

# **DETERMINING VALUE USING ‘VALUE OF INFORMATION’ FOR A MARKET STRUCTURE IN WHICH THE LAW OF THE ‘INVISIBLE HAND’ DOES NOT HOLD**

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## **Abstract:**

This paper examines the role of ‘Information’ in determining the value of a commodity which cannot be determined using typical market fundamentals. Prices within an ancient market with very low levels of competition and unpredictable levels of demand are extremely difficult to predict. In a modern day market, much of what is produced is on a very large scale, driven by economies of scale. Even though products may not be homogeneous, price setting behaviour will likely mimic the laws of supply and demand, as long as there are sufficient levels of competition and very large numbers of consumers. The difficulty that modern day consumers face is greatly reduced due to the availability of information about commodities and products. The price of a product in an ancient is determined by the “value of Information’ held by the institutions that serve as regulators of price and not the producer of the commodity.

**Key Words:** ‘Value of Information’, Price setting, Economic History, Ancient Economy

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## INTRODUCTION

The aim of this paper is to discuss price setting behaviour within an economy in which the laws of the 'invisible hand' as proposed by Adam Smith do not hold. Of course, the reality underlying this principal is that Marshall's laws of Supply and Demand have a very limited place within the field of price setting behaviour. This does not suggest that the hypothesis used by Adam Smith should be ignored. For all intent and purpose, his theories are quite important in that the argument created by Smith' foreshadowed much of the contemporary public policy debate on a number of issues such as the influence of unions and competition policy. His infamous philosophy captured within the 'Wealth of Nations' was more than a critique of human exploitation and personal selfishness, and furthermore, his writings were leaning towards developing a case for the promotion of a free market economy (Morgan, 2009).

The behavioural schools of economics constantly remind us that there are many other factors that need to be taken into consideration within the decision-making process. The most common of these factors include such issues, such as tastes, preferences, customs, cultures, social norms, institutional behaviour, giffen goods and most importantly, the willingness of institutions to exploit the market. This could be especially true in a non-homogenous market which abounds with high levels of asymmetric information, which contributes towards market inefficiency.

A large part of the inefficiency that occurs within a market is due to the role of institutions. Kauko (2004), suggests that while actors have a limited capability to perceive, elicit and actually respond to all the available information in the market, the information is contextualised through the role of the institution, thus shaping the interpretation of such information. Chong, Guillen and Raino (2010), mention that this 'institutional contextualisation of information' will result in a substantial impact on prices. This political and institutional context of interpreting information within a market is noteworthy and can have a crucial bearing on the role of the market mechanism. For example, changes in political risk in general tend to have a strong effect on local stock market developments and can also induce excess returns in emerging economies, suggesting that political risk is a market factor, interpreted by role players within an institutional context.

The market is itself, an institution and different participants enter into the market with varying motivations. For example, these can be contextualised into different forms of trade, the different functions of money and unique market elements. These elements, over time, have evolved independently and differ widely across the market institution (Kurien, 2015), and reflect different levels of market power through pricing strategies used by these institutions.

It is from this perspective that this paper is grounded, and it is held that prices do not reflect value. Rather, price setting is a function of market power. In the words of Pascal and Pagliero (2012, 55), “exploiting market power increases profits”. However, institutions differ in their willingness to exploit market power. Pascal and Pagliero (2012) make the assumption that the very different pricing styles are due to the different ‘willingness’ of institutions to exploit the market. Because of the difference in the ‘willingness to exploit market power’, it becomes possible to assign different correlations to different products and different markets. This forms the foundation for explaining the different market pricing practices which exist because of differences of an institutions’ willingness to exploit its market power. This concept is echoed strongly by Kauko (2004), who mentions that economic outcomes are governed by changes in institutional structures and its developing power relations within the market.

### **ANCIENT ECONOMIES**

An underlying theme of studying ‘Ancient Economies’, is the role of institutions and the problem of uncertainty. Uncertainty plays a leading feature in this type of study as the more unstructured the economy becomes, the greater the likelihood of unexpected events, in the forms of shocks, political or regime changes, social destruction and regeneration.

The literature about the ancient world is bursting with speculations about how economic activity in ancient economies were organized. Much of the recent thought on the topic, focused on the informal parts of the economic systems, including the role of friendship and patronage. However, the literature on ancient economy increasingly acknowledges that the economy operated primarily on the basis of private markets within institutional frameworks (Kessler & Temin, 2007).

One of the greatest challenges of understanding ancient economies is, in the words of Smith (2004), is the tendency to “see the ‘past’ as the ‘same’”, or to “see the ‘past’ as ‘other’”. For example, when looking at the Greek and Roman economies or even the Bronze Age Mediterranean economies, the early "modernists" argued that the Greek and Roman economies did not differ greatly from the modern economy, and the school of "primitivisms" emphasized that the ancient economy was small-scale, with agrarian orientation, and is significantly stagnant in nature compared to modern capitalism. Furthermore, this debate shares the "Same/Other" dichotomy with the Formalist / Substantives debate regarding ancient economies. The Formalists argued that the Ancient and non-Western economies differ from Capitalist economies only in degree, not in kind, whereas the Substantivize school argues that non-Capitalist economies are fundamentally different from Modern Capitalism (Smith, 2004).

Following Smith's (2004) argument, the main reason behind such views was that the role of the institutions at the time could only be seen by many modern Anthropologists as states existing in an isolated context for a specific time, regional or geographic scenario. Three theoretical approaches to the issue of control of production exist, namely, the Adaptations, the Commercial, and Political approach.

The adaptations approach focuses on the adaptation of human groups to their environment. Regional settlement patterns surveyed in many areas, their reconstructions of regional demography and agricultural practices remain fundamental contributions to the economic study of ancient states. By focusing on local adaptations, however, Adaptationist scholars minimized the importance of long-distance exchanges and interactions. The commercial development model shows an economy structured on increasing specialization and exchange, which is seen as an integral part of the process of economic growth. Within the concept of the political model, local elites assume control of the economy. These elites set about strategically controlling aspects of the economy for their own economic and political ends, thus the 'political' model developed in two distinct directions. One, the role of the individual actor, elevating "agency" and "practice" to central concerns of archaeological research. The second approach, the 'Archaeological Political Economy', is one that recognises the existence of variability in the relationship between the political and economic institutions (Smith, 2004).

The 'Archaeological Political Economy' explores the relationships that existed between individual actions and the institutions, focusing more towards the concepts of property rights and transaction costs. There is much emphasis on the role of commercialisation, within specific political organisational (institutional) frameworks. This particular model recognises both external commercialisation (such as the role of trade) and internal commercialisation (such as the role of entrepreneurs, the function of money, structure of markets, development of credit, and banking systems (Smith, 2004).

For example, an early example of a banking system is outlined by Murphy (2013), who reports that many institutions and organizations have offered bank-like services throughout history. Murphy (2013) also suggests that the ancient Chinese records describe lenders that required borrowers to offer small goods as collateral for loans. Also, it has been seen that the individual's throughout Medieval Europe, deposited precious metals for safekeeping with gold or silversmiths. In some cases, some of these gold or silversmiths went further to offer loans to additional people, further having an impact on the economy at the time.

The problem of uncertainty (price shocks, shipwrecks, and other temporary conditions) of information was paramount to the importance of establishing institutions within the ancient frameworks, which institutions played a critical role in reducing the costs of these asymmetric

and incomplete information problems. Smith & Mayers (1982), mentions that even ancient ship owners often purchased insurance against losses at sea due to storms or pirates which is significantly similar to modern companies purchasing insurance against the same form of risks.

Kessler and Temin (2007) suggest that that business institutions within ancient Rome, developed their own market tools, such as, warranties, brand names, legally enforcing contracts, and reputation. These all helped in reducing the problem or helping in managing asymmetric information. Therefore, these market institutions provided a means to reduce the problem of adverse selection by increasing the amount of available information to the market. Although merchants could not collectively concentrate their information in one place, private formal networks (along with legal institutions) were developed so as to share information.

### **INFORMATION AND THE ROLE OF STRATEGIC UNCERTAINTY**

Tsang (2004) highlights a threefold rationale which underlies the informational aspect of uncertainty. Insufficient information is the most apparent form of uncertainty which sometimes arises because decision-makers are overpowered by conflicting connotations that information holds. Decision-makers also fail to fully comprehend the situation. Furthermore, besides holding incomplete information, decision makers may not be in a position to act on that information, due to institutional constraints. For example, McConnell (2012) mentions that, due to the lack of maturity or the lack of discipline in companies, there is often conflict of interest between the management of the board and the management of the strategy of the company. Members of management within a company are both responsible for implementing the strategy and managing the strategic risks of the company. McConnell (2012), goes further to argue that the main reasons for such conflict lies in the uncertainty derived through the 'conflict of interest', because the individuals responsible for making the strategic decisions, namely the board of directors, are also accountable for monitoring their own efficiency. This point is further analysed by Dunn (2001), who refers to the work of Cowling and Sugden (1998), suggesting that there is conflict between the nature of control and the nature of transactions within an organisation. That is, conflict exists between the power and the ability to make strategic decisions, which may or may not be in the best interests of the market. Thus the argument that strategic decisions often constrain operational and working decisions, which lies outside of the efficient market hypothesis, but supports the argument that this inefficiency can, in turn induce information constraints giving the institution more influence of the type, nature and amount of information that it chooses to share within the market. While this is a function of strategic risk, it is the cornerstone of 'Strategic Uncertainty'.

Madies, Villeval and Wasmer (2013), mention that high levels of 'Strategic Uncertainty' is due to the high level of competition experienced between senior managers, who hold higher expectations. Dunn (2001) mentions that the role of this competitive process does not assure optimal outcomes. 'Strategic Uncertainty' is far from been a strategic objective of any organisation. Rather, 'Strategic Uncertainty', is a by-product of incomplete decision-making within the corporate institution which is created through the conflict of interest that exists between the aims of the decision-makers and the strategy incorporated by the firm. Morris & Shin (2002) implies that it is highly likely that the strategic uncertainty induced by a firm may be relatively small. Due to the idiosyncratic costs relative to the variation of the common costs of decision-making.

Because, as explained by Renou and Schlag (2010), 'Strategic Uncertainty' is defined as situations where individuals have to conjecturing other individuals' decisions. These individuals most likely will rely on their experience or knowledge in forming their conjectures. Thus, in this case, decision-making using 'Strategic Uncertainty' may mimic the beliefs of an individual manager within a business, whose behaviour exactly mimics the equilibrium behaviour of the decision-makers collectively. (This is particularly true for members of a risk adverse business environment where members do not wish to 'Rock-the-Boat'). This kind of decision-making process may be totally in conflict with the interests of the institution and the market. This being one of the main reasons why 'strategic uncertainty' is, as mentioned by Madies, Villeval and Wasmer (2013), a "little understood" phenomenon, especially when assigning responsibility of business institutions towards market inefficiency. Renou & Schlag (2010), further confirms this, by stating that, if an individual is uncertain about the rationality of his opponents, it will thus be difficult for that individual to form conjectures and decide on an appropriate action.

Andersson, Argenton and Weibul (2014) argue that understanding Strategic Uncertainty matters to economists and analysis of the social sciences because in a wide range of situations, information equilibria in a fragile situations exists in which players are supposed to choose a particular strategy. This holds that even though this situation is optimal, even if they hold meniscal beliefs about the actions of other decision-makers. In these cases, the slightest uncertainty about the choices of other decision-makers may lead a player to deviate from his or her equilibrium strategy. As supported earlier by Dunn (2001) and Renou & Schlag (2010), a very intricate situation develops as there is little information to guide the individual. Dunn (2001) mentions that the role of a competitive process does not assure optimal outcomes as there is no optimal path to discover. However, Dunn (2001) further strengthens this point by suggesting that as uncertainty prevails, creative crucial decisions about the future have to be made. Anderson et al., (2014) concludes that in the case of a situation with asymmetric

strategic uncertainty, we find that the party who is least uncertain about the other party's bid, will obtain the greatest advantage.

## **PRICING AND MARKET POWER**

'Real life' markets always tend to expand, resulting from the relatively easy entry of new businesses into the market, exit of firms and the differentiation or segmentation of the market by firms in an attempt of market institutions to establish a market which has less threats which could take away any form of market power (Kurien, 2015). The more exogenous to a market the firm is, the greater the market power, but the more endogenous a firm is to the market, the less power the firm has. For example, a monopolist of a perfectly homogenous good may have tremendous market power giving that firm complete autonomy over pricing (Pascal & Pagliero, 2012). This type of organisational behaviour generates a level of market inefficiency, and in turn, is responsible for granting the firm additional power, and in so doing, making the market even more inefficient. The same is also true for the role of the institution.

For example, in a study by Kessler and Termin (2007), it was suggested that an increase in the endogenous position of the institution (government), which established legal rules and other institutional aids for commerce, were designed to make the economy more efficient. This can be proven in that the bulk of the formal and informal rules and practices of the early Roman Empire were adapted to aid commerce, thus creating greater trade through market efficiency.

If price reflects market power, what would happen in the case of a market in which a formal means of exchange would not exist? In other words, is market power possible in a barter economy? Kurien (2012) eludes to this by suggesting that markets in real life cannot function without money. Because of the 'double coincidence of wants' that is the prime feature of a barter economy, the quantities of the two goods that they agree upon for the transaction reflect an exchange (price) ratio. If several parties are involved, and all are bargaining for exchange transactions, then it follows that rates of exchange for all goods will be established. Even with the aid of the infamous 'Walras' Auctioneer, 'multi-commodity-barter' is, just simply put, an oxymoron, because barter does not allow one to conclude generalised transactions.

Another important point of the free market synopsis is that the entry and participation in the markets is not totally free. All participants need some form of market power to be able to participate in the market. As most participants have different resource endowments, it would be true then to state that different participants in the market have different levels of market power (Kurien, 2015). Therefore, the role of determining 'value' is determined through the market institution, and not totally by individual participants acting within the market. This 'value' is established through the distribution of information from institution to the market.

However, as mentioned earlier, the market itself is an 'institution', be it not completely independent. Therefore, 'value' is determined through a process of transmissions from institution to market, and then back to institution. The 'value' of this information reflected through a price range is in essence the power inherent within the information. Thus institutions set price as a derivative of the 'value' of that information. In other words, 'Price' is reflected as the amount of power that the information holds for an institution.

## **THE ROLE OF THE 'INSTITUTION' IN THE MARKET**

Institutions are not necessarily formal, and as suggested by Kauko (2004), some of the institutions are chiefly informal and function at the cognitive level of market behaviour. Furthermore, there are also 'Institutional Variables' which for the purpose of this paper can be defined as legal, political, cultural and administrative factors. These 'Institutional Variable's can be either informal or formal. In the case of informal, these would include socio-cultural behaviour or norms. Thus, in some cases, the informal 'institutional variable', representing the 'non-rational' behaviour of the economy. Formal 'Institutional Variables' make up the rules and regulations of society.

For example, as a result of the geographical challenges when dealing with long distance trade, the problem of the distribution of information is of a greater scale than generally anticipated within generalised 'free-market' theory. Kessler and Temin (2007) explain how merchants in ancient Rome organized trade by making use of a variety of mechanisms to deal with these types of informational problems. Information via the Roman social structure, by making use of the legal and social institutional structures of ancient Rome, which was combined with the specific established mercantile institutions. For example, such as the formal use of contracts, companies, and invoices. This combination of social (informal) and economic (formal) institutions enabled the merchants to operate more efficiently and effectively across very vast areas and along distant trade routes.

The behavioural factors are defined as the perceptions, tastes, attitudes, diverse preferences, agency relationships, aspirations and other beliefs which may direct individual behaviour, which can be related to 'Human Behaviour'. This would make up the individuals subjective experiences and the 'socio-cultural' factors being dependent on shared meaning. It is noted that institutions and agencies are not binary oppositions of each other, as an agency, (such as the Formal Government) and Informal Culture, can be embedded into each other as suggested by (Kauko, 2004). Furthermore, the influence of behavioural factors embedded within the institution, as suggested by Bai (2012), is mediated by the ability of an institutions to shape human behaviour.

When looking at modern Chinese business, there are often cases where ancient tradition and superstition tend to intermingle with modern business practices, which is discussed in length by Tsang (2004), who mentions that, when looking at the role of the institution in the Chinese market, Feng Shui is probably the most popular superstition among Chinese managers. While Feng Shui studies the influence of environment on human fortune. It should be noted that Feng Shui experts are usually generalists in the sense that besides the influence of the traditional belief of Feng Shui, they also provide other fortune-telling services, such as calculating destinies, palmistry, and physiognomy. While superstition is often perceived as inconsistent with modern business management principles and despite the various schools of thought on decision-making, its most common portrayal interprets action as rational choice.

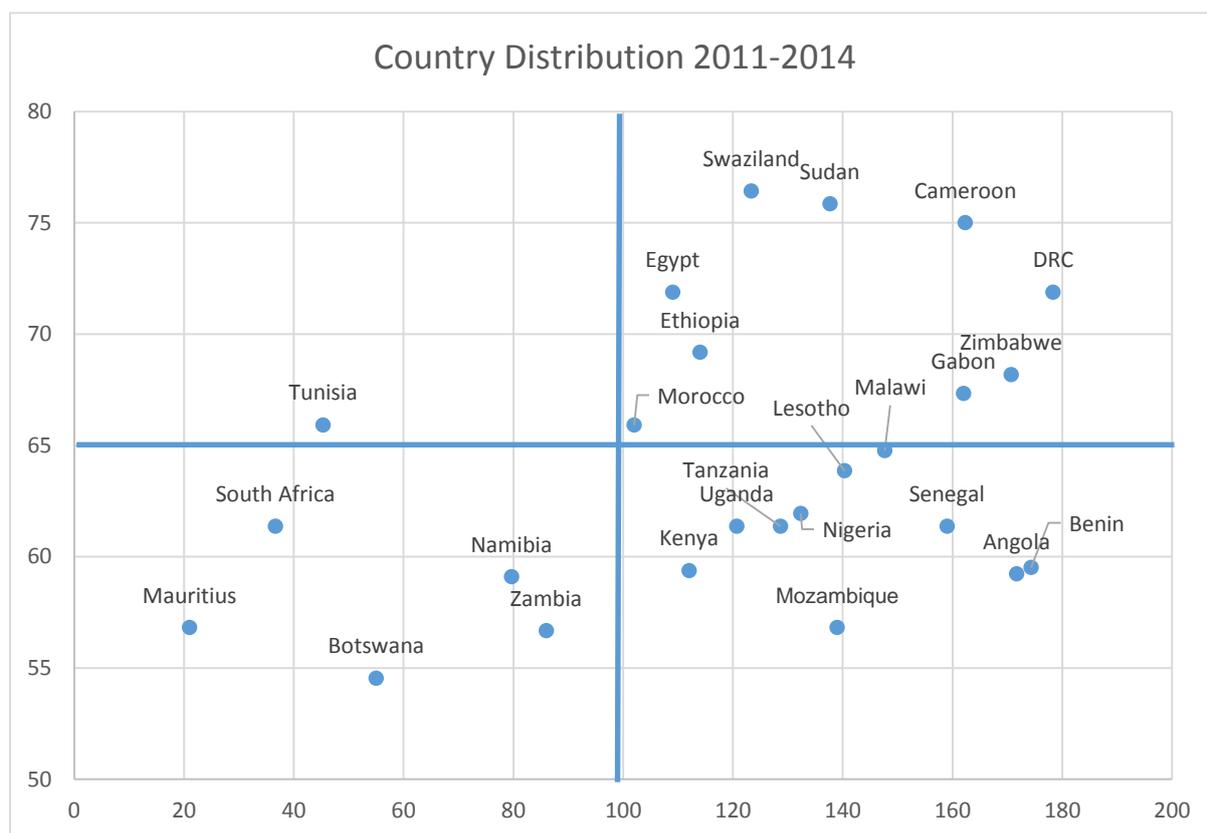
The view of shaping human behaviour is enforced by Chong, Guillen and Riano (2010) who show that political and institutional variables increasingly interact with each other with increasing levels of electoral competition, greater levels of political cohesion, lower levels of electoral fraud, better governance and, in general, more democratic values. Essentially, the effect on prices is being captured by the measures that reflect the political (institutional) process within the country rather than by the nominal political regime or even the broad political environment. The institutional context clearly has a significant impact on determining market prices.

#### **DEVELOPING AND TESTING A MODEL TO SUPPORT THE CONCEPT OF ENDOGENITY**

An economy which is endogenous to its institution should potentially have a greater tendency for growth, which could be either on a micro scale, such as in the case of a small tribal system, or on a national level such as in the case of a modern autonomous economy. The logic underlying this would suggest that if the institution is endogenous with the needs of its economy, it would be in a better position to grow based on the distribution of information between the institution and the market, thus as the institution becomes more exogenous of each other, the potential for sustainable economic growth should weaken. In the case of an autocratic government, (extreme case), the potential for growth remains rather weak. In the case of market failure, monopolistic market structure may tend to dominate. The further either the informal institution or the market institution is from endogeneity, the greater the likelihood for market failure. The closer either tends towards endogeneity, the greater the chance for market growth.

The aim of this section is to test the relationship between the role of institutions and potential for growth of an economy. The model will use a selection of 25 countries, (from within the same region) for the period from 2011 to 2014. The data will be analysed using a panel data methodology, to determine the significance of this theory of endogeneity.

**Figure 1: Scatter Plot comparing business political endogeneity of selected African Countries 2011-2014**



(Source; NKC African Economics, (World Bank Group Doing Business), 2015)

Figure 1 shows the relationship for a selection of African countries, using a Scatter Plot analysis by integrating Political Risk on the Y axis and the ease of Doing Business Ranking on the X Axis. As per earlier discussion, there is an endogenous or exogenous position taken by business or government respectively. If the role of the institutions (measured here as government), is more endogenous, then government can be portrayed as been a participant within the economy, both influenced and influencing the overall state of the nation. If however, a country is exogenous, then this would reflect a heavy handed government, in extreme cases be seen as a pure dictator. Endogenous business on the other hand would be typical of a free market economy, with higher levels of competition, easy of entry and exit into the market and a strong sense of economic endogeneity. An exogenous business would be a business which shows lower levels of competitive market power, large inefficient market structures and negative business practices.

Looking at figure 1, countries that would typically show signs of high stability would be found in the bottom left quadrant, in other words, this countries would be higher on the ease of doing business index, and these countries would also show lower levels of political risk which countries would also show a higher level of change in real GDP. Countries with lower levels of stability would typically be found in the upper right quadrant of this table. The quadrants of the upper left or lower right would reflect economies which may be experiencing more rapid or economic transition, and are either going to evolve into a more stable economy or one which is completely unstable.

Table 1 shows the statistical relationship between the three elements that are captured in this model, namely, Change in real GDP, Political endogeneity and the endogeneity of doing Business. The panel data test was performed using Eviews, version 8, analysing 25 African Economies, from the period 2011 to 2014. A total of 112 observations, using linear estimation and 'White cross-section' analysis. The findings are summarised in Table 1.

**Table 1: Analysis of panel data from 2011 to 2014 from 28 African Countries**

Dependent Variable: GDP  
Method: Panel EGLS (Cross-section weights)  
Date: 08/30/15 Time: 10:52  
Sample: 2011 2014  
Periods included: 4  
Cross-sections included: 25  
Total panel (balanced) observations: 100  
Linear estimation after one-step weighting matrix  
White cross-section standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.54399	1.095198	9.627480	0.0000
POL	-0.135838	0.016088	-8.443195	0.0000
BUS	0.024589	0.000909	27.05559	0.0000

Weighted Statistics			
R-squared	0.536358	Mean dependent var	8.815044
Adjusted R-squared	0.526798	S.D. dependent var	6.554349
S.E. of regression	2.365705	Sum squared resid	542.8664
F-statistic	56.10658	Durbin-Watson stat	0.985455
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.165867	Mean dependent var	4.754860
Sum squared resid	549.8278	Durbin-Watson stat	0.606584

(Source; Data derived from Quantec (IMF Africa Country Analysis) and NKC African Economics, (World Bank Group Doing Business), 2015)

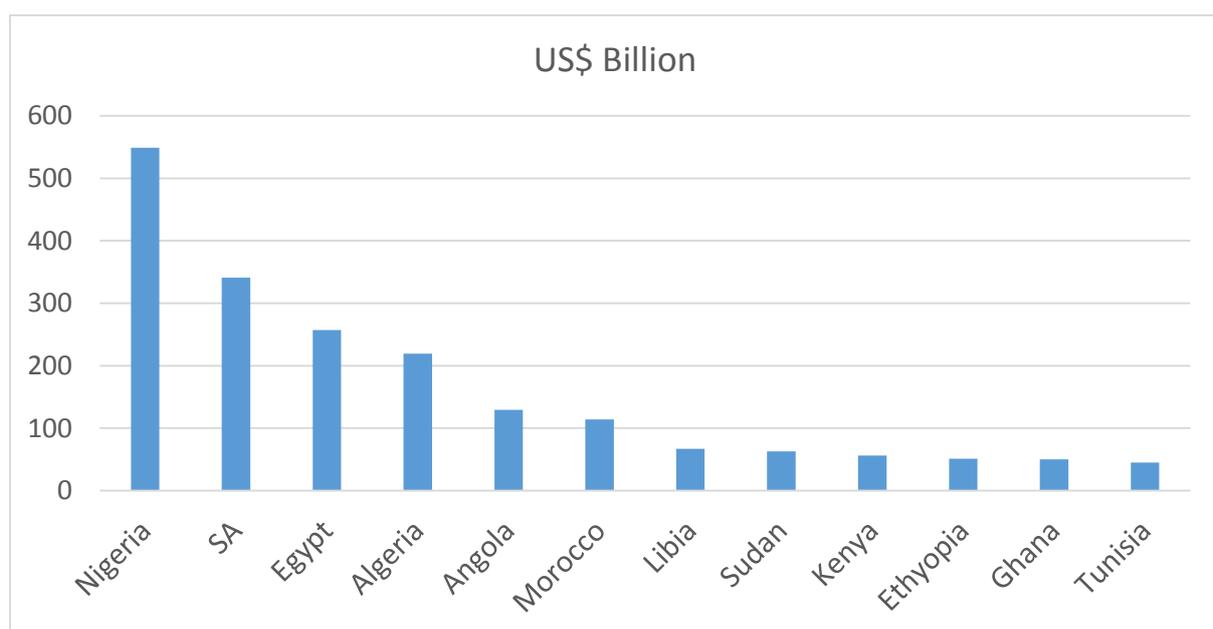
The panel data analysis was constructed from time series data derived from Quantec (2015) and NKC African Economics (2015) for the period between 2001 and 2014, for a range of 25 African Countries, including, Angola, Benin, Botswana, Cameroon, DRC, Egypt, Ethiopia, Gabon, Kenya, Lesotho, Malawi, Mauritius, Morocco, Mozambique, Namibia, Nigeria, Senegal, South Africa, Sudan, Swaziland, Tanzania, Tunisia, Uganda, Zambia and Zimbabwe.

The dependant variable 'Change in real GDP' (GDP) at constant prices, was analysed against the Political Risk Score and the Ranking of Doing Business (taken as a comparison against 189 countries). Change in real GDP at constant prices showed a strong negative correlation between Political Risk (POL) and a weak positive correlation between Business Ranking (BUS). In other words, the greater the perceived political risk the lower the Change in real GDP, and the easier it was to do business, the higher the Change in real GDP.

In other words,  $GDP = 10.54399 - 0.135838 * POL + 0.024589 * BUS$

As can be seen in table 1, the variables showed a high level of statistical significance using the Students t-test, ( $2 < t\text{-test} < -2$ ), and a relatively high Durban Watson Statistic of 0.98 using cross sectional weightings. This value differs from unweighted cross sectional analysis which would produce a lower R-squared vale. It must be noted that the greatest constraint to this model is the short time period in comparison to the large number of countries used in the analysis.

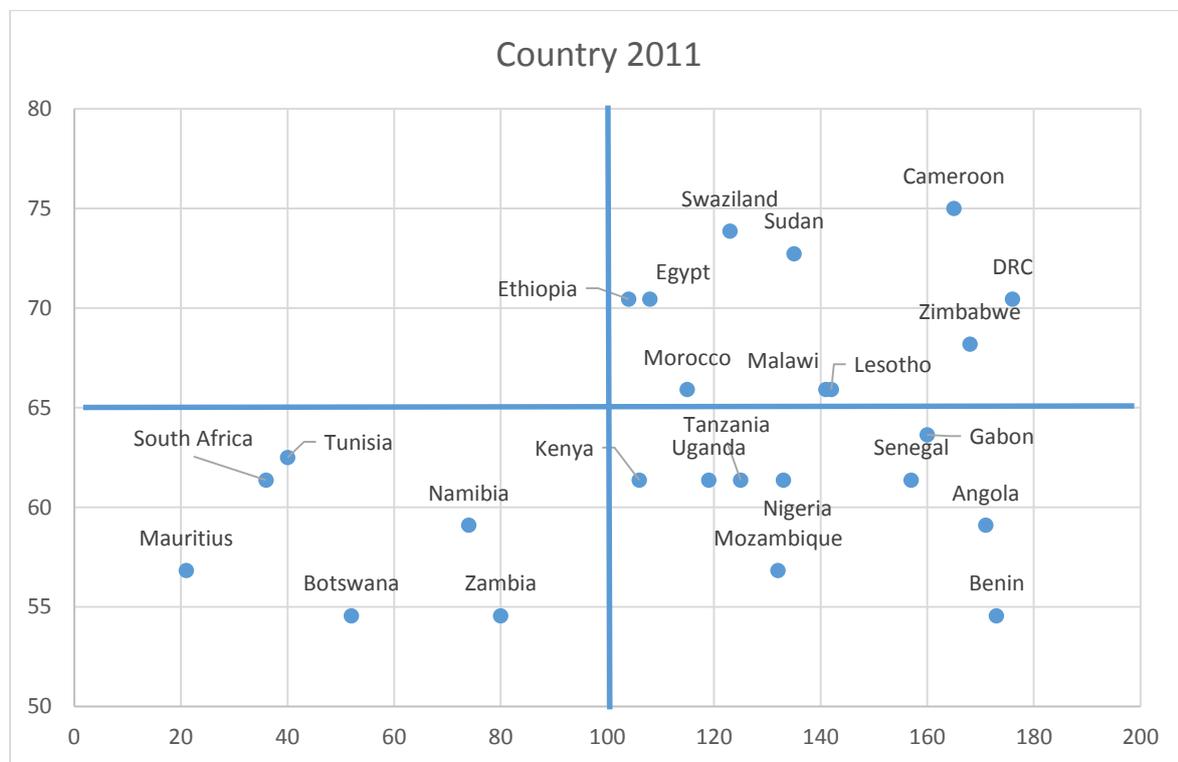
**Figure 2: Largest Economies in Africa for 2015**



(Source: Data derived from Quantec 2015)

However, what the model highlights is that while many of the economies may be very large in terms of economic size, (as per figure 2, namely the volume of GDP, US\$ Billions), the relationship between the rate of growth, political and economic endogeneity is more subtle. What the model is therefore showing is that the development of economies (as per rate of Growth compared to overall size of the economy), is dynamic, and through the rate of change which is driven through economic and political endogeneity, will eventually result in far more stable economies in the future.

**Figure 3: Scatter Plot comparing business political endogeneity of selected African Countries 2011**

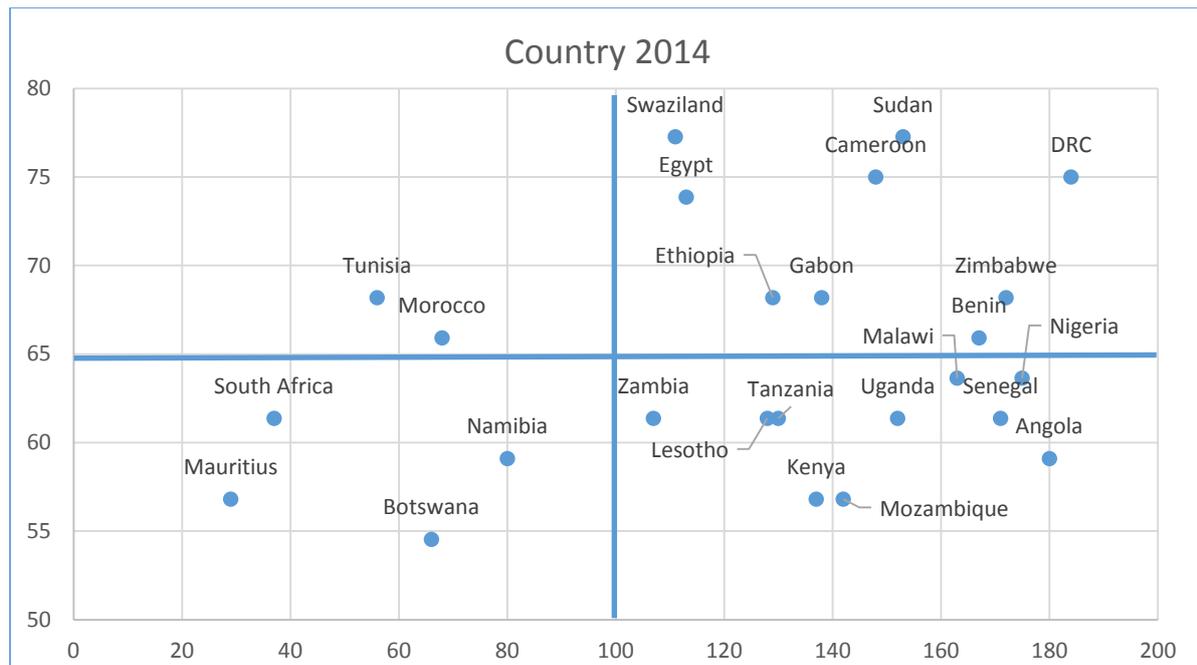


(Source; NKC African Economics, 2015)

Looking at figure 3 and figure 4, when examining the political and business relationship between the economies, it appears that there is much movement. While some countries seem to remain rather fixed in their positions, (South Africa, Botswana, Egypt, Namibia and Zimbabwe), others appear to show much larger movements. (Ethiopia, Kenya, Morocco, Sudan). Interestingly, the greatest movement within many of these economies is the vertical movement, indicating a perceptions around business within the region. A horizontal motion would indicate views associated with political or regime structural perceptions and changes. The positional shift of Tunisia versus the morocco could be of interest in this regard. The model

does highlight is that the institutional (Political) shift is a lot more sensitive to the growth of an economy (measured in real GDP) of a country than the market position. In other words, a shift in the endogeneity of market factors are far less sensitive than the shift of endogeneity of the institutional factors. The role of institutions are clearly important factors in determining a growth trajectory.

**Figure 4: Scatter Plot comparing business political endogeneity of selected African Countries 2014**



(Source; NKC African Economics, 2015)

The Adjusted R squared (0.526) for this model remains reasonably low, despite the statistical significance of this data. This model therefore highlights that there are clearly other factors which still need to be considered, despite the relevance of such a debate, therefore it must be noted that the short time frame (2011-2014) is an important factor which may affect the robustness of the findings. Further studies should include a longer time frame, and even a weighted index to represent the institutional and market factors which should be considered.

What the model does do is capture the relationship between Structural Uncertainty and the trade-off between the roles of the different institutions, given the level of asymmetric information which is persistent within an economy. The trade-off is shown as shifts either horizontally or vertically, given the institutional positions relative to each other. In economies where information is more symmetrically distributed, then the positions of those economies would remain virtually fixed with a tendency to migrate towards the lower left quadrant of the economy. With economies having higher levels of information asymmetry, the tendency for

the position of, for example, the countries (used in this model) to change is far greater. This finding is supported in the works of Young (2000) who states because of the endogeneity of preference, there is need for 'competition policy' need to concentrate on the 'power' of firms and less on the effects of a change in market structure. Young (2000) goes further to show that this involves the behaviour of 'consumer preferences' as endogenously determined which, (as in the case of this model) represents a substantial exodus from mainstream theories of the efficient market hypothesis. This may be compatible with more radical views regarding the nature of institutions and the power relationships, along with the central notions of Kaleckian-type views of the competitive process. Firms, in this context are able, by virtue of adopting particular strategies in one time period, to influence the definition of a market in future time periods. However, it must be stated that, as per the findings in this analysis, the role of the institution is still more powerful in influencing future outcomes.

## CONCLUSION

By investigating the type and nature of an ancient economy, exploring the role and trade-off of information, in an asymmetric environment determines the sustainability and growth in an environment characterised by total uncertainty. It is this type of environment which undermines the value of supply and demand, thus bringing to the forefront the role of a market in order to overcome the problem of uncertainty by creating a means of exchange and a strategy to hedge against risk.

The paper builds onto the role strategic uncertainty and the role of values and traditions in the belief system of society, and how this then ultimately develops a power play between different institutions which leads towards conditions for either growth or failure of the market.

This is tested using a panel data analysis of 25 African countries, exploring the level of political and market exogeneity. The findings of the model show that as long as the political institution is endogenous with the needs and nature of the market, there is a likelihood that the economy will grow. This remains similar to the level of endogeneity of business, but, unexpectedly, the level of political endogeneity is more important in determining the growth of an economy than that of a businesses.

By making use of the interaction of institutions and business within many modern economies demonstrates that an ancient economy is depended on the co-existence of a strong institutional and business framework. As long as the institution is in-line with that of its business structure, there was space for the economy to grow, but as long as either the political institution or the business structure became detached from each other's 'common' objectives, growth was restricted, along with economic development.

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