein’s approach has several key differences with Marxism. Aronowitz (2003, pp. 508-515) describes these differences. Wallerstein refuses the central concept of structural unity upon which Marxist historical explanation is based. While Marx believes that the transformation of labour power into a commodity contained all the elements of the capitalist mode of production, Wallerstein argues that capitalism is a system of systems, whose elements are relatively autonomous. While Marx thinks that the social division of labour gives rise to classes within the mode of production, for Wallerstein, classes are implicitly formed on the basis of the geographical distribution of labour control and coercion that reproduces the relations of unequal exchange. His theory of class is conflated with his antithesis of core and periphery. Although there are many references in his book to workers, the core logic of his argument would place these workers on the side of their own bourgeoisie in the world-system since they share, however unequally, in the exploitation of the periphery. While Wallerstein emphasises random conjunctures as the factors that produced the present world-system, the Marxist view emphasises the internal relation between forms of property, the division of labour, and the relation of humans to nature in terms of technology and development of labour power. According to Linklater (2003, p. 123), Wallerstein (1979) challenged the classical Marxist view that capitalism brings industrial development to the whole world, although he argued that development was possible in at least some ‘semi-peripheral’ societies. Following Emmanuel (1972), dependency theory and the world-system approach have been described as ‘neo-Marxist’ because they do not believe that the spread of capitalism will bring industrial development to poorer regions, and because they shift the analysis from relations of production to such phenomena as ‘unequal exchange’ in world markets.

[9] Wallerstein (1976, p. 465) includes in the semi-periphery the economically stronger countries of Latin America: Brazil, Mexico, Argentina, Venezuela, possibly Chile and Cuba. It also includes Portugal, Spain, Italy, Greece, most of Eastern Europe, Norway and Finland, Algeria, Egypt, Saudi Arabia, Israel, Nigeria, Zaire, Turkey, Iran, India, Indonesia, China, Korea, Vietnam, Canada, Australia, South Africa and New Zealand. As it is crystal clear, it is a very varied list of countries, many of them difficult to justify in the semi-periphery and not in the periphery. Nevertheless, Argentina and Brazil are mentioned as part of the semi-periphery for being among the economically stronger. Uruguay, of course, is not even mentioned, but taking into account that Wallerstein’s approach is concerned more with regions than with countries, we also include this country in the semi-periphery. This is because of its undeniable links with the other two major neighbours and the similarity of the patterns of dependence with core countries.

[10] This assessment about states has to be taken with care. On the one hand, Wallerstein (2004) holds that Sovereign States do play a central role in contributing to the process of capital accumulation within the modern world-economy. It assigns an important role to the intervention of the State, including trade policy, property rights, working legislation, externalization of costs, industrial policy, fiscal policy and foreign policy. On the other hand, the State is merely functional to the system. Following Aronowitz, (2003, pp. 509-513), Wallerstein disregards national borders. The role of successful states is linked with the ability to absorb some of the costs of expansion of the capitalist system. Nation states are both the condition and the barrier to expansion of the system. Class struggle has meaning solely on a global plane and is not necessarily intrinsic to the national State.

However, we are aware that this method has been criticized for many reasons that we share; especially its determinism and lack of consideration for other drivers in capitalism than the accumulation of capital[11]. One key problem we have to face with Wallerstein's framework is the lack of analysis of specific short-term country vulnerabilities. Indeed, the world-system analysis is concerned with long-term analysis of regions rather than states. This feature is anchored on Wallerstein's long-term historical analysis from 1500 to 1840 and specific interest in the Kondrantieff cycles that last 50 or 60 years. Moreover, the only reference to that concept is linked with the perceived vulnerability of capitalism in face of the frequent revolutions against the system, such as the ones led by Lenin, Stalin, Mao or Kim il Sung[12]. But of course, those are not the kind of revolutions we see in our case studies. Wallerstein (1980, pp. 113-114) also accounts for the weakness or strength of states according to the role of their owner-producers in the extraction of the economic surpluses within the world-system. However, there is no immediate conclusion about how this strength or weakness relates to the vulnerability of each country. Although it is possible to presume that countries on the core are less vulnerable than those in the periphery because the former benefit more from the unequal accumulation of capital. Furthermore, as it is more long-term focused, Wallerstein's approach does not address adequately why governments reacted to the Great Depression not by following clear industrialization plans, but in a more reactive way, following instinct, by trial and error. It does not explain the role of the gold standard in the collapse and the vulnerabilities implicit in that

[11] For example, in line with Marxism, Wallerstein's analysis follows a materialistic approach that concentrates on the role of accumulation in the capitalist system. As a consequence, actors are just driven regardless of their will. It neglects notions of entrepreneurship, innovation, individual choice and the importance of investment. It refuses to acknowledge an active role of the capitalist entrepreneur in the addition of value along with labour, as clearly showed by Keynes. And on top of that, it does not provide adequate evidence about elements such as surplus value (Savchencko, 2007, pp. 1038-1043). Its methodological tools come from levels of analysis that are essentially incommensurable. The concept of the division of labour is inadequate because it excludes any specification of the social division of labour. There is never an understanding of the category of exploitation within the core on the basis of the divisions between mental and physical labour, which is a social and not a technical division, and the relations of property that separate the workers from control of the conditions of production. Wallerstein's approach implicitly ascribes all mass action to economic self-interest that is oblivious to ideological influences such as religion, cultural ideals or aspirations. There is no concrete examination of daily life within core or periphery societies, but merely an account of various economic, climatic, geographic and demographic factors that operate on a fairly high level of abstraction. It does not explore the specificity of politics and culture within the underclasses to find how and why they acted, or whether their actions severely modified or constituted an aspect of the determination of the direction of history. There is a persistent reliance on the concept of conjuncture to explain history because there is no concept of internal relations (Aronowitz, 2003, pp. 508-518). It is difficult to believe that, for example countries such as South Africa, Venezuela, Finland and China occupy homologous positions in the capitalist world economy or that they benefit similarly from downturns in the world economy, and in any case it is hard to know how to prove it (Evans, 2007, p. 17). The most cogent criticisms of the world-system approach have come from Marxists who argue that Wallerstein's emphasis on the effects of the overall structure of the system have led him to neglect the extent to which historically given class structures determine local responses to the market (Skocpol, 1977). As Robert Brenner (1977, p. 27), Wallerstein fails to take into account either the way in which class structures, once established, will in fact determine the course of economic development or underdevelopment over an entire epoch, or the way in which these structures themselves emerge.

[12] See Savchencko (2007, p. 1048).

ideology. As such, the conceptual framework of Wallerstein needs to be adapted to our goals, by incorporating the notions of short-term vulnerabilities derived from the specific transmission channels of the crisis. However, it is important to consider the evident shortcomings of the Marxist tradition of analysis employed. In this regard, following a similar path to Laudan (1977), it is relevant to state that we take the world-system analysis as a general framework. That is not because we think it is fully suitable for the research, but because it has some interesting features that help us to give a conceptual framework for our quest for a better explanation about the vulnerabilities of ABU during the Great Depression.

Another aspect to take into account is the unit of analysis upon which we depend. Every paradigm has a different perception about the role of the actors that influence the international system and give shape to economics and policies. Although we are interested in analysing three case countries from a comparative perspective, for Wallerstein the unit of analysis is the world-system and not the national states[13]. Regarding this issue, we can take advantage of the common simplifying assumption of the neorealist or neoliberal views within the international relations theory, about the State as a rational actor in an anarchic international structure seeking the fulfilment of the national interest and the underlying notion of power accumulation. For realists and nationalists, the national states are the only actors in international economic relations. Even though the national interest can be influenced by classes, elites and groups within the State; the geography, power relationships and the need to ensure national survival are its primary determinants[14]. Alternatively, we can rely on the neorealist view that the State is a unitary, coherent and rational entity. Or we can resort to the neoliberal view of Keohane & Nye, for whom whenever complex interdependencies are present, countries avoid military struggle and are more open to seek cooperative strategies by building rules, regimes and institutions[15].

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[13] According to an interview with Immanuel Wallerstein, "(…) the choice of the 'unit of analysis' was crucial. I became increasingly aware that all of modern social science presumes that the state boundaries constitute the boundaries of 'societies'. I came to be convinced that this was a very misleading assumption. Instead, I came to argue that the only plausible unit of analysis was a 'world-system', or more generally, an 'historical social system'." See http://sociology.yale.edu/people/immanuel-wallerstein, page visited on April 2014.

[14] See Deugd & Hoen (2010, p. 28). Economic realists emphasise the primacy of political influences and interests in the shaping of the foundations of the prevailing economic order and many of its central developments. They share the view of many forms of Marxism that international economic associations can generate frictions and potential conflict, not merely harmony and general prosperity. The relative power and influence of states and other actors on the world economic stage remains a function of their control of appropriate resources. The direct control of peoples, territory and the preponderance of armed force, by states has to be set against the mobility and flexibility of many transnational actors and, in particular, the wealth and informational strengths of the transnational corporations (Jones, 1995, pp. 38-39).

[15] Definitions of interdependence that embrace the importance of the stakes involved emphasise the notions of dependence and mutuality. Dependence suggests the reliance of an actor upon some other; mutuality implies that all the actors involved in some relationship, or set of relationships, are dependent upon one another in one, or more important respects (Jones, 1995, pp. 6-7). The liberal perspective identifies a benign condition of international interdependence. Free trade is held to be generally beneficial and the resulting patterns of production and exchange merely a reflection of prevalent patterns of comparative advantage. Trade and specialisation contribute to new patterns of interdependence amongst societies, who neither wish nor are able to go to war with those trading partners (Ibid., pp. 38-39). Furthermore, liberals go on to argue that protectionism adopted by one country provokes retaliatory protectionism in others, setting off a vicious spiral, and for this reason it is essential to maintain the momentum of multilateral diplomacy aimed at the reduction of trade barriers to curtail that vicious circle (Strange, 1985, p. 235). On the contrary, the Marxist perspective is generally hostile towards patterns of interconnectedness, and hence interdependence within a capitalist

However, these paradigms do not help to explain the conduct and role of actors other than states, such as economic classes, interest groups, governmental institutions and individuals[16]. In our research, we make reference to the relevant actors according to our explanatory needs, although we keep in mind its relationship to the global world-system.

Finally, it is important to justify why such an effort to construct a complex concept of vulnerability is needed. Most of the researchers who have studied the Great Depression in Latin America tend to concentrate on the economic side of the crisis, and conclude that those countries were very vulnerable to the trade transmission channel. Was that really the case? If we concentrate only on trade, that is the case, but if we incorporate the internal politics, the applied policies, the complex interdependences, the power relations, etc., that initial assessment could be relativized or even contradicted. It could happen, for example, that a small country such as Uruguay could be the most vulnerable to the external economic shock. But if its political context is more stable and allows the enactment of certain policies, its relative vulnerability could not be so determinant. Moreover, if those elements are immersed in a more structural framework of the world-system analysis, we have to assess the degree to which the structure is so stringent to annul the effectiveness of short-term policies, if any. Following our previous example, it could happen that the patterns of uneven exchange between Uruguay and its major trading partners, e.g. the UK, are so tight that even its more stable political context cannot outbalance the constraint of the world-system, and in the end its vulnerability is the most determinant of all. In any case, given our set of countries, the vulnerability can be checked against the relative size of the countries, by contrasting Uruguay with its major neighbours.

world-system. Exploitation and instability are integral to the capitalist system for all Marxists, and the positive underdevelopment of many of the less developed countries is attributable to their past and present relations with the capitalist metropolis (Jones, 1995, pp. 38-39). Strange (1985, pp. 233-255) criticizes that conventional liberal opinion because trade experience tells us that protectionism in fact poses no great threat to the world's trade system. Trade in the international system has to be seen as a secondary structure. It is subsidiary to four primary structures of the international political economy (security, finances, production and knowledge). The security structure includes both external security and internal security; it determines whether there is war or peace in the international political system of states and whether and how governments within states are able to maintain domestic order. Trade is highly vulnerable to both. It is also responsive to the production structure, which together with the knowledge structure decides what is to be produced, how (i.e., with what technology), where, by whom, and for whom; and it is vulnerable to the money and credit structure, which decides who can pay for traded goods or services and how. From Strange's contention, and by applying a reasoning in reverse, it is possible, for example, to infer that a combination of political and economic interests that cannot be counterbalanced by the structural change in the international division of labour brought about by the mobility of capital and technology, in a context of a significant world depression can seriously exacerbate the collapse in world trade, as happened during the thirties.

[16] In the Marxist analysis, the basic actors in both international and domestic relations are economic classes, so that the dominant class determine the foreign policy of the State (Gilpin, 1975, p. 28). In particular, we find that the concept of interest groups and their influence in the foreign policy of states has an important role in this research. In the liberal approach, as George Stigler analyses in his 'capture theory', interests groups seek to circumvent markets, and for this reason seek government regulations that far from benefiting the society, tend to protect the interests of those groups. In other words, the governmental institutions tend to be colonized by the regulated interest groups (Deugd & Hoen, 2010, p. 41). And according to the rational choice approach, it is not the State, but the individual as the main actor. There is a focus on the rationality derived from self-interest and the institutional context in which they define their interests. The State is made of politicians, decision makers and public servants, who are ultimately influenced by other individuals, such as journalists, lobbyists and voters. Although individuals act rationally and guided by self-interest, that perception of the self-interest is partially shaped by the institutional environment in which they act (Deugd & Hoen, 2010, p. 75).

With such complexity, we can reach innovative conclusions that might even question the general trend of explanations. Indeed, we could question mainstream researchers who place Latin American countries in the position of price takers and subordinate standing. Or by contrast, give up and accept as valid the determinism of the world-system analysis. As a final point, it is important to recognize that, as clearly evidenced in nineteenth century's Orientalism so well portrayed by Edward Said (2003), there is a tendency to generalize and give for granted mainstream preconceptions. In this regard it is a key element not to forget that even though the Great Depression has been researched exhaustlessly in most core (e.g. the US, the UK, Germany, France, etc.) and some emblematic semi- peripheral countries (e.g. Argentina), there are some countries that have not been really studied deeply enough (e.g. Brazil and Uruguay). Thus, the findings of these particular cases for the historiography are certainly innovative and meaningful, and possibly contradictory with the mainstream.

To sum up, given the shortcomings of well-established paradigms, as well as the complexity of the concept of vulnerability which is transversal to many analytic frameworks, we need to follow an eclectic path. We build on some of the key concepts within the method proposed by Immanuel Wallerstein, but go beyond and incorporate elements from other paradigms. We do not take one single paradigm, but neither do we reject the contribution to knowledge of the relevant paradigms already mentioned. We believe that these different intellectual approaches help us to better explain the experience of ABU during the thirties.

Having discussed the main elements that underlie our problem, the hypothesis that guides our research is that *Argentina, Brazil and Uruguay were highly vulnerable to the Great Depression, and of them the smallest country was the most vulnerable of all.*

Probably this is not a priori a very surprising hypothesis. After all, countries are vulnerable to crisis and it is plausible to think that the smallest country was the most exposed. However, if we consider the concentration of trade, Brazil could be the most vulnerable during the thirties. Thus, the originality of our research is based on our main strategy of using a new conception of vulnerability with a historical-comparative perspective.

The first measure of vulnerability is directly linked to the economic transmission channels of a crisis from core to periphery and semi-periphery. In order to do this, we have firstly to assess the way in which the Great Depression was transmitted to ABU. Then, how asymmetrical was that transmission to those countries. And, we have to analyse the applied policies. The relative vulnerability of ABU should result from the costs that policies could not prevent from falling over the respective societies. The idea can be explained with an example. If we have a country A that is strongly dependent on exports to country B, it is possible to conclude that A is strongly vulnerable to a prohibition of such imports in B. However, if diplomacy in A is sound enough to grant market access to a third country, the costs for A in terms of lost economic activity might not be so significant.

In this regard, there are some similarities in the applied policies by our case countries during the twenties and thirties. Along with the sudden stop of foreign inward capital flows, the most important transmission was through trade. The proof of this assessment lies in the comparison of trade figures and other macroeconomic variables among the three countries. It is commonly accepted by researchers that during the thirties the foreign trade structures of most peripheral and semi-peripheral countries were highly vulnerable in terms of market and commodity dependence. Thus, when the Great Depression began the transmission was strong for them. If we have to add anything to this we need to approach this matter differently. From a substantive point of view, no one has yet researched if the smallest country, Uruguay, suffered the most from the negative effects of the global contraction vis-à-vis its major partners. We also adopt a new methodological approach. Firstly, we develop a methodology to make comparable the trade figures of ABU from the extinct League of Nations and construct indices such as the Herfindahl-Hirschmann index (HHI) to study the degree of structural trade concentration. Accordingly, it is possible to infer the relative economic vulnerability of each one of those countries during the Great Depression. Secondly, we compare these results with the similar calculations for the period 2007-2010 that corresponds to the outbreak of the Financial Crisis of 2008. In this regard, the main idea is to know how much more vulnerable these countries were in the past as compared to the present. Although there are many works that compare the Great Depression with the Financial Crisis of 2008, this is an effort that has not been attempted so far for ABU[17].

The transmission through trade carries several implications for the economies of ABU and triggers policy responses by governments. In order to verify those economic effects, we have to gather and compare other economic aggregates with the idea of obtaining a macroeconomic picture of the crash for these three Latin American countries. At the same time this process allows us to recover information and addresses with a renewed perspective the research on this period, especially for the cases of Brazil and Uruguay, where the literature tends to be scarcer[18]. This is the first time that a comparative systematic comprehensive research is

[17] First of all, we have to create a new methodology to make the trade figures of ABU comparable for the time, and for that task we have to reconstruct those series using sparse statistics from League of Nations trade statistics included in the statistical yearbooks, the "Trade Statistics of Sixty-Four Countries" and the "International Trade Statistics" contained in the "Memorandum on International Trade and Balances of Payments", so that we can analyse each country's individual trade structures and related vulnerabilities. This task involves the conversion to current US dollars from Argentine gold and paper pesos, British gold pounds of the Brazilian trade figures, Uruguayan pesos; and gold US dollars, so that we could find comparable sets of trade data. Secondly, after a rigorous analysis of the trade structures of ABU, we test the trade dependence using the Herfindahl-Hirschmann index (HHI) for destination markets and export products during 1928-1934 in order to study the degree of structural concentration.

[18] In order to work with the hypothesis and its corresponding subsets of questions of economic character, we have to make a significant gathering of the relevant statistical information needed to reconstruct the macroeconomic panorama of ABU from different sources. This constitutes an important contribution for the academic world. And it is not an easy task, because as Díaz Alejandro & Seibert (1979, p. 150) argue, the data are scarce for the interwar period in Latin American countries, especially for small or passive countries. Indeed, we have at our disposal several statistical yearbooks, monthly bulletins of statistics, surveys, and reports from the League of Nations, United Nations, economic history databases and several statistical contributions from specialists. However, it is difficult to find, for example, information on financial variables and/or capitals flows due to the early stage of development of statistical skills. Each country has its own

undertaken for these three countries altogether. Furthermore, we focus on the comparison of Uruguayan economic aggregates vis-à-vis Argentina and Brazil, in order to test if that country was indeed the most vulnerable from the economic point of view.

When we match the economic effects with the policy responses in the analysis, we can give a picture of the relative vulnerabilities of each country. ABU were among the most ‘active countries’ according to an expression of Díaz Alejandro, because they were prone to test an interesting package of heterodox policies in order to face the crisis[19]. In this regard, therefore, the comparison of policies among these three countries is especially relevant. Following this reasoning, we can assume a priori that these three neighbouring and semi-peripheral countries would have strong similarities in policy responses during 1928-1934 to face the same global downturn. This is so because when facing similar strong trade contraction, their weak fiscal structure initially required orthodox cuts of expenditure and their governments were politically

statistics, and when those are lacking, there are estimates from local researchers such as Cortés Conde in Argentina; Haddad and Versiani in Brazil; and Bértola in Uruguay. But they are not comparable because of diverging methodologies. Our work engages those sources of information and provides conclusions as much as possible taking into account their shortcomings.

[19] It is common to hear that the Great Depression prompted ‘heterodox’ policies. Although it is widely used, this is not an easy term to define. Many dictionaries and encyclopaedias define ‘heterodox’ as all that is not conforming to accepted or orthodox standards or beliefs. But in fact this concept has evolved over time and the line that divides ‘heterodox’ from ‘orthodox’ is very thin. This complex conception is related to the evolution of schools of economic thought and represents all that is considered outside of ‘mainstream economics’ and sometimes contrasted by followers of neoclassical economics (Foldvary, 1996; Lee, 2008; and Lawson, 2005). According to Dorfman (1970, pp. 3-4) the German Historical School dating back to 1870-1880 needs recognition in this evolution. As the rigid restrictions of British classical economic thought were criticized, a much broader definition of the scope of economics was demanded, and a systematic gathering and interpretation of statistical and historical data was suggested. This School influenced, for example, Henry Carter Adams, who in the US warned about the risks of unrestrained *laissez-faire* economics and the need for greater government intervention in the economy. Wesley C. Mitchell’s Business Cycles of 1913 work led to the possibility of substantially controlling and reducing the worst fluctuations of economic activity. Walter W. Stewart contributed to the famous Annual Report of the Federal Reserve Board for the Year 1923 (1924), which contained a full and careful statement of principles and consequences of open market operations as a major instrument of policy, supplementing the discount rate. And John R. Commons contributed to the US bill of 1928 that for the first time directed the Federal Reserve Board to perform a positive role in helping to guide the economy. Although the bill stated that the Federal Reserve System should use all its powers to maintain a stable gold standard, Commons did not necessarily preclude altering it, and in 1931 successfully argued for substantial devaluation of the dollar in order to stimulate employment and recovery. These are all examples of heterodoxy at a given point of time that went beyond mainstream economics.

However, the definition of ‘mainstream’ is diffuse. Following Colander, Holt, & Rosser (2003, pp. 3-6), sociological issues impinge upon and constrain what is possible intellectually. The reproduction of ideas involves the social, political and economic structures of the academic and policymaking establishments in which ideas are developed and transmitted. They further explain that the mainstream consists of the ideas that are held by those individuals who are dominant in the leading academic institutions, organizations, and journals at any given time, especially the leading graduate research institutions. This touches on the definition of ideology, which as Lawson (2005) explains, carries the connotation of a theory adhered to irrespective of its method or level of justification and is maintained because of some purpose it serves. Keeping in mind this analysis, we show in this text that the Great Depression led to the adoption of policies that were clearly heterodox, far beyond the ‘gold standard ideology’ that in our view at the time was still part of the ‘mainstream’. In fact, the depression left the gold standard out of the mainstream for good, proving in this way the changing nature of orthodoxy. After all, as Dorfman (1970, p. 21) affirms, even Adam Smith was in his day a heterodox thinker. In any case, the state of mind of authorities regarding their willingness to consider changes to policies and to break with the predominant orthodoxy is an important issue to take into account when the Great Depression arrived, and we address throughout this thesis.

unstable. The comparison of effects and policies allows us to see if this assessment is right, and which of the countries was more vulnerable from the economic point of view.

Besides the transmission of the crisis, another important element that spread vulnerabilities worldwide during the Great Depression was the strength of the gold standard ideology. This is a unique feature that cannot be avoided in any analysis of this period. Over the time, there has been a consensus among researchers in that the gold standard was actually during the twenties an ideology that prescribed the allegiance of governments to the orthodoxy that the system enshrined. As we explain in detail in the next chapter, the argument goes on to conclude that this orthodoxy, along with the lack of international cooperation, was one of the main ingredients to exacerbate the strong impact of the Great Depression. One of the chief reasons was that it prevented the adoption of Keynesian style policies. For example, governments could not boost the demand because this prompted gold exports and therefore, they had problems to maintain the fixed value of their currencies. As a consequence, those countries that were more free to decide on an early suspension of the gold standard and to enact other heterodox policies (among them, expansionary policies), were in a way less vulnerable in the long-run. In fact, they could adopt policies to smooth the crisis sooner and seek a faster recovery. We believe that for some countries, mostly in the core, the gold standard developed as a choice during the twenties, but for others, such as Latin American countries, it was more a result of the lack of alternative options. The international context was of unequal exchanges between core and peripheral countries as the Latin American structuralism and the world-system analysis hold. The intrinsic hierarchy in the world-system also ensured that the financial rules of the world were dictated from the core. Trading relationships and capital flows between core and peripheral countries were influenced by the fact that most of the countries within the former group were fully engaged with the gold standard and orthodox thinking. In this context, the allegiance of ABU with the gold standard surely was a result of these relationships and the need to secure loans from core countries rather than a clear conviction of the benefits of that ideology. This allegiance was also functional to the financial and commercial interests of the main internal pressure groups. In line with Wallerstein's assessment, the global downturn gave semi-peripheral countries, such as ABU, more freedom to pursue autonomous heterodox policies. In this regard, ABU might have not been so much vulnerable after all during this particular point in time.

Our analysis cannot be complete if we do not incorporate concepts from the theory of international relations. Essentially, in the international system states are nominally equal in terms of sovereignty and functions. But they do have different capabilities to achieve their national interest and they do asymmetrically accumulate power resources to achieve their goals. However, from a neoliberal perspective, Keohane & Nye (1988) analyse the new patterns of 'complex interdependence'[20] among unequal powers, in particular the increasing transnational

[20] The concept of complex interdependence entails vulnerabilities and sensitivities in international relations. Following Jones (1995, pp. 6-8) vulnerability could be restated as the simple unavailability of a policy option that would protect an actor from any future costs generated by the given external event. More precisely,

interconnectedness and mutual dependence between states and societies. From their semi-peripheral position, the patterns of interdependence of ABU with core countries translated into a limited capacity to obtain a better bargaining position. This in turn means a new source of vulnerability, for example in face of the protectionist measures taken by core countries. In this regard, for example, the unequal exchange between Argentina and the UK meant for Argentina a very disadvantageous position in the negotiating table, well revealed in the Roca-Runciman Treaty. In fact, in exchange only for maintaining the Argentine presence mainly in the British meat market, the UK was guaranteed the remittances from their old investments, the protection against future devaluation of the peso, preferential treatment to British goods exported to that country and the control of a significant part of the disputed domestic market. In order to research this aspect we used former classified official documents gathered in our field trip to the National Archives of London, mainly from the Foreign Office (FO) and from the Board of Trade (BT), and from the US archives (FRUS). The documents obtained in our field trips to Brazil and Uruguay allow us to complete our panorama on these issues and to confirm what other researchers suggested and intuition advanced. From these documents, for example, it is possible to infer that the real priority of British diplomacy was Argentina, while the Americans were more focused on Brazil. This possibly gave the latter more freedom to pursue independent policies. By contrast, Uruguay was not in any way a priority for either of them. The inclusion of Uruguay in the analysis vis-à-vis the other two major countries is relevant because most researchers tended to skip detailed analysis of small countries. Latin Americanists have not contrasted the documents about economic policies that we managed to obtain for this specific set of countries, and when that effort has been pursued, the emphasis has not been in general about economic and commercial policies and relations, but in the political events and the general historical context. Moreover, we show how similar or different were the positions of ABU, which reveal the priorities of the foreign powers, in particular the British and the US, and therefore, the country's international political vulnerability.

The internal politics also plays an important role in our research. It is not new to say that the international context of growing nationalism and the economic distress suffered during the Great Depression by many countries fuelled the underlying internal conflicts. The struggle among pressure groups seeking power and profit, eventually translated into political instability that propitiated revolutions and regime changes. We know that during 1930-1933 ABU underwent important regime changes. The coups of Getulio Vargas in Brazil, José Félix Uriburu

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Keohane and Nye define vulnerability as an actor's liability to suffer costs imposed by external events even after policies have been altered. Sensitivity involves degrees of responsiveness within a policy framework, or in other words how quickly do changes in one country bring costly changes in another and how great are the costly effects. The vulnerability dimension of interdependence rests on the relative availability and costliness of the alternatives that various actors face. Reference to dependencies in the above discussion has been no mere casual departure from the use of the terms 'sensitivity interdependence' and 'vulnerability interdependence' in Keohane and Nye's work. Interdependencies are instances of mutual dependencies, but the significance of these to the participants in the relationship may vary markedly. Indeed, it is possible for one bilateral relationship to involve relatively trivial sensitivity dependence in one direction, but a critical dependence, of high vulnerability, in the other. This is a clear message that we present from time to time in our work.

in Argentina and Gabriel Terra in Uruguay can be linked to the impact of the Great Depression in the internal political game. Moreover, other relevant factors were the institutional shortcomings that prevented the adoption of decisive policies in face of the economic collapse or simply the direct confrontation of pressure groups not necessary linked to the economic juncture. In any case, at the outbreak of the economic crisis, the incumbent authorities were eager to curtail any revolutionary inclinations among the main pressure groups negatively affected by the economic downturn and to ensure their political survival. That fact certainly affected national policies against the crisis. Here it is important to point out that although many researchers in each country have addressed the events that resulted in change of governments, such a comparison should allow us to say if the landed classes were the key drivers of the politic and economic changes after the outbreak of the Great Depression.

Once we assess the relative contribution of each of the selected concepts that feed the idea of complex vulnerability we are seeking to construct, it will be possible to say if ABU as a semi-peripheral region was really vulnerable. In other words, if the Great Depression found those countries unable to mitigate its effects, or by contrast to the general understanding, they managed to make use of the advantages of being semi-peripheral in a global context of downturn.

We are confident that this research constitutes an important academic contribution because, to our knowledge, there is no other work about this topic that deals with these three countries altogether. We also consider that the analysis in parallel of these representative realities of the periphery is appealing for historians and policymakers worldwide. In the remainder of this chapter we describe the sources of information and the methodologies used in this work.

ii. A world of information to explore

The initial literature review was conducted mainly in the *Koninklijke Bibliotheek - Nationale Bibliotheek van Nederland* – and in *Bibliotheek van Het Vredespaleis* in The Hague, and in the main library of the *Universiteit Leiden* from 2009 up to now. Then, we did field study in London, Montevideo and São Paulo and we kept permanent contact with colleagues in Buenos Aires. More specifically, in November-December 2010, August 2011 and August-September 2012 we travelled to Montevideo, Uruguay, where we obtained significant information regarding the three countries at the libraries of the Economic History Department of the Institute of Economics of the Faculty of Economic Sciences and Management of the *Universidad de la República* (UdelaR), the Faculty of Social Sciences of the UdelaR, the Central Bank of Uruguay and the *Instituto Artigas del Servicio Exterior* of the Ministry of Foreign Affairs, as well as at the local specialized bookstores. We chose Uruguay to do the bulk of our field trip in South America because, apart from the fact that it is our country and we have research expertise there, this country has always been linked strongly with its bigger neighbours, and consequently it was the most likely place to find relevant literature in relation to the three countries involved. Furthermore, in September 2010 in Montevideo we had the opportunity of exchanging ideas and having feedback on our work in the Southern Hemisphere Economic History Summer School sponsored by the Historical Patterns of Development and Underdevelopment Project (Centre for

Economic Policy Research -CEPR-, London) organized by the Faculty of Social Sciences of the UdelaR. In September 2012 we also visited São Paulo, Brazil, where we managed to obtain various books that allowed us to close our study on this country. In September 2011 we travelled to London to conduct research in the National Archives at Kew, Richmond, England, where we obtained invaluable information to fill the gaps on the available literature. Our analysis in London focused on the files of the UK Board of Trade, the governmental department that made provision for commerce, and was in direct contact with the British embassies in Buenos Aires, Montevideo and Rio de Janeiro. In addition we obtained the important dispatches and memoranda exchanged between those embassies and the Foreign Office. We also included in our research documents obtained from the Foreign Relations of the United States (FRUS), which contains relevant historical information from the Department of State. The reader should be aware that the views expressed in those internal documents include the particular perception of the British and American officials, thus probably tainted and biased to overstate their interest and underestimate their counterparts.

Much has been written about the Great Depression. However, many authors focus on the core countries or regions, such as the US and Europe, and have tackled Latin American countries less. Among many others, Condliffe (1932/1933, 1940), Fox (1937) and Eichengreen & Irwin (1995, 2009) brought into focus the world trade flows during the interwar period. While the reports from the League of Nations and the Royal Institute of International Affairs along with the books of Taylor & Taylor (1943) and Rowe (1965) made important contributions about market conditions and primary commodities in international trade, as important inputs for Latin American research. Many prolific authors such as Temin, Eichengreen and Kindleberger have analysed the Great Depression from every possible angle, and especially its origins and the role of the gold standard. With regard to the topic of trade policies there are some remarkable works, such as the books written by Condliffe (1940), Chalmers (1953) and Irwin (2012). On the other hand, regarding the literature specifically for Latin American countries, it includes famous collective works such as Thorp (2000) or Bethell (1994) or books such as Bulmer-Thomas (1994) or Bértola & Ocampo (2011) who undertake research on the economic history of Latin America. In addition, some authors such as Díaz Alejandro (1979, 1980, 2000), Kindleberger (2000) and Viales (2000) put emphasis on the region during the interwar period. However, those are sources of information less country specific and the period 1928-1934 lacks literature or is not addressed in particular. Furthermore, although the work of Abreu & Svirsky (1985) constitutes an important research input to a good understanding of the international economic relations between the US and the UK and the larger countries of South America, Argentina and Brazil, there are not many works strictly specializing in Latin American trade policies and/or international relations. From thereon, the literature for ABU includes a broad range of authors, whose works in many cases give key debates about the local causes of the downturn and the reasons behind the recovery. We now briefly summarize the main contributions to the state of knowledge during the thirties.

For the case of Argentina, the condition of a key South American big player, combined with a rapid deterioration by the end of the twenties, its significant dependence on the UK and the important package of policies implemented by the government to face the Great Depression have made this country as an attractive case study. Thus, the literature is relatively more extensive than the equivalent for Brazil and Uruguay. Researchers such as Prebisch (1986, 1991), Díaz Alejandro (1967, 1970), O'Connell (1986, 2000) and Rapoport (1988, 2003) are only some examples of the main contributions of enthusiastic scholars on the economic history of Argentina. Other authors focus on some aspects of Argentine history. For example, Scalabrini Ortiz (1965) studies the British policy in the River Plate, Villanueva (1972) the Argentine industrialization, Balboa (1972) the evolution of the balance of payments during 1913-1950 and Salera (1941) the exchange control and the Argentine market in his Ph.D. thesis. Furthermore, Smith (1969) analyses the politics and beef by the twenties and thirties, della Paolera & Taylor (2003) the macroeconomic policies and markets and Cortés Conde (2009, 2010) the Argentine political economy. Alhadeff (1986) makes a remarkable reassessment of the economic formulae of the thirties in Argentina as part of a relevant collective work of di Tella & Platt (1986) who put emphasis on the political economy of this country during 1880-1946. Special mention needs to be made of the work of the brilliant Argentinean economist and statesman Raúl Prebisch, compiled by the *Fundación Raúl Prebisch*, who in his "*Obras 1919-1948* " (1991) relates the decision-making process and the policies implemented by the economic team to rescue the country from the depression. This book was obtained from the *Banco Central del Uruguay* in the framework of our field research and constitutes an important input for this thesis. Finally, and as we have discussed in the previous section, it is worth noting that Prebisch used his contemporary experience of the Argentine Great Depression to later create the structuralist theory.

For Brazil, we are under the impression that the entire period of the thirties lacks economic information and is still open for further research. This is also the opinion of many analysts like Beloch (1986), who relativizes the quality of some of the key journals of the time like the *Jornal do Brazil*, and criticizes the lack of referential books. Of course there are many political analyses of the time, specially centred in the figure of Getulio Vargas, the influence of the coffee oligarchy and the background of the Estado Novo after 1937. In economic terms, a good deal of working papers and books analyse the thirties as a path of long-term change in the industrialization of the country, as part of the literature that relates to the import substitution industrialization process and the relatively quick recovery from the Great Depression. In this regard, the classic view corresponds to Celso Furtado (1985), who suggests that the coffee support scheme applied by the government equated to a Keynesian countercyclical policy. Peláez (1972) contests this approach by concluding that the monetary and fiscal policy of the time was essentially orthodox. Since then, most of the analyses tend to support one or the other position, although authors such as Abreu (1990), Cano (1981), Neuhaus (1980), Silber (1977) and Suzigan (2000) refute Peláez's revisionism. Other important contributions are Fritsch (1988,1990), who studies in detail the economic history of the first Republic up to 1930, including the policies in face of the Great Depression and Marcelo de Paiva Abreu, who has several writings on the period 1930-1945, and has also done comparative analysis about other Latin American countries. Delfim Netto (2009) provides the best reconstruction and analysis of the Brazilian coffee policy. Franco (1985) produces a good description of the different views regarding fiscal policy, and corrects the official numbers to conclude that the policy was more expansionary than actually thought. Stein (1979) provides an excellent description of the key textile industry. And Haber (1992) is one of the recent working papers that analyses the Great Depression in Brazil. Suzigan (2000) details the different views in relation to the industrialization during the thirties and presents new data regarding investment and imports of machinery. Peláez (1972) and Villanova & Suzigan (2001) agree on the role of exogenous factors, such an unplanned expenditure and trade balance on the recovery.

For Uruguay, we also found that the period 1928-1934 is still open for further research. A good deal of working papers and books analyse this stage in political terms, and when addressing the economy tend to be schematic or politically oriented. Nevertheless, some authors make an important effort to shed light on the period. The contemporary account of Eduardo Acevedo Álvarez (1934), who was a member of the *Consejo Nacional de Administración* (CNA, National Council of Administration) is an unavoidable reference, since he gives a detailed description of the policies implemented mainly by that branch of the executive. Furthermore, bulletins, yearbooks and reports of the thirties from the Ministry of Finance and from the *Dirección General de Estadística y Censos* have been valuable sources. Finch (1981, 1991) and Bértola (1990) also present detailed and interesting analyses of the economic history of Uruguay in English language. In particular, Bértola (1990) tackles a sectoral approach focused on the manufacturing industry of Uruguay during 1913-1961. Another important collective work is Bértola (2000) which includes several studies about Uruguay and the region in the world economy during 1870-1990; while the works of Díaz (2003a, 2003b) contribute to enriching the financial history of the country. Nowadays, many authors write from the public university, *Universidad de la República* (UdelaR), and are continuously making useful contributions to this field of knowledge. Some of them are Magdalena Bertino, Reto Bertoni, Benjamín Nahum, Raúl Jacob and, as mentioned, Luis Bértola. For example, Bertino & Bertoni (2003) focus on the role of the Uruguayan State, the fiscal accounts and other policy aspects during 1906-1930, Bertino & Tajam (2000) on the evolution of the livestock sector in 1911-1943 and Bertino et al. (2001b) on the global economic performance of Uruguay during 1900-1955. Furthermore, Jacob (1977, 1981, 1983) analyses some economic indicators of the Great Depression in Uruguay, the livestock depression and the manufacturing development and the economic policies applied by the Terra government. And Nahum (1995, 2008) focuses on the evolution of the Uruguayan foreign debt in 1875-1939 and the economic history of Uruguay in general; and in 2007 he published an important work of statistical compilation for 1900-1950, among others.

In spite of being such a recent event, the financial crisis that started in 2008 has been widely analysed. The internet is full of press and journal articles, as well as many referential books. Some examples are such as Roubini & Mihm (2010) and Stiglitz (2010), who portray the magnitude of the global crisis; Reinhart & Rogoff (2009) who focus on the history of debts and defaults; and Bordo (2009), Eichengreen & O'Rourke (2010), Eichengreen & Irwin (2009b), Ferrantino (2009), Helbling (2009), Krugman (2009) and Romer (2009) who compare the Great Depression with the global recession after 2008 to better comprehend the latter. Moreover, most of those works have focused on the developed countries. Regarding Latin American countries, there are several working papers and reports from the Economic Commission for Latin America and the Caribbean (ECLAC) and the Inter-American Development Bank (IADB), both organizations committed to researching the region. For example, Ocampo (2009), in a work for ECLAC, analyses the impact of the global financial crisis in Latin America and concludes that the contraction of the international trade volumes of key commodities and the deterioration of the terms of trade were the main drivers in the transmission of the crisis. And Kacef and Jiménez (2009) compile for the same commission the macroeconomic policies applied by Latin American countries to counteract the effects of the downturn. Indeed, various documents from ECLAC, among them the "Preliminary Overview of the Economies of Latin America and the Caribbean" and the "Economic Survey of Latin America and the Caribbean", both published yearly, provide important information to chart the macroeconomic evolution in ABU during 2007-2010 and to complete the picture of the recent downturn. In particular, the document "The reactions of the Governments of the Americas to the international crisis: an overview of policy measures up to 31st December 2009", which later was updated by ECLAC to December 2011 and published in April 2012, is very useful to describe the policies implemented by the governments in the recent past.

Regarding the conceptual framework that we use as a departure point for our analysis, the economic transmission channels of an international downturn are vast and diverse. Nonetheless, the work of Tugores (2005) on the interdependencies in the world economy gives a general description of those channels that can be easily expanded with other authors. Further, there are many examples of works that focus on this matter taking the Latin American experience throughout history, such as Ocampo (2009), Kacef (2009) and Porzecanski (2009). Meanwhile, for the interwar period, the compiled work of Thorp (2000), that includes for example the important contribution of Díaz Alejandro (2000), also analyses the transmission channels of the Great Depression to Latin America. We also needed to consult literature from the field of international political economy, including among others Brown (1997), Cox (1983), Deugd & Hoen (2010), Gilpin (1987), Jones (1995), Keohane & Nye (1988), Kindleberger (1973), Strange (1985) and Waltz (1988). In order to progress in the mechanics of the gold standard some of the main authors are: Bernanke & James (2000), Eichengreen (1992), Eichengreen & Temin (2000), James (2001), Kindleberger (2002) and Temin (1993). Finally, with the aim of looking inside the structural constraints for the Latin American structuralism, we refer to works from Prebisch (1949, 1959), Bielschowsky (2006), ECLAC (2010), FitzGerald (2000), Furtado (1964), Kay (1989) and Ocampo (2001), among others. And, in addition, for the world-system analysis, we took the works of Wallerstein (among others, 1974, 1976 and 2004), Chase-Dunn & Grimes (1995), Emmanuel (1972), Evans (2007), Simon (2011), etc.

In relation to the historical framework, about the period of the Great Depression some of the outstanding authors that we studied are Cassel (1936), Chalmers (1953), Eichengreen (1992, 2004), Eichengreen & Irwin (1995), Eichengreen & Portes (1987), Eichengreen & Uzan (2002), Irwin (2012), Kindleberger (1973, 2002), League of Nations (1942), Madsen (2001), Milder (1999), O'Brien (2001), Romer (2003), Schnietz (2000) and Temin (1976, 1993). And for the financial crisis of 2008, focusing on Latin America in general or specific countries of that region, we included Astorga (2003), Bethell (1994), Díaz Alejandro (2000), Díaz Alejandro & Seibert (1979), FitzGerald (2000), González & Pollock (1991), Thorp (2000) and Viales (2000). Finally, for the period 2007-2010 we took Baldwin & Evenett (2009), Friedman & Schwartz (2008), International Monetary Fund (2009), Kindleberger & Aliber (2005), Krugman (2009), Ocampo (2009), Roubini & Mihm (2010), Skidelsky (2010) and Stiglitz (2010), among others.

iii. Methodology and statistical shortcomings: against the odds

As we have stated before, we commit to analyse the Great Depression, putting emphasis on its transmission belts and the policy measures taken by the selected governments. In order to proceed we had to limit the scope of our research, so we selected the periods 1928-1934. Of course, the years chosen are in part subjective, although there is justification. With regard to the Great Depression, it is common to read that the worldwide economic crisis was acknowledged after the New York Stock Exchange crash of October 1929 in the US, which is depicted in the literature as a decisive turning point of the interwar period. As a consequence, it seemed advisable to choose 1928 as a good baseline to start this thesis, because that year in general the world enjoyed prosperity, although some countries were already experiencing difficulties. Similarly, we chose 1934 as an ending point, not only because that year several countries were already recovering from the depression, but also because it is far enough from the pre-war deteriorating political context. This approach is not different from others. For example, Eichengreen & Irwin (2009) chose 1935 as the ending year for their work because they consider it marks a peak in protectionism worldwide. In relation to the Financial Crisis of 2008, we took a similar selection to the Great Depression, although in the latter we do not have the advantage of more than eighty years of economic research.

We started with the year previous to the crash, 2007, and followed events until 2010, the last year for which when we started drafting this thesis there was complete and closed statistical information. It is fair to say that this period entails a clear disadvantage which is the lack of historic perspective because it is possible to affirm that this crisis has not ended yet. It is true that after 2010 the world has recovered, but it is also true that the Financial Crisis of 2008 evolved into a sovereign debt crisis in some European countries, that eventually rebounded, and dragged growth in emerging markets, including ABU. In any case, we used data for three full years since the beginning of the crisis in September 2008. We expect that this academic contribution provides analytical conclusions from the present to better comprehend the constraints given by the patterns of dependence of the thirties. And in this endeavour we find that the period 2007-2010 is quite adequate to compare and extract useful conclusions for the thirties.

In the case of Brazil, the contemporary opinion of Sir Otto Niemeyer and William Godchild, who in 1931 analysed the Brazilian economy, is that the government accounting was hopelessly inaccurate and it proved impossible to get definite and correct figures. Apart from the external debt, the Brazilians were reduced to accepting figures which they believed were faked, or based on vague and shifting foundations. The floating debt and such items as foreign capital investments, invisible imports, remittances outward from Italian immigrants, remittances inward from Brazilians abroad, all had to be estimated to some extent by guess work[21]. Indeed, as recalled by Hilton (1977, p. 108), a commission that was established in 1931 in order to study the external debt found that the statistics at the time were non-existent or disordered. There were no data worthy of trust about inter-state trade, agricultural production, industrial productivity or balance of payments. Only in 1932 the *Departamento Nacional de Estatística* was created, and in 1934 the *Instituto Nacional de Estatística*.

In Uruguay, statistics for foreign trade provide insufficient disaggregated information, whereas the fiscal information has been criticized by contemporaries. For example, as Bertino & Bertoni (2003, p. 7) point out, Julio Martínez Lamas, responsible for the country's statistics at the time, recognized that there was some degree of chaos in the national budget figures. For example, he stressed that many expenditures from autonomous institutions were not included in the national budget and that new laws frequently changed the government's expenditures and revenues. Also foreign powers, such as the British, complained about the lack of transparency of official statistics, like in Argentina, especially for the way in which available exchange was allocated among nations. In relation to this, the British claimed that the statistics purporting to comply with UK requests were issued but were quite misleading by undervaluing by half the exchange produced by sales to the UK. Thus, those statistics showed a fictitious preference for the UK about which other countries' chambers of commerce had protested[22].

Regarding the use of Maddison's (2010) estimates, for example, for population, per capita GDP and total GDP, although it is the most suitable available -and sometimes the only - source to make international comparisons, it is important to point out its advantages and to be critical with its shortcomings. Maddison expresses GDP figures in 1990 International Geary-Khamis dollars[23]. According to Maddison (1995, p. 163) that approach is an ingenious method for multilaterising the results which provides transitivity and other desirable properties (base-country invariance and additivity). It is based on the twin concepts of purchasing power parity (PPP) of currencies and international average prices of commodities. Indeed, if we follow the definition of the OECD[24], the GK method is an aggregation method in which the category 'international prices' (reflecting relative category values) and country PPPs, (depicting relative country price levels) are estimated simultaneously from a system of linear equations. However, this method has also outstanding shortcomings. On the one hand, a change in the composition of the group can change significantly the international prices as well as the relationships between countries. Furthermore, for example, if one takes into account that the GK approach gives a weight to countries corresponding to the size of their GDP, a large economy, like the US, has a strong influence on results. On the other hand, another disadvantage is that the real final

[21] See note from the Commercial Secretary of the British Embassy in Rio, to His Majesty's Ambassador regarding talks with Sir Otto Niemeyer and William Goodchild, dated April 4th 1931, p. 44, in F.O. 371-15063.
[22] See note with reference C.R.T. 1230/33 in "Uruguay Exchange Restrictions" in BT 11/151, 1933.
[23] The so-called 'GK method' was initiated by R.S. Geary in 1958 and developed by S.H. Khamis in 1970.
[24] See http://stats.oecd.org/glossary/detail.asp?ID=5528, page visited in October 2012.

expenditures are subject to a potentially important '*Gerschenkron*' effect[25] that arises because of the negative correlation between prices and volumes and which means that the choice of the base year for an index determines its growth rate. Furthermore, it is relevant to note that the original Maddison data are available for our period of analysis starting 1928 and only until 2008 for each of our case countries. Thus, when we made comparisons between both periods of analysis, the figures for 2009-2010 were obtained by applying to the 2008 Maddison estimates the growth rates calculated from the estimates from TED (2011) which use similar, but not equal methodology to Maddison's for the period 1950 to date[26].

In order to show the figures of sectoral GDP and considering that the figures of national income were non-existent during the thirties due to the difficulties of collecting all the necessary information and processing them in a consistent way, we use GDP estimates from local researchers taking into account the varied shortcomings. In particular, for the sectoral GDP of Argentina, we take the estimates from Cortés Conde (2009, p. 309) expressed as index numbers from original figures in million pesos of 1914, whose original base (1900=100) we recalculated to 1928. According to Cortés Conde (1994, p. 5) the chosen method was to weight the changes in the produced quantities in each economic activity, during the considered time period, by the share of value added of each activity in total value added in the base year. This involved constructing indices of physical volume of production, for which it was necessary to construct annual series of physical volume for a representative sample of economic activity. This procedure was much simpler for agriculture, transportation and government for which data were available. But, for the industry there were no data between 1914 and 1935 when the Industrial Census took place, and therefore, annual production series had to be made based on different procedures according to the availability of data. Finally, the 1914 Census data was used to estimate the value added by each item (*rubro*), minus input values from their gross output values and weighting the share of value added of each item in the branch (*rama*) and of each branch in the sector and so it was possible to obtain the total value added. In this regard, it is relevant to clarify that the year 1914 was chosen because it was the only one for which the Census data provided to some productive sectors and raw materials data which were used to estimate the value added for all sectors of economic activity. Also the structure of Argentina's economy in 1914 reflects quite well the structure from 1900 to 1930. With respect to this methodology, there are various shortcomings in the choice of the base year in order to determine the weight of value added, the initial period (*Laspeyres* index) or final period (*Paasche* index) that may result in under-or overestimation as one takes one or the other. However, there are also other methods to address these problems (e.g. Fisher indices, *Divisia*).

In Brazil, we use the sectoral GDP series from IBGE (1990), which reproduces the original data from Haddad (1978) and Versiani (1984). These are figures that due to the lack of primary and

[25] See http://stats.oecd.org/glossary/detail.asp?ID=7138, page visited in October 2012.
[26] TED from the Conference Board estimates the GDP at market prices based on national account sources from international organizations and national statistical institutes, expressed in 1990 US dollars and converted at 'Geary-Khamis' purchasing power parities.

reliable sources have to be taken with care. As a matter of fact, until 1950 it was not possible to produce in Brazil consistent and regularly updated industrial statistics that could properly inform us about the evolution of the industry in the country. The main shortcoming in those statistics is that they are mostly inferred from the statistics about the consumption tax, which was obtained from stamps bought by the producers from a specialized office for the industrial products sold by factories. Only after 1938 did it became mandatory for industrial companies to provide statistics about production to the *Departamento Nacional de Indústria e Comércio*. As a consequence, the total index only reflects approximately the behaviour of the activities affected by the consumption tax, which accounted only for around 69% of the local industrial production[27].

In Uruguay, we take the estimates from Bértola (1998, p. 61), whose original figures are index numbers with base year 1913, recalculated by us to the base year 1928. The base line is that the figures from Brazil and Uruguay follow the approach of Haddad (1978, pp. 3-6), who used the *Divisia* index. Following Bértola (1998, pp. 10-12), this index can be defined as a chain of *Laspeyres* indices, in which the series is based in percentage variations from one year to the other of the different components of the productive structure[28]. The main advantages are that it is not necessary to choose a basic basket and it is possible to incorporate products in a long-term process. However, each year the different components are weighted according to their weight on the previous year, both in terms of their incidence on the changes in the value and volume indices. Although the series can be augmented by the incorporation of new products, the sum of the aggregated values at current prices is only a sample of each sector and it is not possible to assess how representative it is of the total. Thus, it is necessary to make a weighted average in which the weights are to be applied following a criterion, that for example in the case of Uruguay was the Industrial Census of 1936[29] and in Brazil was the Economic Census of 1920, 1940 and 1950[30]. In any case, a key limitation of this procedure is the application of weights that do not necessarily represent those valid for the specific period that we are analysing.

The context naturally explains those shortcomings. International attempts to standardize statistics were just beginning, computing capabilities were scarce and the efforts of authorities were more focused on the collection of taxes and fiscal matters than academic analysis. Wars and international political tensions also reduced the effectiveness of international cooperation in this field. Regarding trade statistics, Mears (1935, p. 502) explains that as early as 1935 complexities and perplexities relating to comparable world statistics arose from the fact that countries did not have either identical classifications, practices in statistical compilation, or identical situations with respect to natural resources, commercial conditions and industrial and agricultural requirements. Moreover, even the compatibility along time of each country's own

[27] See IBGE (1990, pp. 364-367).

[28] Formally, an index of quantities q_i *(i= 1,…,n)* is defined by its own percentage variations as: $\frac{dQ}{Q} = \frac{\sum p_i dq_i}{\sum p_i q_i}$, where p_i *(i=1,…,n)* is the relevant price of good *i*. See Haddad (1978, pp. 3-4) or Bértola (1998, pp. 10-12).

[29] See Bértola (1998, p. 12).

[30] See Haddad (1978, p. 37).

trade statistics have to be taken with care. While each country has the cogent reasons of history or tradition for continuing its methods of recording exports and imports, it is exceptional when such practices of any one country remained sufficiently constant over a period of years to afford a satisfactory appraisal of its foreign trade. From a more modern and general perspective, Federico & Tena (1991, pp. 260-263) explain that the causes for divergence in the data relating to the same trade flow in the statistics of partner countries are differences in compilation criteria and actual errors. While the latter make data records diverge from real flows, the former may affect the comparability of data, but not their reliability. In principle, a statistic is reliable if it is consistent with the established national criteria, but it may not be comparable with other countries' records. In general, the problems of trade statistics can be grouped into the following: unavoidable differences arising between non bordering countries (FOB exports vs. CIF value of imports[31]); structural differences in compilation criteria (e.g. trade coverage, classification of goods by items, recording of values and indication of trading partners); and actual errors (e.g. smuggling, inaccurate recordings, negligence or fraud and errors by statistical offices). Another common problem is the greater attention which the custom services used to give to the handling of imports, especially those subject to duty, which explain the greater trustworthiness of import statistics over export ones[32].

The interwar data presents additional shortcomings to this account of possible errors in statistics. It would have been very difficult for economic historians and econometrists to draw a good picture of the interwar period without, for example, the League of Nation's documents such as the statistical yearbooks and the monthly bulletins of statistics, among several others. However, the researcher has to take into consideration their limits. The original introductory notes of the League of Nations yearbooks acknowledge that the majority of the sources used were official, but there were also unofficial sources and warn that users should not attribute to any unofficial compilations any authority greater than that of the source from which they are obtained[33]. Platt (1989) is a very bitter critic of statistics, and regarding the thirties, he notes that the League's own documents warn that statistics depended ultimately on the information supplied by the mercantile community and that the manner in which trade returns were drawn up differed greatly from country to country, and sometimes from year to year. Furthermore, he argues that every League publication echoed another, rendering the real source lost, the importance of the 'findings' exaggerated and the value of the original warnings about the reliability of its statistics diminished.

Another problem is that most of the League's individual country statistics are only roughly comparable. The non-comparability of the League's trade statistics is due to the lack of uniformity in reporting such matters as transit trade, bullion shipments, government purchases,

[31] FOB (Free on Board, named port of shipment) and CIF (Cost, Insurance and Freight; named port of destination) are Incoterms. The Incoterms rules or International Commercial Terms are a series of pre-defined commercial terms published by the International Chamber of Commerce (ICC) that are widely used in international commercial transactions.

[32] This assertion is from Mears (1935, p. 506) for the US case, but it is valid for many countries worldwide.

[33] See for example, League of Nations (1929, p. 7) or League of Nations (1931, p. 7).

and colonial trade; as well as to the differences in the basis of valuation of imports and exports ('officially declared' values), in classification of commodities, in definitions and in origins and destinations[34]. For example, while in the League's yearbooks, the imports and exports of Argentina are presented as 'special trade, only merchandise'[35]; in Uruguay they are presented as 'special trade, specifically merchandise and bullion'; and in Brazil it is 'general trade, merchandise'[36]. The panorama worsens when it is considered that many of the League's sources are not clear and there was no major standardization of statistics, apart from the Classification of the Brussels Convention of 1913. This nomenclature only identifies five product classifications (live animals, articles of food and drink, raw or partly manufactured materials, manufactures and gold and silver) and 186 items[37]. Actually, as Nichols (1942, p. 340) explains, only after 1939 it was possible for the Economic Intelligence Service of the League of Nations to publish truly comparable trade statistics for about 30 countries which had been compiled according a minimum list of commodities for international trade statistics. Regarding the periods involved, the figures for some countries include calendar years, some beginning April 1st, some ending September 30th and others ending July 31st[38]. Finally, beyond trade statistics, when balance of payments statistics are considered, the problem of reliability worsens as most of the statistics are obtained from private compilations.

From a more practical point of view, a careful analysis of the League's statistics gives an idea of the aforementioned difficulties arising from cross-country comparisons, not mentioning econometrics. The first difficulty comes from the doubtful reliability of the series needed to deflate main variables and render them comparable. Most of the statistics are presented in national current values and for this reason the League's yearbooks provide a complete set of currency conversion tables in order to allow conversion of national values to a common currency or measure. However, the League warns that the coefficients are not exact and are only intended for use when rough approximation is required. And that is just the tip of the iceberg. Most of the time there are key variables missing or of doubtful accuracy. The different approach among countries for the construction of the price indices is a key feature, as the normal procedure to deal with variables such as imports, exports and value of production is to deflate them with the index of wholesale prices or the cost of living, in order to obtain real values and construct index numbers. If it is not possible to rely on those price indices, it becomes hard to evaluate real changes and even harder to commit to international comparisons among variables such as production, consumption and balance of payments components. And even in the case where the right price index is available, its scope might be deficient. In the case of ABU, for example, the information regarding the cost of living refers only to capital cities, and as a

[34] See Fox (1937) and Platt (1989).
[35] 'Special trade' (S) in merchandise only, which may be roughly defined as imports of goods for domestic consumption and exports of domestic produce or products into which domestic labour has entered (League of Nations, 1942, p. 14).
[36] According to League of Nations (1942, p. 102), the discrepancy between general and special trade is in this case generally or no great importance, since in the case of precious metals figures for imports and exports are as a rule of less significance than the balance.
[37] See Flux (1923, p. 299).
[38] See for example the League of Nations' Statistical Yearbook 1930-1931.

consequence an extrapolation for the whole country is at best a large simplification. In the case of Uruguay there are evident loopholes in the cost of living series for 1930-1931 and 1934. In Brazil, the series presented in IBGE (1990) includes a limited basket of items (food, gas, clothes, property rent, furniture, servants and others) and there is no further information regarding relevant methodological aspects for the construction of the index.

But to be fair, even when we use current statistics, we find that even with the advantages of internet and computing capabilities not existent during the thirties, it is hard to find values registered by country X of goods imported from country Y that match reasonably well with the values registered by Y as exported to X. We take a simple example. If nowadays a researcher considers the bilateral trade flows between Uruguay and the Netherlands as provided by COMTRADE, it is possible to verify that the Uruguayan export trade reflected in that database, with Uruguayan trade statistics as a primary source, is at least one-third undervalued. The main reason is that Uruguayan export figures exclude products exported through Uruguayan free trade zones, which are registered by Uruguay as trade with a foreign customs territory called 'free zone'. By contrast, the Netherlands registers both flows (products imported from Uruguayan customs territory and free zones) as products simply imported from 'Uruguay'. The main consequence is that one of the single most important products exported from Uruguay to the Netherlands, pulp of wood, is registered by Dutch and European statistics (EUROSTAT)[39] as imports from Uruguay, but not by Uruguayan statistics as exported to the Netherlands, a fact that might lead to wrong conclusions to the unaware. The problem is aggravated when it is considered that some of the soya imported by the Netherlands through the Uruguayan free trade zones is registered as Uruguayan produce, when it actually is Argentine, Brazilian, Bolivian or Paraguayan produce passing by Uruguayan free trade zones and ports. If these kind of problems exist today with the most advanced computing capabilities and the extended use of the various harmonized codes under the guidance of the World Customs Organization and the WTO, then the case is even stronger to warn that most of the aging hand-made League figures have to be taken with due care.

According to the varied information available from local sources with different methodologies and considering their shortcomings and in order to make international comparisons among countries, export and import data for ABU were calculated from statistical yearbooks. More specifically the information was taken from the "Trade Statistics of Sixty-Four Countries" and the "International Trade Statistics" contained in Memorandum on International Trade and Balances of Payments, all sources from the League of Nations. But from then on, we had to adjust values for each country. In dealing with those numbers, we were aware of that it was important to express the foreign trade in the currency with which most of the ABU commodities were actually paid and in order to make the corresponding comparisons. For that reason, neither paper or gold pounds, nor gold Uruguayan pesos, nor gold Argentine pesos, nor gold dollars, were adequate for our objective. We needed to convert trade figures into current US dollars.

[39] See http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/, page visited in January 2013.

In Argentina, the export values are FOB and the import values are CIF, '*valores reales*' (real values). In this regard, it is important to clarify that the values of goods used in the trade returns and in the assessment of ad valorem duties were those fixed in the Valuation Tariff of 1906[40], adding the increase of 60% made in 1923. In relation to the latter, that was the position in 1930. During 1931 the valuations of a large number of goods were increased by varying percentages and hundreds of new valuations were established. Those values were not generally reliable and the Argentine Statistical Department in order to reach a rough true value of their imports calculated what they called '*valores reales*', as distinct from 'tariff values'. Although the 'real values' and 'tariff values' for total imports were approximately the same, there were wide differences in detail[41]. The original data were expressed in gold pesos during the period 1928-1931 and in paper pesos during the period 1932-1934, therefore in order to obtain the comparable figures in current million US dollars, the US dollars/gold pesos exchange rates from Lawrence H. Officer (2011) and the parity 1 gold peso = 2.27 paper pesos were applied. In this respect, it is relevant to highlight that the values expressed in current million dollars are the closest possible to the '*valores reales*' taking into account the monetary and exchange rate instability for the period of analysis. In Uruguay, the information from the League of Nations has to be taken with care due to the scarcity of reliable actual prices and quantum of imports and exports that forced researchers to make rough estimates. For example, given the fact that the values of imports reflected official prices (*'valores de aforo'*) that usually did not match trading prices, Finch (1981, p. 277) based his estimates of the import values to Uruguay on figures gathered by the official US and British export trade statistics, which were scaled up from the proportions of total imports from those countries indicated in Uruguayan sources. In any case, our choice was to use the export and import data from the League of Nations, which were expressed in Uruguayan pesos during the period 1928-1934. Therefore, in order to obtain the comparable figures in current million US dollars, the US dollars/pesos exchange rates from Maubrigades (2003) and Vaz (1984) were applied. In Brazil, the calculation was more complex. The League of Nation's figures were originally presented in British gold pounds. Thus, conversion tables from the League of Nations were applied in order to express the figures in current dollars. The procedure allowed us to obtain a conversion rate from US current dollars per British gold pound, as presented in Table 1. It is noticeable that the behaviour of the original converted series from British gold pounds is just affected by the US departure from the gold standard from 1933, and not before. So, the absolute numbers may change for being expressed in dollars, but the percentage changes from 1928 to 1932 are just the same for figures presented originally in British gold pounds or current dollars.

[40] The 1906 Law set an estimated unit value (*aforo*) on each imported item that could be changed only by law (Díaz Alejandro, 1970, p. 281).

[41] This information was taken from "Economic and Trade Relations. Record of conversations between the Argentine Ambassador and Mr. Craigie (Foreign Office) and also with the President of the Board of Trade" in "Argentina-UK", BT 11/79 (1932).

Table 1 Exchange rates applied to trade figures presented in gold pounds

	1928	1929	1930	1931	1932	1933	1934
Gold US$ / Pound (a)	4.87	4.87	4.87	4.50	3.50	3.31	3.01
Gold US$ / US$ (b)	1.00	1.00	1.00	1.00	1.00	0.78	0.60
Gold US$ / Gold Pound (c)	4.87	4.87	4.87	4.87	4.87	4.87	4.87
US$ / Gold US$ (c= 1/b)	1.00	1.00	1.00	1.00	1.00	1.28	1.68
US$ / Gold Pound (c *b)	4.87	4.87	4.87	4.87	4.87	6.23	8.16

Source: League of Nations (various years).

When we considered it possible, we used estimates for the terms of trade. For example, for the case of Argentina, the terms of trade index was taken from *Banco Central de la República Argentina* –BCRA- (1952) and the methodology of calculation from Balboa (1972, p. 172). Its original base year was 1913 which was recalculated to 1928. The terms of trade resulted from the quotient between the export price index and the import price index, denoting the percentage changes of the purchasing power of the export prices of Argentina in relation to its import prices. Regarding the calculation of the price indices, they were obtained by relating the ‘*valores reales’* (real values) at prices of each year with the respective volume indices calculated as nominal values from the Official Statistical Department, weighted by categories of items by means of a formula of aggregation used by the BCRA. But it is important to be critical with taking volume indices which although formally weighted include a complex variety of different items under a same procedure. Furthermore, regarding export prices it is relevant to explain that the index represents price changes to the type average-seller. In order to obtain strictly comparable data with the information from imports, the export values were increased to the extent that would result if the Argentine sellers had received by the exchange pesos in foreign currency of an identical worth to that paid by importers. On the other hand, in Uruguay we used estimates from Bértola (1990, p. 140), who took and improved the original calculations of import and export price indices from Finch (1981, pp. 154 and 275-279). We have to take care with those series, because as mentioned the *‘valores de aforo’* usually did not reflect reality, so that researchers had to find ways around those difficulties. Whilst Finch’s Uruguayan import price index was mainly the weighted average export prices of the US and the UK, the export price index was obtained as a result of the value and volume series and deflated by the exchange rate. And the value series is subject to the use of the ‘official values’, while the volume series was calculated on the basis of a limited number of sixteen commodities weighted by 1938 prices. Bértola, after some corrections, basically divided Finch’s export over import price index to obtain the terms of trade index calculated with base year 1913. Thus, the base year was recalculated to 1928.

Finally, following a similar approach to the UNCTAD (2011), we calculate the Herfindahl-Hirschmann index (HHI), which measures the degree of market concentration, both in terms of countries as destination markets and export products, according to the following formula:

$$H_j = \frac{\sqrt{\sum_{i=1}^{n} \left(\frac{x_{ij}}{X_j}\right)^2} - \sqrt{\frac{1}{n}}}{1 - \sqrt{\frac{1}{n}}}$$

where $H_j = country\ j\ index$

$x_{ij} = value\ of\ exports\ for\ country\ j\ and\ product/country\ i$

$$X_j = \sum_{i=1}^{n} x_{ij}$$

and

$$n = number\ o\ products\ (nomenclature\ 1913)\ or\ number\ of\ trading\ partners$$

As this index is normalized to obtain values from 0 to 1, the country with a number closer to 1 displays the maximum concentration, and intuitively is more vulnerable because of its dependence on few countries as destination of its produce, or a limited basket of export products. As a shortcoming, we have to mention that the HHI is highly susceptible to the degree of product disaggregation. Higher product disaggregation reduces both the realised value of the index as well as the minimum possible value. In this regard, the discretionary assessment of the researcher regarding the number of products or countries included in the index becomes relevant. As the reader will see, given the limited number of products and countries for which we have data, we chose to establish a threshold at individual items accounting for 3% or more of total figures.

To sum up, we are dealing with scarce and imperfect national statistics in a time of minimal standardization. The fact that the methodologies applied for the construction of series varied among industries and countries reaffirms the importance of the original League warning that any comparison has to be taken with care throughout the text or any other given research. In our work we have to address very carefully the reliability and causality among variables, not only then, but also now. Only a consistent accumulation of evidence and trends should be regarded as a solid base for consistent assertions. Finally, it is important to point out that this is a historical-comparative analysis with a strong focus on the economic life of Argentina, Brazil and Uruguay during the Great Depression. Our starting point is, of course, the mechanisms of transmission of the crisis and its economic consequences, so that we have to deal with the necessary data, but keeping in mind their shortcomings.

Regarding the structure of our research, in the introduction the authors present the aim of the work, the hypothesis, the sources of information and the methodology with the respective shortcomings. Then the rest of the text is divided in three parts. Part One includes the chapters concerning the conceptual and historical background of our research. Chapter II contains the conceptual framework that guides our work. Further in Chapter III we write about the historical framework of the Great Depression, with a special emphasis on Latin America, and making a link with the financial crisis that broke out in 2008. In Chapter IV we put Argentina, Brazil and Uruguay in perspective by comparing the economies and structure of commerce between the thirties and the period 2007-2010. Then, in Part Two we describe the situation of Argentina, Brazil and Uruguay before de crash in chapters V, VI and VII, respectively. Part Three constitutes the core of our research as in it we seek to analyse the complex vulnerability of the three countries, including political aspects (Chapter VIII), transmission of the crisis from the core (Chapter IX), the role of the gold standard ideology (Chapter X), the policies applied to mitigate the negative impact of the crisis (Chapter XI) and the role of the patterns of complex interdependence that linked each country to the world system (Chapter XII). In our last chapter XIII we make a link to the Financial Crisis of 2008 by comparing it with the Great Depression of 1929. Finally, and always taking into account our concept of complex vulnerability, some concluding remarks are presented.

In general the text regarding Argentina shall be attributed to Silvana Sosa, the one regarding Brazil to Marcelo Gerona and the remaining text concerning Uruguay or wherever a comparison among these countries is made, shall be attributed to both co-authors.