

Institutional Drivers, Historical Determinism, and Economic Development in Mozambique

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Abstract:

Purpose: This paper examines the evolution of political and economic institutions, their persistence and interdependence, and their effects on economic progress in Mozambique.

Design/methodology/approach: Using a unique dataset, which has developed detailed long-run indices of institutional change in Mozambique from 1900 onwards, the research utilizes time-series econometrics to estimate cointegration relations and VAR and VEC models, and also Granger causality, correlation and residual analysis when interpreting the estimation results.

Findings: It shows support for path dependence in political and economic institutions as well as the critical juncture theory and modernization hypothesis, and for webs of association between these institutions and economic development. It provides evidence of an equilibrium-dependent process, where history does matter (as do early conditions), and whose impact may differ depending on the nature of institutional arrangements. Various institutions created during colonial times have a bearing on the present state of institutions in Mozambique, as reflected in important continuities regarding the forms of political economy, amongst others.

Originality/value: The work contributes to existing research not only through the employment of a new set of institutional measures, which allows for a particularly long time series investigation in a developing country setting, but also through its contribution to studies on modernization and critical junctures but in a longitudinal manner which allows for the exploration of complex dynamics embedded within a country's particular political economy. The implications are far-reaching and carry importance beyond the academy given the pressure on policymakers to get things right because of the persistence of institutions and their consequences and the associated path dependency.

Keywords: Institutional development; modernization; Mozambique; path dependency; longitudinal time series

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1. Introduction

Given that 85% of the world's population does not live in high-income countries (as defined by the World Bank), understanding the processes for economic development is crucial. In particular, increasing economic activity, international business, and investment flowing into developing and emerging countries, makes it important to understand how institutions impact upon these activities, especially given the often 'idiosyncratic institutional features of emerging markets, including institutional voids, ... and institutional legitimacy pressures in emerging markets' (Rottig, 2016: 2).

To be sure, institutions matter for economic growth and development - the evidence for this is strong (Cardenas, Garcia, & Salas, 2018; Luiz, 2006, 2009; Rodrik, 2007). But which institutions matter, or matter more, and the mechanisms through which these different institutions affect economies are more contested. Do all institutions matter equally at different stages of development or are some institutions more important at low income or middle income levels? These are not purely academic questions as they carry great importance for policymakers under pressure to get things right as the consequences to adopting or creating efficient institutions can be so long-lasting.

In this regard, Acemoglu and Robinson (2012: 68-69) warn that we need to focus more on why poor nations get it wrong and argue that it is not a function of ignorance or culture or geography but rather that those who have power make choices that contribute towards underdevelopment and they do so purposefully. They highlight the importance of understanding 'how different types of policies and social arrangements affect economic incentives and behavior.'

From an international business perspective, for example, institutions in emerging markets have been shown to affect foreign direct investment (Barnard & Luiz, 2018; Buckley, Chen, Clegg, & Voss, 2018; Gaur, Ma, & Ding, 2018; Iammarino, 2018; Mahembe & Odhiambo, 2016; Wang & Li, 2018), corruption (Luiz & Stewart, 2014; Puffer, McCarthy, & Jaeger, 2016; Rabbiosi & Santangelo, 2018; Sartor & Beamish, 2018), the execution of business models (Urban & Hwindingwi, 2016), the nature and management of political risk (Giambona, Graham, & Harvey, 2017), innovation (Newburry, McIntyre, & Xavier, 2016; Peng, Ahlstrom, Carraher, & Shi, 2017);

and the behavior of firms more generally within an international business context (Doh, Rodrigues, Saka-Helmhout, & Makhija, 2017; Luiz & Ruplal, 2013; Luiz, Stringfellow, & Jefthas, 2017; Meyer & Peng, 2016), amongst other impacts. It is therefore important for us to fully grasp the long-run, potentially deterministic, consequences of good or bad institutions, (Jackson & Deeg, 2019; Monticelli et al., 2018) on developing and emerging markets because vast parts of the world are going to be experiencing significant transitions (both political and economic) in the foreseeable future.

To get to the heart of this endeavor requires longitudinal case studies able to explore how different institutions interact with economic processes. The relative paucity of data helps explain the lack of these types of studies. When undertaken, these almost invariably focus on developed countries for which data is more abundant. Our unique dataset, which comprises a detailed long run time series of institutional change constructed for Mozambique from 1900 onwards, allows us to undertake such a study. Mozambique is a particularly interesting case because two decades ago it was still one of the world's poorest countries but has since grown rapidly. Moreover, it experienced high levels of institutional change over the past four decades as it agitated for and then achieved independence in 1975, and then the brutal civil war, adopting Marxist Leninism as the basis for its political economy, before transitioning to a more democratic system with political and economic liberalization in the late 1980s.

The case of Mozambique thus provides a rich setting to explore the webs of association between political and economic institutions and economic outcomes. In this paper, we examine the evolution of these variables, their persistence and interdependence, and the impact of institutions on economic progress, both before and after independence. Our research shows support for clear linkages between these institutions and economic development, historical determinism, as well as the critical juncture theory, modernization hypothesis and institutional approach.

The paper is structured as follows. Section 2 presents a brief theoretical literature review while section 3 discusses the data, empirical methodology and estimation results. Section 4 explores the webs of association between institutional drivers, historical determinism and economic development, and section 5 concludes.

2. Literature Review

2.1 Why Institutions Matter

Theories of economic growth have posited various reasons for why some countries are rich and others poor, but Rodrik et al. (2002) argue that the ‘quality of institutions “trumps” everything else’, and the role of institutions have been a prevailing theme in new growth theory. Institutions refer to the formal and informal rules of the game which govern behavior and affect our economic interactions (North, 1990). In economic terms, good institutions are characterized by the following: first, enforcement of property rights for a broad section of society, so that individuals have incentives to invest and partake in economic activities; second, constraints on the actions of elites, politicians, and other powerful groups, so that these people cannot expropriate the incomes and investments of others or create a highly uneven playing field; third, some degree of equal opportunity for broad segments of society, so that individuals can make investments, especially in human capital and participate in productive economic activities (Acemoglu, 2003: 27).

By affecting incentive structures and the transaction costs of doing business in a country institutions frame and condition the nature of economic activity and can induce and constrain behavior. This is not to say that there is a homogenous set of institutions which are generically transferable between locations and Rodrik (2007) highlights the variety of possible institutional arrangements that are compatible with sound economic principles. But the principle remains that institutions matter and particularly so because their effects are so long-lasting and endure way ‘beyond the lifetimes of the individuals who created them’ (Fukuyama, 2014: 543).

2.2 Which Institutions: The Primacy of the Political or the Economic?

Do all institutions matter equally or do some institutions figure more prominently at different stages of development? There are various ways in which this question can be unpacked but for our purposes we focus on the primacy of the political versus the economic. For example, should underdeveloped countries focus on political reforms first and getting the politics right before embarking on economic reforms; or should economic liberalization predate political change; should they be undertaken concurrently; do these reforms reinforce each other or could they raise

new sets of obstacles? We highlight three core theoretical frameworks in this regard (see Fedderke & Luiz, 2008).

The first attributes primacy to the political and focuses on how political order can be disrupted through the struggle for self-actualization and political aspirations which elicit change and conflict. Huntington (1970: 319) warns that it is the process of change which triggers new forms of instability and trying to move between low and high equilibria may trigger social mobilization and demands for more change. Fukuyama (2014: 7) relates this to emerging markets and warns that such attempts at transition may result in ‘social change outstripping existing institutions’. Altered social structures materialize and new technologies unsettle how things stand and how institutions are able to adapt to these new pressures affect the ability of countries to transition out of underdevelopment. The impetus for change is thus political rather than economic.

The second posits the primacy of the economic and is identified with the modernization school. Modernization theory as initially espoused by Lipset (1959) argues that good things go together and postulates a link from economic development to political institutions and democracy. Economic growth is seen as a trigger that fundamentally alters a society and gives rise to modern political institutions through processes of social and economic change such as the attainment of higher levels of education and demands for increased political participation and civil liberties.

The third approach is the institutional approach as represented by North (1990: 104) who emphasizes the way in which institutions frame strategic interaction between agents:

Long-run economic change is the cumulative consequence of innumerable short-run decisions by political and economic entrepreneurs that both directly and indirectly (via external effects) shape performance. The choices made reflect the entrepreneurs’ subjective modelling of the environment. ... Because the models reflect ideas, ideologies, and beliefs ... the consequences of specific policies are not only uncertain but to a substantial degree unpredictable. ... However, the increasing-returns characteristics of the institutional matrix and the complementary subjective models of the players suggest that although the specific short-run paths are unforeseeable, the overall direction in the long run is both more predictable and more difficult to reverse.

The institutional approach as espoused by North emphasizes the importance of predictability and for institutions to define payoffs to political and economic activities so as to encourage productive activity. In particular good institutions encompass: a clearly delineated system of property rights; regulatory instruments to counter market failures, institutions for macroeconomic stabilization; and social and political institutions that mitigate risk and manage social conflicts (Rodrik, 2007).

All three approaches demonstrate the interplay between political, economic, and institutional factors in driving economic progress and make provision for a reverse feedback loop allowing for endogenous structural determination. Where they differ is in the primacy they give to these factors and to potential directions of causation.

2.3 Critical Junctures, Path Dependence and Historical Determinism

The flipside of agreeing that institutions matter, is that history matters. Institutions persist and Fukuyama (2014: 548) warns that there is ‘no automatic historical mechanism that makes progress inevitable’ and that no institutional ‘system will be in equilibrium with its environment forever’ but that the consequences of institutions on development are profound. In an influential paper, Acemoglu, Johnson, and Robinson (2001) argue that development (or non-development) is often the consequence of historical determinism whereby current economic performance is determined by current institutions and that the latter is the consequence of early institutions whose effects have persisted into the present. Furthermore, the early institutions are a function of exogenous factors - in their case related to the settlers and their mortality rates associated with climate and geography. The consequence of this is that the colonial state and its institutions persisted beyond independence and that ‘differences in the colonial experience could be a source of exogenous differences in institutions’ (p. 1395). In other words, institutional differences could be the result of a critical juncture related to European colonization that persisted and impacted and largely account for current economic performance and the quality of institutions. This confirmed earlier research by Sokoloff and Engerman (2000: 223) that concluded that there is ‘strong evidence that various features of the factor endowments of ... New World economies - including soils, climates, and the size or density of the native population - predisposed them toward paths of

development associated with different degrees of inequality in wealth, human capital, and political power.’

This implies that economic development may be path dependent and that institutions may themselves be endogenous to past developments and attributes. Page (2006: 88) in a survey of the literature on path dependence reveals four related causes: increasing returns, self-reinforcement, positive feedbacks, and lock-in. These effects imply that once a choice is made it sets in motion a set of complimentary institutions and that these are subject to externalities through increasing returns.

Most studies examining the modernization hypotheses and the critical juncture theory are based upon cross-sectional studies (Acemoglu, Johnson, Robinson, & Yared, 2009; Inglehart & Welzel, 2010; Rodrik et al., 2002), but the development of our new, unique institutional indicators allow us to explore these dynamics and possible webs of association between institutions and economic progress through a longitudinal case study of Mozambique. We can thus explore the interplay of critical junctures and institutional drift as well as the contingent path of history (Acemoglu & Robinson, 2012) within a time series context.

3. Data, Methodology and Results

We measure economic progress (DEV) using Mozambique’s gross domestic product per capita (Figure 1), which is obtained from Maddison (2007). As for economic (ECO) and political (POL) institutions (Figure 2), we measure these respectively using the indices constructed for property and political rights in Luiz, Pereira and Oliveira (2013). The construction of these new institutional indices for the period 1900-2005 entailed a meticulous process through Mozambique’s historical records but it provides us with a richness of institutional data not previously available.

Insert Figures 1 and 2

In a nutshell, the construction process entailed collecting information on changes in Mozambique’s constitutional and legal framework over time, which was then assessed against a set of standardized ideal criteria to assign ratings to these changes. The aim was to capture the extent to which the legal framework provided for the specific rights that make up each of the indices. As

such, they are *de jure* measures which examine the impact of each piece of legislation passed annually that had an impact on the political and property rights, i.e. it was the rules of the game, rather than the outcomes, that were assessed. The ratings were also constructed so as to avoid the standard loss of information associated with aggregation, as well as the researcher's subject biases.

In this way, annual scores for political liberties and property rights were obtained, ranging from zero to a hundred. Increases in the scores indicate a move toward the full recognition of the right, and decreases indicate a move away from the ideal. Given that this construction is well documented in the cited source, we provide only a cursory overview of what the indices capture. Property rights were constructed on the basis of seven criteria: the right to possess; the right to use; the right to manage; the right to capital; and the right to security; the power to transfer; and the liability to execution. In the case of political rights, the relevant components were: voting rights, freedom of association, freedom of assembly, freedom of expression, extent of arbitrary executive power, independence of the judiciary and the legislature, government secrecy or indemnity, the due process of laws, freedom of movement, academic freedom, and religious freedom.

As for empirical methodology, we employ a two-step process along the lines of Fadiran and Sarr (2017). First, we use unit root and cointegration tests to assess *whether history matters*. In practice, this implies determining the existence of persistence in the data and also long-term equilibrium relationships between the variables. Next, we study *how history matters* by estimating multivariate models capable of detecting and incorporating long-term cointegrating relationships, which capture variable interdependencies. On this score, we also determine the direction of Granger causality between variables to gain additional insights.

In the ensuing analysis, we consider both the 1900-74 colonial (COL) and the post-1975 independence (IND) periods. Notwithstanding the institutional data being available from 1900, the colonial period considered will be shorter whenever the DEV variable is used, as the economic data is only available from 1950 onwards. We use EViews 9.0 to undertake our empirical analysis and so follow its convention when defining the break date (namely, the first date of the new regime as opposed to the last date of the previous regime).

3.1 Existence of Path Dependence

Different kinds of temporal dynamics will describe how the past affects the present when ‘history matters’. For example, many economic and social processes do not progress steadily toward some pre-determined and unique equilibrium. Instead, the nature of any equilibrium achieved will depend on the path pursued to get there. In other words, the outcome of a path-dependent process may converge towards any one of several possible equilibria. To assess these temporal dynamics, we follow Page (2006) who provided formal definitions characterizing the different types of historical dependence.¹

The empirical implications of dependence, meanwhile, are addressed in Jackson and Kollman (2010).² The issue of how path dependence, as defined by Page (2006), may be tested empirically is further addressed in Freeman (2012), as well as Jackson and Kollman (2012). For present purposes, we highlight the analysis by Freeman and Jackson (2012: 8, 10-11, 23), which is based on an $AR(1)$ autoregressive process:

$$y_t = \rho y_{t-1} + e_t \quad t = 1, 2, 3 \dots$$

In this context, an outcome dependent process is taken to mean that the current outcome y_t is determined by past outcomes y_{t-s} where $s = 1 \dots p$. Bearing this in mind, this study established that a unit root test may be used to detect persistence, and hence both outcome and *path* dependence, as the $AR(1)$ process is persistent or non-stationary when $|\rho| \geq 1$.³

We rely on two different unit root tests to assess the existence of path dependence, namely the Elliott-Rothenberg-Stock Dickey-Fuller with Generalized Least Squares (GDF) de-trending and the Ng-Perron (NP).⁴ The second test was developed by Ng and Perron (2001) and builds upon earlier related work by Perron and Ng (1996) as well as Elliott et al. (1996).⁵ The GDP and NP unit root test results are summarized in Table 1 (while detailed results are available upon request, including those below that include a structural break).⁶

Insert Table 1

Both unit roots tests indicate that all three variables are integrated of order one $I(1)$ across all periods, i.e. non-stationary in levels but stationary after first-differencing. In other words, all

three variables exhibit considerable persistence and may be characterized by *phat* dependence: although history matters it does not matter as a sequence but as a set of previous events (Freeman, 2012).⁷ Moreover, the sequence of initial events has an effect on current events within the institutional environment (Page, 2006).

For the sake of robustness, we also look at the issue of structural breaks in a trend, which most traditional unit root tests do not accommodate. This problem is particularly relevant for institutional data, which tends to show no variation over long periods of time but may be subject to sharp jumps in response to the promulgation or repeal of laws affecting institutions at times. Indeed, structural changes and unit roots are closely related. More importantly, standard unit root tests will be biased toward a false unit root null when the data are trend stationary with a structural break, as discussed in Perron (1989). We thus conduct a unit root test with a (single) known break point, which covers the full sample and evaluates the null hypothesis that the data follow a unit root process, possibly with a break, against a trend stationary with break alternative.⁸ None of the test results allows us to reject the null hypothesis.

3.2 Existence of Equilibrium Dependence

As discussed in Freeman and Jackson (2012: 10-11), multivariate error correction models allow for the testing of equilibrium dependence. Economic theory often suggests that certain combinations of economic, financial or institutional variables should be linked by a long-run relationship. Multivariate error correction models allow for the identification of such relationships by restricting the behavior of the endogenous variables to converge to their long-run equilibrium, while simultaneously allowing the deviation from this equilibrium to be gradually corrected through a series of partial short-run adjustments.⁹

To test for cointegration, we use the Vector Error Correction (VEC) model which was developed by Johansen (1991, 1995).¹⁰ This model is preferred over the Engel-Granger two-step approach (Engle & Granger, 1987), and also the single-equation Error Correction model (Ericsson & MacKinnon, 2002), as it does not impose undue exogenous restrictions on model variables, which are taken to be endogenous from the onset. In effect, the VEC model is a restricted Vector

Autoregressive (VAR) designed for use with non-stationary series that are known to be cointegrated. Consider the following VAR model of order (p):

$$\Delta Y_t = a + \Pi Y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \varepsilon_t \quad (1)$$

where $\Gamma_i = -\sum_{j=i+1}^p A_j$ and $\Pi = \sum_{i=1}^p A_i - I$ is an $n \times n$ matrix. If the coefficient matrix Π has a reduced rank r such that $0 \leq r \leq n$, then there exist two $n \times r$ matrices α and β with $\text{rank}(\alpha) = \text{rank}(\beta) = r$ such that the vector $\beta' Z_{t-1}$ is stationary and $\Pi = \alpha\beta'$. Moreover, there will be r cointegrating relationships such that this stationary vector characterizes the long-run equilibrium. The matrix Γ_i will then reflect the short-run adjustment while matrix α is interpretable as the speed of adjustment towards long-run equilibrium. To determine the number of cointegrating vectors, we use the maximum eigenvalue and trace statistics developed by Johansen (1988).¹¹

We estimate the VEC model given by equation (1) in two steps. In the first, we estimate the cointegrating relations from the Johansen procedure, as used in the cointegration tests. In the second step, we construct the error correction terms from the estimated cointegrating relations and proceed to estimate a first-difference VAR that includes them as regressors. When estimating equation (1), we further restrict the deterministic terms of the cointegrating vectors to be constants, and do not include any exogenous variables other than dummies when appropriate. In the absence of cointegrating relations, we simply estimate VAR models for those cases.

Insert Table 2

The Johansen trace and maximum cointegration tests are summarized in Table 2.¹² Note that there is no evidence of any cointegration relations for the colonial period. Indeed, institutions and development do not trend towards a long-run equilibrium relationship, which would entail the existence of a long-run limiting distribution over current outcomes that depends on past ones. Moreover, no form of long-run co-movement can be established between political and economic institutions. The same holds true for the pairwise comparisons comprising either of the two institutions and economic development.

For the independence period, however, we find evidence of a three-variable cointegrating relationship between DEV, ECO and POL. In other words, there is evidence of an equilibrium-dependent process, where history does matter as too do early conditions but in a more predictable manner over time. This finding implies that the post-independence regime may be characterized by the existence of an equilibrium correction representation of the three variables, where disequilibria in the past are gradually corrected to establish the equilibrium in the present.

We also find evidence of two cointegrating relationships involving pairwise variables, namely DEV and ECO and ECO and POL. Moreover, the estimated speed of adjustment of the cointegrating relations in the respective VEC error correction term, when significant, have the expected sign (negative) and magnitude (lie between zero and one), which implies the system is stable. The only exception is the absence of any such relationship between DEV and POL.

3.3 Nature of Historical Interdependence

Assessing the nature of interdependence entails looking at the direction of causality between the variables in question, if any. To this end, we rely on the concept of causality due to Granger (1969). Without the loss of generality, consider the following system that allows for linear interdependencies between the variables X_t and Y_t :

$$X_t = \alpha_1 + \sum_{r=1}^p \beta_{1r} Y_{t-r} + \sum_{s=1}^q \beta_{2s} X_{t-s} + \mu_t \quad (2)$$

$$Y_t = \alpha_1 + \sum_{i=1}^n \theta_{1i} X_{t-i} + \sum_{j=1}^m \theta_{2j} Y_{t-j} + \varepsilon_t \quad (3)$$

where μ_t and ε_t are serially uncorrelated random disturbances with zero-means. The variable X_t is said to Granger-cause Y_t if past values of X_t contain information that helps to predict Y_t above and beyond the information contained in past values of Y_t alone. An analogous reasoning applies to the case where Y_t Granger-causes X_t .

Under this specification, two causality tests may be undertaken: First, the null hypothesis $H_0 : \theta_{11} = \theta_{12} = \dots = \theta_{1n} = 0$ is tested against the alternative $H_1 : \theta_{1i} \neq 0 \forall i$ or $H_1 : \theta_{1i} \neq 0$ for some $i = 1, \dots, n$. Rejecting the null implies that X_t Granger-causes Y_t ; Second, the null $H_0 : \beta_{11} = \beta_{12} = \dots = \beta_{1p} = 0$ is tested against the alternative $H_1 : \beta_{1r} \neq 0 \forall r$ or $H_1 : \beta_{1r} \neq 0$ for some $r = 1, \dots, p$. Rejecting this null similarly implies that Y_t Granger-causes X_t .

In practice, we estimate the system comprising equations (2) and (3) using unrestricted VAR models. This allows us undertake pairwise Granger causality tests to determine whether an endogenous variable can be treated as exogenous. The extension to the three variable case is straightforward, and the causality testing procedure analogous. In the presence of cointegration, we estimate VEC models instead and also look at their long-term equilibrium relations in order to obtain additional insights regarding the nature of variable interdependence. The Granger causality test results are summarized in Table 3.¹³

Insert Table 3

For the colonial period, we find using Test 1 that DEV and POL jointly (Granger) cause ECO but only the POL variable is individually significant (22.427***).¹⁴ However, DEV does not cause ECO (Test 3) and POL does not cause ECO (Test 4), which suggests that it is the *interaction* between economic progress and political rights that drives economic rights during this period. We also find that ECO causes DEV, as is to be expected, but that the reverse is not true (Test 2).

As for the independence period, we find that ECO and DEV not only jointly cause POL but also individually (7.369** and 7.409** respectively). However, neither ECO nor DEV cause POL (Test 2 and 3 respectively). This suggests that it is the *interaction* between economic progress and economic rights that drives political rights. We also find that DEV causes ECO but not the other way round (Test 2), which is contrary to what was found for the colonial period. Significantly, the causality between ECO and POL is bi-directional (Test 4).

4. Linking Institutions, History and Economic Development

We now explore the webs of association between institutional drivers, historical determinism and economic development in Mozambique. To be sure, important questions need to be answered: Which institutions matter more for economic progress? What evidence is there for critical junctures, political primacy and modernization theory? In answering these questions, we highlight the patterns of Mozambique's property and political rights as discussed in detail in Luiz, Pereira and Oliveira (2013).¹⁵

We have looked, thus far, at whether and how history matters, by assessing path/equilibrium dependence, cointegration relationships and Granger causality. Our findings established that institutions and economic progress exhibit *phat* dependence in both periods (Table 1), which implies that history does matter (as a set of previous events rather than as a sequence of them). The analysis does not allow us to determine, however, the exact causes of *phat* dependence, as enumerated by Page (2006: 88). Moreover, the two periods of analysis differ when it comes to the existence of equilibrium dependence (a long-run limiting distribution over current outcomes that depends on past ones). During the colonial period, there is no evidence of cointegration for any of the four possible combinations of variables (Table 2). In contrast, institutions and economic progress trend together towards a long-run equilibrium relationship after independence.

We take this to be a sign of historical determinism where current outcomes are determined by current institutions which, in turn, reflect the persistent effects of early institutions. The sequence of initial events may also have had an effect on current events but it is likely that this effect is more defining and limiting (in the long-run equilibrium sense) after independence. In other words, history always matters but its impact is more pronounced, and perhaps more deterministic, after independence. In sum, our findings imply that economic progress and institutions are endogenous to past attributes and developments. More importantly, they give rise to other, yet to be answered, questions, namely: which set of critical events is shaping each period's institutional and economic environment and, why is the effect of history not uniform across the two periods?

Before addressing them, and by way of context, note that the two institutional indices often reflect the political instability and policy changes in Portugal during the colonial period. For example, the rise of the *Estado Novo* regime that reasserted Portuguese sovereignty, tightened control over state activities, greater centralization and thus the reduction of rights in the colonies.

The Colonial Act maintained legal distinctions between natives and non-natives and saw greater restrictions as regards the latter in terms of both rights. In the 1950's and early 1960's, meanwhile, there was a wave of significant political and economic changes. Industrial policy was liberalized, trade was diversified and the first Economic Development Plan was implemented, which led to GDP per capita growing 20.4 % (1990 Int\$ 1133 to 1364) during 1950-66 (Figure 1).

Economic rights were also strengthened during the periods 1952-55 and 1959-61. Political reforms, meanwhile, sought to increase the representation of colonial interests back in the homeland. During 1959-62, the increase in political rights was modest, even as the distinction between natives and non-natives was abolished (Figure 2). Indeed, Portugal sought to reinforce the colonial status quo during this period, while many African countries were gaining their independence.

Turning now to the set of critical events, we first identify those years *in and around* which these may have occurred. Specifically, we focus on those years where our models' goodness of fit, and hence explanatory power, is less pronounced. This entails identifying the residuals that lie outside the one standard-deviation interval for each model-equation (Table 4).¹⁶ Next, we link these residuals to specific events occurring in the neighborhood of the years/periods thus identified with recourse to the historical detail provided in Luiz et al. (2013). In doing so, we also rely on the Granger causality test results (Table 3) to infer *which type of events* we should focus on, i.e. which of the three model variables (alone or combined) is/are likely to be associated with the outliers (the years shown in bold in Table 4).

Insert Table 4

For the colonial period, we focus on DEV and POL events around 1966 and 1973-74 based on the residual analysis.¹⁷ We find that the start of Mozambique's liberation war in 1964, and the marked increase in political and security strife that ensued, critically characterizes the 1966 neighborhood but for different reasons. Although there are no significant changes to political rights immediately prior to 1966, their very modest increase during 1959-62 clearly comes to an end. As for economic rights, these increase markedly to achieve their highest level during 1967 (Figure 2).

GDP per capita, meanwhile, increased by 35.1% (1990 Int\$ 1364 to 1843) during the period 1966-73 (Figure 1). While the growth trend is positive throughout the colonial period, it accelerates markedly when the Portuguese authorities sought to create more favorable conditions for social and economic development (via the second and subsequent Economic Development Plans), as part of their response to FRELIMO's insurgency actions. Taken together, these two findings imply that the Portuguese authorities sought to foster economic progress by bolstering the economic rights without increasing political rights, however. Hence, our finding that it is the interaction between economic progress and (*and a given level of*) political rights that is driving economic rights. This insight also helps to explain why ECO causes DEV (model 2) while POL does not cause DEV (model 3).

The period 1973-74, meanwhile, captures the end of the dictatorial regime in Portugal, where declining support for the colonial war, and increasing economic malaise due to the 1973 global oil shock, fueled the military-led Carnation revolution in 1974. To the sure, Mozambique's relatively chaotic transition to an independent country created a set of initial conditions *à la* Page (2006) whose effects would prove to be problematic and long-lasting, both institutionally and economically. As the old order collapsed, newly-independent Mozambique faced the daunting task of governance equipped with a greatly diminished public administration, as many civil servants left the country taking their know-how with them. As a result, GDP per capita declined 23.8% (1990 Int\$ 1843 to 1404) during 1973-75.

The transition period's challenging state of affairs was clearly compounded by post-independence institutional and development policy changes that would prove to be problematic, as discussed in Meyns (1981). The post-independence ruling party in Mozambique, FRELIMO created a single-party authoritarian regime that suppressed basic freedoms and rights (like *habeas corpus*) and repressed pluralism - political, religious and educational. Institutions clearly diminished the rule of law even without counting typical *de facto* manifestations of the political and social processes. The effect of these negative changes, like the creation of the Revolutionary Military Tribunals (1979) - classified by most authors as oppressive and arbitrary institutions - more than offset that of positive measures, like the recognition of the right of people to vote in assemblies (1977). FRELIMO also sought to create a centrally-planned economy, given its ideology of Marxist

Leninism. This resulted in large companies and cooperatives tasked with managing land usage, and private property practically disappeared through large-scale nationalization. Both political and economic rights declined precipitously as a result (Figure 2). During this period, Mozambique's civil war broke out in 1977, as the anti-communist RENAMO movement also began to use force to oppose the governing regime.

As for the independence period, the residual analysis suggests we look mainly at DEV and ECO events in the neighborhood of 1978, 1986 and 1992-93 (Table 4). In 1978, the National Economic Plan was drawn up, which focused on education, healthcare and production. This year should be seen, however, as a culmination point of significant changes that had a negative impact on economic activity in the preceding three years, notably the turmoil of the transition period, the departure of skilled white settlers, the expulsion of merchants (mainly of Indian origin) and the successive waves of nationalizations. Not surprisingly, GDP per capita declined a further 34.5% (1990 Int\$ 1404 to 920) during 1975-85.

The period around 1986 similarly reflects a culmination point but of the first set of economic reforms (1983-86) aimed at promoting private-sector business initiatives and attracting foreign investment. In 1983, the need for major political and economic reforms had been recognized by President Samora Machel, when he conceded that socialism had failed during FRELIMO's third party congress. Upon his death, it was left to his successor, Joaquim Chissano, to implement the political reforms that followed the move towards a market-determined development model. These reforms included a more democratic framework, which allowed for the first parliamentary elections since 1977.

The period 1992-93, meanwhile, reflects the end of Mozambique's civil war with the signing of the Rome Accord. Mozambique's first multi-party presidential and legislative elections took place in 1994, which were won by FRELIMO. Important economic reforms were also pursued. In 1993, a wave of legislation tore down most restrictions on foreign investment, demanding only that all domestic and foreign investment decisions must have government's approval. This was followed by ambitious land policy reforms (1995-99) that sought to protect existing land rights, resolve land disputes and attract investment into rural areas. The peace dividend and policy reforms undoubtedly allowed for greater economic progress with GDP per

capita increasing 77.9% (1990 Int\$ 1032 to 1836) during 1992-2005. The expansion of both rights during this period is also notable.

For the post-independence period, recall that it is the interaction between economic rights and economic progress that is driving political rights.¹⁸ When compared to the colonial period, the interpretation of this finding is less straightforward, however, as both rights change much over time. In order to obtain additional insights, we compare the correlations of the three variables *before and after* having being used in the VAR/VEC models (Table 5). The intuition is that a well-fitting model will incorporate the impact of the variables driving observed behavior, which implies that their residual correlations should be close to zero. The opposite is true for those variables lacking explanatory power. Note also that assessing the linkages between political and economic rights only makes sense within a given context of economic development, as evidenced by the low correlations when this context not taken into account.

Insert Table 5

For the colonial period, we find that political rights become highly correlated with economic progress (0.189 to 0.651) once the VAR model incorporates the effect of economic rights, which become less correlated and slightly negative (0.86 to -0.071). This finding implies a large scope to improve political rights that are conducive with economic progress, while additional increases in economic rights would have actually been counterproductive. It also points to the primacy of economic rights in driving development, which supports the modernization hypothesis during the colonial period. After independence, however, there is no evidence of a similar effect once the VAR model incorporates the fact that institutions and economic progress trend together towards a long-run equilibrium cointegration relationship (Table 2). Instead, political and economic rights become much less correlated with one another (0.946 to 0.120). We take this to be a sign of the consolidation and predictability of institutions, which is compatible with the institutional approach.

Insert Figure 3

To assess the relative importance of economic and political rights, we consider the cointegration relationship between them (Figure 3), which reaches equilibrium in 1986 when the reformer Chissano ascended to power.¹⁹ Before this year, economic rights dominate political ones while the opposite is true afterwards. The changing nature of the institutional regime is also clearly visible around this time, which again reflects a reforming political economy, and its consolidation following the constitutional changes (1990) and the Rome Accord (1992) that formally ended Mozambique's civil war. We take this to be evidence in favor of the primacy of the economic over the political (in the run-up to 1986), as well as the modernization hypothesis. It also explains why economic rights and economic progress trend together towards a long-run equilibrium relationship while political rights and economic progress do not (Table 2). Moreover, we regard the bi-directional causality between economic and political rights (Table 3) as a further sign of institutional consolidation and stability. This finding explains why the effect of history is not uniform across periods, which was the other answered question we needed to address.

Notwithstanding this last finding, it is important to stress that there was a high degree of continuity between the colonial and socialist regimes, as discussed in Sabaratnam (2011, 2013). While recognizing that important changes had occurred (such as less widespread physical violence, compulsory free labor and the shift away from economic autarchy), Sabaratnam (2011:193) nevertheless argues that these are not by and large as central to forms of rule, which pertain to the issues concerning the claiming, distribution and structuring of political power, wealth and control. To be sure, there were important continuities in forms of political authority, political economy and public administration, as well as recurrent forms of crisis, rebellion and resistance against that rule (Sabaratnam, 2011:157).²⁰ As a result, some of the strong elements of continuity include the regimes' modernizing visions, labor-intensive political economies and hierarchical, authoritarian practices and structures of rule (Sabaratnam, 2011:182).

In summary, institutions mattered for Mozambique's economic development during the period 1950-2005. We find evidence of the primacy of economic over the political institutions, and also of modernization theory *à la* Lipset (1959), both before and after independence. We also find evidence of critical junctions. For post-1950 colonial period, two critical events stand out - the start of the liberation war (1964) and the revolution in Portugal (1974). In response to the first,

Portuguese authorities sought to create more favorable conditions for economic growth, apparently in an effort to reaffirm ‘sovereignty’ as well as to eventually win over the hearts and minds of the colonized. Increasing economic rights were seen as instrumental in bringing about the desired economic development, while repressive force and propaganda respectively addressed the deteriorating security and political climate.

However, we believe that this decoupling of economic and political rights implies poor institutional ownership, especially as the colonial dispensation generally reflects a relationship of dependency on the colonial power. It seems that Portugal had little incentive to get all of Mozambique’s institutions right. This may have been due to the illusion of control whereby the colonizing country wields political power but lacks political legitimacy for its use, which ultimately requires the assent of the colonized to ensure the sustainability of outcomes. As a result, neither the political situation nor the economic progress that characterized the 1960s would endure.

The demise of the colonial period was followed by a short but problematic transition to independence (1974-75), whose negative impact was compounded by strongly ideological governance and the start of the civil war (1977). Indeed, the three years following independence were characterized by political repression and economic radicalism, which would also prove to be unsustainable. The reversal of this state of affairs began with the first wave of economic reforms (1983-86), which were followed by others that moved Mozambique towards democracy and market-determined development under Chissano’s leadership (1986-2004), and also created conditions for the civil war to be brought to an end (1992).

The take-home message is that enduring peace and prosperity requires that economic progress goes hand in hand with development of political and economic rights. Bearing in mind North (1990: 104), we can expect to find consolidated and predictable institutions defining payoffs to political and economic activities so as to encourage productive activity, and which are wholly owned by relevant stakeholders. Moreover, the sequencing of economic and political reforms is likely to be context-specific. In the case of Mozambique, this entailed fixing important problems – getting the economy right, granting more freedom and making peace – all which required effective economic and political reforms, underpinned by a solid institutional ownership to ensure enduring changes.

Finally, note that our findings are specific to Mozambique although our analytical framework and empirical methodology is, of course, generalizable to other cases. To be sure, the impact of history may differ depending on the colony in question, even when the colonial power is the same. For example, Chabal (2001:232) argues that the unity of nationalist purpose in Mozambique was achieved against considerably larger odds than in Angola when undertaking a comparative historical analysis of the two cases. As result, the two parties which took control at independence, though superficially similar in ideology, were in fact endowed with distinct political attributes, of which nation-building legitimacy was cardinal. The weight of history in these countries was thus different.

5. Conclusion

In this paper, we explore the webs of association between institutional drivers, historical determinism and economic development in Mozambique. Indeed, recognizing institutional path dependency, and how it particularly affects post-colonial countries, means that we cannot discount the past. In the spirit of Acemoglu and Robinson (2012), our work contributes to existing research in a developing country setting by employing a new longitudinal set of institutional measures, as well as to studies on critical junctures and modernization theory. As such, we provide new insights into the interplay of critical junctures, institutional drift and history's contingent path within a specific political-economy and time series context, which is a novel endeavor to the best of our knowledge.

Our conceptual framework allows for the interaction between political, economic, and institutional factors in driving economic progress while recognizing that development is often the consequence of historical determinism. In practice, our empirical analysis addresses the two interrelated issues of whether history matters and, if so, how history matters for Mozambique, before and after its independence in 1975. In this regard, we use the construction of a new set of institutional indicators to examine the evolution of political and economic institutions, their persistence and interdependence and their effects on economic outcomes. We also identify the critical events behind the impact of history, as well as which institutions matter more for economic growth.

Our findings establish that history always matters but its impact is not uniform, which we attribute to differences in the consolidation, predictability and ownership of institutional arrangements across the two sample periods. We also find evidence of the primacy of economic rights in driving development, and hence of the modernization hypothesis for both periods, which likely reflects important continuities in forms of Mozambique's political authority, political economy and public administration. As for critical junctures, their existence is verified while their impact differs depending on their origin and nature. In sum, our findings imply that economic progress and institutions are endogenous to past attributes and developments, which are always context-specific even when considering countries colonized by the same colonial power.

We see our study as opening new avenues for research by not taking institutions for granted and by exploring their evolution and possible historical determinism. To be sure, the implications of our work are far-reaching. For a start, and as we stated at the outset, these are not purely academic questions as they carry great importance for policymakers under pressure to get things right because of the persistence of institutions and their consequences and the associated path dependency. As Page (2006: 88) reminds us: 'The stakes here may be large. Path dependence may help explain why some countries succeed and others do not.'

Our research has policy importance from a development perspective, for example, as it highlights the fact that countries do not start their path to development with a clean institutional slate. This implies that a 'one size fits all' approach to development policy is unlikely to be appropriate. Recognizing this reality is all the more important in the face of globalization, which is characterized by an uneven playfield that will have a profound effect on how future transnational agreements are regulated. Rodrik (2018: 27) argues that there is the need for a 'reality check' to rebalance globalization to ensure its benefits are spread more evenly and to address the 'corrosive asymmetry' of existing institutional agreements

Our research adds urgency to this call by recognizing the burden of history, both at an international and national level. While national policymakers need to take history into account, they also need to be aware that history is not fate. Indeed, it is possible to ensure positive combinations of institutions and policies that are conducive to successful development outcomes, given history and globalization. For example, Macedo and Pereira (2016) find evidence of macro-level public policy and

macro-institutional combinations underpinning successful trade diversification (an indicator of globalization) and income convergence (an indicator of governance) in regions of sub-Saharan Africa (including Mozambique).

Although our paper does not examine the impact on business directly, the implications for business loom large. Because institutional effects persist, the consequences for how it affects the environment of business and the transaction costs are the most obvious but our work also demonstrates the webs of association between different institutional indicators and economic processes and this is related to the interplay between business, government, and society more generally.

The research has limitations. It is not intended to be a growth study for Mozambique and the limitations in terms of data do not allow for a fuller exploration of the determinants of growth over this time period. This task, which constitutes part of the future research agenda, entails taking into account other variables that co-determine growth such as, domestic and foreign investment, international aid, trade, amongst others, and also spatial development aspects along the lines of Chiovelli et al. (2018). Furthermore, there are limitations in terms of the construction of the institutional series themselves in that they are *de jure* measures which may not fully capture how laws are implemented or enforced. Nonetheless it provides a richness of institutional data not previously available with this level of granularity until now, and which is assessed and interpreted within a complementary theoretical, empirical and historical framework.

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Table 1: Summary of Unit Root Tests

Variables	Colonial Period (1900-1974)		Independence (1975-2005)	
DEV	GDF <i>t</i> -test	NP-Mza	GDF <i>t</i> -test	NP-Mza
Level	-3.151*	-10.642	-0.865	-10.168
1 st Difference	-5.710***	-8.617**	-3.004***	-9.439**
POL				
Level	-2.217	-11.758	-1.183378	0.0409
1 st Difference	-2.417**	-15.436***	-6.857***	-14.534***
ECO				
Level	-1.089	-2.864	-1.459	-3.260
1 st Difference	-3.073***	-14.887***	-5.213***	-14.481***

*Reported results are the Generalized Dickey Fuller (GDF) *t*-statistic and the Ng-Perron (NP) modified Phillips-Perron Z(α) statistic. The significance levels of 10%, (5%) and (1%) are denoted by * (**) (***) respectively. The colonial period considered is shorter whenever the DEV variable is used, as the economic data is only available from 1950 onwards.*

Table 2: Summary of Cointegration Tests

Variables	Colonial Period (1900-1974)			Independence (1975-2005)		
	Trace	Maximum Eigenvalue	Cointegration and Rank	Trace	Maximum Eigenvalue	Cointegration and Rank
DEV, ECO, POL	23.390	13.041	No	48.047**	35.318**	Yes (1)
DEV, ECO	13.501	8.419	No	28.564**	25.680**	Yes (1)
DEV, POL	12.510	10.622	No	7.897	6.213	No
ECO, POL	5.753	5.574	No	26.634**	25.732**	Yes (1)

*The trace statistic reports the result of the null hypothesis of $r=0$ cointegrating relations against the alternative of k relations, where $r < k$. The maximum eigenvalue statistic, meanwhile, reports the outcome of the null hypothesis of $r=0$ cointegrating relations against the alternative of $r+1$. A double asterisk (**) denotes the rejection of the null hypothesis at the 5% significance level using the respective test's critical value. The colonial period considered is shorter whenever the DEV variable is used, as the economic data is only available from 1950 onwards.*

Table 3: Summary of Granger Causality Tests

Tests	Colonial Period (1900-1974)			Independence (1975-2005)		
	Model / DF	Chi-Square	Causality	Model / DF	Chi-Square	Causality
1) DEV, ECO, POL						
ECO and POL → DEV	VAR / 2	1.949	No	VEC / 2	1.504	No
DEV and POL → ECO	VAR / 2	26.450***	Yes	VEC / 2	1.368	No
ECO and DEV → POL	VAR / 2	1.002	No	VEC / 2	13.211**	Yes
2) DEV, ECO						
ECO → DEV	VAR / 1	5.607**	Yes	VEC / 1	0.640	No
DEV → ECO	VAR / 1	0.001	No	VEC / 1	4.568**	Yes
3) DEV, POL						
POL → DEV	VAR / 1	0.180	No	VAR / 1	9.792***	Yes
DEV → POL	VAR / 1	0.296	No	VAR / 1	1.485	No
4) ECO, POL						
POL → ECO	VAR / 1	1.127	No	VEC / 1	5.991**	Yes
ECO → POL	VAR / 1	0.086	No	VEC / 1	6.349**	Yes

The Chi-square (Wald) statistic reports the significance of the lagged endogenous variable in the estimated equation for each test, and DF denotes the degrees of freedom. When two endogenous variables are used, their joint significance is reported. In the case of VEC models, only first-differenced lagged variables are tested for exclusion, i.e. those in the cointegrating equations are not tested. The significance levels of 10%, (5%) and (1%) are denoted by * (**) (***) respectively. The colonial period considered is shorter whenever the DEV variable is used, as the economic data is only available from 1950 onwards.

Table 4: Residual Outliers (by year)

Models	Colonial Period (1900-1974)			Independence (1975-2005)		
	DEV	ECO	POL	DEV	ECO	POL
1) DEV, ECO, POL	1954 1966 1973-74	1960 / 62	1966 1973-74	1978 1985-86 / 88 1992-93 2000-01	1978 1986 1991 / 1992-93	1982-83 / 86 1990
	(Joint) Granger Causality: DEV and POL → ECO POL alone is individually significant			(Joint) Granger Causality: ECO and DEV → POL ECO and POL are both individually significant		
2) DEV, ECO	1963 / 66 1973-74	1953 / 1958-59 1961 / 67	--	1975 1986-87 1992 2001	1975 1984 / 1986-87 1992-93 / 95 2001	--
	Granger Causality: ECO → DEV			Granger Causality: DEV → ECO		
3) DEV, POL	1963 / 66 1973-74	--	1953 1960 1973-74	1975 1992 2000		1982-83 / 86 1990
	Granger Causality: None			Granger Causality: POL → DEV		
4) ECO, POL	--	1918 1929 1932 / 38 1941 / 1944-45 1953 1961 / 1966-67	1911 / 19 1926 1956 1960 1974	--	1984 / 89 1993-94 / 1997	1978-79 1985 1990
	Granger Causality: None			Granger Causality: POL → ECO and also ECO → POL		

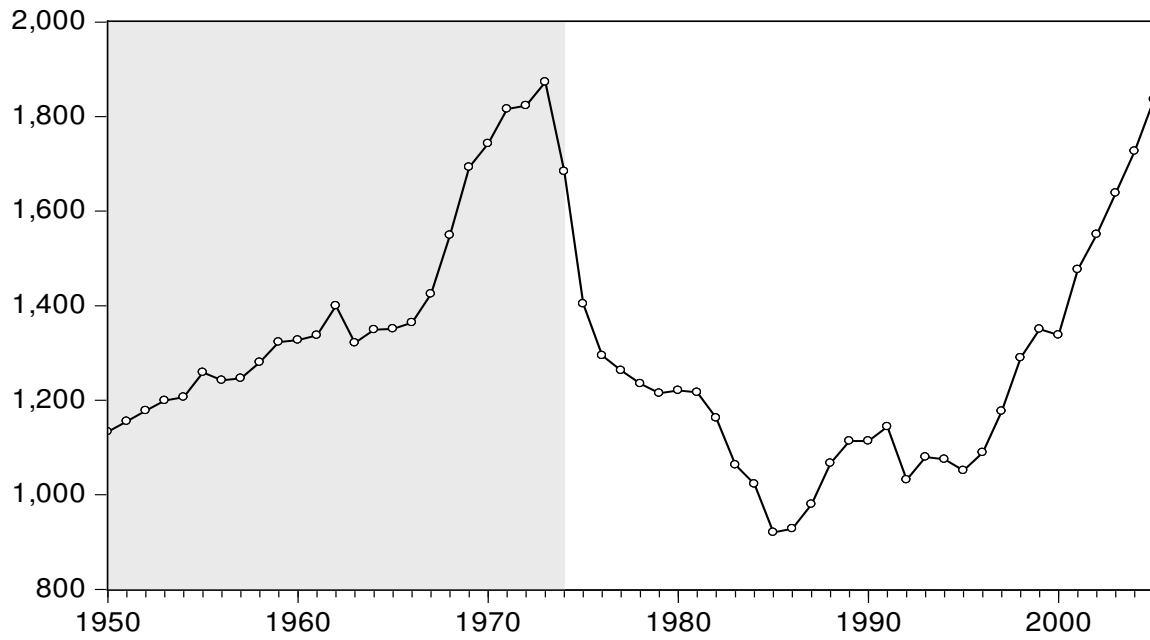
Outliers are those residuals that lie outside the interval of one standard-deviation for each model-equation. Each model's standard deviation is measured using the respective standard error estimate. Note that the colonial period effectively considered in estimations is shorter whenever the DEV variable is used, as this economic data is only available from 1950 onwards.

Table 5: Variable and Model Residual Correlations

	Colonial Period (1900-1974)			Independence (1975-2005)		
	DEV	ECO	POL	DEV	ECO	POL
Variables						
DEV	1.000			1.000		
ECO	0.860	1.000		0.436	1.000	
POL	0.189	0.371	1.000	0.303	0.946	1.000
1) DEV, ECO, POL						
DEV	1.000			1.000		
ECO	-0.071	1.000		0.310	1.000	
POL	0.651	0.426	1.000	0.258	0.120	1.000
2) DEV, ECO						
DEV	1.000		---	1.000		---
ECO	0.182	1.000	---	0.314	1.000	---
3) DEV, POL						
DEV	1.000	---		1.000	---	
POL	0.677	---	1.000	0.345	---	1.000
4) ECO, POL						
ECO	---	1.000		---	1.000	
POL	---	0.081	1.000	---	-0.063	1.000

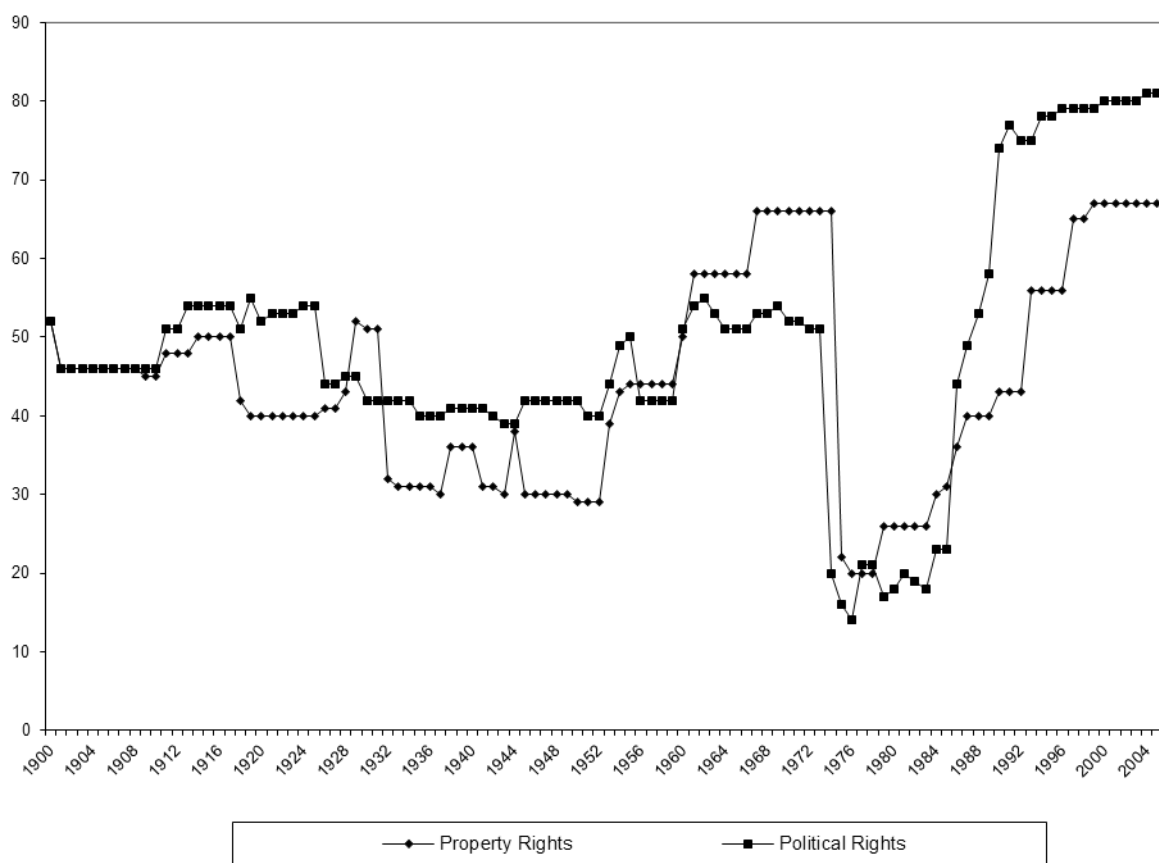
The standard error (SE) of a statistic (usually an estimate of a parameter) is the standard deviation of its sampling distribution or an estimate of that standard deviation. Note that the colonial period effectively considered in estimations is shorter whenever the DEV variable is used, as this economic data is only available from 1950 onwards.

Figure 1: GDP per capita for Mozambique 1950-2005



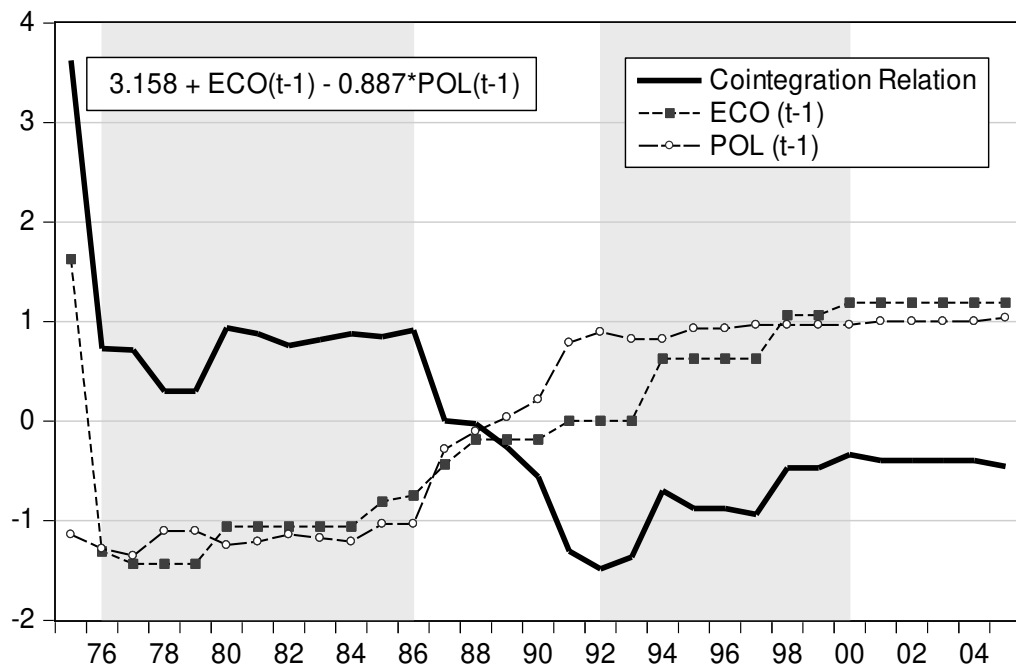
Source: Based on Maddison (2007)

Figure 2: Property and Political Rights for Mozambique 1900-2005



Source: Luiz, Pereira and Oliveira (2013)

Figure 3: Economic and Political Rights Cointegration Relation for Mozambique 1975-2005
(Normalized Scale)



Source: Own Analysis

Endnotes

¹ This study distinguished between path-, or equilibrium-, dependent processes (where early conditions continue to matter), outcome-dependent processes (where only recent history matters), and also outcome-independent processes (where history does not matter at all). Equivalently, outcome dependence entails current outcomes depending either on past outcomes or the time period, and equilibrium dependence requires that the long-run limiting distribution over current outcomes depends on past outcomes. The study also distinguished between path dependence (where the path of previous outcomes matters), *phat* dependence (where the events in the path matter but not their order), and state dependence (where the paths can be partitioned into a finite number of states containing all relevant information).

² For common dynamic models, the study showed that a necessary condition for path dependence is the existence of a time-varying autoregressive parameter that becomes one at some point. Failure to meet this critical condition results in a path independent process, whose outcome is only a function of current exogenous conditions.

³ Unit root tests are used to detect non-stationarity as standard inference procedures will not apply. The standard test is the Augmented Dickey-Fuller (ADF) developed by Dickey and Fuller (1979, 1981). Phillips and Perron (1988) developed one that is robust to unspecified autocorrelation and heteroscedasticity in the model's error term.

⁴ The first test was developed by Elliott, Rothenberg and Stockm (1996) to detect a unit root in time series featuring deterministic components (such as a constant or a linear trend). The GDF testing procedure entails first de-trending the time series to efficiently estimate its deterministic parameters, and then using the transformed data to perform the usual ADF test. More importantly, the former test dominates the latter test in terms of power, i.e. the probability of rejecting a false null hypothesis of a unit root.

⁵ Compared to the ADF and PP tests, the NP test has greater power than either one when the time series is characterized by a large autoregressive root. The NP test has thus come to be the preferred alternative to standard ADF and PP tests. For more details, see DeJong, Nankervis, Savin and Whiteman (1992).

⁶ To determine the use of intercept and trends terms, we visually inspect the time series and also compare the goodness of fit using alternative specifications. Barring the IND period, we use both an intercept and trend term when testing the level of variables, and an intercept otherwise. In the IND period, a trend and intercept is used only when testing the level of DEV. In this same period, we also find that the inclusion of the year 1975 negatively affects the reliability of our estimation when testing the first difference of DEV and POL. This is possibly due to the disruptive nature of economic and political events occurring in that year. As such, we exclude this data point when testing for unit roots in these two instances. For the COL and IND periods, we tend to favor the results of NP over GDP since the latter is more prone to serial autocorrelation problems, as measured by the Durbin-Watson statistic.

⁷ For the institutional variables, the persistence detected may reflect their process of construction, where 'Ratings for a given year are done relative to the previous year's score' (Luiz, Pereira & Oliveira, 2013:680). Although caution is warranted in this case, our finding that history matters for institutions is clearly substantiated by the remaining empirical results, as well as the historical context.

⁸ We assume trending data that is subject to a change in level. We further assume that the breakpoint is known (the year of independence 1975) and that it occurs immediately (additive outlier) rather than gradually (innovational outlier). The number of lag terms in the Dickey-Fuller equations is chosen to be large enough to eliminate the effect of the correlation structure of the errors on the asymptotic distribution of the test statistic.

⁹ Error correction models are appropriate when (non-stationary) when cointegration exists, i.e. the series share a common long-run stochastic trend but exhibit no other relationships otherwise. Cointegrated variables obey an equilibrium relationship in the long-run, although they may diverge substantially from it in the short run. The resulting cointegration relation equation will capture the long-run relationship between the variables characterized by the respective cointegrating vector-weights, as discussed in Engle and Granger (1987).

¹⁰ An alternative model is the Autoregressive Distributed Lag, which was developed by Pesaran, Shin and Smith (2001) to apply when the series are integrated of different orders. This is not the case in our analysis.

¹¹ The former is used to test the null hypothesis that there are r cointegrating vectors against an alternative of there being at least $r + 1$, while the latter tests the null of r cointegrating vectors against the alternative of n . For the case where Π is a 2×2 matrix, the number of cointegration equations will be given by its (reduced) rank. With only two variables, the maximum rank possible is one which implies two testable hypotheses: $H_0: r = 0$ against $H_1: r > 0$, and also $H_0: r = 1$ against $H_1: r > 1$. With three variables and a possible maximum rank of two, there are three testable hypotheses: First, $H_0: r = 0$ against $H_1: r > 0$; second, $H_0: r = 1$ against $H_1: r > 1$; and, $H_0: r = 2$, against $H_1: r > 2$.

¹² Both tests assume a linear deterministic trend in the data, an intercept (no trend) in the correction error and VAR and two lag-lengths. Moreover, the residual diagnostics of the estimated VAR and VEC models indicate the lack of serial correlation and heteroscedasticity, as desired.

¹³ We adopt the Toda and Yamamoto (1995) procedure for the VAR model estimations, as the Wald test statistic does not follow its usual asymptotic Chi-square distribution under the null hypothesis when testing linear restrictions in the presence of possible non-stationary variables.

¹⁴ We attach greater importance to the outcome of Test 1 whose underlying model includes all three variables thereby allowing us to examine the web of association between institutions and economic progress. The remaining tests are nonetheless useful in helping us to better interpret the results of Test 1.

¹⁵ The reader is advised to visit <https://onlinelibrary.wiley.com/doi/pdf/10.1111/gove.12002> in order to download the file containing the relevant sources of law used in the construction of the indices. This document also details the key political and economic developments in Mozambique, which we use to contextualize and interpret our findings.

¹⁶ Given the data's persistence, we also visually inspect the residuals' behavior *before and after* the years of interest to detect changes in magnitudes and/or trends, as this help us to better interpret what is happening around that time.

¹⁷ Recall that these two variables jointly cause ECO (Test 1 in Table 3, shown as DEV and POL \rightarrow ECO in Table 4). Recall also that POL is likely to be more influential as it alone is also individually significant, which further suggests we focus on events of a political nature. Note that the choice of these years is broadly consistent with those suggested for POL using model 3 (although POL does not cause DEV in this case). Model 2, meanwhile, highlights somewhat different dates for ECO, namely 1953 and 1958-59 and 1961 and 1967 (given that ECO causes DEV).

¹⁸ ECO and DEV not only jointly cause POL but also individually in the three-variable test (Test 1 in Table 3, shown as DEV and ECO \rightarrow POL in Table 4). However, neither ECO nor DEV cause POL in the two-variable tests (Test 2 and 3 respectively). We also found that DEV causes ECO but not the other way round (Test 2), which is contrary to what was found for the colonial period. Significantly, the causality between ECO and POL is bi-directional (Test 4).

¹⁹ Note that the ECO and POL variables are included in estimated equation together with their respective cointegrating vector-weights (of opposite signs). This relationship holds with equality in equilibrium, which we estimate to have occurred in 1986, given that this equation relies on inputs from the previous year.

²⁰ The regimes' political authority over the masses was continuously constituted through authoritarian ideologies of 'development', first in the form of the Estado Novo's 'civilizing mission' entrusted to the Catholic Church, and later that of FRELIMO's 'New Man' modernizing (and Marxist-Leninist) ideology (Sabaratnam, 2011:186). In terms of political economy, the continuities revolved around the co-operation between the state and large enterprises. The colonial state sought first to operate through large colonial companies, before taking them over directly as instruments of the Estado Novo, thereby securing monopolistic control of production and supporting its political economy. The post-independence policy essentially continued with this structure of ownership, in terms of investment coming from the state and profits being returned to the state, which was much more oriented towards the needs of the population than the colonial regime (Sabaratnam, 2011:188). As for public administration, both regimes were marked by

substantial planning architectures in order to integrate the political reach of the state with the desired economic outcomes concerning production and autarchy, via their respective national development plans (Sabaratnam, 2011:190).