



LUND UNIVERSITY
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Innovation and Spatial Dynamics**

Beliefs, Institutional Change and Economic Growth: Evidence from Dubai

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Abstract: This study develops, presents and evidences a belief model of institutional change. Drawing on a range of theoretical approaches from institutional economics, the model states that institutions change when an environmental factor alters the beliefs of the population or the elites. Further, a society will only be internally stable when the beliefs of these two groups align, and will only remain stable if these aligned beliefs are ‘good’ – i.e. they promote economic growth. The model is applied to the history of Dubai, the United Arab Emirates and the Gulf, and it is demonstrated that without an understanding of beliefs it is extremely difficult to explain the prosperity of the region. The study concludes that a greater appreciation of beliefs can help economic historians to explain anomalous outcomes, and that this is significant in the field of institutions given that such anomalies can produce or destroy civilisations.

Key words: Institutions, Beliefs, Economic Growth, Dubai

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'It is surprising that so little research has been done on belief, as few mental states exert so sweeping an influence over human life.'

Author & neuroscientist Sam Harris (2010, p.151)

1.0 Introduction

Why are some countries rich and others poor? The answer is simple. A rich country is rich because of people, and a poor country is poor because of people. People, in what they thought and how they behaved, have been the agents of every economic and social interaction that has ever occurred. An omniscient economic historian could end the debates around the start of the Industrial Revolution, the stagnation of Africa or the rise of East Asia, simply by understanding the behaviour of all the relevant actors. What did they do, individually and collectively, and why did they do it? The successes and failures of tribes, organisations and nation-states are, irreducibly, the result of specific thoughts and specific actions. Social scientists are tasked with unpacking these outcomes, and attempting to model the casual behaviours in a way that foretells future outcomes.

Models of socio-economic processes that do not account for the complexity of human thought will inevitably produce anomalous results when confronted with certain types of thoughts and certain types of actions. This is a prosaic footnote in mainstream economics, as being able to predict the behaviour of the majority within the context of a functioning market is immensely valuable. When the discussion turns to the rise and fall of empires, however, and to the formation of the bureaucracies that allow these day-to-day interactions to take place, it is the anomalies that are of significant interest. The emergence of a successful state which gives its citizens freedom, security, opportunity and universal rights is not a common occurrence – it is the exception and not the rule. *‘Economic history is a depressing tale of miscalculations leading to famine, starvation, defeat in warfare, death, economic stagnation and decline, and indeed the disappearance of entire civilizations’* (North, 2005, p. 7). To investigate the handful of societies which have organised themselves in a sustainable, constitutionalist manner, a focus on the unusual thoughts and unusual actions which produced this outcome is necessary.

This study takes the line of institutional economist Douglass North, who held that identifying the emergence of belief systems could help economists understand how productive governments, laws, cultures and organisations emerge (North, 2005). It calls for an appreciation of beliefs in the field of institutional economics, and looks to demonstrate how without such an appreciation, the sub-discipline is limited in its capacity to explain the formation of successful economies. This is achieved by applying a ‘belief model of institutions’ to the example of Dubai – the United Arab Emirates’ most modern city and a

place which has altered and transmogrified its organisational structure repeatedly in its relatively short history. The research aims are as follows:

- 1. To investigate the extent to which a belief model of institutions could be a useful tool for investigating the advent and continuation of modern economic growth in a given society*
- 2. To investigate the utility of a belief model of institutions in explaining the development of Dubai*

1.1 - Thesis Outline

The thesis proper begins with a literature review. The review first looks to define ‘institutions, and ‘good institutions’ in section 2.1, considering seminal definitions and key concepts from institutional scholars. The discussion then turns to how good institutions relate to economic growth, with section 2.2 arguing that institutions should be considered the permissive cause of economic growth (vis-à-vis culture and geography). Some relevant discussion on institutions and colonialism is included in this section. With institutions defined and their relationship to growth explained, section 2.3 turns to building a belief model of institutional change. Different theories on how institutions evolve are considered, before a new model of institutional change centring on beliefs is presented.

The methodology (section 3) discusses how institutional economics fits into broader economic thought, and the ways in which it differs theoretically and methodologically from the parent discipline. This leads on to a description of the qualitative approach taken in the study, with one seminal paper included as a point of comparison. The section closes with specific issues that may affect the conclusions of the study.

Section 4 is the analytical section of the thesis. Section 4.1 presents the current institutional environment in Dubai, covering politics, economics and demography. Section 4.2 discusses the nature of the economic growth Dubai has experienced, and notes how its institutional setting relates to this growth. The final analytical section explores the evolution of institutions in Dubai, and looks to map the belief model of institutional change onto this history.

Sections 2.1, 2.2 and 2.3 of the literature and theory section therefore correspond to sections 4.1, 4.2 and 4.3 of the analytical section.

2.0 – Literature and Theory

2.1 – What are institutions, and what are good institutions?

Before investigating the specifics of institutional change, it is first necessary to define (good) institutions and be clear about the conceptual framework being used. This section looks to outline the various terminologies offered by the seminal works of new institutional economics, and arrive at a set of functional definitions for the body of the thesis. The passage is split into two halves: First, the term itself is considered: what is an institution? What isn't? What are the subcategories? Second, the characteristics of 'good' institutions are explored, and there is some engagement with the problem of 'making the best the enemy of the good'. The section concludes with a summary, and an abridged version of the key definitions for reference.

Taking North as a starting point, perhaps the most frequently cited definition of institutions comes from the 1991 paper 'Institutions', published in the *Journal of Economic Perspectives*. There, North outlines institutions as *'the humanly devised constraints that structure political, economic and social interaction'* (p. 97). More specifically, it is proposed that these constraints can be both 'informal' i.e. not enforced by law, or 'formal' i.e. enforced by law. Formal and informal institutions are said to set the parameters of the market: together, these forces govern the costs of transacting or producing and, hence, govern which economic activities are worthwhile. North gives several examples of forces which shape economic behaviour in this way: customs, traditions and social taboos are examples of informal institutions, whereas constitutions, laws and property rights are examples of formal institutions (1991, p. 97). A change in any of these factors changes the 'rules', and can open up new opportunities for entrepreneurs or make established activities unviable. Economic history, North argues, is *'overwhelmingly a story of economies that failed to produce a set of economic rules of the game (with enforcement) that induce sustained economic growth'* (1991, p. 98). North's definition, therefore, sees institutions as the parameters or contexts within which a market operates. Different cultures, policies, codes of conduct, regulations and histories will produce different sets of formal and informal constraints, sometimes conducive to economic activity and sometimes not.

To take a simple example of this in practice, consider the ways in which institutions can interrupt the link between technological advancement and economic activity. Kuznets (1973)

notes how a ‘veneration of undisturbed nature’ can impede the application of modern technology (p. 247). This, hypothetically, could be either a formal or an informal constraint – informally, the social penalty for disturbing nature could be severe, or there could be no demand for a product made from disturbed nature in a particular culture. Formally, disturbing nature could be made illegal via the establishment of a sanctuary or enclosure, and the productive application of technology would be prohibited despite the economic potential. Both could also be constraints simultaneously. The institution(s), in this hypothetical case, act as a constraint on the market and govern which activities are profitable or viable. Comparable real world examples include the difficulties one would encounter selling beef in a Hindu community, conducting stem-cell research in parts of the United States, or trying to migrate to Australia – the ease of transacting, or level of opportunity, is affected by *humanly devised constraints* in each instance. Similarly, the ease at which one can do something as simple as transact with a stranger without fear of violence is also governed by institutions. The positive and negative influences of specific policies, property rights, cultures and histories are important to consider in any economic transaction. The cumulative environment these various institutions produce is defined by North as the ‘*institutional matrix*’ of a society (1991, p. 98). The matrix is a key concept in this study, as having a societal matrix which allows for economic activity over time is fundamental to the functioning of modern states.

Aside from these seminal contributions, several authors have offered additional points which can complement an understanding of the nature of institutions. In Oliver Williamson’s (2000) overview of modern institutional economics, four levels of institutional depth are outlined, each governing the next (albeit with some degree of feedback – see Figure 1). This framework is useful for contextualising specific institutions, and can be seen as an embellishment of North’s institutional matrix. Incorporating a model of this kind prevents ad hoc ‘weighting’ of cultural, social, economic and political data points, and therefore also acts as a control on any stylisations that storytelling analyses may be prone to. The important points in the model are that more embedded institutions are more difficult to change, and that having stable informal and formal institutions in place will lead to stable governance and market functioning.

Williamson’s Four Levels of Institutions



Figure 1: Williamson’s Four Levels of Institutions. Source: Author, adapted from Williamson (2000, p. 597-600)

While this taxonomy is valuable for contextualising and weighting institutions, or for simply visualising the institutional landscape of a society, there are still further problems in deciding where to focus an economic analysis. Ostrom (2005) highlights how everything from inter-family interactions to sports leagues to governments can be looked at through the institutional lens (p. 3), so there is a need for some specificity regarding the most important economic forces at play. Shirley (2005) asserts that two broad categories of institutions are relevant to an economic discussion: The first is those which foster impersonal exchange by *‘lowering transaction costs and encouraging trust’*, and the second is those which compel the state to protect private property effectively (p. 2). In the absence of the first, interactions will be based on informal considerations such as reputation, tribe, or violence, and this will cause stagnation. In the absence of the second, the state will either be too weak to enforce contracts or too dominant and unfairly expropriate resources, discouraging entrepreneurship (p. 3). The evidence that these key institutions play a role in growth is discussed below, but for now note that these two domains are central to an economic analysis. Shirley is echoed in much of the wider literature; one related work is a meta-analysis conducted by Janine Aron (2000), which found development correlated most strongly with property rights, democracy and civil liberties – these, however, are both institutions themselves and the outcome of other institutions, so discarding non-correlates must be done with caution in this area. As a final

point on how to define institutions, and specifically on the issue of which institutions are economically important, note the context specific and path dependent ways different institutions become important in different historical cases (Bardhan, 2005, p. 2). It may be the case that in the development of the Gulf region, particular institutions are more influential than their Western counterparts as they meet Gulf-specific challenges.

Turning to what constitutes ‘good’ institutions; several authors have attempted to outline what they consider to be commonalities in efficient systems. Before engaging with that literature, however, it is worth momentarily concentrating on the word ‘good’. Whatever institutions exist in the Gulf, it would be fair to say they are good vis-à-vis Uganda under Idi Amin, and less good vis-à-vis Denmark in 2016¹. To decide whether an institution is good in a non-comparative study is more difficult – it is necessary to have a clear ‘turning point’ where the institution becomes an asset rather than a hindrance. The use of ‘good’ here, therefore, refers to institutions which have allowed for sustained and diverse economic growth. This conceptualisation can be viewed as harmonious with Kuznets’ (1973) definition of economic growth itself: *‘a long-term rise in capacity to supply increasingly diverse economic goods to [a] population, this growing capacity based on advancing technology and the institutional and ideological adjustments that it demands’* (p. 247). A good institution for Kuznets is one which does not impede / does actively enable the adoption of technology by the market, thus promulgating diverse economic growth. This thesis does not focus on the link between technology and growth, but takes this definition as sufficient for a ‘good’ institution. As a final comment, it is worth reiterating the spectrum of institutions that could be ‘good’ by this definition – any which further the goal of diverse economic growth are good to a degree, and it is important not to ‘make the best the enemy of the good’ by viewing imperfect institutions negatively.

Continuing with Kuznets, ‘Modern Economic Growth’ (1966) outlines three necessities which make a state function, thus enabling economic growth. A state must be secular, egalitarian and nationalist according to Kuznets’ analysis (p. 10), although no state is perfect in these respects (p. 15). Secularism, here, is an outlook where material, tangible concerns are dominant rather

¹ To be clear, comparing institutions from two countries is possible against the criteria of how well they promote (or how little they impede) economic growth in their respective settings. This does not necessarily conflict with the claim that different countries have path dependent and context specific institutions that may be valuable in one setting but useless in another. Denmark and Germany have similarly beneficial institutional matrices, yet the Danish laws limiting the power of the monarch are completely irrelevant in the German setting.

than mythological, unsubstantiated concerns. Egalitarianism treats people meritocratically, rather than ascribing some status to them arbitrarily (on grounds of nobility or race, for example). Nationalism is an allegiance to one's community above all other communities, and bounds egalitarianism at the territorial border. These conditions set the stage for a functioning society and secular economic activity, and hence feature prominently in successful nation-states. This, as a relatively straightforward set of qualifying characteristics, can be taken as a baseline for successful institutions. A society should be a bounded collective, and work towards goals with a basis in reality.

North's descriptions of helpful institutions vary somewhat, but are essential inclusions nonetheless. In 'Understanding the Process of Economic Change', North (2005) outlines four characteristics which make an institutional matrix an asset rather than a hindrance (p. 105):

1. The institutional matrix should establish rights and privileges, as well as produce a set of organisations
2. The institutional matrix should bring stability to exchanges in both economic and political spheres
3. The institutional matrix should credibly commit the state to a set of rules, thereby protecting organisations and interactions from state interference
4. The institutional matrix should have a high degree of conformity, achieved through a mixture of internalised norms and coercive enforcement

Rights and privileges, stability in exchange and a reliable state are all found in the aforementioned studies, but a 'conformity' mechanism is something novel to consider from this area of North's work. Simply put, there will always be some disconnect between the culture of a society and the laws that are enforced upon it. The extent of this disconnect represents the level of tension between the informal and formal institutions, and a greater tension will be more problematic for the survival of the institutional matrix. In policy areas where the culture and formal rules 'match', there will be little need for enforcement, whereas other policy areas may require fascistic institutions and force to deal with mass dissent. North's four characteristics are more detailed than Kuznets' three criteria, and represent more specific requirements for modern economic growth.

The important institutions that Kuznets and North highlight set the stage for secular economic activity in a time of stability, but also protect this secular environment in times of instability. If some event causes the disruption of economic activity, be it a temporary natural disaster or permanent technological advancement, the society will need to act on this event to maintain growth. This entails both flexibility and resilience, as the fundamental institutions will need to remain unimpeded while small shifts in the governance structure make allowances for the new environment. Simply put, clearly defined limits on power and rights for citizens, as well as credible protection from violations of those limits and rights, are what is required for the maintenance of impersonal exchange under extreme conditions. North describes societies which manage to respond to shocks effectively as demonstrating ‘adaptive efficiency’ (2005, p. 107-108) – coming up with institutions appropriate for the task at hand while keeping the baseline institutions embedded is a hallmark of successful nation-states (Engerman and Sokoloff, 2003).

A final debate to consider on what constitutes ‘good’ institutions is how the seminal works in the field approach the importance of democracy vis-à-vis technocracy. North has changed tack on the essentiality of suffrage: in 2005 it is stated that an ideal authoritarian regime is possible, as long as it is one where the beliefs of the citizens closely align with the dictates of the autocrat. If the citizenry are contented with absolutism (as is the case in Singapore), then this can substitute in for democracy as there will be no internal restlessness and no need for extreme coercion or unsustainable, fascistic institutions (2005, p. 103-106). North’s later work, however, makes democracy one requirement of an ‘open access order’ (a system with free access to economic and political institutions). North, Wallis and Weingast (2009) argue that the competition of elites with different ideas in a democratic system is crucial to a society’s success over time, as it makes solving societal problems the mechanism for attaining power (p. 133-134). This new position is less sympathetic to successful authoritarian cases such as Singapore, and implies that an inability to replace failing elites can be anathema to modern economic growth. It is also concurrent with other work in the field, with Bardhan (2007) stressing how ‘those who emphasise property rights often ignore the effects of participatory rights’ (p. 3). Rodrik (2000) takes a middle ground on this debate, and identifies democracy as a ‘meta-institution’ for producing positive institutions, while appreciating that some societies have substituted in for democracy effectively. Here, a combination of North’s ideas on coercion and Rodrik’s ideas on democracy are used to describe the role of democracy in an institutional matrix: democracy is not a normal institution, as Rodrik suggests, but not

because it is guaranteed to improve all other institutions. Democracy, etymologically and in practice, allows the public to influence the formal institutions and hence reduces the need for coercion. If a non-democratic institution is implemented, the party doing the implementing will need to be able to sufficiently coerce the population (e.g. using force) to make it function.

To summarise, institutions are the informal and formal constraints on the market, governing the transaction costs involved in economic activity. The most crucial institutions are those which reduce the costs of transacting or defend important citizen rights, and these must be enforced both formally and informally in a cohesive system. Good institutions are those which create conditions for economic activity by being secular, egalitarian and nationalist, as well as adaptively efficient over time.

2.2 – Institutions and Economic Growth

Having established how institutions and good institutions are defined, this section turns to the mechanics of good institutional matrices and economic growth. North and Thomas (1973) frame their discussion of this topic by stating: ‘... *the factors we have listed (innovation, economies of scale, education, capital accumulation etc.) are not causes of growth, they are growth*’ (p. 2). This is a useful distinction to make at the outset, as it clearly delineates institutional analyses as separate and complementary to the work of mainstream economists. An institutional explanation of growth in an economy deals with the formation and maintenance of functioning markets, and with the changes in incentives and constraints which preceded any change in functionality. First in this section, the logic of institutional change leading to growth is presented. This is followed by a discussion of three competing ‘fundamental causes’ of growth outlined in Acemoglu, Johnson and Robinson (2004), and the case for institutions being the most compelling is made. The tension between Acemoglu, et al.’s position on culture and some of the wider literature is considered as an aside, before the segment closes with a summary.

The best economic institutions, in the view of Acemoglu, et al. (2004), lead to growth by helping to allocate resources to their most efficient applications (p. 2). If institutions structure incentives to promote factor accumulation and innovation on a free market, the population are empowered to act accordingly and generate prosperous organisations. Conversely, if institutions do not support functioning markets then the gains from trade will be left unexploited – resources will be allocated inefficiently by the population and the society will

not prosper to the same extent (e.g. the case of the Soviet Union). This take on institutions leading to growth echoes the aforementioned position of Kuznets (1966), which sees institutions as promoting the efficient adoption of technology by the market. These positions broadly assert that a functioning market and economic growth are relatively synonymous (in that they allow for / comprise efficient activities), and so institutions (as the permissive cause of functioning markets) can be described as the cause of growth. The nuance of the position comes with the specific ‘good institutions’ mentioned above – it is important personal rights, property rights, adaptively efficient systems and (arguably) participatory systems that allow a market to function over time, and hence allow for continuing efficient allocations and growth. A point worth emphasising is that institutions ‘set the stage’ for growth, enable growth and encourage growth, but do not necessarily force growth to happen. They are causal insofar as that without good institutions sustained growth cannot occur via markets, but the two are not synonymous. Rodrik (2000) perhaps makes this link most explicit, noting how *‘the market economy is necessarily "embedded" in a set of non-market institutions’* (p. 4).

Framing economic institutions in this way – as a prerequisite to functioning markets – is fairly central to institutional economics. Where there is some disagreement, however, is on the issue of whether they are, in isolation, the cause of sustained growth. Acemoglu, et al. (2004) discuss the ways in which various commentators have argued for different fundamental causes to functioning markets; the debate, in their view, falls between those who argue for geography, those who argue for culture, and those who argue for institutions. Regarding geography, economists such as Jeffery Sachs postulate that direct impacts of climate, disease and location are significant in determining the prosperity of a region (Gallup and Sachs, 2001; Sachs and Malaney, 2002; Sachs 2003). Regarding culture, theories such as the often-cited Weberian claim about the protestant work ethic (Weber, (1905) 2002) are central. The difficulty in untangling these competing explanations is the highly multicollinear data on global prosperity: GDP correlates with property rights, but also with geography (Acemoglu, et al., 2004, p. 17) for example.

In an attempt to establish the centrality of institutions, Acemoglu, et al. (2004) move away from the econometric analyses used by Sachs and towards ‘storytelling’ historical analyses. To challenge the geographical approach, they highlight the consistency of good institutions in prosperous societies over time, alongside the inconsistency of geography. Athens, Rome, Carthage and Egypt were centres of prosperity at one time (p. 21-22), and trying to explain

their success geographically is ‘clearly inconsistent’ with historical data (p. 23), even when considering time-specific environmental advantages. The correlation between geography and prosperity today, it is argued, is a result of geography’s role in determining where colonial Europeans would settle and establish good institutions (p. 27). To advance this view, Acemoglu, et al. present a ‘reversal of fortunes’ thesis whereby prosperous colonies received low quality, extractive institutional endowments from Europeans, and poorer colonies received better frameworks as potential settler sites. This is shown to be temporally and spatially consistent using data on population density and urbanisation from the colonial period as proxies for prosperity (p. 24). Not only does this support the importance of institutions in a general sense, but also in specific colonial examples relevant to the discussion of the Gulf.

Further historical examples are highlighted in Acemoglu, et al.’s analysis to disconnect prosperity from culture. Cases such as modern Hong Kong and Singapore show how societies with a low proportion of European settlers, but high influx of European style institutions, can transform into prosperous regions. The case of Argentina is also mentioned as a country with a high proportion of ethnic Europeans but relatively low prosperity, owing to the limited institutions in Latin America (p. 27-28). The separation of North and South Korea is raised as an example of a ‘natural experiment’ where geography and culture were held constant, but institutions diverged, producing radically different patterns of economic growth (p. 18-20). Acemoglu, et al. go as far as to say that cultural factors are not important in economic analysis, and strongly assert the dominance of economic institutions as the fundamental cause of growth. This argument for relegating cultural explanations conflicts slightly with the concept of ‘informal institutions’ used here, and thus requires a degree of unpacking.

While the argument presented by Acemoglu, et al. is compelling, the role of culture may be too readily dismissed in their work. Taking the above example of selling beef in a Hindu community, such factors clearly have some capacity to shape which economic activities are viable and some of the specificities of economic growth. A more useful framework may be one which incorporates cultural factors as a (minor) kind of institution, rather than discarding them outright and focusing on fundamental rights (dominant as they may be). Douglass North’s (2005) writing on culture takes the beliefs of a society as an informal constraint on economic activity, and describes interactions between the informal beliefs and formal policies in the institutional matrix (the gap between the two is bridged by coercion and enforcement, as mentioned above). The Williamson ‘levels’ in figure 1 also show a role for culture in

institutional analyses. These conceptualisations have the capacity to explain examples relevant to this discussion, such as the role of the Islamic banking system in Middle Eastern stagnation (Kuran, 1986; Rubin, 2011). Kuran (1986) describes the tension between Islamic institutions prohibiting specific financial instruments, the obvious market potential for such instruments, and the beliefs of the society which reinforce the institutions but also allow for some black market alternatives. Trying to navigate this matrix without an appreciation of culture is difficult, and demonstrates how such factors can restrict activities that would (presumably) otherwise be viable.

There are some authors who accept an important and central role for institutions in promoting sustained economic growth, but offer words of caution on making the same institutions universally applicable. Engerman and Sokoloff (2003) make the case for a partial reverse causality in the colonial examples, presenting some evidence that institutions were a mixture of exogenous and endogenous in these cases (p. 10-12; p. 17). The idea that institutions were shaped by the destinations rather than imposed upon them (e.g. French and British Caribbean colonies being similar despite different motherlands) may present a problem for key institutions' role in causing modern growth, but this also may again suit the 'interplay' between informal and formal which North / Williamson allow for, and the path dependence and context specificity described by Bardhan (2005) above. Rodrik (2000) further supports a recognition of local nuance, urging restraint in the application of *'best-practice blueprints'* when thinking about institutions. While these points do not severely limit Acemoglu, et al.'s vision of colonialism, they do give more weight to the importance of culture and historical variation in the cases of sudden institutional change.

Acemoglu, et al.'s work on the centrality of economic institutions, therefore, makes the case strongly enough to support the idea that they are crucial, but discarding geographical factors and cultural elements may be a step too far in trying to pin down a cause of economic growth. Viewing economic institutions as a 'dominant and necessary, but not sufficient' condition for economic activity may be a fair conclusion here – it is clear that culture (informal institutions) can play some role, and Acemoglu, et al. readily concede some geographical impetus in their analysis. Sachs' (2003) conclusion that *'There is good theoretical and empirical reason to believe that the development process reflects a complex interaction of institutions, policies, and geography'* echoes this holistic sentiment, and this analysis proceeds with some appreciation of such diverse inputs. To reaffirm, the process by which good institutions lead

to economic growth is the process of generating functioning markets, as functioning markets allow for the efficient allocation of resources and / or technology. This is the best supported theory of the three Acemoglu, Johnson and Robinson highlight for explaining sustained economic growth, but there are meriting points in the geographical and cultural explanations which warrant an incorporative frame. Accepting the primacy of economic institutions (Shirley, 2005; Acemoglu, et al., 2004) while continuing to use the ‘institutional matrix’ outlined in section 2.1 allows for a broad approach which gives some weight to local nuance, culture and geography.

2.3 – Institutional Change

Institutions which are favourable to economic flourishing, defined here as important individual rights, property rights and adaptive efficiency (as well as, arguably, participatory democracy), do not arrive *ex nihilo*. There are a range of theories which attempt to outline how a society moves from one institutional matrix to another, and some approaches which state that there is no clear path to do so. This section outlines and compares some of the popular approaches concerning institutional change, and arrives at a broad appreciation of some key factors. First, the differences between sudden and gradual change are outlined using multiple sources. Second, the role of elites in institution building is discussed with evolutionary processes raised as a counterpoint. Third, North’s work is considered and the importance of belief in institutional change is highlighted. The discussion then moves to outlining a model of institutional change for use in the remainder of the thesis. The section closes with a summary, and a reiteration of the important sources of institutional fluctuation.

A starting point for this discussion is the timescale of institutional changes. Williamson (2000) outlines how the different levels of institutions (depicted in figure 1) operate on different timeframes, with (low level) religions and languages taking millennia to shift whereas some (high level) economic forces operate continuously. This position, echoed by Ruttan (2006), is useful for further understanding the concentric nature of the matrix but does not explicitly present the tools to consider examples of *rapid* institutional change. In ‘Why Nations Fail’, Acemoglu and Robinson (2012) set out examples of sudden changes and incremental changes to demonstrate that both can be transformative. A ‘sudden change’ example is the bubonic plague in Europe, which decimated the labour force and led to increased citizen rights in Britain (due to the increased bargaining power of sparse labour, p. 97-101). A ‘gradual change’ is said to have occurred in fourteenth-century Venice, where

dominant elites slowly eroded the open access institutions to form a hereditary aristocracy, leading to an extractive state and the end of Venetian mercantilism. Young (1996) describes institutional evolution as a ‘punctuated equilibrium’, whereby institutions undergo long periods of relative stability between occasional major fluctuations – a similar view to that of Greif and Laitin (2004), who see gradual changes in parameters like income inequality leading to sudden crises. The authors all suggest short and long term processes which can affect institutions and tend not to be too specific, but a distinction between (often exogenous) shocks and creeping changes is a fairly ubiquitous feature here.

A similar range of opinions can be found in the literature regarding the causes of institutional flux. Kingston and Caballero (2009) conduct a review of the numerous theories in this area, and find two main positions to be dominant. Many explanations are ‘collective-choice theories’, whereby actors and organisations compete and collaborate to impose their favoured set of rules on society. Other theories are evolutionary in nature, and suggest various institutional mutations occur (for various reasons) and the useful mutations survive. Both bodies of work are limited, and each remedies the other’s fault: collective-choice models struggle to explain informal institutions with long historical contexts, and evolutionary models struggle to account for persistent inefficient institutions in a corrupt political system.

The influential work of Acemoglu, et al. (2004) falls on the collective-choice side of this debate, postulating that an interaction between those with political power and those with resources will shape institutions. The Glorious Revolution in England is cited as the epitomic example of this elite / resource model, as the merchant class rallying against and overthrowing the de jure elites resulted in a lurch towards open-access democracy. A typical evolutionary model treats the maintenance of an institution as more decentralised, postulating that once it has arisen it will be ‘judged on its merits’ by society as a whole. Knudsen (2007) has an emphatically Darwinian take on institutional development, arguing that cultural heritage or ‘organisational routines’ play the role of heritable genes, constraining the randomness of the mutations and explaining some path dependency. Kingston and Caballero (2009) call for some balance between the collective-choice and evolutionary positions, and conclude that ‘... *the appropriate model for studying institutional change (...) may be largely a matter of context*’ (p. 23). Their position is that certain cases may warrant a focus on elites, whereas others may warrant a focus on culture. They cite Ruttan (2006) in this vein: Ruttan argues that

resources, technology, culture and institutions all interplay in important ways, and that a change in any of these variables may create certain demands or transformations.

If institutional change can happen over any timescale, and in context-specific ways reflecting a diverse range of causes, can anything concrete be said about the process of institutional change? North approaches this problem by taking his model to the micro-scale and talking about *beliefs*. If institutions are humanly-devised constraints, then a change in the human factor is what changes the constraints – the *beliefs of humans* are what determine the quality of formal and informal institutions at a given time. Any individual or group will have ideas about what institutions should look like (*intentions*), an understanding of reality which dictates the quality of these ideas (*level of knowledge*), and a given capacity to implement their ideas or disrupt the implementation of others' (*power*). The combination of intentions with a degree of knowledge constitutes a belief system, and given sufficient power these intentions can be implemented in the matrix formally or informally regardless of their quality. North states: '*An immense amount of economic change has been the unanticipated result of institutional change that reflected a significant gap between intentions and outcomes as a result of "faulty" beliefs*' (2005, p. 79). Economic growth, in this view, results from the combination of good intentions and good knowledge by actors that can shape institutions. Regarding formal institutions, the beliefs of elites and powerful groups are crucial. Regarding informal institutions, the widespread beliefs of the general population are the key. To understand how good institutions are formed, therefore, one must understand how good beliefs are formed:

'We must account for the origins of belief systems that either provide a favourable milieu for the creation of productive political and economic institutions or conversely thwart the creation of such institutions. (...) Without that understanding we are basically crippled in attempting to improve the economic performance of societies'

(North, 2005, p. 84)

In order to move forward with an institutional explanation of any prosperous society, we should consider how the right beliefs gained ascendancy in both the informal and formal spheres. In other words, how did developed societies get to a place where good intentions and good knowledge dominate the belief systems over time? While this may be outside the remit of economists in the absolute psychological sense, many integrated theories of belief and institutions exist.

One approach is that taken by Gregory Clark in 'A Farewell to Alms'; Clark (2007) proposes a cultural-biological explanation of institutional flourishing, asserting that upper-class fertility in preindustrial Britain led to the cultural and genetic inheritance of productive traits that were likely to form good institutions. This work was roundly criticised by Deidre McCloskey (2008) on account of its own unsupportive data, but the book should still be credited for integrating economics and beliefs, thus heeding North's call. A second approach is outlined in 'equilibrium' theories of institutions (Kingston and Caballero, 2009). These theories take a game theoretical approach to understanding behaviour, and look at institutions as the expectations humans have about the behaviour of other humans under stable conditions: when 'players' are behaving predictably, institutional equilibrium is reached. All institutions, in this view, are the endogenous outcomes of people trying to cooperate (Greif, 2006). An institutional change occurs when players cease cooperating predictably, either as the result of an exogenous shock or an endogenous trend (potentially culminating in a shock). The change itself may either be the groundswell of an informal belief system leading to a new norm, or an imposed formal rule change which an actor attempts to enforce (to make behaviour predictable). The period of flux will end when a new equilibrium is reached and actors are again behaving predictably. Many top-down formal rules can fail to make behaviour predictable because of dissent, and this will make them fail as institutions (a 'rule-in-form' rather than a 'rule-in-use', see Ostrom (2005)), leading to further flux. Third, North himself contributed to a theory of 'doorstep conditions' to move towards participatory systems, whereby elites first solve coordination problems amongst themselves before extending these solutions to the wider population (North, Wallis and Weingast, 2009).

A final idea to consider, although it deals less with the formation of good beliefs, is the contemporary work from Acemoglu and Robinson (2016). This writing gives greater weight to informal forces, outlining the importance of belief factors in forming Athenian and English institutions (and hence moving away from a fully collective-choice model). Their new take proposes that a capable state and politically empowered populace are important for open-access institutions, but that it is common to arrive at one without the other. To achieve both, the informal institutions of the society (beliefs) need to draw the relevant actors into a 'basin of attraction' and encourage personal liberties. This angle is another which postulates that beliefs form the impetus for institutional renewal, but also rests on the good fortune of these beliefs coinciding with certain wider conditions. These four approaches all describe potential ways in which a society could have moved to a system which reliably produces good beliefs

and acts upon them: perhaps this type of problem solving is a culturally or genetically evolved trait, perhaps it is born of attempts to reduce uncertainty, perhaps it was a social innovation that was then disseminated like any other, or perhaps it is a random inclination that became manifest because of other factors.

Taking the common denominators from these belief-centric theories, it is first evident that for any fundamental and sustainable institutional change to occur, new beliefs need to become both widespread and powerful in society. The prerequisite for this is the formation of an idea itself; a grassroots social norm may emerge, or an elite may suddenly impose a formal rule – the origin is less important than the spread, but the initial act of entrepreneurship does need to occur somewhere. Once a new belief is in the ether, it will need to either become a ubiquitous informal institution (to later be codified if necessary) or an authoritarian enforcement which the population grow to accept. If either process occurs successfully, the informal and formal institutions will coalesce around the new idea and it will become a central part of the institutional matrix. For the new institution to survive (without the need for constant coercion, which is less sustainable), it will have to move society closer to a predictable equilibrium whereby actors behave more rationally than they did before. On moving from a wholly ineffective institutional arrangement to a more modern state, this interpretation would posit that new beliefs (which would likely arise from solving cooperation problems in the past) need to gain ascendancy in public and elite consciousness, and that this will lead to people internalising productive behaviour. North's 'favourable milieu', therefore, cannot simply be elites imposing 'best practice' institutions on an uninterested population – the micro-level behaviour needs to adapt in turn. Similarly, a society's demand for 'best practice' institutions may be obstructed by elites in a failure of state formation (see Acemoglu and Robinson).

Sustainable institutional change will arise when the beliefs are widespread and lead to good outcomes, i.e. a new equilibrium. These ideas can be tied in to North's writing on coercion, with this framework suggesting a heavily coercive government would not prosper to the same extent as a consensual one (even with the same formal institutions) as behaviour would not adapt as readily. It can also tie in to the literature on the importance of democracy, as democracy will more closely align the informal and formal institutions and solve the 'internal' tensions of the matrix. A final and related point would be that competition of ideas is crucial in this model, both in moving towards better institutions and in maintaining good institutions via adaptive efficiency. When exogenous parameters change or an internal trend culminates in

a crisis, a new idea will have to become ascendant to adapt the institutional matrix. There will need to be agreement between the elites and the population on the course of action, and the real world effects will need to be positive for the long-term survival of the adaptation (outcomes must match intentions). This model of institutions is summarised in figure 2.

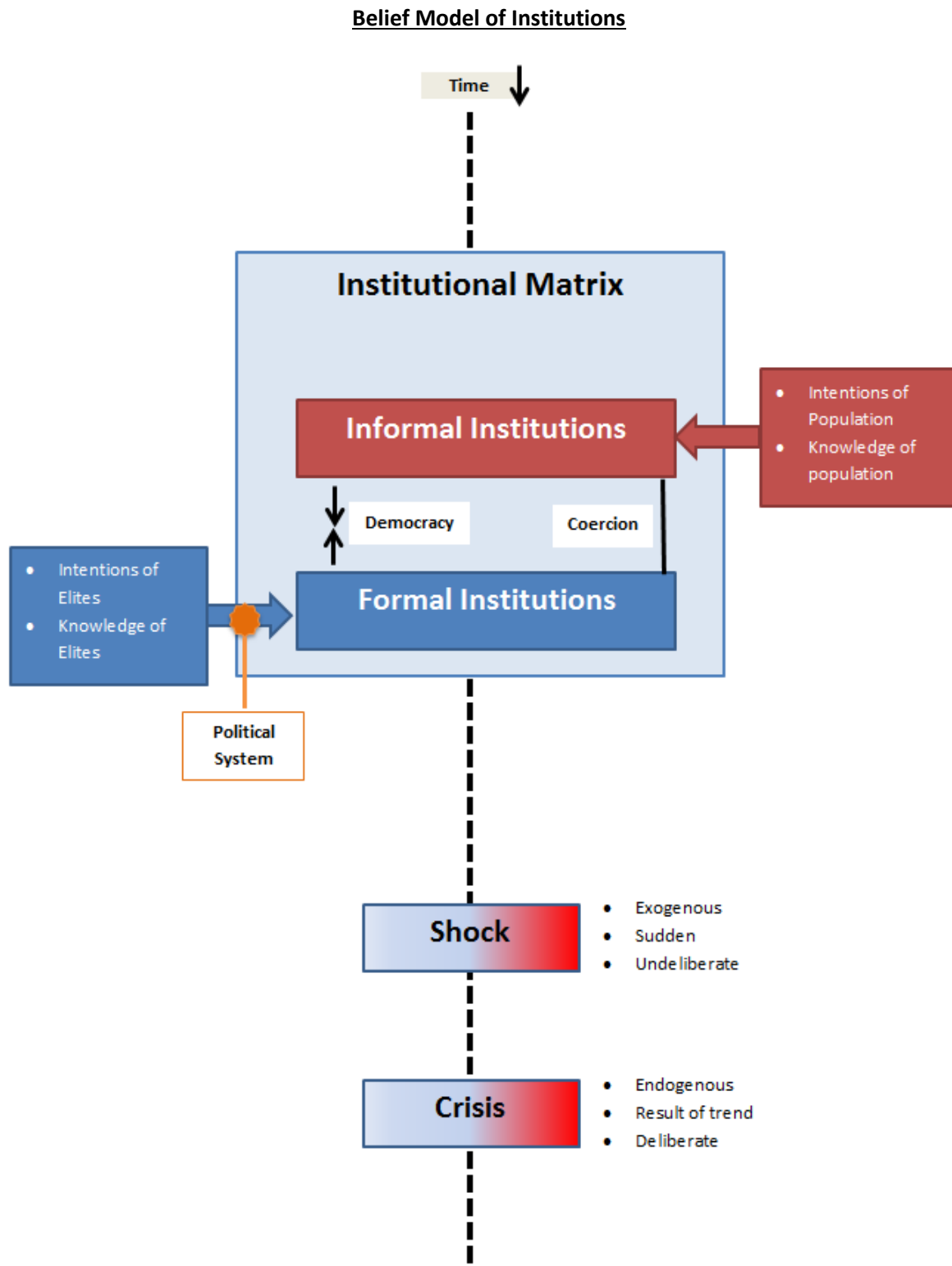


Figure 2: A belief model of institutions. Source: Author

This belief model summarises a number of points on institutions. The key features of the model are as follows:

1. The institutional matrix is comprised of informal and formal institutions.
 - a. Informal institutions include the religion, culture, social norms, taboos and habits of the population under scrutiny. They are dictated directly by, and are analogous to, the beliefs of that population.
 - b. Formal institutions are the codified laws and constitutional arrangements that are inherited by and produced by government. They reflect the beliefs of the elites, but the elites also may be constrained by aspects of the political apparatus they inherit.
2. The informal and formal institutions are rarely perfectly aligned. In the areas where they do not align, members of society will dissent unless some means of coercion are implemented, e.g. law enforcement. The greater the misalignment, the more coercion will be required.
3. Democracy is a mechanism for allowing the informal belief system to influence the formal institutions. It reduces the distance and tension between the formal and informal spheres for this reason, allowing the society to act as a more contiguous unit. Democracy can be co-opted by bad intentions and bad knowledge, however, and is not a panacea. Further, the elites are still required to act as a conduit for the informal institutions (in the absence of direct democracy), and may themselves influence the implementation of ideas.
4. As the society / institutional matrix moves through time, it will encounter challenges. These challenges may either be 'shocks' which arrive ex nihilo (a natural disaster, an invasion, a disruptive technology from abroad), or 'crises' which represent the culmination of endogenous trends (a Malthusian crisis, an inequality crisis, riots from rising discontent).
5. These shocks and crises will change what the optimal (hypothetical) matrix looks like, and will also change the beliefs of the elites and the population. For the society to continue functioning productively, i.e. to demonstrate adaptive efficiency, two things

will need to happen. Firstly, the beliefs of the elites and the beliefs of the population must stay aligned or realign closely enough to maintain stability. Secondly, this new set of societal beliefs must bear some resemblance to the optimal (hypothetical) matrix, so that the change in institutions achieves good outcomes and can be implemented sustainably.

Returning to the question of how institutions change, therefore, this framework proposes that changes in the environment (either from shocks or internal crises) change a number of key variables. A shock or a crisis can change what the optimal institutions would be hypothetically, what the elites believe about institutions, and what the population at large believes about institutions. The new beliefs of the elites will influence the formal institutions, and the new beliefs of the population comprise the informal institutions. There will need to be common ground between the new informal institutions, the new formal institutions, and the new optimal institutions for the society to return to some level of sustainable equilibrium. To understand this process more fundamentally, issues around how individuals and groups form their beliefs in the wake of a crisis would have to be investigated. What can be said about successful societies, however, is that they have developed mechanisms for consistently producing and disseminating good ideas in times of flux. Democracy appears to play the role of harmonising the informal and formal institutions, but with no guarantee the best ideas will emerge. Singaporean and Chinese-style political meritocracy (Góralczyk, 2016) may synchronise the beliefs of elites with the optimal policy decisions, but at the expense of the informal support base and at risk of corruption. A society moving from a system where bad ideas are retained to one where ideas are reliably updated is one which will meet new challenges most effectively, and hence experience modern, long-term economic growth.

3.0 – Methodology

This section outlines, justifies and evaluates the empirical approach used in the analytical parts of the thesis. The discussion begins with a broad look at the sub-discipline of institutional economics, considering how (qualitative) institutional analyses address some of the acute problems in wider economic theory. This is followed by a reiteration of the thesis structure, and a description of the methodology Acemoglu, Johnson and Robinson (2004) adhere to is included as a point of comparison. With the general framework established, the discussion turns to the peculiarities and limitations of this specific investigation, namely source criticism and issues of scope. The section finishes with a conclusion, and a restating of the research aims.

To set the tone for institutional analysis, it is worth exploring Veblen's 1898 critique of economic thought. Veblen felt that economics was struggling to present itself as a modern science because it held faulty tenets – the 'rational economic man' tropes which underpinned mainstream economics were not infallible in the same way as Darwinian evolution (Hodgson, 2004) or the laws of physics, and the discipline suffered as a result. If economists were to deepen their understanding of the world, they needed to stop attributing breaches of these tenets to '*disturbing causes*' (Veblen, 1898, p. 384) and start using an (irrational) human factor as the foundational unit of analysis. Over a century later, Acemoglu and Robinson (2015) rework these arguments in 'The Rise and Decline of General Laws of Capitalism'. They argue that we can only understand inequality (their article is a response to Thomas Piketty (2014)) if our approach '*eschews general laws in favor of a conceptualization in which both technology and factor prices are shaped by the evolution of institutions and political equilibria*' (Acemoglu and Robinson, 2015, p. 4). The implied message in their piece is that modern institutional theories are best placed to address the irrationality of humans, and hence will meet Veblen's challenge most emphatically. A belief model of institutions is more harmonious with Veblen still, taking economic behaviour to the level of the brain, and making psychology foundational: '*the psychological and anthropological preconceptions of the economists have been those which were accepted by the psychological and social sciences some generations ago*' (Veblen, 1898, p. 389). Moving away from simple laws and giving humans irreducible complexity raises new methodological questions, however, and institutional methodologies can differ from mainstream methodologies for this reason. For this study, with belief at the centre of the theoretical framework, the method must allow for

complex quantitative and qualitative influences to interact in imperfect ways. A qualitative historical account allows for such an appreciation of human irrationality and the role of individual beliefs, and hence is considered here as the appropriate mode of analysis.

The structure this investigation takes is comprehensively described in the thesis outline (Section 1.1), but to briefly reiterate: The literature review and analysis both comprise three sections, with the first, second and third sections of each corresponding to one another. The definition of institutions essay relates to the current institutional matrix of Dubai, the institutions and growth essay relates to the modern growth of Dubai, and the institutional change essay relates to the evolution of institutions in Dubai. This tripartite framework is intended to clearly link theory and evidence, and to support the model presented at the end of the literature review in a multifaceted way. The broad structure of the thesis draws some parallels with the paper *Institutions as the fundamental Cause of Long-Run Growth* by Acemoglu, Johnson and Robinson (2004), which also presents a model of institutional change as a flowchart before evidencing the assertions with historical accounts. In their study, the importance of institutions and the role of institutional change is established via an extensive literature review featuring many historical examples, before the study turns to the case of the Glorious Revolution in England to demonstrate the importance of balanced powers in change. Acemoglu, et al. take a narrative approach to the Glorious Revolution and use various data points to support their assertions in the absence of quantitative analysis. In this study, a similar approach is taken – the current institutional environment of Dubai is described and its relationship to growth is assessed, then the study turns to a qualitative historical account of institutions in Dubai.

There are a number of methodological issues specific to this study, some of which present limitations to be borne in mind. Firstly, the scope of the study is limited to the emirate of Dubai and the UAE. The focus neglects the development of the other Gulf States, which may have been interesting cases to consider comparatively or in isolation from an institutional perspective. In order to fully demonstrate that beliefs led to modern economic growth in Dubai, the presupposed absence of such beliefs in nearby extractive economies would be valuable evidence. A second issue is that not all of the historical evidence is specific to Dubai – much of the work deals with the history of the United Arab Emirates or the entire Gulf region, meaning the data points are coarser than would be ideal. The analysis makes clear the scale of each piece of evidence as it is highlighted. A third, and related, point is that only two

historical accounts of the Gulf and one account of the UAE were used as the major sources for the analysis of institutional evolution: *'The Gulf States: A Modern History'* by David Commins (2014), *'The Emergence of the Gulf States'* by John Peterson (2016), and *'Keepers of the Golden Shore: A History of the United Arab Emirates'* by Michael Morton (2016). All are comprehensive, contemporary and well sourced histories recommended by the Lund University Centre for Middle Eastern Studies for use in this thesis, and should be sufficient for covering the period under scrutiny (Dubai since the advent of human settlement) in a credible way. That said, a broader range of sources may have provided additional insight and challenged some of the claims taken as evidence here. Some final points to consider are the following: figures from state-owned statistical agencies which may not be independently verified are referenced; subjective index measures (e.g. of property rights 'quality') from international organisations are cited which may not have been replicated given different assessment criteria; data was often difficult to find for long historical periods.

To close, the methodology used in this thesis is a qualitative historical analysis. This approach allows for a focus on beliefs and ideas, how they permeated and what their consequences were – all factors which are important in the theoretical framework. The thesis structure bears some resemblance to a paper by Acemoglu, Johnson and Robinson (2004), which also uses a narrative style to support an institutional model. There are some issues around reliability and scope which should be borne in mind throughout the reading of the analysis, although the main findings should be relatively unaffected by these limitations. Before turning to the analysis proper, it is prudent to restate the research aims for reference:

- 1. To investigate the extent to which a belief model of institutions could be a useful tool for investigating the advent and continuation of modern economic growth in a given society***
- 2. To investigate the utility of a belief model of institutions in explaining the development of Dubai***

4.0 – Analysis

4.1 – Dubai’s Current Institutional Matrix

This opening analytical section concerns the nature of institutions in modern Dubai. It first considers the formal institutions of the United Arab Emirates, the role of individual Sheikhs within that framework, and how these foundations relate to Kuznets’ concept of an egalitarian, nationalist and secular state. It then turns to the ‘Dubai Model’ of economic development described by Martin Hvidt, and demonstrates how it is open economically but closed politically in a ‘developmental state’ context. The third passage looks at the demography and population of Dubai, and deliberates the informal institutions that are likely prevalent in the city (notably addressing the considerable migrant population). The section closes with a summary, and with some data from the World Economic Forum assessing the quality of institutions in the UAE.

Dubai is one of the seven constituent monarchies which comprise the United Arab Emirates. Each monarchy has a high degree of autonomy in the confederation structure, but there are a number of federal institutions which are relevant to this discussion. Firstly, the governance structure is such that no individual monarch can impose their will on the country. The Sheikh of Dubai sits on the Federal Supreme Council with the monarchs of the other six emirates, and traditionally holds the role of Vice President of the UAE (with the presidency afforded to the monarch of Abu Dhabi). The Federal Supreme Council votes on issues affecting the state as a whole, such as foreign affairs or immigration, with decisions usually being made by majority (although the President and Vice President hold a veto, and significant decisions require a 2/3 majority; Library of Congress, 1994, p. 239-242). The Federal Supreme Council also makes decisions on constitutional matters, meaning that no individual monarch can alter the fundamental rights of citizens (Articles 25-44 including freedom from discrimination, freedom of expression and equality before the law; Constitute Project, n.d.). This governance structure satisfies Kuznets’ criteria of egalitarianism and nationalism to a good degree, as there are robust formal institutions in place to protect the individual rights of citizens and to govern migration patterns into the country. Such issues being the remit of seven hereditary monarchs is less justifiable from an institutional perspective, although the fact each monarch represents a region does dilute this limitation somewhat. To satisfy Kuznets’ secularism, the state should hold real-world concerns above superstitions and have economic growth as a central aim. That the state does this should be evident from the preceding discussion, but the

tensions surrounding the inclusion of Shari'a in the constitution also provide compelling evidence. Article 7 states that *'The Islamic Shari'a shall be a main source of legislation in the Union'* (Constitute Project, n.d.), which could be interpreted as justification for outlawing certain types of finance or the sale of alcohol. The compromise the legislature has arrived at on this topic is outlined in detail by Butti Sultan Butti Ali Al-Muhairi (1996), and can tersely be summarised as a willingness to apply Shari'a in (social) criminal matters but not in commercial matters:

'the Supreme Court has shied away from applying the Shari'a where it would threaten orderly economic development and the modernisation of its institutions. The application of Hudud punishments, by comparison, threatens no such disruption'
(p. 244)

While apostasy and many other religious offences are punishable in the UAE, therefore, and separation of Mosque and state is unconvincing, this does not feature too prominently in the discussion of the economy and formal economic institutions.

Turning to the structure of Dubai, Martin Hvidt (2009) describes the fundamental features of what he describes as the 'Dubai Model' of economic development. In framing his discussion, he places Dubai in the category of countries and city-states (its status as an emirate notwithstanding) which have 'developmental states' – that is, governments which interfere in the market economy to productive ends. The prime examples of developmental states elsewhere are in the East Asian economies of Japan, China, Taiwan, South Korea and Singapore – the approach these countries take to growth neither embodies neoclassical nor socialist ideals (Hvidt, 2009), and must be considered outside of that Weberian binary (Johnson, 1982, p. 17-18). An eminent feature of these interventionist governments is that they exhibit 'embedded autonomy' – they are powerful enough to avoid capture by private interests, but are also intertwined with private interests and (hence) economic growth (Hvidt, 2009, p. 399). In the case of Dubai, this model takes the form of an extreme centralisation of power around the Sheikh and his close associates in the 'Executive Office'. The Executive Office manages the famous infrastructure megaprojects (e.g. Health Care City, Logistics City, or Internet City) through two holding companies entitled 'Dubai Holdings' and 'Dubai World', each of which have a single ruler appointed by the Sheikh. The Sheikh also appoints the head of The Department of Economic Development of Emaar, and the chairman of the Municipality of Dubai, and together these five men control the direction of Dubai's

development (Hvidt, 2009, p. 402). Most of the group's activity leading up to the 2008 crisis centred on attracting foreign investment through branding, construction and high-profile hiring (p. 406-408), and their mode of governance is characterised by fast decision making. While economically active, the state does not contravene market principles as much as might be expected:

'... despite massive government involvement, significant parts of [Dubai] operate on market terms. (...) The government makes a point of not sheltering government-owned firms from competition, as is often the case (...) Government firms are typically given a start-up sum and a piece of land. If they cannot establish their business and become profitable, they are left to die. (...) it would be more appropriate to call such ventures "state-initiated" firms. In fact, the country's leaders induce competition in and among government-controlled entities (...) Dubai Holding and Dubai World (...) encompass a range of similar entities and activities/This overlap results in constant competition for new ideas, income, and visibility. Indeed, as government-controlled entities increase their activities in the global market, they will be exposed to even higher levels of competition. In other words, even in a government-controlled and neopatrimonial economic environment, Dubai has created circumstances in which the virtues of neoliberalism seem to coexist with state dirigisme.'

Hvidt, 2009, p. 409-410

Dubai in the view of Hvidt, therefore, has managed to establish functioning markets which the state competes within rather than controls. This 'initial investment' mode of state interference is closer to neoclassicism than the import substitution found in comparable developmental state economies, and the business climate can be described as highly 'open access' for this reason. Political access, conversely, is unequivocally closed. This structure allows Dubai to mostly satisfy North's more detailed criteria for good institutions, as private property is respected and the state has clearly defined its role in the economy.

Regarding the informal aspects of the institutional matrix in Dubai, the first point to consider is the structure of the population. Over 90% of the residents are estimated to be foreign nationals, who stay in the country for an average of 8.7 years (Al Awad, 2008, p. 5). The vast majority (over 80%) are Asian nationals, while around 8% are other Arabs and 4% are Europeans and Americans combined (p. 8). Concerning religiosity, the US Department of State (2010) find the residents to be 76% Muslim, 9% Christian, and 15% 'other' from official

data, but suspect at least 20% are either Hindu or Buddhist from unofficial sources. This immense diversity makes generalizing difficult, but some broad sentiments can be garnered from government surveys. On the economy and governance, 84% of residents are satisfied with the quality of infrastructure, 86% would recommend Dubai as a place to live, and 87% have confidence in government agencies (Government of Dubai, 2016). This suggests a good degree of harmony between the informal and formal institutions, and is corroborated by international findings such as the favourable ranking in the Edelman Trust Barometer (2016). While trust in public services is eminently difficult to measure accurately (Cowell, et al. 2012), the UAE ranking consistently among developed economies is taken here as a sure sign of cohesion. This shows that Dubai is substituting effectively for democracy at present, as the dictates of the Sheikhdome do not conflict with the interests of the residents to a significant extent.

Lastly, a range of international organisations rank the UAE favourably on its institutions. The 2016 Corruption Perception Index places the UAE as the 24th ‘cleanest’ country of the 176 assessed – 1 place below France and 5 places above Portugal. The IMD World Competitiveness Center (2016) ranks the UAE as the 15th most competitive economy, placing it above the UK, New Zealand and Australia. The World Economic Forum attempt to rank countries by their different institutions using subjective indices, and the UAE consistently place in the top 25 (see table 1):

Table 1: World Economic Forum Rankings of Institutions in the United Arab Emirates

| Institution | Global Rank / 140 (1 always most favourable) |
|--|--|
| Property rights | 25 |
| Intellectual Property protection | 22 |
| Diversification of public funds | 8 |
| Public trust in politicians | 2 |
| Irregular payments and bribes | 7 |
| Judicial independence | 22 |
| Favouritism in government decisions | 5 |
| Wastefulness of government spending | 2 |
| Burden of government regulation | 5 |
| Efficiency of legal framework in settling disputes | 18 |
| Efficiency of legal framework in challenging regulations | 21 |
| Transparency of government policymaking | 16 |
| Business costs of terrorism | 7 |
| Business costs of crime and violence | 1 |
| Organised crime | 2 |
| Reliability of police services | 7 |
| Ethical behaviour of firms | 10 |
| Strength of auditing and reporting standards | 26 |
| Efficacy of corporate boards | 23 |
| Protection of minority shareholders' interests | 15 |
| Strength of investor protection | 42 |

Table 1: World Economic Forum Rankings of Institutions in the United Arab Emirates. Source: Author, adapted from The Global Competitiveness Report 2015–2016 (Schwab, 2016, p. 357).

To summarise, therefore, the UAE and Dubai can be said to have good, but imperfect, economic institutions. The country satisfies Kuznets' criteria of being egalitarian, nationalist and secular, but this status rests on the whims of the seven monarchs. The economy is open access and competitive, albeit with some unconventional features such as state-initiated firms and nepotistic allocations of real estate. Socially, the diverse population have a high degree of faith in the governance and do not view Dubai as corrupt.

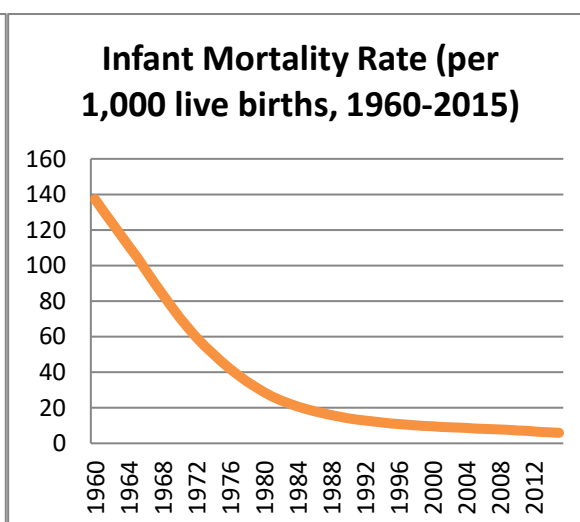
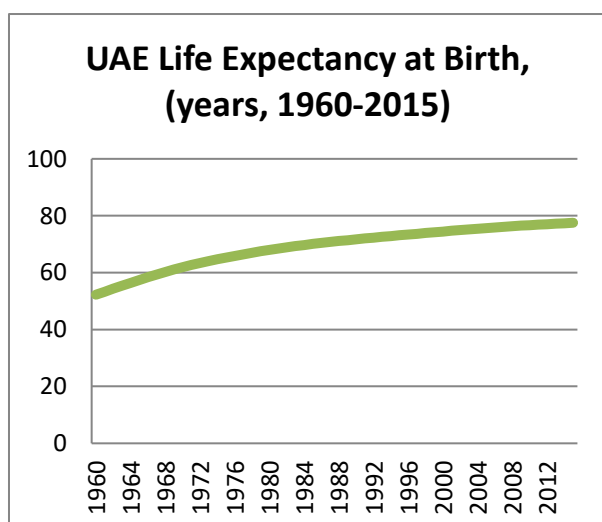
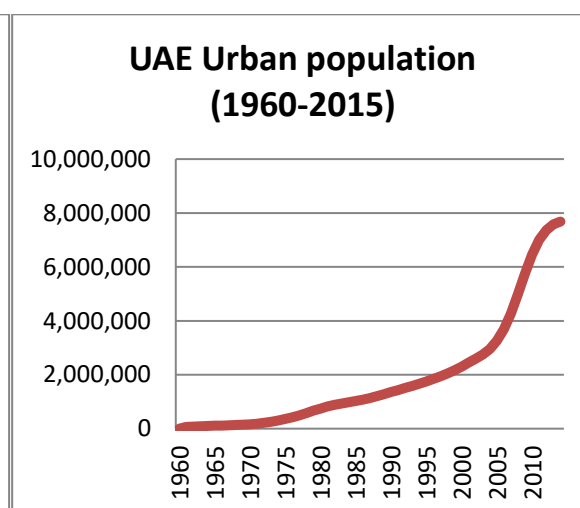
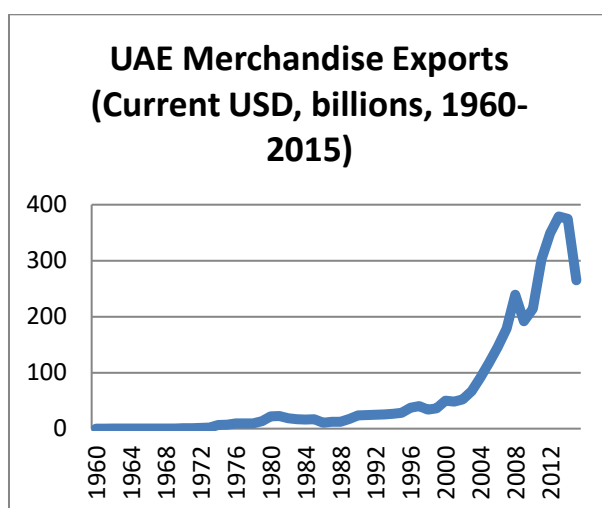
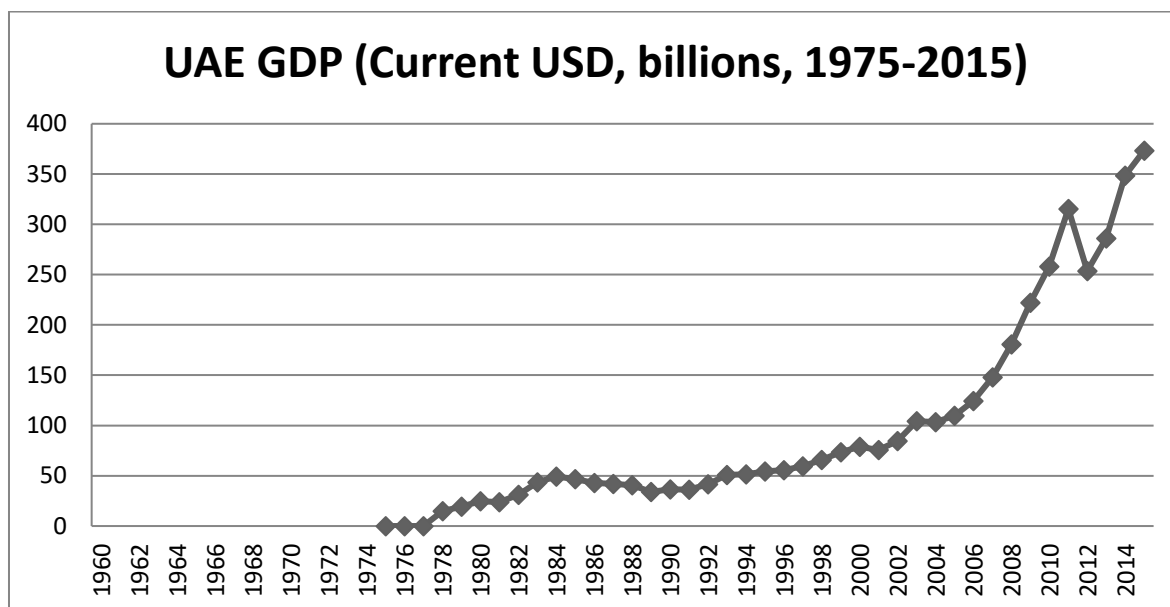
4.2 Dubai's Institutions and Economic Growth

This section looks to explore the mode of economic growth modern Dubai has experienced, and to assess how far it matches Kuznets' definition of "a long-term rise in capacity to

supply increasingly diverse economic goods to [a] population, this growing capacity based on advancing technology and the institutional and ideological adjustments that it demands' (1973, p. 247). The first passage looks at key indicators of growth for Dubai and the UAE, and describes the rapid rises in GDP that occurred since the oil boom. The second passage looks at the extent to which this growth has been diverse (particularly in terms of moving away from oil reliance), and hence how closely the emirate's economy matches Kuznets' definition. The third passage discusses whether this evidence is simply correlative or whether Dubai's growth can be more directly attributed to institutions. The section ends with a summary.

Oil was discovered in Abu-Dhabi in 1958 (Peterson, 2016, p. 207), and then in Dubai in 1966 (Morton, 2016, p. 146). Following a period of political upheaval (discussed further in section 4.3) both state owned and international firms were granted drilling rights, and the emirates soon began to exploit their newfound resources through these vehicles (Peterson, 2016, p. 149). Since this period, the growth of the United Arab Emirates has been rapid and transformative – so much so that the young state now rivals OECD wealthy economies on a number of key indicators. Figures 3 to 7 depict the rise of the emirates in five respects: GDP, merchandise exports, urban population growth, life expectancy and infant mortality. The UAE economy grew from having ~\$14billion GDP in 1978 to ~\$373billion GDP in 2015, a 25-fold increase in a span of under 40 years. Comparing the contemporary data points to those from 1960 shows the processes which have coincided with this growth – life expectancy has increased by close to 25 years, infant mortality has declined from a rate of 1 in 8 to a rate of 1 in 150, and the urban population has surged from the tens of thousands to (approaching) 10 million. The Merchandise Export value shows how interconnected the economy has become, with the UAE now consistently providing well over \$200billion in goods to the rest of the world. Longitudinal data on the emirate of Dubai specifically is sparse, but its current contribution to GDP stands just shy of \$100billion (Dubai Statistics Centre, 2016). These figures, most of which imply exponential increases in prosperity, are demonstrative of the transformational economic growth which occurred in the emirates since the advent of oil.

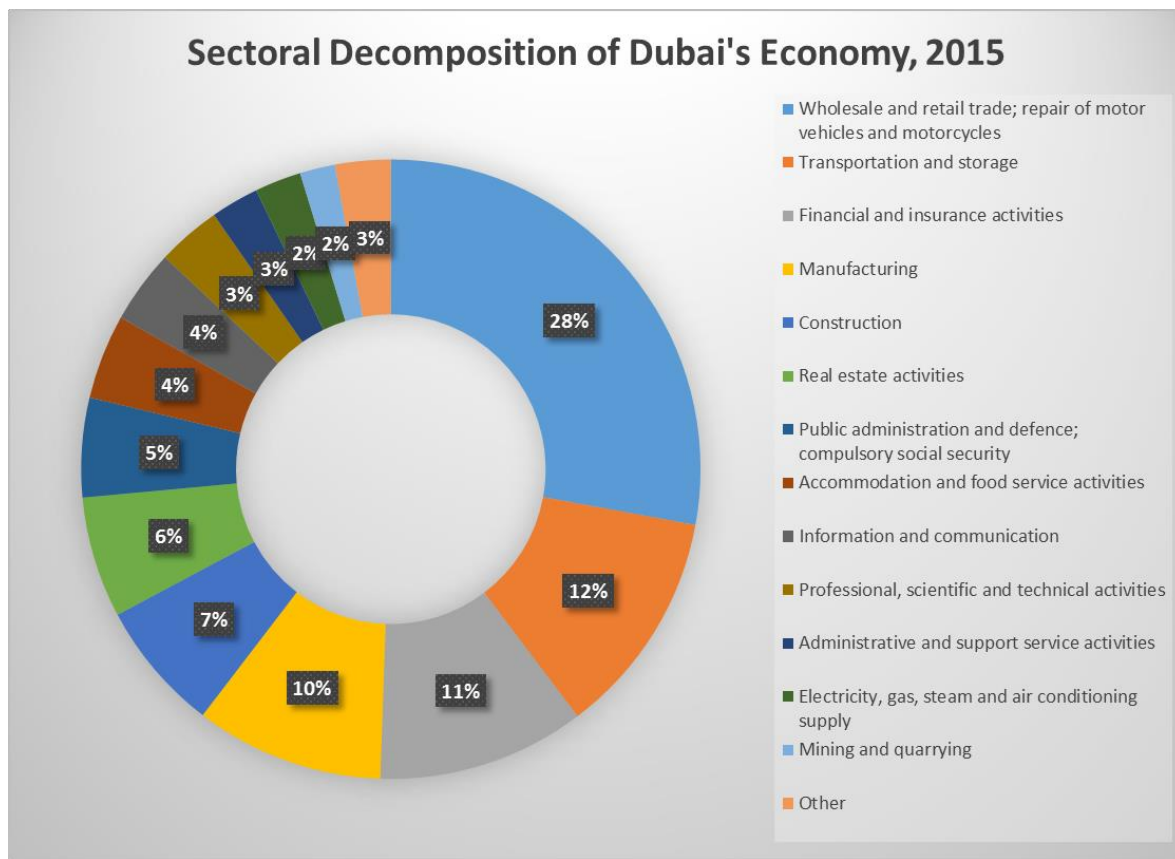
Figures 3 to 7: Key Indicators for the United Arab Emirates



Source: Author; Data: World Bank (2017)

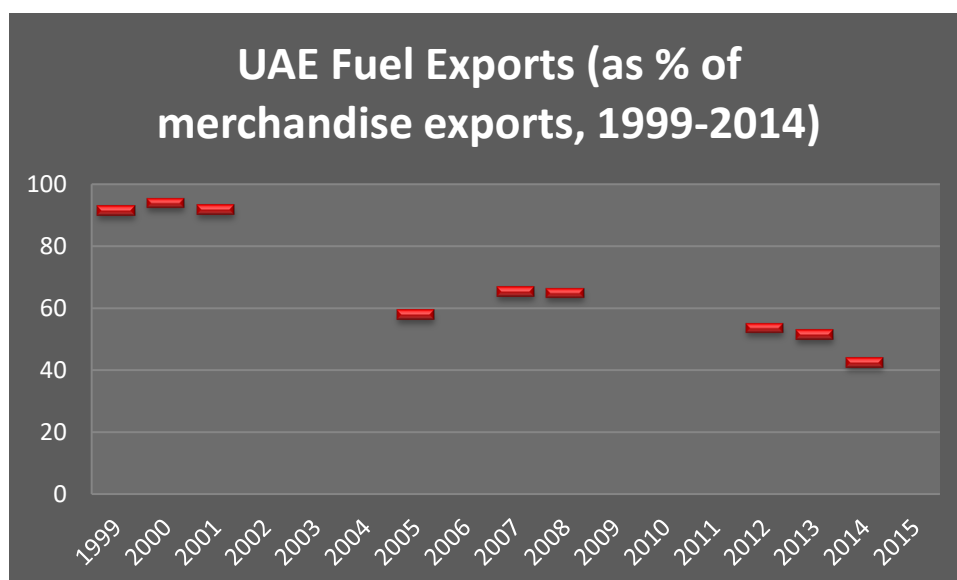
Because the growth of the Dubai is inextricably linked to the discovery of oil, it is often assumed to owe its wealth to natural resources alone. This assumption, however, stands contradictory to the actual sectoral composition of Dubai's economy; only a 5.1% share of GDP could be attributed to oil in 2005 (Dubai Strategic Plan 2015, n.d., p. 19), and recent government-produced statistics paint a diverse picture of the economy (Figure 8). The largest sector (wholesale and retail) comprises just 28% of the economy, and advanced knowledge industries such as financial services play a prominent role in the prosperity enjoyed by contemporary Dubai. Further, only a minority of exports were defined by the World Bank as 'fuel exports' for the UAE as a whole (nb. Including oil-rich Abu-Dhabi) in 2015 – the result of a long term trend towards greater diversification (Figure 9). It is important to note that many of Dubai's industries are indirectly oil reliant, with eminent UAE airlines benefitting from cheap fuel and many service industries interacting with the regional oil industry, but it is also fair to say that this is a natural consequence of being a service hub in the Middle East. One recent example of Dubai's modern economy and indirect oil reliance being brought to the fore was the 2008 global financial crisis – the service sector, housing several large UK banks, was struck severely by the downturn. As the crisis unfolded, the holding company Dubai World was left without state support, and Abu-Dhabi was forced to bail out the organization to the tune of \$10 billion (Bassens, Derudder and Witlox, 2010). Whether Dubai was unwilling or unable to support this bailout autonomously is disputed (p. 300), but it is easy to see parallels between Dubai's challenges and those of modern economies such as Iceland or the City of London. Dubai's experiences in times of growth and contraction, therefore, reflect the diverse economic base in the emirate and support the idea that a modern form of economic growth is being exhibited.

Figure 8: Sectors of Dubai's Economy



Source: Author; Data: Dubai Statistics Center (2016)

Figure 9: UAE Fuel Exports



Source: Author; Data: World Bank (2017)

Before turning to the evolution of institutions in Dubai in section 4.3, it is necessary to outline the process by which this transformative growth can be mapped onto the aforementioned current institutional matrix. The earlier discussion of Acemoglu, Johnson and Robinson (2004) states that strong economic institutions are ‘dominant and necessary, but not sufficient’ conditions for growth, i.e. that they create the circumstances in which a given activity would be economically viable. This framing leads Acemoglu, et al. to term institutions the fundamental cause of prosperity. Dubai’s matrix, characterised by open access to economic activities and guaranteed fundamental rights, therefore, is what is *allowing for* economic growth in this framework. The Sheikh and the populace being governed by terrestrial concerns, the strength of the UAE constitution and the relative openness to investment / migration are what make transacting in the UAE viable for economic actors, and hence represent qualifying conditions for the kind of growth the emirate has seen. That this growth has been multisector, vigorous and transformational is down to complex causes, with geography, culture and the efficient allocation of resources all important factors to consider, but the institutional environment is the permissive source of growth and the keystone for Dubai’s sustained flourishing in this context. More detailed analyses may be required to identify specific changes leading to specific spurts of growth in the post-oil era, or to demonstrate that the withdrawal of specific institutions would rupture growth irrevocably, but this approach to the correlation is warranted given the scope and focus of this study. Consider the following game theoretical example of this conceptualisation: Currently, non-Islamic finance is legal in the UAE and several organisations trade using such instruments. The withdrawal of their financial activity may not affect the legality of the practice, whereas the withdrawal of the legality would impact the practice significantly; in that respect, institutions are directly enabling economic growth and not vice-versa. If this example was to be repeated *ad nauseam* with every positive institution in Dubai and every positive economic action, it would be possible to slowly complete a picture of the importance of the matrix in the emirate.

Dubai, therefore, has grown at an impressive rate since the initial discovery of oil. This growth could not be fairly characterised as extractive, as the emirate appears to derive well over 90% of its income from non-oil sources and has a mixed industrial base spanning tourism, finance, manufacturing, construction and several other industries. Institutions can explain this growth insofar as they are the permissive cause – without institutions such as well-enforced property rights, open access to economic activity and a broad set of pro-growth

policies, many of the activities may not have been viable and the gains would have remained unexploited.

4.3 The Emergence of Dubai's Institutions

This final analytical section explores the history of Dubai, the United Arab Emirates and the Gulf, and looks to explain the emergence of Dubai's current growth-inducing institutions using a belief model of institutional change. For reference, the model states that the beliefs of the population are analogous to the informal institutions, and that the beliefs of the elites influence formal institutions through the political framework. These two sets of beliefs need to be aligned to maintain stability, and will also need to reflect whatever the optimal beliefs may be for the current environmental conditions in order to promote prosperity. As the society moves through time, endogenous crises and exogenous shocks will impact the beliefs and the optimal matrix, and there will need to be some realignment of all three variables for the society to demonstrate adaptive efficiency. Here, Dubai in pre-oil 1900-1950 is considered first. The formal and informal institutions are described, and the exogenous shocks of the Second World War and rising oil demand are examined. The short period 1950-1958 is deliberated next, and the impacts of the collapse of the pearl industry and resulting crisis are investigated from the beliefs perspective. 1958-1990 is outlined in the third passage, with the discovery of oil and the founding of the UAE featuring prominently. Dubai's diversification since 1990 is considered last. The section closes with a brief summary, and the beliefs of the current Sheikhs are described looking forward.

The discussion of Dubai in the period 1900-1950 begins in the 1700s – the area was neither endowed with fresh water nor arable land, and was uninhabited for the duration of this century. As the global pearl industry developed, however, merchants based in Bahrain would travel to Dubai and harvest treasures to sell on in Bombay, all under the watch of the British Empire. As the value of pearls increased in the 1800s, establishing a permanent settlement in Dubai became viable (even if food and water had to be imported; Commins, 2014, p. 77). The early merchant settlers primarily hailed from elsewhere in the Gulf, and brought with them the mixed bag of informal institutions that characterised the region historically. Positively, the trading history along the coast had *'helped foster an open pluralistic religious culture'*, one which was cut off from more conservative inland settlements by swathes of desert (Peterson,

2016, p. 46) – something the British had always looked to reinforce (p. 57) as it allowed both them and India to trade without becoming embroiled in the internal affairs of Arabia (p. 187). Peterson describes this openness as unfringeable, noting how *‘over the centuries (...) the innately tolerant religious culture of the mercantile communities of the Gulf littoral had found itself buffeted by Wahhabi ideological and military aggression, by the anti-Semitism of the Safavids, Zand and Qajar dynasties, and by the assertive pan-Islamism of the Ottomans. It survived and prevailed’* (p. 70). The *‘mixed identities’* and *‘engrained cosmopolitanism’* of Gulf inhabitants (p. 70), therefore, are two hallmarks of the initial settlers’ informal institutions. Another is the pervasiveness of slave labour in such communities – the practice was *‘a legitimate institution regulated by principles embedded in the Qur’an and Prophetic Tradition’* (Commins, 2014, p. 80), and the British all but abandoned their efforts to curtail it in 1890 after a century of trying, such was the extent of the opposition (Peterson, 2016, p. 59). Despite the prevalence of Shari’a law and the nature of the *‘Traditional Arab societies’* (Morton, 2016, p. 157), the demography and religiosity of the Gulf was decidedly mixed, with Arabs, Persians, Indians and Europeans holding Sunni, Shi’i, Judaic, Catholic, Protestant and Hindu faiths all operating in the region. The different groups were fairly segregated and dominated their own individual ports, but were also known to have some impersonal exchanges (Arabs often took loans from Indians, offering their land as collateral, for example; Peterson, 2016, p. 193-194). The population of the Gulf in 1900, therefore, had a complex informal milieu; on the one hand, the population faced seawards and exchanged freely with the rest of the world, supported by the British Empire and reliant on India. These economic relations also led to a mixed demography and religious openness. On the other, the society was deeply Islamic (although the strain was less conservative than inland Wahhabism) and slavery was rife. In the early 1900s, Dubai was a settlement of 10,000 such traders and was considered a major node in the region (Commins, 2014, p. 77).

Regarding the formal institutions in pre-oil Dubai, the tribal structure was also inherited from elsewhere in the Gulf. An internal conflict in 1833 Abu-Dhabi led to a fracturing of the dominant Bani Yas clans and the migration of several family members to Dubai. These exiled elites, led by Sheikh Maktum, formed a fragile government at the settlement (p. 84) – similar dynastic conflicts elsewhere along the shoreline gradually resulted in the establishment of a litany of unconvincing Sheikdoms, and (after some reshuffling) the seven Emirates of the UAE emerged. Their early history was mired by internal and regional conflict, and it was the role of the British in informally governing the Gulf which brought some level of stability. The

British had a tripartite *raison d'être* in the region from 1820 to 1920, looking to exclude Ottoman and European powers, allow economic ties with India to flourish and to pressure the slave trade as part of the abolitionist movement (Commins, 2014, p. 78). Pursuing these goals had primarily entailed pacifying the internal Gulf conflicts, which the British achieved through slowly convincing local rulers to institute a truce (p. 80). As an aside, consider that the success of this mollification arose from changing beliefs in the region: the truce was first established for a 6 month period during the pearling season to demonstrate the economic gains from peacetime trade to the monarchs. The truce was then renewed as an 8 month agreement, and then as a rolling year-on-year arrangement before a permanent deal was struck. This process, the formation of the 'Trucial States', is an early example of the belief model in practice changing institutions: '*the British devised a system that (...) stimulated the gradual calming of the gulf through consensus, not force*' (p. 79). Returning to the broader environment, the formal institutions in the Gulf around 1900 were largely absent or disorganised; governance consisted of loose, tribal Sheikdoms with uncertain futures, although *pax Britannica* provided a stable base for peaceful coexistence.

The institutional arrangement in the Gulf was disrupted by two major shocks in the early 20th century. The first is the World Wars (Morton, 2016, p.116-140). While the Trucial States never became a theatre in the conflicts, the impact they had on Gulf geopolitics was riotous. The collapse of the Ottoman Empire (WW1) and bankrupting of Britain (WW2) led to Whitehall having little-to-no enthusiasm for maintaining a presence in the Gulf, a factor which threatened the longstanding stability their mediating influence provided. These events initially brought the regional Sheikhs closer together; the Trucial States met for the first time in half a century to address the destabilisation in 1945, but progress was scuppered by the second shock (Peterson, 2016, p. 187). The global pearling industry had collapsed with the advent of cultured pearls from Japan – the market was flooded and the Great Depression had reduced what little demand there was. This sent the Trucial economy into a crisis, and the postponement of oil exploration on account of the wars meant that the post-war period was a time of desperation. There was no running water, disease and pestilence were common, and education was rudimentary (Morton, 2016, p. 153). With oil seemingly offering the only hope of reprisal, tensions erupted over the borders of the individual Sheikdoms on land and the seabed (p. 140). By the end of the period 1900-1950, therefore, the informal and formal institutions were in a major period of flux – the British were looking to withdraw, the economy was crippled, and cooperation was hindered by resource disputes. The beneficial

beliefs that emerged from this period are likely few and far between, but the 1945 meeting of the Trucial States suggests that cooperation was not intolerable despite the tumultuous environment. From 1950, the geopolitical situation calmed somewhat. The British had elected to maintain a presence in the Gulf, on account of the promise of oil and to use the region as a buffer against the Soviet bloc (Morton, 2016, p. 151). They were able to mediate conflicts once again, and helped the Trucial states to clearly define terrestrial and maritime boundaries so oil exploration could begin (p. 147). While not a clear-cut example of beliefs creating change due to the exogenous influences, the fact elites and natives were able to coalesce around cooperation once again rather than descend into conflict does suggest an institutional and mental adaptation which matched the demands of the situation.

While the foreign affairs front became less challenging after 1950, domestic affairs began to impact the matrix. Technological limitations, the difficulties of operating in searing heat with no infrastructure, and some political intrigue surrounding the border conflicts all delayed the onset of drilling, but even the exploration brought economic changes to the Trucial States. The efforts demanded labour which India and Pakistan provided (Morton, 2016, p. 142) – a gradual migration which impacted the beliefs of native Arabians. The societies were traditionally open, but this was pressured in the wake of the economic crisis where so many had suffered. Anti-migrant fervour began to stew, and this was exacerbated by the trend of pan-Arab nationalism emanating from Egypt at the time. Many Egyptian school teachers were imported to the Gulf due to a skills shortage (following the pearling collapse), and they were known to preach against Britain's role as warden and the creeping menace of statehood (p. 162). As Britain made moves to further integrate the Trucial States, such as forming the Trucial Council in 1952 (p. 160), the movement gained traction. The Dubai National Front formed in 1953 to keep non-Arabs out of Dubai (Davidson, 2007), and Britain's departure from the Suez Canal emboldened the nationalists to burn down the Political Resident's house (even more extreme developments were seen in Bahrain and Qatar; Morton, 2016, p. 162). The elites were broadly sympathetic to Britain, however, and referred to the Political Resident endearingly as 'His Big Excellency' in Arabic – Britain had given them full autonomy over their Sheikdoms and reduced conflict (p. 156), so the nationalist surge created a schism between the formal and informal institutions. The response to this schism was a combination of coercion and acquiescence by the British and allied Sheikhs – they reduced the number of Egyptian school teachers in exchange for an educational grant, deposed one dissenting Sheikh and deported him to Bahrain, but also removed the Political Resident as the chair of the

Trucial Council to allow Arabs to govern Arabs (p. 165-169). This latter point represents a harmonising of the informal and the formal to maintain stability, whereas the former two points represent coercion (which is less sustainable, see below). Here, an internal trend culminated in a crisis and the society was forced to adapt its institutions – it overcame the challenge by grappling with the new beliefs to find a midpoint between the population and the elites (guaranteeing internal stability), while staying close enough to the optimal matrix (Trucial cooperation and the path to state formation). The Arab nationalist surge, therefore, fits the model of institutional change well.

As a result of the adaptive efficiency of the Trucial States in the 1950s, oil drilling was able to commence in Abu Dhabi in 1958. Barely 10 weeks into the project, the Emirate struck oil (Peterson, 2016, p. 207; Morton, 2016, p. 146). It was not exploited, however, because of the beliefs of the incumbent Sheikh. Sheikh Shakhbut was opposed to change, and massively hindered the early adoption of technology in the region: Morton notes how it was *'the intransigence of Sheikh Shakhbut that posed the most serious stumbling block'* (p. 170), and only after he was deposed and Sheikh Zayed took over did the boom begin. This is a short but significant example of elites having bad beliefs, and the society successfully adapting to bring good beliefs to the fore. Dubai struck oil in 1966 (p. 146), and the stature of these two Emirates became stratospheric in a short space of time. To understand the impact of this shock on the institutions, the first thing to note is that oil massively condensed political power around the Sheikhs. It *'dwarfed the resources available to the local merchant class, whose political stature and autonomy declined as a result'* (Peterson, 2016, p. 207), meaning the Sheikhs had a near-infinite capacity to impose their beliefs through coercion. In institutional models where actors are self-interested, this would likely lead to despotism and extractive institutions – such models would be appropriate for examples elsewhere in the Gulf, but changing beliefs in the Trucial States led to a different outcome. Initially, Sheikh Zayed of Abu Dhabi and Sheikh Rashid of Dubai were both motivated by greed (Zayed targeted dominion of the Trucial coast, whereas Rashid wanted independence for Dubai; Morton, 2016, p. 185), but another sudden shock shifted these beliefs. The British announced their definite withdrawal from the Gulf in 1968 (p. 183), meaning a return to regional instability was likely. Prior to their departure, the British lobbied hard for a union to resolve the differences between the Trucial States – an effort to convince Zayed and Rashid that was eventually successful. With their beliefs changed, the two eminent Sheikhs led the negotiations to form the United Arab Emirates with a British-influenced constitution (p. 185-

190). There was optimism among the elites, but the informal institutions were strained by this news – the remnants of the Arab nationalist movement were a symptom of a wider '*natural gravity towards tribal interests rather than the union as a whole*' (p. 197), and many of the minor Sheikhs were sceptical of the arrangement (with the wealthiest Emirates wielding disproportionate political power; p. 186). Moreover, the arrival of oil '*rang the death knell*' for traditional industries (Peterson, 2016, p. 207). So extreme was the consolidation of power around Sheikh Zayed and Sheikh Rashid, however, they were able to enforce these institutions in the early years of the UAE. While long-term coercion would have been unsustainable in the model being used here, the population had been sufficiently placated by the concessions made during the initial Arab nationalist movement, and the economic growth during the boom dampened what was left of their resolve (Morton, 2016, p. 198; Davidson, 2007). The shocks of oil and British withdrawal, therefore, changed what the optimal matrix for the Trucial States would have looked like. The elites were able to adjust their beliefs to close to optimal, and were able to coerce the population until their beliefs caught up (once they had seen the evidence of economic growth). This again provides a good evidence for a belief model of institutional change.

The final period to consider is modern Dubai, and how the Emirate progressed from being an oil-dependent economy to a diversified state experiencing modern economic growth. This diversification, as with all issues concerning the post-oil era, fundamentally stems from the beliefs of the Sheikh. Sheikh Rashid was a vehement advocate of a broad industrial base, evidenced both by his substantial infrastructure spending and by the memorable quote: '*My grandfather rode a camel, my father rode a camel, I drive a Mercedes, my son drives a Land Rover, his son will drive a Land Rover, but his son will ride a camel*' (Fosu, 2013, p. 492). The Sheikh's commitment to long term, sustainable development is perhaps what set Dubai apart from more extractive economies in the region, with Morton noting that '*his greatest legacy was a policy of diversification, which ensured that if any Emirate was well placed to survive beyond the oil era, it was Dubai*' (2016, p. 202). That Dubai moved towards having more open access to economic organisations can be attributed to this commitment, and Zayed and Rashid together made this a tenet of the federation. Together, they worked to unseat Sheikh Sultan bin Muhammad of the Emirate Sharjah for financial mismanagement in 1987 (p. 203), further demonstrating that growth is their first priority, and that bad beliefs will be unceremoniously rejected from the formal institutional framework. Regarding the rise of the modern informal institutions, the massive migrant labour force likely exerts some selection in

favour of institutional harmony, and disenfranchised Emiratis are placated by their generous endowment from the state. This leaves the monarchy free to steer development as close to the optimum as possible with little opposition. What can be said of Dubai's diversification, therefore, is that it was the decree of the elites and could have been disastrous had they harboured different beliefs. Their beliefs being good beliefs and the beliefs of the population being acquiescent are the two factors which allowed Dubai to again demonstrate adaptive efficiency, here in relation to the new challenge of oil overreliance.

To close, the formal and informal institutions in Dubai, the UAE and the Gulf evolved over the past 300 years because of the evolving beliefs of the elites and of the population. In the pearling era, the emergence of the belief that peace led to prosperity was what allowed the Trucial States to form. This led to many years of relative equilibrium before the collapse of pearling, which sent the coast into a period of flux. With the likelihood of oil being discovered and the resumption of economic activity, however, the Trucial States were able to resume their cooperation due to the pre-existing belief in the gains from trade. In the period immediately before the oil boom, internal forces looking to move Dubai away from statehood and growth (the beliefs of Arab nationalism and Sheikh Shakhbut respectively) were successfully overcome and the matrix adapted in a growth-positive way once again. Oil concentrated power immeasurably on the monarchs, so it was fortuitous that their beliefs were incredibly benign and that their dictates were agreeable. They imposed a constitution including the rights and privileges outlined in section 4.1, and were able to maintain stability until the population yielded to its economic benefit (albeit largely as a result of bribery and overwhelming migration). The challenges of oil wealth and a massive power concentration, therefore, were also overcome by good beliefs and an adaptive matrix. Oil reliance was the final structural challenge that the UAE faced, and the technocratic beliefs of the Emirate monarchs once again allowed the institutions to adapt.

Following the death of Sheikh Rashid in 1990, and the death of Sheikh Zayed in 2004, the new Emirati monarchs have ascended with even more developmental beliefs. The eponymous Sheikh Khalifa of Abu-Dhabi has introduced a level of democracy to the lower rungs of government, and Sheikh Mohammed of Dubai has a track record of investigating and publically shaming those involved in corruption (Gulf News, 2001). There is no sign of the matrix failing to adapt as of yet, and it seems to be the commitment of the Sheikhs to innovating near-optimal solutions which allows Dubai to continue to flourish.

5.0 - Conclusion

Institutions, defined here as the informal and formal constraints that govern which economic activities are viable, are at the heart of what enables economic growth. Good societal institutions such as guaranteed open economic access to the market, protected personal liberties, strong property rights, and a secular, egalitarian and nationalist state all allow for the efficient transacting of resources and do not hinder profitable activities. That they allow for, enable, or are permissive of economic growth does not guarantee its advent – good institutions are a necessary but insufficient condition which must be met before sustainable growth ambitions can be realised. Given their centrality, however, how good institutions arise and how institutional changes occur are areas of considerable interest to economic historians. The approach to institutional change taken here revolves around beliefs; as the human factor is at the route of how societies form, theories with an appreciation of the human factor are best placed to tackle the extremely varied histories of countries that have produced good institutions.

The belief model of institutions produced here suggests that the informal and formal institutions of a society need some degree of alignment to promote long term stability. Democracy is a good feature to have in societies because, by Greek definition, it aligns the beliefs of the rulers with the beliefs of the citizenry. Any gaps which remain between the population and the elites will need to be bridged using coercion, which may take the shape of a police force or a military dictatorship depending on the level of the dissent. Simply maintaining internal stability is not sufficient for economic flourishing, however, and the institutional matrix must also bear some resemblance to the ideal (hypothetical) matrix, which represents the optimal choices a society could make in any given context. If a society can have harmonious beliefs in both elite and public spheres, and those beliefs are accurate representations of the optimal matrix, then the society will be able to advance in a stable environment until its circumstances change. If there is inner harmony but the society is misaligned with the optimal beliefs, the stability will only be momentary because a calamity will inevitably occur. Changes to beliefs can transpire for several reasons in this model, but the most significant changes will arise when a shock (defined here as a sudden exogenous event) or a crisis (the culmination of an internal trend) ‘strikes’ the matrix and people generate new ideas about how the governance should respond. Every time such an event occurs, the beliefs of the population, the beliefs of the elites and the optimal hypothetical beliefs will

have to realign – if this is done successfully then the society can be said to have demonstrated adaptive efficiency.

A society moves from a disorganised, non-prosperous arrangement to a modern, secular state, therefore, because the right ideas become ascendant and become widespread. Quite how this happens likely varies immensely within and between societies, but by understanding that specific beliefs (which again may vary immensely) are what cause the behaviours which constitute economic activity, big gains can be made in understanding the steps taken by a given community towards prosperity. Dubai is a clear-cut example of beliefs leading to economic growth, and could not have been explained as easily using models which reduce human complexity. The beliefs of the Sheikhs at various points in time are well documented, and their changes of mind often created internal discord (within the matrix, between formal and informal), or dragged the society closer to the optimal matrix (as was the case with diversification). That Dubai did not descend into despotism was fortuitous, and a sufficient change of mind could change despots into technocrats elsewhere in the world. Explaining societies with exceptional histories such as the United Arab Emirates requires storytelling – a simple understanding of self-serving elites and self-serving citizenry clashing will always fall short.

If belief models can be shown to apply more widely to economic histories, this could both advance the sub-discipline of institutional economics significantly and promote nuanced policy proposals in developmental organisations. Regarding the first point, belief models of institutions meet Veblen's criticisms of economics categorically – they move away from reductionist explanations and take anomalies seriously, as well as leaving the door open for more interdisciplinary contributions from elsewhere in the social sciences. Regarding the second, the implication for the poor countries of the world would be that internal harmony and external alignment are both necessary for the society to advance – blueprint institutions will fall short of the informal demands, whereas democracy may lead to further crises if a technocratic element is missing. Tailored institutional solutions are required for development, and all the actors involved will need to believe in their rationale.

Returning to the research aims, it can be concluded that a belief model of institutions proves valuable when approaching certain economic histories. In the case of Dubai, the belief model enables an appreciation of the Sheikh's decision making process, the consequences of which often reverberate across the Gulf economies. How the beliefs of the population pressured the

formal institutions in the years before the oil boom is also evident, most clearly in the event of the Arab nationalist surge. More widely, a belief model of institutions may be useful for understanding both the initial formation of good institutions and the adaptive efficiency successful societies demonstrate. It may be particularly useful in cases where elites make seemingly benevolent institutional sacrifices, or when societies act against their own interest because of an ideational groundswell. To close, consider the following quotes from the incumbent Sheikh Mohammad (sheikhmohammed.ae, u.d.):

'Unless I am one hundred percent sure about an idea, I will not implement it. Once I am convinced, I do not hesitate, even if others are sceptical of its chances of success'

'Financial and economic crises are but to try us, though crises beget creativity and smart initiatives'

'Can you imagine a forest whose trees do not grow? Likewise, you cannot have a strong institution whose members do not evolve'

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