

NEW INSTITUTIONAL ECONOMICS IN THE PERSPECTIVE OF SMALL SETTLER ECONOMIES[#]

ANDRÉ SCHLÜTER^{*}

Department of Social and Economic History, University of Vienna

ABSTRACT

The NIE continuously produces novel ideas to explain differences in long-term economic growth. Among them are the latest theories from Douglass North and Mancur Olson. This paper intends to fill gaps in more focussed evaluations of both theories and their validity in the case of small settler economies. After a literature review, key indicators of political stability and economic prosperity for New Zealand and Uruguay are examined for their proposed intertwined relationship. Further data is assessed to substantiate the findings. Research outcomes suggest that both theories can explain the socio-economic trajectories of the two countries to a limited extent.

JEL CODES: B52, N20, O43, P52

KEYWORDS: New Institutional Economics, Settler Economies, Economic Growth,
Social Orders

[#] Paper prepared for the NZAE's 52nd Annual Conference in Wellington from 29 June to 1 July 2011.
I would like to thank Gabriel Porcile and Jorge Álvarez for useful comments on an earlier draft of this paper.
^{*} Any comment to the author's email address andre.schlueter@gmx.net.

1. INTRODUCTION

At the core of this paper shall be the critical evaluation of the key propositions from the latest works of Douglass North, Mancur Olson and their respective co-authors by a comparative analysis of the socio-economic trajectories of New Zealand and Uruguay during the long 20th century. Thus, this paper addresses current debates in economic theory as well as in economic history.

This paper builds on the widely acknowledged standing of New Institutional Economics (NIE) and the special role of comparative studies on modern settler economies within this field (Hodgson, 2009, p. 4; Engerman & Sokoloff, 2005, p. 652). Among the most prominent contributors of encompassing institutional frameworks are Nobel-Laureate Douglass North and the originator of the Collective Action theorem Mancur Olson. In *Violence and Social Orders* (2009), North together with his co-authors praises their *Recorded Human History framework* (RHH framework) as a fundamental new approach to economic science, which has already received substantial feedback (e. g. Holcombe, 2009; Holden, 2010; Kiewiet, 2010).¹ On the other hand, Olson presented the *Theory of Power* (ToP) in his final oeuvre *Power and Prosperity* already almost a decade earlier, which also attracted a fair amount of attention (e. g. Arrow, 2000; Higgens, 2001; Wintrobe, 2001).² Among others, both schools claim the capability in explaining economic development over the last 200 years (NWW, 2009, p. xii; Olson, 2000, p. xxv). However, scholarly ‘markets’ have not noticed the astonishing commonalities in both *Stufentheorie* approaches, nor carved out crucial differences between their propositions on economic growth and social orders. Hence, two schools have evolved through parallel avenues with a lot in common but with some important differences that need to be made explicit and explored. Moreover, NWW (2009, p. 263) state that systematic empirical evidence is largely absent for their framework. Likewise, inquiries into the validity of Olson’s ToP do not exist either. Therefore, comparative research on selected data shall contribute to fill this gap.

Among modern settler economies, New Zealand and Uruguay remain underrepresented in both scholars’ research, as they are in the general academic debate. Nevertheless, their colonial background makes them ideal representatives of a generally perceived ‘British-Spanish’-dichotomy, which has been lively debated within institutional economics (Engerman & Sokoloff, 2005, p. 652). Furthermore, their similarities in size and factor endowments also let anticipate meaningful research outcomes regarding the viability of both theories. Hence, this paper intends to answer the question,

¹ North, D. C., Wallis, J. J., & Weingast, B. R. (2009). *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. New York: Cambridge University Press

² Olson, M. (2000). *Power and Prosperity: Outgrowing communist and capitalist dictatorships*. New York: Basic Books.

whether NWW's or Olson's propositions account for the long-term socio-economic trajectories of New Zealand and Uruguay.

To successfully deal with the question, this paper will be structured in the following way. The next section explores the interrelationships between NIE and the trajectories of modern settler economies. The third presents a compact literature review of the RHH framework and the ToP. It focussed on key commonalities and differences in their propositions regarding existing social orders and their impact on economic growth. The fourth covers methodological aspects necessary for testing their main arguments. Among them, the selection of particular indicators, the time horizon and further data sources are discussed. The fifth provides the findings from comparative analyses of the institutional setups and economic growth of New Zealand and Uruguay. These results are set into context with the economic performances of larger ideal-type British settler economies. In addition, further potential explanations for the development patterns of both countries are discussed. Finally, the last section concludes the paper and highlights future research paths.

Summarised, the paper shall contribute to economic science in at least two ways. Firstly, economic theory will benefit from the exploration of key characteristics of two important schools of thought and their validity in the case of small settler economies. Secondly, this systematic enquiry into country-specific data will enrich the field of economic history.

2. THE NIE AND THE ROLE OF SETTLER ECONOMIES

For many generations, highly regarded scientists have come up with alternative explanations of the rise and decline of nations in a world of dramatic socio-economic change that requires more than a static (neo-) classical model. Among these alternative schools, NIE emerged in the mid 1970s with its foci on formal institutions and organisations (Hodgson, 2009, p. 7). The findings from North, Coase, Williamson and many other highly regarded scholars have carved out the overarching importance of transaction costs, private property rights, contract law, mechanisms for price stability, and civil freedom for enduring prosperity (Chang, 2005, p. 5). However, there is still much controversy among economists about this set of 'global standard institutions' (ibid, p. 7). Furthermore, the NIE faces severe criticism that static institutions and the sole focus focusing on short periods of history do not allow for the possibility of institutions to adapt, to imitate and to innovate over time (ibid, p. 16). Therefore, a country's ability to continuously adapt to exogenous shocks is considered as even more critical for long-run economic success (Engerman & Sokoloff, 2005, p. 644). Hence, at the beginning of the 21st century a growing number of evolutionary

elements from Old Institutional Economics (OIE) have found their way into NIE to account better for socio-economic change (Hodgson, 2009, p. 18).

A further feature of NIE is the attempt to combine key elements into a comparative framework (Acemoglu et al. 2004, p. 2). In general, such frameworks shall elucidate the relationship between crucial institutions and ways to master dramatic socio-economic changes over the long run. Among the most prominent early contributions of such theories are North (1981, 1990) and Olson (1982), although the latter one is placed into the parallel school of Public Choice theory (Fine & Milonakis, 2007, p. 27; McLean, 2000, p. 652).³ Despite their acknowledged state in economics, North and Olson have repeatedly made fundamental changes in their theories over time in response to their critics and novel developments in economic science (Groenewegen et al., 1995; Vandenberg, 2002; McLean, 2000). Most recently, North has teamed up with the economist J. J. Wallis and the political scientist B. R. Weingast to rework his concepts (NWW). Together, NWW began to sketch out a new *Recorded Human History framework* (RHH framework), which culminated in their common book *Violence and Social Orders* (2009).⁴ On the other hand, from the early 1990s up to his death in 1998 Mancur Olson has continuously refined his *Theory of Power* (ToP).⁵ As before, the authors of both theories insist that they can provide novel theoretical models, which are capable to explain the economic rise of the West during the era of modern economic growth by using a comparative research approach (NWW, 2009, p. xiii; Olson, 2000, p. xxviii). Although both theories share their scope and methodology, neither NWW nor Olson deal with the other scholar's work in a detailed way. On the other hand, academia has also neglected more in-depth research on commonalities and differences of the two theories. This fact is even more startling in the case of Norman Schofield (2003, 2009), who reviewed both of the theories. Moreover, systematic analyses of the applicability of both theories to actual samples of the Western world are still not available on the academic 'markets'.

A comparative research approach, as employed by NWW and Olson, is frequently used in the field of NIE to study the impact of institutions on economic growth (Vries, 2001, p. 31). Comparative research on so-called 'modern settler economies' represents a special case among this literature, which consists of a set of newly established nations in the periphery with sparse indigenous populations and initial factor endowments comparable to early Western Europe

³ Further more recent frameworks include Tilly (1992), Landes (1998), Pomeranz (2000), and Acemoglu and Robinson (2006).

⁴ The term 'RHH framework' is chosen here to identify the joint works of North and his co-authors. Their logic can be traced back to North, D. C., Wallis, J. J., & Weingast, B. R. (2005). *The Natural State*.

⁵ The term 'Theory of Power' is used in Olson (2000). A clear cut-off date for the ToP from Olson (1982) is less obvious, but crucial concepts can already be found in Olson, M. (1991). *Autocracy, Democracy, and Prosperity*.

(Denoon, 1983). Hence, they allow long-term studies on the development of national institutions under a similar preset of initial conditions and largely uninterrupted territorial integrity. As such, this set is usually limited to the British offshoots Australia, Canada, New Zealand, and the United States (US), as well as to ‘Spanish’ Argentina, Chile, and Uruguay (ibid). While the former ones are among the early members of the so-called ‘OECD club’, the latter ones demonstrated persistent struggles in economic development and only one of them joined the rich countries’ club just recently and with a substantial lower per capita income. In other words, some of these countries have been more adaptive to the various external shocks that occurred through the long twentieth-century (Perron, 1989; Williamson, 1996). Hence, this long-run divergence between settler economies has contributed to the evolution of a British-Spanish dichotomy in the literature of institutional economics (e. g. Haber, 1997; Landes, 1998).

North and Olson have referred to the economic histories of modern settler economies before. North’s mindset about the New World’s divergence becomes most obvious in his co-authored and widely cited article *Order, Disorder, and Economic Change: Latin America versus North America* (North et al., 2000). On the other hand, Olson (1982, 1984) utilises the transfers of British institutions to New World US, Australia, and New Zealand to establish his *British disease* theorem. However, their historical referencing has been highly selective and mostly obtained from the larger countries of the sample. These patterns of broad inductive reasoning can also be found in NWW (2009) and Olson (2000), which demonstrates the continuing relevance of settler economies for NIE in general and their own reasoning in particular.

Despite the high availability of more focused research on particular settler economies, there exists only limited comparative work between New Zealand and Uruguay. Kirby (1975), Barrán & Nahum (1978), Rama (1979), Real de Azúa (1983), Denoon (1983), and Álvarez, Bértola & Porcile (2007) are among the most prominent of the rare examples of in-depth comparative work involving both countries. However, none of these works applies a systematic research agenda as offered by NWW or Olson. Therefore, the economic histories of New Zealand and Uruguay provide a real opportunity to test the validity of both theories as well as to gain further insights into these two special cases.

3. THEORETICAL BACKGROUND

Grasping profound differences and commonalities between the RHH framework and the ToP requires thorough investigations into their core elements, the evolving social orders, transition criteria, and the combined implications for stylised socio-economic developments for settler economies.

Despite NWW's (2009) general claim of novelty, the RHH framework does not differ substantially from the ToP in their use of an almost identical mix of 'standard' elements from NIE. Furthermore, the state has a central role in both theories. On the other hand, NWW channel the reader's eyes on distinctive types of organisations, while Olson differentiates rather between varying kinds of transactions and markets. Moreover, NWW continue to use North's approach of planting the origins of institutions deeply into culturally influenced belief systems, whereas Olson (2000, p. 194) prefers to address formal institutions.⁶ In addition, NWW consider differences in economic outcomes depending on group sizes only marginally, while Olson frequently refers back to his earlier developed theory of collective actions. However, other aspects are indeed novel. NWW do not mention North's earlier key concept of 'path-dependence' once. Likewise, the term 'transaction costs', another main pillar in North (1990), gets completely lost between NWW (2006) and NWW (2007). Here, NWW might have considered Olson's (2000, p. 81) rejection of the importance of transaction costs. Nevertheless, NWW still adhere to North's approach but wraps it into a concept of 'higher gains from impersonal exchange'. Moreover, already the title of NWW (2009) reveals the risen emphasis on 'violence' compared to North's earlier work, but it has already been a central element in Olson (2000).

NWW and Olson combine their elements into a holistic framework that simultaneously addresses the political and economic realms of a nation. NWW's RHH framework follows the ToP's evolutionary three-stage social order approach from Olson with varying degrees in the governmental monopoly of violence and in the provision of public goods. However, both NWW and Olson only consider the last two social orders as key to understanding the divergence during the era of modern economic growth, and, hence, establish an implicit 'autocracy–democracy' dichotomy.⁷ In the case of NWW, these role models are defined as *Natural State* or *Open Access Order* (OAO).⁸ Olson dubs them slightly sloppy *Stationary Bandits* and *Democracies*. In addition, NWW stress differences between sub-types of the second social order, while Olson discusses sub-types of democracies. However, both approaches emphasise the crucial need to distinguish between de jure and de facto institutional layouts. A further essential point of divergence between both theories is the influence of interest groups. For NWW, only OAO can support a rising number of interest groups, which, in turn, leads to higher political competition, rising distribution of public goods and a reduction of domestic conflicts. In the case of the ToP, the degree of public goods

⁶ As NWW (2009, p. 28) refers to North's earlier book, the link between the elements can be shown explicitly: "beliefs -> institutions -> organizations -> politics -> outcome"(North, 2005, p. 155).

⁷ NWW (2009) connect economic prosperity to high democratic values based on a principle of 'double balance.'

⁸ Until NWW (2007) the terms were Limited Access Order (LAO) and OAO.

provision and social peace does not have to be any lower in a second social order than in a democracy during short and medium terms. Moreover, Olson’s institutional sclerosis, the rising impact of rent-seeking interest groups, can force formerly successful democratic societies away from their distributive efficiency. In other words, NWW turn Olson’s collective action theorem deliberately on its head.

Yet another crucial difference between the two frameworks lies in the opportunities for transition. As NWW argue, a transition towards political and economic prosperity is lengthy and hardly possible. Furthermore, once this third stage is achieved, it is to be contained automatically in the future. However, NWW provide many examples of intra-transitions within the second social order. NWW seem to diverge considerably from North (1990) in their potential allowance for plurality of institutional setups that can achieve and maintain social progress and economic success. Even Spain is now considered as a ‘success story’ after a lengthy, but yet not explained transition. Nevertheless, NWW still refer extensively to the economic histories of the UK and the US to set the theoretic core of their framework. They assign the ‘Mature Natural State’ status to British offshoots at their time of independence and a common rapid move towards OAO status. On the other hand, NWW assign the status of ‘Fragile Natural States’ to Spanish colonies. This leads implicitly to the continuation of North’s (1990) ‘British-Spanish’ dichotomy in the case of settler economies. In contrast, Olson allows for an easier upward transition (‘accident of history’) as well as for drift backwards (‘institutional sclerosis’). Moreover, Olson considers the inheritance of formal institutions as one of these ‘accidents of history’. In other words, there is no automatism that prevent British or Spanish settler economies from experiencing, at least temporarily, characteristics of the opposite social order.

Consequently, the essences of both theories can be transformed into a set of hypotheses about the political sphere in the British and Spanish role models for settler economics (Table 1).

TABLE 1: HYPOTHESES FOR THE SOCIAL SPHERE

	British Model	Spanish Model
Duration of Autocratic Rule	Non-Existent	Longer
Major Regime Reversals	Less	More Long stable periods (Olson)
Upward Transition to Democracy	Fast, early (NWW) Backwards, late (Olson)	Slow, delayed (NWW) Fast (Olson)
Extent of Domestic Conflict	Less	More

Source: Based on NWW (2009) and Olson (2000)

According to NWW (2009, p. 2) “over the past two centuries, political and economic development appear to have gone hand in hand.” Similar statements can be found in Olson. In other words, the configuration of the institutional basis is the prime determinant for an economy’s capacity to exploit its theoretical output limit. Their assertions are hardly new.⁹ Therefore, both concur that only with the third social order Schumpetrian-style entrepreneurs can spread their powers and creativity unhindered in economic markets. In the case of NWW, unrestrained competition among them assures the most-efficient adaption to external shocks and, thus, to the economy’s sustained ‘taking-off’ into the income spheres of the OECD club on a less volatile path. On the other hand, Olson makes finer distinctions. In his opinion, second social orders might be equally capable to adjust to external shocks in the short and medium term. In the long run, democracies also take the economic lead in Olson’s model, although institutional sclerosis might cause the divergence from a once successful path.

In other words, the patterns of economic development should differ substantially between the role models (Table 2).

TABLE 2: HYPOTHESES FOR ECONOMIC DEVELOPMENT

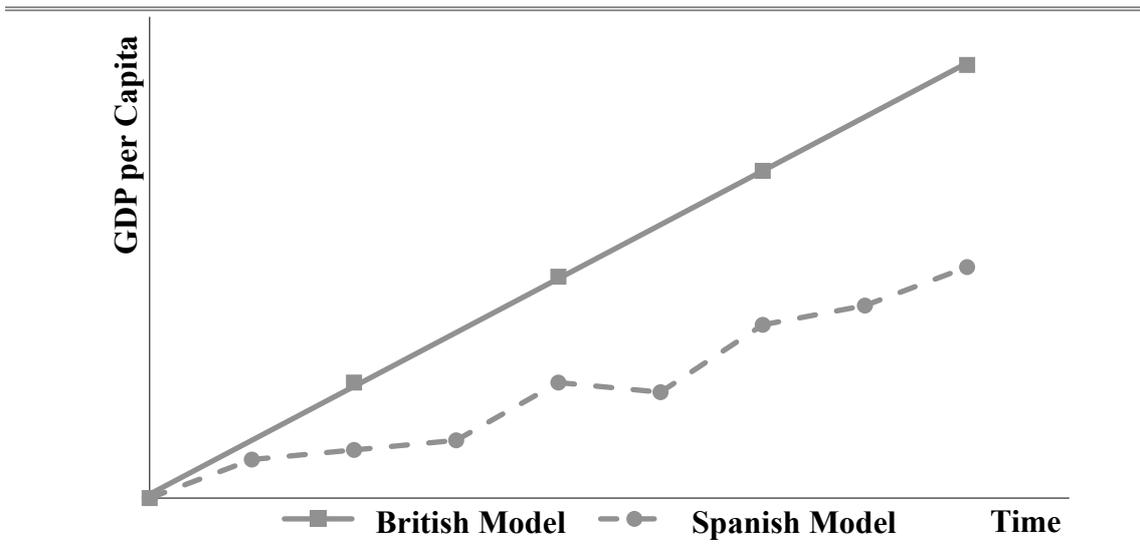
	British Model	Spanish Model
Current National Income per Capita	Higher	Lower
Long-term Average National Income Growth Rate	Higher	Lower
Volatility in Average Income Growth Rate	Lower (NWW)	Higher (NWW)
Recent Average National Income Growth Rate	Higher (NWW) Similar (Olson)	Lower (NWW) Similar (Olson)
Average National Income Growth Rates After a Major Regime Shift	Lower (Olson)	Higher (Olson)
Forward Transition to Democracy when National Income Growth Rates Were		High (Olson)

Source: Based on NWW (2009) and Olson (2000)

These commonalities and differences between NWW’s RHH framework and Olson’s ToP lead to two similar, yet different stylised depictions of the rising divergence between the two role models. In NWW’s opinion, stable institutional foundations led the British model persistently outperform its crises-driven Spanish counterpart during the era of modern economic growth (Figure 1):

⁹ North (1994, p. 361) states, “if the institutional framework rewards piracy then piratical organisations will come into existence.” Olson (2000) refers to a Mafia family’s impact on business in its neighborhood.

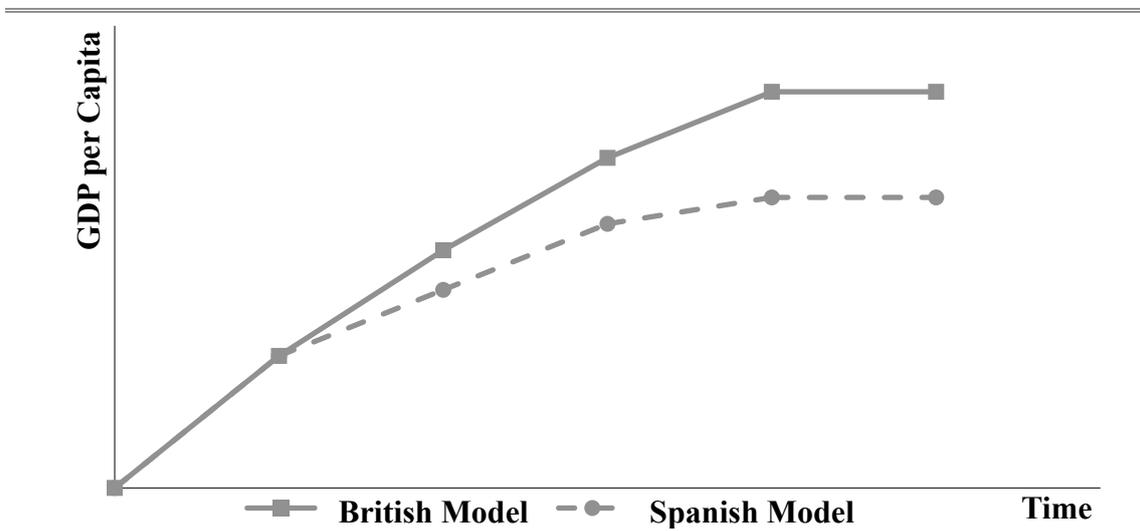
FIGURE 1: THE BRITISH MODEL AND THE SPANISH MODEL FOR NWW



Source: Derived from NWW (2009)

In contrast, Olson (2000) permits similar high economic growth rates or even higher ones of the Spanish model during times of autocratic government, while he also sees sclerotic economic stagnations in the case of the British model for the current decades (Figure 2).

FIGURE 2: THE BRITISH MODEL AND THE SPANISH MODEL FOR OLSON



Source: Derived from Olson (2000)

Therefore, NWW's bold claims for novelty of their RHH framework hold to a limited extent only, even when being compared just to Olson's ToP. The elements of both rational choice frameworks and their *Stufentheorien* (theories of stages) are fairly similar to each other. Moreover, many ideas from North's earlier work have survived, such as deeply rooted differences in belief systems, their incremental change, and their transfer to the New World. Regarding novelties in their

work, NWW have followed current general academic trends and incorporated ‘conflict’ and ‘interest groups’ into their line of reasoning.¹⁰ Wallis’ and Weingast’s scholarly ties with political science might have a reasonable stake in this outcome. On the other hand, NWW have responded to North’s critics and formally abandoned some of his highly debated core concepts, such as ‘path-dependency’, ‘transaction costs’, and a pronounced ‘success and failure’ story for the European core. Taken these selected facts together, it can be hypothesised that NWW have been, at least, inspired by Olson’s work, refurbished his ideas by recent academic contributions, and continue to tell North’s major story.

4. METHODOLOGICAL ASPECTS

An evaluation of both theories has to focus on the developments within national political and economic markets, as well as their interplay. As differences in socio-economic systems across space and time are addressed, a single abstract deductive model cannot be applied to such an endeavour (Hodgson, 2001, p. 23).

Comparing types and duration of social orders provide a starting point for the analyses. Furthermore, the examination of respective data shall also reveal differences in transition patterns between social orders. The CNTS data set from Banks (2008) and the Polity IV data set from Marshall & Jaggers (2010) are widely used in social sciences for such purposes.¹¹ NWW and Olson also refer to these data sets in their work.¹² For the purpose of this study, the POLITY2 indicator from the Polity IV data set is taken as a feasible proxy for evaluating social liberty. The indicator summarises the competitiveness in political systems, constraints on the executive and safeguards for civil liberties since national independence.¹³ Based on the aforementioned hypotheses, the POLITY2 data for New Zealand should contain less years of coded autocracy than Uruguay.¹⁴ Likewise, potential periods of stop-and-go policies or forward transitions should be identifiable by the changes in POLITY2 values over time and in comparison to each other. Moreover, the variable DURABLE from the Polity IV data set allows for assessing the number of major regime shifts, and, in the case of the ToP, the identification of long stable periods even for autocracies.¹⁵ As Wilson

¹⁰ Tilly (1992), Acemoglu & Robinson (2006) and the subsequent following-up research might be further influential sources for NWW.

¹¹ For a detailed discussion of these data sets see Munck & Verkuilen (2002).

¹² NWW (2009) rely on the POLITY indicator from the Polity IV data set. Olson (in Clague et. al., 1996) combines variables from the then current Polity II data set with others from the Cross-National Time Series (CNTS) data set.

¹³ See Marshall, Gurr, & Jaggers (2010) *Polity IV Project: Data Users Manual* for further details.

¹⁴ The integer scale of Polity2 ranges from -10 to 0 for autocracy and from 0 to 10 for democracy.

¹⁵ The variable DURABLE counts the years of a prevailing regime. The variable is set back at major regime shifts of changes in values $\geq \pm 3$.

(2007) points out, NZ's transition towards full nationhood was somehow unique. This study assumes the establishment of self-government in 1857, when NZ's first responsible government was created after the New Zealand Constitution Amendment Act from 1852. Similarly, Uruguay's independence is set for 1830, when Argentina and Brazil ratified the neighboring country's first constitution. Moreover, these findings are supplemented by further evidence from other secondary literature, which follows NWW's and Olson's methodology of inductive reasoning. Going hand in hand with the comparisons of the political markets, further sources need to be taken into account to evaluate the degree of domestic conflict. R. Rummel's (1963) scheme of domestic conflicts is widely used. Unfortunately, an impartial database covering violent incidents systematically over the whole research horizon does not exist for New Zealand and Uruguay.¹⁶ Moreover, such collections apply high thresholds in participants to justify national conflicts, which do not account for the small size of both countries. Thus individual country data are accessed and years with major violent outbreaks, such riots, coups or civil wars, are counted.

Next, long-term economic development patterns are evaluated. For the purpose of this study, national GDP per Capita data are used as proxies for economic prosperity.¹⁷ National real GDP data from 1870 to 2006 are obtained from Maddison (2010) and extended by estimates for the most recent years from conferenceboard.org. This procedure provides long-term consistency in the data, as Maddison's estimates build on local expertise. The log returns of the real GDP per capita (PPP) time series are then evaluated in the light of the abovementioned hypotheses about differences in income growth patterns between New Zealand and Uruguay. The economic performances are then evaluated over the whole research horizon as well as for sub-periods that are derived from the earlier discussion of New Zealand's and Uruguay's political markets. Finally, further secondary literature is assessed to put the results into context with global economic developments.

5. FINDINGS

On 6 February 1840, the British Empire and local Māori leaders signed the Treaty of Waitangi covering the secluded islands, which were to become New Zealand (Belich, 2009, p. 17).¹⁸ It is commonly argued that the treaty's 'good intension' led to the early establishment of a 'unified

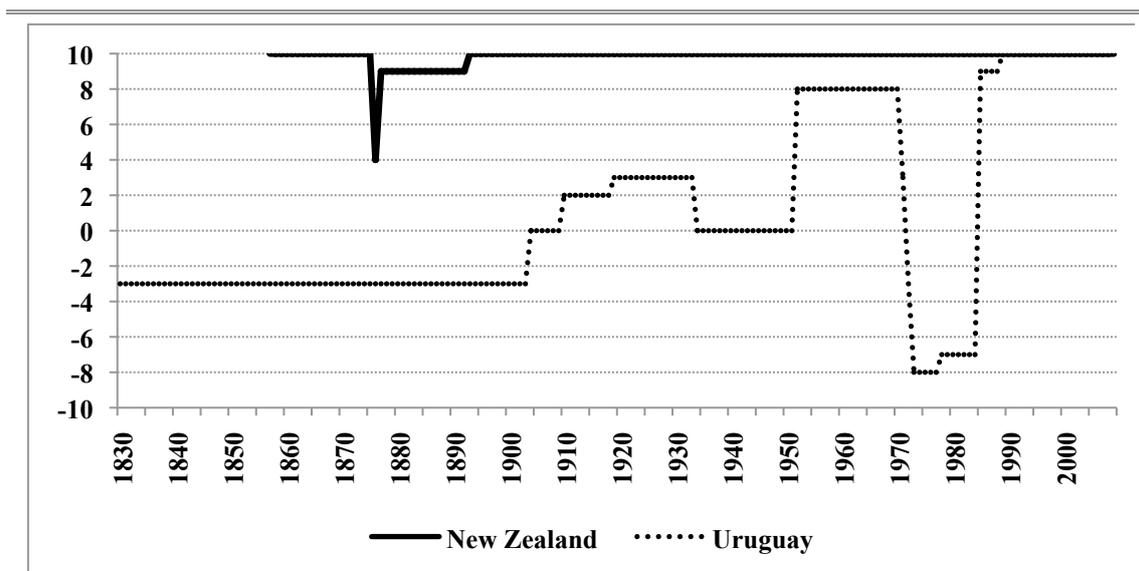
¹⁶ The Correlates of War database only covers major inner conflicts. The CNTS database contains figures to the abovementioned criteria, but for a limited time horizon only.

¹⁷ NWW (2009) rely on real GDP (PPP) per capita data from Heston and Summers (2009). Olson (in Olson, Sarna, & Swamy, 2000) uses data from the World Development Indicators (WDI) database.

¹⁸ It can be argue that NZ fell under the jurisdiction of the British Empire already on 14 January 1840, when it was affiliated with New South Wales (Hill, 2009, p. 515).

nation' (Hill, 2009, p. 514). First, the British transferred their approved coercive and legal apparatus to the new colony. Then, the newly created NZ Parliament gained legislative power step-by step between 1854 and 1856 (Wilson, 2007, p. 17). In 1857, the British Parliament passed the New Zealand Constitution Amendment Act, which consolidated New Zealand's first formally responsible national government.¹⁹ On the other hand, former Spanish Uruguay could achieve its independence on the 28 August 1828 only through British mediation, serving as a buffer nation between rivaling Argentina and Brasil (Becker, Jäger, & Raza, 2001, p. 38). Both countries finally approved the drafted constitution in July 1830, which de jure established a representative unitary republic (Hudson & Meditz, 1992, p. 11). However, actual political power remained in the hands of a few caudillos, which continued to compete for political and economic influence. Initial subsuming analyses of the POLITY2 measures and further data affirm these fundamental differences between New Zealand's and Uruguay's institutional setups and their evolution over time (Figure 3).

FIGURE 3: DEMOCRACY PATTERN BASED ON THE POLITY2 INDICATOR



Source: Marshall & Jagers (2010)

The POLITY2 values of New Zealand show the immediate establishment of quasi ideal-type democratic features and their continuing persistency, although an unusual steep relapse is listed in 1876, when then Prime Minister Julius Vogel abolished provincial governments. According to the variable DURABLE, New Zealand lacked further fundamental interruptions for the last 133 years. Moreover, handing over of NZ's political power took place peacefully and on a scheduled basis. On the other hand, the POLITY2 measures for Uruguay mirror a later and bumpier

¹⁹ Wilson (2007) argues that full independence was achieved in 1986 by passing the Constitution Act (effective from 1987). However, only in 2004 the Supreme Court of New Zealand was established.

move towards democracy. Considering the DURABLE measure, Uruguay had to experience five fundamental reversals of the institutional setup, shifting between presidential republics, a Swiss-style National Council of Government (‘*colegiado*’), and military rule (Hudson & Meditz, 1992).²⁰ Moreover, episodes of domestic conflicts, such as coups d’état, assassinations, riots and guerrilla warfare are clearly scattered in Uruguay’s history (ibid). A summary of these evaluations is presented in Table 3.

TABLE 3: ASSESSMENT OF POLITICAL DEVELOPMENT

	New Zealand	Uruguay
Establishment	1840	1828
Year of Effective State Creation ²¹	1857	1830
Years of Autocratic Rule ²²	0	87
Major Regime Reversals ²³	1	5
Beginning of Transition to Democracy ²⁴	1857	1904
Years of Major Civil Unrest	18	47

Sources: Marshall & Jagers (2010); Belich (2001), Hudson & Meditz (1992)

In other words, New Zealand’s institutions must have been able to cope with external shocks and to provide a sound civil foundation. Therefore, its political institutions appear to prove the general assertions made by NWW for their general British model. In the case of Olson, NZ as one of the nine oldest democracies in the world attributes itself to one of the so-defined well-established systems of ruling majorities, although the data do not show immediate signs of institutional sclerosis. On the other hand, Uruguay’s institutions seem to be more vulnerable to exogenous shocks and might have provoked higher levels of uncertainty and impediments for sustained economic development. Following NWW, categorising Uruguay as a fragile Natural State in its early decades seems plausible. In the sense of Olson, current Uruguay might be one of his ‘countries in transition’ from an autocratic background. Moreover, Uruguay’s stony way to democratisation supports NWW’s gradual evolution rather than Olson’s sole reference to an ‘accident of history’.

²⁰ The reversals are recorded for the years 1904, 1934, 1952, 1971, and 1985 (Marshall & Jagers, 2010).

²¹ Methodology following Marshall & Jagers (2010). For a discussion of NZ’s independence see Wilson (2007).

²² Autocracy is defined as negative POLITY2 value according to Marshall & Jagers (2010).

²³ Based on changes in the variable DURABLE from Marshall & Jagers (2010).

²⁴ Based on positive POLITY2 value from Marshall & Jagers (2010).

This first affirmative assessment regarding the applicability of both theories get cracks if history is considered slightly more detailed. At the time of Treaty, a mere 2,000 British but 80,000 Māori inhabited New Zealand (Pool, 1991). Therefore, the peaceful agreement and the generous terms of the Treaty towards Maori might have depended rather on Britain's military overstretching than on its institutions (Hill, 2009, p. 516). New Zealand's settler did not refrain from violating property rights and the use of coercive force to increase the supply of acreage, which eventually fed into the various New Zealand land wars between 1843 and 1872 (Belich, 1988). Even within the white settler population, NWW's proposed commonly shared ideology of equal opportunity mainly served the interest of the increasing class of dairy producers. Thus, at the beginning of the 20th century New Zealand had become a 'dictatorship of dairy farmers' (Denoon, 1983, p. 226). A further peculiarity has been the long-existing simple plurality electoral system during the 20th century with a high degree of cohesion between the two major parties (Jackson, 1998). Moreover, the political process has repeatedly led to limited voting rights for Members of Parliament's (MP's), to the government's role as main law-making agency, and to decreasing veto-rights of the Governor General (ibid). In other words, NZ's institutions have permitted strong prime ministers to dominate the cabinet, which dominates the government caucus, which, in turn, dominates now a small unicameral parliament (Belich, 2001, p. 396; Evans et. al., 2002, p. 1856). Consequently, New Zealand's institutional setup has retained some characteristics of NWW's and Olson's 2nd level social orders throughout history. Thus open access to political competition and prevailing checks and balances were partially muted within a cohesive society.

In the case of Uruguay, similar caveats have to be made. Undoubtedly, Uruguay has experienced more severe domestic conflicts than New Zealand, especially regarding warfare during the 19th century. However, focusing solely on differences in national institutional setups leaves out the heavy involvement of foreign interests in Uruguay's conflicts, such as of neighboring Argentina and Brazil, as well as of France and Britain in the Guerra Grande between 1843 and 1852 (Hudson & Meditz, 1992, p. 13). During early years without major external interference, both major factions, the Colorados and the Blancos shared power by their principles of *fusión* and *coparticipación* (fusion and coparticipacion). Moreover, the propositions of the RHH framework do not match with the time and the magnitude of democratisation. Even after decades of armed struggle, President José Batlle y Ordóñez (1903-1907) could initiate early far-reaching democratic reforms (Nahum, 1999a). In addition, Uruguay's sophisticated democratic system was well ahead in the 1950s, when many other parts in the world had opted, voluntary or not, for socialism or were still under colonial control. Then contemporary depictions of Uruguay, such as 'Switzerland of the South' or 'Como el Uruguay no hay' (There's no place like Uruguay), summarised the country's relative governmental

stability and social peace (Hudson & Meditz, 1992). Moreover, people from Uruguay could enjoy many benefits of the 3rd social order, such as broadening of the suffrage system and the distribution of public goods, already in early decades of the last century. In other words, Uruguay was more adaptive in its institutions than suggested by the RHH framework, but still had to witness the temporary demise of its earlier advanced setup. Therefore, neither NWW's 'inertia' nor Olson's 'opportunity' approach itself can comprehensively explain Uruguay's democratisation pattern.

Following the reasoning of NWW and Olson, differences in institutional setups should be equally visible in the economic sphere. While New Zealand's agricultural production prospered from the 1850s, power struggles in Uruguay seriously hindered the growth of the primary sector and substantial investments during early nationhood (Denoon, 1983). Hence, in 1870 New Zealand per capita incomes were roughly 65% higher than in Uruguay. However, sheer distances to overseas markets constrained further economic expansion in both countries. Only with the arrival of modern technologies, such as the invention of steam engines on rails and ships or refrigeration, could lift these natural boundaries for economic growth after the 1870s (Williamson, 1996, p. 286). The subsequent developments of both countries are summarised in Table 4.

TABLE 4: ASSESSMENT OF ECONOMIC DEVELOPMENT

	New Zealand	Uruguay
Real GDP per Capita in 2010	\$17,869	\$11,645
Real GDP per Capita in 1870	\$3,095	\$1,877
Av. Annual GDP per Capita Growth Rate	1,253%	1,304%
During Democracy ²⁵		1.464%
During Autocracy		0.836%
Av. Annual Volatility of Capita Growth Rate	5,010%	7,471%
Years of Negative GDP per Capita Growth	36	48

Source: Maddison (2010); Values in 1990 International GK-Dollars

New Zealand was among the richest countries on earth in 1870 (Greasley & Oxley, 2000). In 2010 it still retained a lead of 60.6% in per capita income over Uruguay. Moreover, New Zealand experienced less volatile growth patterns and shorter periods of income drops than its South American counterpart.²⁶ In addition, Uruguay's average income per capita growth rate of 0.836% per year during autocracy is considerably lower than 1.464% during democracy. Looking at these

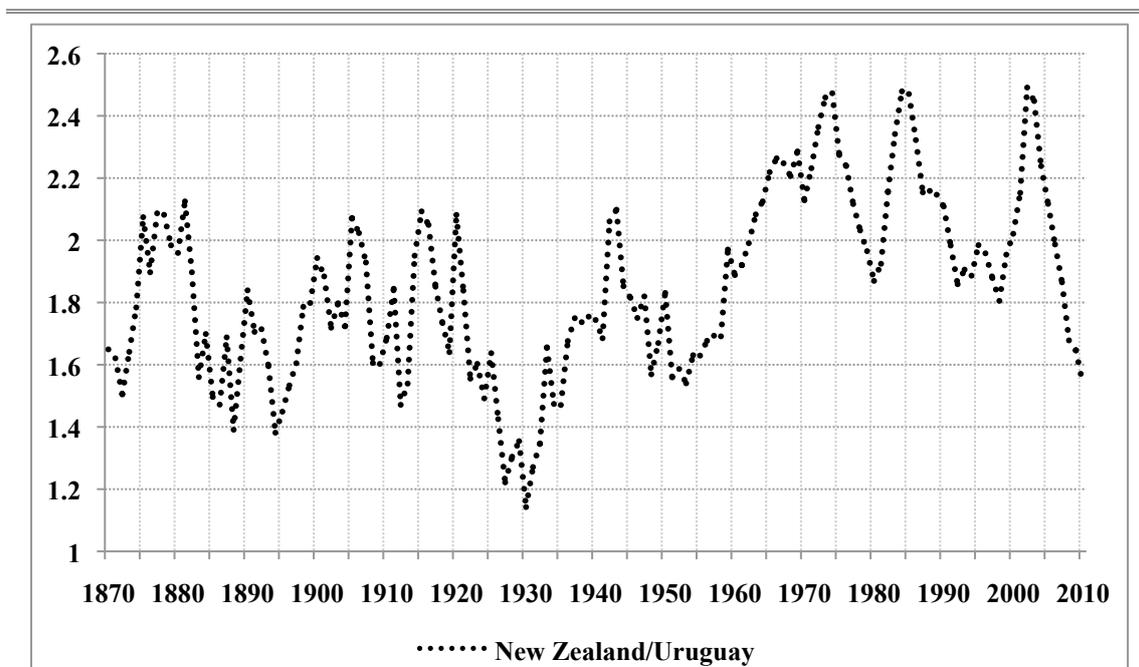
²⁵ Distinction depends on POLITY2 values from Marshall & Jaggers (2010).

²⁶ See the Appendix for more details.

initial numbers, the relation between political stability and economic prosperity as mentioned by NWW and Olson seems to hold. New Zealand not only remained richer, but also made its way to prosperity smoother. Likewise, albeit Uruguay experienced periods of catching-up during democratic regimes, external shocks struck the country seemingly harder. Based on these figures, New Zealand appears economically more adaptive efficient in the sense of the theories.

On the other hand, New Zealand could not benefit from its ascribed long-term institutional advantages in terms of potentially higher average growth rates since 1870. In fact, Uruguay caught up to approximately 87% of New Zealand's income levels in 1930. Only after both income levels began to diverge, while this trend seems to have reversed back to its initial gap from the 1970s following a highly volatile pattern (Figure 4).

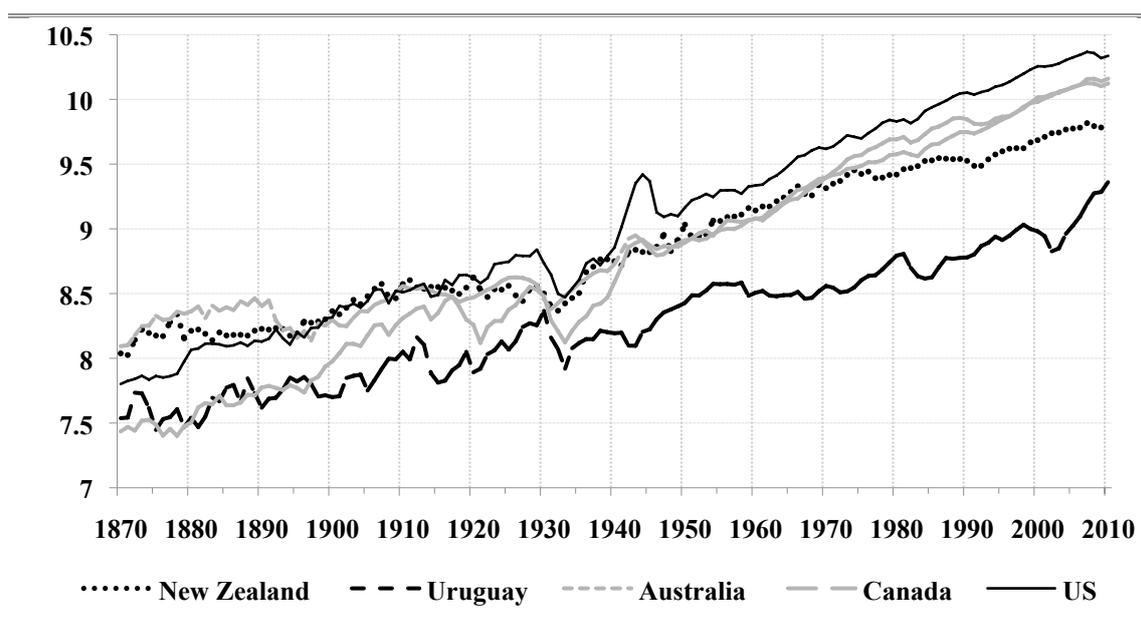
FIGURE 4: DIFFERENCE IN REAL PER CAPITA GDP BETWEEN BOTH COUNTRIES



Source: GDP per Capita data from Maddison (2010) until 2006; thereafter from <http://www.conference-board.org/data/economydatabase/>

This divergence from the predicted outcomes becomes even more explicit once the income growth patterns of New Zealand and Uruguay are set into context together with the ones from larger Western offshoots (Figure 5).

FIGURE 5: LOG GDP PER CAPITA DEVELOPMENT



Source: GDP per Capita data from Maddison (2010) until 2006; thereafter from <http://www.conference-board.org/data/economydatabase/>; Logs own calculation

As the graph clearly demonstrates, all of these settler economies converged to similar income levels until 1930, perhaps with a minor lead of the US as the becoming superpower. Thus, during the first period of globalisation until WWI and the subsequent transition period all of these countries prospered almost regardless of their institutional background, and, thus, further factors must have been influential. However, all of the Western offshoots recaptured the severe losses from the 1929 crash within 10 years, while Uruguay needed much longer. The crash seems to have pulled the trigger for the divergent developments between Uruguay and its Western siblings (Perron, 1989, Bertram, 2010, p. 4). On the other hand, New Zealand's income growth also exhibits a 'Spanish'-style slowing down since at least the early 1970s after the first oil crisis (Perron, 1989; Easton, 1997).²⁷ Thus several scholars, such as Greasley & Oxley (2000) or Bertram (2010), have already questioned the credibility of New Zealand's membership status within the exclusive OECD club. In other words, New Zealand struggles to maintain its economic 'OAO' status, despite having nearly ideal-type institutions. Thus, over the last three decades its economic growth pattern has shown symptoms of an Olsonian 'institutional sclerosis.' On the other hand, besides its institutional twists and turns, Uruguay's convergence-divergence patterns might have been determined to a larger degree by additional factors than the theories of NWW or Olson account for. Therefore, the remaining part will address additional factors, which have contributed to New Zealand's and Uruguay's socio-economic evolution.

²⁷ See the Appendix for more details.

Before the arrival of modern transport technology at the end of the 19th century, the potential markets for New Zealand's and Uruguay's produce were limited. However, the export of gold from the South Island during the 1860s as well as the provision of food supplies to the even greater gold rush in Australia provided income opportunities to New Zealand, which did not exist for Uruguay (Mc Alloon, 2009; Bértola et. al., 2008). Moreover, during the early years the British government contributed troops and paid the salaries of officials, which eased NZ's burden of overhead costs (Hawke, 1985). In contrast, Uruguay in its infancy could not revert to British military and financial assistance to consolidate power and assure stability (Winn, 1976). In other words, already during their early decades natural factor endowments, location on the map as well as local interests of foreign powers have reasonably influenced the evolution of national institutions and economic well-being.

As shown by Belich (2009), 'Greater Britain' emerged after the transport revolution in the 1880s and existed until the 1960s. Uruguay successfully joined this informal empire and subsequently competed with other suppliers in open markets despite its potential institutional flaws (Winn, 1976). British capital, enterprise and goods poured into Uruguay before its democratisation and by the eve of WWI its livestock industry had been transformed to serve the needs of the British meat market (ibid). However, it was not a simple dependency story. Uruguay deliberately pushed for obtaining a larger British economic stake in Uruguay to hold rivaling interests from Argentina and Brazil at bay as well as to stabilise the political reforms. In other words, world system forces and local policy response could suppress institutional differences for four or five decades (Bertram, 2010).

Nevertheless, New Zealand retained a preferred access to the supplies and demands of the British markets due to its colonial roots. Therefore, it received labor and capital in favorable rates from where it was abundant. Moreover, Imperial Preference helped New Zealand to overcome the negative impacts of the Great depression. In 1932 the Ottawa agreement gave the Dominions preferred access to British markets for meat and dairy products and immediately shut Uruguayan's main export market (Belich, 2009). While New Zealand could not gain more shares in the British markets as Britain already took almost all of its exports, the Dominion definitely gained from exclusion of its non-imperial competitors (Hawke, 1985). At the outbreak of WWII New Zealand again profited from agreed bulk purchases of meat, dairy produce and wool from Britain. In other words, the heavy slump in Uruguayan incomes during the 1930s cannot be explained by its potential institutional faults alone.

Although Uruguay was a highly protectionist country during its attempt to industrialise between the 1930s up to 1970s and state regulations limited local entrepreneurial activities,

considerable progress in democratic measures could be achieved (Nahum, 1999b). On the other hand, New Zealand also witnessed a similar inward-looking phase of import substitution industrialisation from 1938 onwards, but kept track economically with its larger Western siblings over most of the time (Greasley and Oxley, 2000). Hence, directness over social and economic activity cannot solely be a defining property of autocracy, as NWW and Olson propose it. Moreover, in both countries similar ‘from cradle to grave’ policies were established, which magnitudes only depended on the availability of export rents (Bertram, 2010). In other words, NWW’s double-balance paradigm of benevolent states and economic prosperity can be substantially diluted by local national policies.

At the beginning of the 1970s, global economy changes, such as the collapse of wool prices, the demise of the Bretton Woods system and the first oil price shock, made the protectionist policies unsustainable for both countries (Greasley & Oxley, 2000; Hudson & Meditz, 1992). Moreover, the entry of the UK into the European Economic Community led to a similar negative trade shock for New Zealand that had struck Uruguay four decades earlier (Bertram, 2010). In other words, New Zealand’s economy has performed very poorly since the cut-off of its last major preferential ties to its motherland. Both countries responded to the new situation by adopting a radical neoliberal ideology. In the case of Uruguay, this happened first under authoritarian military control following the coup of 1973 and then with an equally comprehensive reestablishment of civil rule in 1985 (Hudson & Meditz, 1992) On the other hand, New Zealand’s drastic reversal of policies changed the economy to one of the most liberal market economies in the world (Easton, 1997). New Zealand’s fiscal reforms and the laissez-faire policies, widely dubbed ‘Rogernomics’, were not unique among OECD countries, but their extent and rapidity were (Dalziel, 2002). Likewise, both countries diversified their export markets within the region, such as New Zealand with Australia after the Closer Economic Relations Act in 1983 or Uruguay’s participation in the Mercosur market from the 1990s (Greasley and Oxley, 2000; Bértola et. al., 2004). However, hopes for rising economic growth rates have only partially fulfilled (Bertram, 2010). In other words, even these days ideal-type institutions and liberal market policies have not allowed New Zealand and Uruguay to enjoy all of the proposed benefits of NWW’s or Olson’s ideal-type social orders.

6. CONCLUDING REMARKS

This paper outlined the current state of NIE and the role of modern settler economies for this field. Despite considerable progress, the demand for a comprehensive theory remains unsatisfied. Hence, the latest supplies from NWW and Olson have already been lively commented. However, academia has not yet evaluated their products, the RHH framework and the ToP, in detail.

A brief review of both theories has revealed that NWW's novelty claims hold only partially and that their theory shares more commonalities with Olson's ToP than NWW might want to admit. Both theories are built up on the same core elements and employ a common 'Stufentheorie' approach. For both theories, a democratic system, preferably with British origin, is a fundamental necessity for marginalising organised domestic violence and successfully exploiting theoretical economic output limits. However, their theories also differ in the influence of interest groups, the transition between the stages and the characteristics of successful social orders. Hence, they present nuanced pictures of a British-Spanish dichotomy.

The core propositions from NWW and Olson hold only partially in the case of New Zealand and Uruguay. If the two countries are addressed only, long-time comparisons of institutional indicators and income data demonstrate clear national differences in political stability and growth volatilities, as described by NWW. Moreover, Olson's paradigms might explain NZ's relative slowdown since the 1970s and Uruguay's recent catching up. However, other peculiarities remain unexplained. Both theories struggle to provide a meaningful answer to both countries' economic trajectories when a benchmark of other Western settler economies is used and a focus is made on particular periods. Generally, small population sizes of both countries seem to have contributed to early social cohesion, while they might have jeopardised the evolution of large impersonal markets in politics and the economy at a later stage. Furthermore, foreign interests have played a major role in the histories of both countries, where 'British' NZ might have possessed some natural advantages.

The results have shown that more research is required to fully apprehend the merits and limits of both theories in explaining the long-term trajectories of New Zealand and Uruguay. Among them shall be inquiries into the impact of global events on both countries' trajectories, differences between de jure and de facto national institutions, as well as national policy measures during and after the period of import substitution. Taken together, these future findings can enhance our understanding in economic science and policy making. Dalziel (2002, p. 38) has calculated the potential benefits from a revision of NZ's economic policies. NZ's aggregate underperformance has been as high as 114 billion NZD between 1987 and 1998 in comparison to Australia. In the case of Uruguay, the potential for catching-up is even higher.

REFERENCES

- Acemoglu, D., Johnson, S., & Robinson, J. A. (2004) Institutions as the Fundamental Cause of Long-Run Growth. *NBER Working Paper 10481* (pp. 1-111).
- Acemoglu, D., & Robinson, J. A. (2006). *Economic Origins of Dictatorship and Democracy*. Cambridge: Cambridge University Press.
- Álvarez, J., Bértola, L., & Porcile, G. (Eds.). (2007). *Primos Ricos y Empobrecidos: Crecimiento, distribución del ingreso e instituciones en Australia-Nueva Zelanda vs Argentina-Uruguay*. Montevideo.
- Arrow, K. (2000). Political Booknotes. *Washington Monthly*, 32(5), 51.
- Banks, A. S. (2008). Cross-national time-series data archive (CNTS) 1815-2007. (pp. CD-ROMs). Binghamton, New York: Arthur S. Banks.
- Barrán, J. P., & Nahum, B. (1978). *Historia Rural del Uruguay Moderno. Tomo VII: "Agricultura, crédito y transporte bajo Batlle (1905-1914)"*. Montevideo: Ed. EBO.
- Becker, J., Jäger, J., & Raza, W. G. (2001). *Economía política de Montevideo: Desarrollo urbano y políticas locales*. Montevideo: Coscoroba.
- Belich, J. (1988). *The New Zealand Wars*. Auckland: Penguin.
- Belich, J. (2001). *Paradise Reforged: A History of the New Zealanders from the 1880s to the Year 2000*. Auckland: Allen Lane The Penguin Press.
- Belich, J. (2009). *Replenishing the Earth: The Settler Revolution and the Rise of the Anglo-World, 1783-1939*. Oxford: Oxford University Press.
- Bértola, L., Castelnovo, C., Rodríguez, J., & Willibald, H. (2008). *Income Distribution in the Latin American Southern Cone during the first globalization boom and beyond*. Paper presented at the IX Congreso Internacional de la Asociación Española de Historia Económica.
- Bértola, L., & Lorenzo, F. (2004). Witches in the South: Kuznets-like Swings in Argentina, Brazil and Uruguay, 1870-2000. In S. Heikkinen & J. L. van Zanden (Eds.), *Explorations in Economic Growth*: Aksant.
- Bertram, G. (2010). A comparative world-systems analysis of settler colonies in the Hispanic and Anglo realms. Institute of Policy Studies, Victoria University of Wellington.
- Chang, H.-J. (2005). *Understanding the Relationship between Institutions and Economic Development*. Paper presented at the WIDER Jubilee conference, Helsinki.
- Clague, C., Keefer, P., Knack, S., & Olson, M. (1996). Property and contract rights in autocracies and democracies. *Journal of Economic Growth*, 1(2), pp. 243-276.

- Dalziel, P. (2002). New Zealand's Economic Reforms: an assessment. *Review of Political Economy*, 14(1), pp. 15-46.
- Denoon, D. (1983). *Settler Capitalism: the Dynamics of Dependent Development in the Southern Hemisphere*. Oxford: Clarendon University Press.
- Easton, B. (1997). *In Stormy Seas: The Post-War New Zealand Economy*. Dunedin: University of Otago Press.
- Engerman, S. L., & Sokoloff, K. L. (2005). Institutional and Non-Institutional Explanations of Economic Differences. In C. Menard & M. M. Shirley (Eds.), *Handbook of New Institutional Economics*. Amsterdam: Springer.
- Evans, L., Grimes, A., Wilkinson, B., & Teece, D. (1996). Economic Reform in New Zealand 1984-95: The Pursuit of Efficiency. *Journal of Economic Literature*, 34(4), pp. 1856 -1902.
- Fine, B., & Milonakis, D. (2007). Douglass North's Remaking of Economic History: A Critical Appraisal. *Review of Radical Political Economics*, 39, pp. 27-57.
- Greasley, D., & Oxley, L. (2000). Outside the Club: New Zealand's economic growth, 1870-1993. *International Review of Applied Economics*, 14(2), pp. 173-192.
- Groenewegen, J., Kersholt, F., & Nagelkerke, A. (1995). On Integrating New and Old Institutionalism. *Journal of Economic Issues*, 29(2), pp. 467-475.
- Haber, S. (Ed.). (1997). *How Latin America fell behind*. Stanford, California: Stanford University Press.
- Hawke, G. (1985). *The Making of New Zealand. An Economic History*. Cambridge: Cambridge University Press.
- Higges, R. (2001). Review Article: Power and Prosperity. *Review of Austrian Economics*, 14(4), pp. 355-362.
- Hill, R. S. (2009). Maori and State Policy. In G. Byrnes (Ed.), *The New Oxford History of New Zealand*. Melbourne: Oxford University Press.
- Hodgson, G. M. (2001). *how economics forgot history*. London: Routledge.
- Hodgson, G. M. (2009). Institutional Economics into the Twenty-First Century. *Studi e Note di Economia*, 14(1), pp. 3-26.
- Holcombe, R. G. (2009). Review Article: Violence and Social Orders. *Public Choice*, 144(2), pp. 389-392.
- Holden, M. (2010). Review Article: Violence and Social Orders. *International Affairs*, 86(3), pp. 759-760.
- Hudson, R. A., & Meditz, S. W. (Eds.). (1992). *Uruguay: a country study* (2nd ed.). Washington: Library of Congress.

- Jackson, W. K. (1998). New Zealand. In G. T. Kurian, L. D. Longley & T. O. Melia (Eds.), *World encyclopedia of parliaments and legislatures* (Vol. II, pp. 490-501). Washington, D. C.: Congressional Quarterly Inc.
- Kiewiet, D. R. (2010). Review Article: Violence and Social Orders. *The Journal of Economic History*, 70(01), 255-259.
- Kirby, J. (1975). On the viability of small countries: Uruguay and New Zealand compared. *Journal of Interamerican Studies and World Affairs*, 17(3), pp. 259-280.
- Landes, D. (1998). *The wealth and poverty of nations*. New York: W. W. Norton.
- Maddison, A. (2010). Historical Statistics for the World Economy: 1-2008 AD. Retrieved 01 November 2010: <http://www.ggdc.net/maddison/>
- Marshall, M., G., & Jagers, K. (2010). *Polity IV project: Political regime characteristics and transitions, 1800-2009*. Arlington, VA: Center for Global Policy.
- McAlloon, J. (2009). The New Zealand Economy, 1792 - 1914. In G. Byrnes (Ed.), *The New Oxford History of New Zealand*. Melbourne: Oxford University Press.
- McLean, I. (2000). Review Article: The Divided Legacy of Mancur Olson. *British Journal of Political Science*, 30(4), pp. 651-668.
- Munck, G. L., & Verkuilen, J. (2002). Conceptualizing and Measuring Democracy. *Comparative Political Studies*, 35(1), pp. 5-34.
- Nahum, B. (1999a). *Manual de Historia del Uruguay 1830-1903* (Vol. 1). Montevideo: Ediciones de la Banda Oriental.
- Nahum, B. (1999b). *Manual de Historia del Uruguay 1903-1990* (Vol. 2). Montevideo: Ediciones de la Banda Oriental.
- North, D. C. (1990). *Institutions, institutional change and economic performances*. Sydney: Cambridge University Press.
- North, D. C. (2005). *Understanding the Process of Economic Change*. Princeton: Princeton University Press.
- North, D. C., Summerhill, W., & Weingast, B. R. (2000). Order, Disorder, and Economic Change: Latin America versus North America. In B. B. d. Mesquita & H. Root (Eds.), *Governing for Prosperity*. New Haven: Yale University Press.
- North, D. C., Wallis, J. J., Webb, S. B., & Weingast, B. R. (2007). Limited Access Orders in the Developing World: A New Approach to the Problems of Development. *The World Bank Policy Research Working Paper 4359*. Retrieved from http://www.wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2007/09/19/000158349_20070919115851/Rendered/PDF/WPS4359.pdf

- North, D. C., Wallis, J. J., & Weingast, B. R. (2005). *The Natural State: The Political-Economy Of Non-Development*. UCLA International Institute.
- North, D. C., Wallis, J. J., & Weingast, B. R. (2006). A Conceptual Framework for Interpreting Recorded Human History. *National Bureau of Economic Research, Inc., NBER Working Paper 12795*, pp. 1-80.
- North, D. C., Wallis, J. J., & Weingast, B. R. (2009). *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. New York: Cambridge University Press.
- Olson, M. (1982). *The rise and decline of nations*. New Heaven, CT: Yale University Press.
- Olson, M. (1984). Australia in the Perspective of The Rise and Decline of Nations. *The Australian Economic Review*, 17(3), pp. 7-17.
- Olson, M. (1991). Autocracy, Democracy, and Prosperity. In R. Zeckhauser (Ed.), *Strategy and Choice* (pp. 131-160). Cambridge, Massachusetts: The MIT Press.
- Olson, M. (2000). *Power and Prosperity: Outgrowing communist and capitalist dictatorships*. New York: Basic Books.
- Perron, P. (1989). The Great Crash, the Oil Price Shock, and the Unit Root Hypothesis. *Econometrica*, 57(6), 1361-1401.
- Pomeranz, K. (2000). *The great divergence: China, Europe, and the making of the modern world economy*. Princeton, NJ: Princeton University Press.
- Pool, I. (1991). *Te Iwi Maori*. Auckland: Auckland University Press.
- Rama, G. W. (1979). Desarrollo comparativo de Uruguay y Nueva Zelanda durante el siglo XIX. In J. P. Fogarty, E. Gallo & H. Dieguez (Eds.), *Argentina y Australia*. Buenos Aires: Instituto Torcuato Di Tella.
- Real de Azúa (1983). El clivaje mundial eurocentro-periferia. Y las áreas exceptuadas. (1500-1990), *Ed. Acali. CIESCU*. Montevideo.
- Rummel, R. J. (1963). *Dimensions of Conflict Behaviour Within and Between Nations* (Vol. VIII).
- Schofield, N. (2003). Power, prosperity and social choice: A review. *Social Choice and Welfare*, 20(1), pp. 85-118.
- Schofield, N. (2009). Social Orders: Review on Violence and Social Orders. *Social Choice and Welfare, Online First*(June), pp. 1-34.
- Tilly, C. (1992). *Coercion, capital, and European states: 990-1992*. Malden, MA: Blackwell Publishing.
- Vandenberg, P. (2002). North's institutionalism and the prospect of combining theoretical approaches. *Cambridge Journal of Economics*, 26(2), pp. 217-235.

- Vries, P. H. H. (2001). The role of culture and institutions in economic history: can economic be of any help? *NEHA Jaarboek, deel 64*, pp. 28-60.
- Williamson, J. G. (1996). Globalisation, Convergence, and History. *The Journal of Economic History*, 56(2), pp. 277-306.
- Wilson, J. (2007) New Zealand Sovereignty: 1857, 1907, 1947, or 1987? *Parliamentary Research Paper: Vol. August 2007*. Wellington: Parliamentary Service.
- Winn, P. (1976). British Informal Empire in Uruguay in the 19th century. *Past & Present*, 71(1), pp. 100-126.
- Wintrobe, R. (2001). Review Article: Mancur Olson, Power and prosperity: outgrowing communist and capitalist dictators. *Public Choice*, 106(3/4), pp. 390-395.

APPENDIX

Period	New Zealand	Uruguay	Australia	Canada	US	Western Offs. (e.w.)
1870-2010						
GDP per Capita 1870	3,095	1,877	3,273	1,695	2,445	2,471
GDP per Capita 2010	17,896	11,645	25,855	24,918	30,834	27,202
Av. Annual Growth Rate	1.25%	1.30%	1.48%	1.92%	1.81%	1.74%
Annual Volatility	5.01%	7.47%	4.08%	5.04%	5.31%	3.63%
Ratio GDP p. C. to W. Offshoots (1870)	1.25	0.76				
During Uruguayan Democracy*						
Av. Annual Growth Rate	1.25%	1.46%	1.74%	1.85%	1.77%	1.79%
Annual Volatility	5.02%	6.99%	3.23%	5.35%	5.90%	4.03%
During Uruguayan Autocracy*						
Av. Annual Growth Rate	1.09%	0.84%	0.79%	1.79%	1.64%	1.41%
Annual Volatility	5.05%	8.47%	5.48%	4.36%	3.85%	2.65%
1870-1929						
Av. Annual Growth Rate	0.88%	1.22%	0.80%	1.86%	1.76%	1.47%
Annual Volatility	5.62%	9.24%	5.02%	5.83%	4.80%	3.30%
1870-1903						
Av. Annual Growth Rate	1.25%	0.99%	0.66%	2.05%	1.88%	1.53%
Annual Volatility	5.67%	9.48%	6.28%	4.89%	4.18%	2.79%
Ratio GDP p. C. to W. Offshoots (1903)	1.17	0.65				
1904-1933						
Av. Annual Growth Rate	-0.09%	0.18%	0.57%	0.04%	0.16%	0.26%
Annual Volatility	5.79%	10.16%	3.99%	7.84%	6.58%	4.88%
Ratio GDP p. C. to W. Offshoots (1933)	1.05	0.64				
1930-1972						
Av. Annual Growth Rate	1.89%	0.59%	1.99%	2.20%	1.95%	2.05%
Annual Volatility	5.84%	6.52%	4.07%	5.74%	7.59%	5.06%
1934-1951						
Av. Annual Growth Rate	2.82%	3.15%	2.44%	4.47%	4.17%	3.69%
Annual Volatility	7.26%	5.44%	4.38%	5.19%	9.82%	5.81%
Ratio GDP p. C. to W. Offshoots (1951)	0.90	0.58				
1952-1972						
Av. Annual Growth Rate	2.09%	0.11%	2.39%	2.62%	2.17%	2.39%
Annual Volatility	3.74%	3.62%	1.88%	2.42%	2.45%	1.69%
Ratio GDP p. C. to W. Offshoots (1972)	0.85	0.36				
1973-2010						
Av. Annual Growth Rate	1.11%	2.25%	1.93%	1.70%	1.74%	1.79%
Annual Volatility	2.32%	5.09%	1.75%	2.13%	2.11%	1.79%
1973-1984						
Av. Annual Growth Rate	1.29%	0.89%	1.58%	2.11%	1.94%	1.88%
Annual Volatility	2.90%	5.05%	2.17%	2.56%	2.90%	2.31%
Ratio GDP p. C. to W. Offshoots (1984)	0.79	0.32				
1985-2010						
Av. Annual Growth Rate	1.03%	2.87%	2.10%	1.51%	1.64%	1.75%
Annual Volatility	2.06%	5.08%	1.53%	1.93%	1.68%	1.55%
Ratio GDP p. C. to W. Offshoots (2010)	0.66	0.43				

Sources: Same as in Figure 4; 1990 \$ International

* Separation based on POLITY2 scores from Uruguay, where neg. values counted as 'autocracy' and non-negative values as 'democracy'