OIL AND POLITICAL STABILITY IN CÔTE D'IVOIRE AND SOUTH AFRICA

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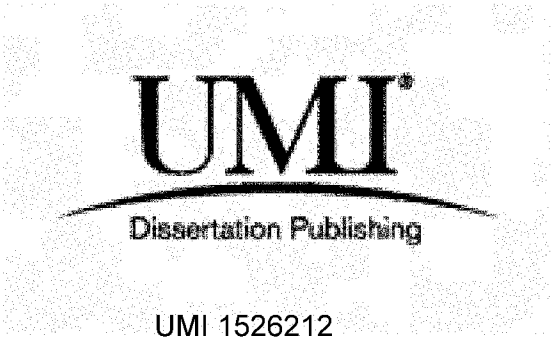

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THESIS APPROVAL

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ABSTRACT

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There are many theories linking natural resource rents to violent conflict; few theories link rents to domestic political instability. Extending these theories to assess rents' relationship to political stability or instability yields thirty-three mechanisms by which rents affect political stability. I conduct case studies of the oil industries and political, economic, and societal factors present in Côte d'Ivoire and South Africa and examine how the production and export of oil affects the political stability of these countries. I find that although these countries are not dependent on rents for their defense and welfare spending, rents contribute to both stability and instability in both countries.

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Introduction

A significant amount of work has been published in the past decade regarding the "natural resource curse," which links the presence of natural resources in a state to violent conflict within that state (Basedau and Lay, 2009; Collier and Hoeffler, 2004; Colgan, 2010; de Soysa and Neumayer, 2007; Fearon, 2005; Humphreys, 2005; Ross, 2003). The body of work linking natural resource wealth to political stability is much smaller. Many authors have used political stability as an intermediate variable to help explain links between natural resources and violent conflict (Basedau and Lay, 2009; Collier and Hoeffler, 2004; de Soysa and Gartzke, 2011; Fearon and Laitin, 2003; Fjelde, 2009; Le Billon, 2010). Dunning (2005) developed a model based in game theory that describes how the presence of natural resource wealth affects the interaction between a state and its potential challengers. Smith (2004) specifically examined links between oil wealth and regime survival or durability, which he uses as a proxy for stability. However, there has been no comprehensive analysis that specifically links natural resource wealth to political stability.

The intent behind this paper was to begin to fill this gap by conducting case studies of countries that could potentially be affected by this natural resource curse, examining the effects of natural resources on all forms of political stability, not just regime duration. I focused on oil production and exportation as elements of natural resource processing that have significant impact on countries' economies and selected countries in Africa to study based on the possibility that "the 'natural resource trap' may really be an African and Middle Eastern trap" (Herb, 2005, p. 303). Specifically, I theorize that the production and exportation of petroleum products distorts political

incentives at the state, business, and individual level and that these incentives work to create political stability and instability in nations that do not have a strong foundation in a liberal, representative democracy. I tested this hypothesis by examining the mechanisms by which petroleum production and exportation contribute to stability and instability. I then conducted case studies of the political, economic, social, environmental, and geographical factors within Côte d'Ivoire and South Africa to find which mechanisms are at work in these countries.

To determine the mechanisms at work, this paper is organized as follows. The first section presents my analysis of previous literature on oil and political stability, in which I primarily address studies that have sought a link between resource revenues or resource dependence and violent conflict. The second and third sections contain case studies of Côte d'Ivoire and South Africa in which I address the countries' history, current system of government and political structure, relevant aspects of civil society, oil production and exportation, and other factors that contribute to political instability in each country. These sections also seek links between oil production and exportation and political stability (South Africa) or lack thereof (Côte d'Ivoire). The fourth section contains a summary of the previous findings and proposes avenues of future research.

Literature Review

In the past decade a significant amount of work has been published on the relationship between natural resources and violent conflict or civil war. Multiple authors have expanded on Collier and Hoeffler's 2004 seminal work, with many finding that their results were not robust to variations in their methodology and offering alternate hypotheses (de Soysa and Neumayer, 2007; Fearon, 2005; Ross, 2003). However, very little of this literature specifically addresses how natural resource wealth affects political stability. Dunning (2005) developed a model based in game theory of how natural resource rents affect interactions between the political elite and a country's citizens and suggested that three equilibria exist to this model, two of which are stable and one of which results in political instability. Smith (2004), Ogemba (2008), and Morrison (2009) all found links between oil wealth and regime durability, but all conducted a mathematical analysis, and none specifically examined how oil wealth affects regime durability.

Fortunately, most causal mechanisms that link resources to violent conflict can also be examined for their ability to link oil to political stability.[1] There are two primary causal mechanisms discussed in the literature. First is the greed/grievance model, which suggests that most conflict is created by a "rebel" force that desires to wrest control of resources from the state (Collier and Hoeffler, 2004). Second is the "rentier state" model, where authoritarian regimes leverage revenues to either represses the population or "buy" support via large-scale distribution of rents to the populace (Basedau and Lay, 2009;

[1] I provide a comprehensive definition of "political stability" directly following this examination of studies on natural resources and violent conflict. For this discussion, a general understanding of what constitutes "stability" is sufficient to understand the literature.

Herb, 2005; Ross, 2001). Both the rentier state model and the "grievance" portion of the greed and grievance model can be directly examined for their effect on political stability instead of violent conflict. It is less clear how the "greed" portion of Collier and Hoeffler's model directly applies.

The greed model states that a rebel or oppositional force instigates conflict because it desires to control natural resources and receive rents that currently benefit the state. It specifically assumes the rebel group will then use the rents for acquiring arms and conducting or inciting violent revolt against the state. Other uses for natural resource rents, such as a more equitable redistribution of national wealth, are not encapsulated in this model because it is used solely to explain a link between natural resources and violent conflict. Political instability without violent conflict is less likely to result in a re-direction of resource rents.

The distinction between "lootable" and "unlootable" resources is critical for understanding the greed model. A lootable resource can easily be pilfered or diverted from its intended destination, while an unlootable resource requires infrastructure to control and cannot be easily stolen (Collier and Hoeffler, 2004). Lootable resources such as diamonds are easily included in this model: a group can conceal and independently sell a resource such as diamonds, but it will be unable to easily steal unlootable resources such as oil. An "obstructable" resource, such as oil, is also beneficial for a rebel group, as the group can easily prevent the state from benefiting from these resources even if the group itself is unable to gain from them (Ross, 2003). However, an obstructable resource does not provide income to a rebel group, so oil's obstructability does not imply that it supports the greed mechanism.

Dependence and abundance are two other critical factors that determine how a state's natural resources affect its political system. Dependent states receive large portions of their revenues from natural resource rents. Although oil production requires skilled workers, it is uncommon for a state's oil industry to be so large that the state is dependent on the industry for employment within the state. In fact, the skilled workers required for oil production and export are frequently unavailable in countries with low human development (Isham, Princhett, Woolcock, and Busby, 2005; Ross, 2003). Natural resource abundance is a separate concept: it refers only to resource rents per capita (Basedau and Lay, 2009). A state may have a high abundance of a natural resource and yet not be dependent if its resource rents are small compared to other sources of revenue. Conversely, a state may have a low abundance of resource rents and yet be dependent if it has few or no other sources of revenue. Most authors separate the effects of abundance and dependence when discussing the effect of natural resources on a government (Auty, 2004; Basedau and Lay, 2009; Basedau and Wegenast, 2009; Brunnschweiler, 2008; Brunnschweiler and Bulte, 2008; Colgan, 2010; Di John, 2007; Dunning, 2005; Herb, 2005; Humphreys, 2005; Le Billon, 2010).

Assessing the degree of dependence and abundance requires understanding what, specifically, is included in natural resource rents. Herb (2005) stated that rents are typically understood to originate from abroad and flow directly to the state, while "only a few are engaged in the generation of this rent (wealth), the majority being only involved in the distribution and utilisation of it" (Beblawi, 1990 in Herb, 2005, p. 297). This definition implies that rents include any revenue flowing to the state as a result of natural resources: for example, income taxes on corporations engaged in extraction or direct sale

of resources accrued to the state. Thus, when I examine state budgets and revenue, I attempt to include any description of revenue that might reasonably be expected to include natural resource rents.

Political and Economic Stability

This study differs from many others that discuss the natural resource curse in that it specifically addresses the effect of natural resources on stability, while many others address the effect of natural resources on violent conflict. However, while it may be difficult to agree on what level of violence qualifies as "violent conflict," political instability is equally difficult to define and even more difficult to measure. Furthermore, some definitions of political stability may permit a situation to be counted as "stable," though it will not be a positive stability; state repression is a form of stability, but not a desirable one.

Although the researchers who study the natural resource curse have specifically addressed violence, some of them have also discussed political stability as an intermediate variable. For example, Fearon and Laitin (2003) addressed political stability in the context of whether a state has undergone a large change in its political institutions in the previous three years. When studies define political stability, this definition is common, likely because it can be fairly easily measured; the Polity IV data set captures government types and changes for up to seventy years. However, while limited changes in a country's government may mean that government is "stable," this measure of stability fails to capture forms of civil instability that do not result in regime change. For example, in 2011 Jordan saw widespread protests against corruption, poverty, and unemployment (S. G. Jones, 2013). Given the broader international environment and

ongoing "Arab Spring" protests, one could say that Jordan was unstable during this period, but the Polity IV index does not reflect any change in the regime type (Marshall, Gurr, and Jaggers, 2014).

Other researchers have used other approaches: Dunning (2005) developed a game theory model of natural resources and political stability, but used a revolt or coup d'etat to represent instability. This definition is similarly unsuitable for a thorough discussion of political instability, as instability can be significant yet fall short of a full revolt. Thus, while Dunning's model may represent a significant improvement in the study of natural resources and stability, it does not capture all forms of instability and thus does not fully represent the effects of natural resources on stability.

Some researchers who have not focused on the natural resource curse have attempted to find a more complete definition of stability. Cvijanović (2012) posited that the mere absence of violence is not sufficient for political stability and that the peace must be "transcendent." By this, he meant that citizens must be committed to, and not simply tolerant of, peace. Smith (2004) examined several variables from independent data sets, using anti-state protests, peaceful demonstrations, riots, strikes, and other internal conflicts to form a full picture of state stability. However, while he examined other forms of stability, his conclusions focused on regime change, finding that natural resource wealth tends to have a net positive effect on regime stability. Again, as with Dunning, this approach does not fully capture state stability.

The most important aspect of stability these researchers fail to capture is inter-state stability. One dominant theory of state stability in the discipline of international political economy is hegemonic stability theory (HST), first developed by Charles

Kindleberger. HST posits that the hegemon state, able to provide the public goods necessary to maintain stability, is essential for maintaining international economic stability (Kindleberger, 1973). Keohane states the hegemon must have control over the military, political, and economic instruments of power necessary to maintain the hegemony, but that the hegemon best supports development of a strong international economic regime (Liu and Ming-Te, 2011). Although the United States is typically considered the hegemon of the 20th century, starting with the period immediately following World War II, most realize the US has not acted as the hegemon in the oil industry and that the theory may not explain current economic systems (Ferraro, 2010). Instead, a regional version of HST may better assist in understanding state economies and their economic relationships with surrounding states.

A second aspect of inter-state stability is stability within global oil networks. The Organization of Petroleum Exporting Countries (OPEC) has formed the hegemon of the global oil industry; states' willingness to submit to the global oil regime, whether as an exporter or importer, determine their stability in that regime. States that receive significant revenues from oil exports or that have high energy and oil import needs will find their place in this regime particularly important for their economic health. Thus, the stability of global networks and the state's relationships with relevant regional and global actors must also be considered when discussing stability.

Political stability, whether domestic or international, most frequently appears to be defined by what it is not—hence the literature's definition of stability as a lack of regime change. However, Ake offered an excellent definition of stability in his 1975 article "A Definition of Political Stability." He first defined political behavior as any

behavior that affects the distribution of decision-making power in that society, and then he defined political roles as (usually) unwritten expectations for how individuals are to behave in any given situation. Finally, Ake defined political stability as "regularity in the flow of political exchanges" (p. 273). This definition proves useful for defining stability on both domestic and international levels and differentiating between different degrees of stability.

Ake discusses multiple implications of his definition. First, behavior not considered inherently political can have stabilizing or destabilizing effects based on the context of the actions. Ake discussed a theoretical situation in which ministers of a court grew ponytails in defiance of the wishes of the head of state. Although growing a ponytail is not an inherently political act, in this situation it would be a political act and have repercussions on the stability of that state. Second, this definition allowed Ake to quantify political stability, and he suggested stability (instability) can be measured as the ratio between regular (irregular) political exchanges and all political exchanges. This resolved issues such as ensuring multiple actions from a single actor are fairly accounted for, but did not address the intensity or relative importance of political exchanges.

Finally, and most critically, this definition did not address whose expectations are important when assessing political stability. The literature identifies multiple actors within a state that affect its stability: the government, political elite, civil society, economic elite or corporate world, and possible rebel groups. Each group has expectations for every other group, and each group is composed of numerous individual actors whose expectations may vary from the expectations of the remainder of their group. Thus, the "regularity" or "irregularity" of a political exchange must be measured

against the expectations of each group. An exchange's potential to create stability or instability will depend both on how closely the expectations of each group are aligned and how well these expectations are communicated among groups.

Communication is important to ensure alignment of expectations. Liberal states typically provides multiple venues for communication between civil society and the government, such as elections, a responsive judiciary, departments that hear and handle complaints, and informal communication such as opinion polls. States that create these venues and act to address these expectations reduce the possibility the citizens will communicate their expectations through demonstrations or riots. Similarly, a government that communicates with its political and economic elite and works to address concerns or differences in expectations will reduce the possibility it will experience a coup.

This definition is also useful for measuring inter-state stability and stability within a network composed of state and corporate actors (multinational oil corporations). In this case, the number of actors is smaller, and thus it is easier to align expectations. Introduction and integration of a new actor into this network can destabilize the network if the change is unexpected, or the integration can have no effect on stability if the actor is anticipated, and expectations are set prior to integration. Similarly, communication of expectations between states is usually identified as a critical element of ensuring relationships between states are as smooth and stable as possible.

This understanding of stability informs our discussion on how oil affects stability by showing how specific interactions can be stabilizing or destabilizing. For example, one stabilizing mechanism is the use of resource rents to support citizens' societal welfare, such as health or education programs. In this case, the state is meeting its

citizens' expectations to provide social services, and this mechanism is stabilizing. A de-stabilizing mechanism discussed above is that the state may attempt to buy stability from the political elite and instead trigger rent-seeking by the elite. In this case, the state has expectations that its contributions to the elite satisfy elite desires to share natural resource wealth, but the elites do not feel the state's contributions meet their expectations. Their additional rent-seeking is thus destabilizing.

This understanding of stability will be used throughout the remainder of this paper to show how oil production and export affects the domestic and international stability of Côte d'Ivoire and South Africa.

Oil's Effects on Stability

Humphreys (2005) and Fearon and Laitin (2003) summarized mechanisms by which oil can create or subdue violent conflict, but each mechanism has multiple minor variations that should each be considered separately, particularly when conducting case studies. The remainder of this section contains a listing of thirty-three possible mechanisms by which oil can affect political stability. I have divided these into three primary categories: effects within the state, effects from international actors, and environmental effects.

Domestic sources. Domestic mechanisms by which oil affects political stability are further broken into five categories. These categories are (1) mechanisms manipulated by the state itself, (2) mechanisms from the state's elite, (3) mechanisms that affect the state's general populace and non-elite civil society, (4) mechanisms that affect corporations within the state, and (5) mechanisms that address rebel groups whose goal is to overthrow the state. As discussed above, it is unlikely that rebel groups have the

primary goal of political instability, so this mechanism is unlikely to be found in situations where the goal of a group is to cause political instability. However, this possibility is included here for completeness.

The state. Many mechanisms work to create both stability and instability. The net effect typically depends on other factors within the state, primarily the focus of the executive and whether the bureaucracy tends to be exploitive of the state's general populace.

The most prevalent mechanism is that oil rents can be used to support the executive's goals, whether those goals are beneficial or to the detriment of the rest of the state and its citizens. This mechanism can push the state towards political stability: if the government of a well-functioning state has control over a significant portion of the economic agents within the state, high resource rents create incentives for the executive and political elite to perpetuate the status quo (Auty, 2004). In this case, rent-seeking will degrade the state's capability and be self-defeating for rent-seekers. Alternatively, properly managed resource rents can be used for a "rainy day fund" or can protect the state against volatility in other sectors (Iimi, 2007). Finally, because oil extraction requires a skilled labor force and significant capital, the state can use rents to fund a security apparatus sufficient to ensure investors of the safety of their investment (Ross, 2003). Rents can also contribute to political stability via undesirable mechanisms: high rents can attract dictatorships or repressive regimes in states where the government was previously less controlling (Auty, 2004; Brunnschweiler and Bulte, 2008).

Oil rents more commonly contribute to political instability. Oil price shocks may create instability for a state that is unprepared to meet its obligations absent those rents,

creating significant instability (Auty, 1997; Auty, 2004; Dunning, 2005; Humphreys, 2005; Ross, 1999). This mechanism is particularly likely to happen if the state used rents to support a high level of social welfare spending. High rents lower a government's accountability both to its own citizens and to the international community, creating additional risk the state will become an aggressor state (Colgan, 2013; Humphreys, 2005). Although this mechanism is specifically applied in terms of the rents' contributions to violent conflict, it also contributes to political instability in that a government not accountable to its people that has no need to create stability for its continued survival. Rents can also trigger a state's elite to predatory behavior, causing an existing executive to create policies unfavorable to stability (Di John, 2007), separate from any actions taking by the political elite not currently in power.

Finally, rents can discourage creation of effective state institutions, either creating instability or contributing to a lack of stability. Rents can support policies creating economic distortion and political corruption longer than a state would otherwise be able to maintain these policies (Auty, 1997, 2004). Rents can discourage development of other sectors of the economy, what Basedau and Lay (2009) call "sparse networks." Alternatively, they can discourage the development of infrastructure critical to the functioning of the economy or civil society because this development will not provide sufficient rents compared to those the state is receiving from oil (Humphreys, 2005; Ross, 1999). They permit the government to continue perpetuating poor economic policies or prevent the government from tackling issues such as corruption (Auty, 1997, 2004). Dependence on rents, in particular, can discourage the creation of an effective state bureaucracy, preventing the state from maturing and providing long-term political

stability for its citizens (Di John, 2007; Fearon, 2005; Fearon and Laitin, 2003; Humphreys, 2005; Ross, 1999).

The political elite. The political elite of a country frequently have first-hand knowledge of the benefits that oil rents provide, but do not necessarily directly benefit from those rents, as all the mechanisms discussed in the literature work to make a state less stable. As discussed previously, rents may discourage economic diversification within the state. Apart from this mechanism's action on state officials, the members of the political elite who benefit from resource rents may also discourage economic diversification, fearing that diversification will create additional bases of power within the state, thus eroding their own power (Dunning, 2005). Resource rents may also make control of the state valuable enough that politicians not directly benefiting from rents may be motivated to insert themselves into the political and economic systems against the dictates of that state's laws or constitution (Fearon and Laitin, 2003).

An important mechanism is that the state or executive may use rents to "buy" political stability from its elite (Basedau and Lay, 2009; Fjelde, 2009). Some may think of this as political patronage, while others recognize it as political corruption; as such, it can have stabilizing or destabilizing effects. If the state is successful in distributing rents to its political elite, the elite can assist in creating stability within the country. If the state is not successful, and rent distribution to the political elite may anger either the general populace or a portion of the elite that feels rents are unfairly distributed, patronage can be destabilizing. Basedau and Lay (2009) discussed how abundance, more so than dependence, is critical in facilitating this mechanism.

Civil society. The mechanisms related to civil society can be characterized as the rentier social contract, repression, and changes to society. The rentier social contract suggests that stability is created when oil rents fund large-scale social welfare programs throughout the state, such as education or health care (Herb, 2005). Ross (2001) referred to this as "buying off" the population, and this mechanism was initially investigated to explain why Gulf monarchies experience little political instability (Basedau and Lay, 2009). Basedau and Lay found the rentier social contract has a positive effect on peace, but did not specifically discuss its effect on political stability. The rentier social contract can induce instability as easily as it creates stability if there is a perception within the state that rents are not equally distributed among the population (Auty, 1997; Di John, 2007; Fjelde, 2009; Humphreys, 2005).

Alternatively, states can use rents to support an internal security apparatus (Basedau and Lay, 2009; Ross, 2001; Smith, 2004). Both Smith and Basedau and Lay found that this is a contributing factor towards peace (not stability) and that abundance of resources is more important than dependence on resources. Ross further investigated this mechanism, showing that the government may either arm itself against its citizens or against external ethnic or regional conflicts. He described this mechanism as repression, regardless of the source of instability, as the net effect is to dampen any action unfavorable to the state. This form of stability would not necessarily be desirable, as it does not encourage a robust stability based on a consensual, liberal democracy.

Other mechanisms reflect the more intricate workings of civil society. Officials can use oil rents to support illegal or unpopular programs, creating discontent within civil society (Ross, 1999). If all skilled labor in the oil industry is sourced from outside the

country, oil rents can discourage the development of a skilled labor force within society (Isham et al., 2005), and this underdevelopment then destabilizes society. The development of oil infrastructure can displace portions of the population and force migration within the state (Humphreys, 2005).

Finally, there are two variations of the argument that oil rents can suppress changes that make societies more robust and stable. Rents can prevent class changes within society, specifically the development of a large middle class, discouraging democratization (Herb, 2005). Alternatively, if governments spend enough money on society via large-scale distributive policies, they may prevent natural desires to form strong societal groups that pursue their own welfare or encourage democratization (Ross, 2001). Governments can also use rents to deliberately suppress groups that encourage democracy within their society (Ross, 2001). These theories do not address the fact that democracy does not necessarily lead to either an absence of violent conflict or political stability. In fact, a desire or movement to democratize can easily lead to violent conflict and long-term political instability if the society has significant divisions and does not easily agree on state policies.

The economy. I discuss mechanisms specifically dependent on the state's economic policies separately from mechanisms related to state officials or the state's political elite because they are morally neutral. Many mechanisms that link a state's officials or its political elite to stability or instability are the result of good or poor intentions on the part of the actors. Economic mechanisms may imply poor judgment on the part of state officials but not necessarily malicious or neglectful intent.

Infant industry protection and import-substituting industrialization policies may be created with good intentions, but these policies may result in monopolies, distort the economy, and encourage corruption (Auty, 2004). Instead of creating a robust economy that encourages political stability, oil rents will then create a dysfunctional economy that encourages political instability. "Dutch disease" is another possible effect of a robust natural resource industry (Auty, 1997). A state reliant on resource production may find it has less growth capability than one reliant on manufacturing or other growth mechanisms (Ross, 1999). Finally, if state officials use rents to pursue social welfare programs or other policies that would benefit the state's civil society, they may instead trigger rent-seeking from the state's political elite, having the opposite effect than that intended (Ross, 1999).

Rebel actors. Collier and Hoeffler's 2004 work emphasized the greed and grievance model, with rebel actors creating violent conflict either because they are greedy and desire to control the state's natural resources, or because they have a grievance with the state over its management of those resources. The grievance mechanism was previously discussed in the section on civil society, but the greed mechanism is not applicable to political stability for several reasons. First, the model was designed to explain resources' support for violent conflict and not political instability (Collier and Hoeffler, 2004). Second, rebel forces cannot easily control oil because it is an unlootable resource (Ross, 2003). Third, other models linking resources and instability, such as Dunning's (2005), do not discuss the presence or actions of a rebel force, or they use an extremely limited definition of political instability, such as the duration of the existing political regime (Ogemba, 2008; Smith, 2004). Morrison (2009) correctly noted that most

theories linking natural resources to stability of political regimes assume that conflict occurs between citizens and the wealthy political elite; rebel groups do not factor into these models. Thus, the literature does not link rebel groups to political instability vice violent conflict. While this mechanism is mentioned here to ensure all possible mechanisms are captured, it is not pursued as a possible mechanism linking oil rents to political stability.

International sources. Due to oil's importance in the world, any state that receives oil rents is vulnerable to manipulation from outside actors. Other states, multinational corporations, or the populace of nearby states all have the potential to create either political stability or instability within a state.

Other states. There are two mechanisms discussed that relate external governments to political stability or instability within a petrostate.[2] An external state, particularly one dependent on the free and smooth flow of oil from a particular state, may decide to intervene if it perceives that conflict or instability threatens the flow of oil (Basedau and Lay, 2009; Colgan, 2013). The external government may intervene on its own initiative, or the petrostate government may request assistance. In this case, an external government will assist in creating stability within that state, and Basedau and Lay (2009) found that external allies have a positive influence on peace within a state. However, external states may also induce political instability within states if their construction of oil infrastructure disrupts local populations, either creating conflict outright or exacerbating pre-existing tension within the state (Colgan, 2013). Mechanisms

[2] The term "petrostate" is used here to refer to a state that receives revenue from oil, whether that state is dependent on oil or not.

related to external states are as likely to be related to stability as violent conflict, as the benefit to the external state can be similar.

Multinational corporations. Like a state's political elite, and unlike rebel actors, multinational corporations may benefit via the greed mechanism (Humphreys, 2005). Corporations can use political instability to encourage the election of officials more favorable to the corporation, influence the legislature to give it access to additional oil fields, or lower the taxes it pays on its production and exports. This mechanism is not thoroughly discussed in the literature but is important due to the large number of multinational corporations that exploit oil fields in African states.

International populace. The single mechanism related to an international population is the possibility that the presence of foreign oil workers, who frequently are skilled workers receiving wages higher than the country's typical wages, will create resentment among a local population (Colgan, 2013). This resentment may turn into a grievance citizens have with the state, and depending on the severity of the resentment, may be a source or contributing factor to political instability.

Environmental sources. Only Colgan (2013) has discussed the possibility of environmental damage contributing to violent conflict. This is not related specifically to oil extraction or production within a state but instead refers to the large-scale pattern of global climate change and its harsh effects on impoverished populations. Due to the difficulty of positively associating disruptive climate patterns with oil production and export, I do not address this mechanism throughout the rest of the paper, but include it here for completeness.

Oil and Political Stability

Table 1 summarizes all mechanisms discussed above (with the exception of rebel actors and environmental sources), noting whether they encourage political stability or instability within a state. The table below is not deterministic, only a starting point for conducting the case studies of Côte d'Ivoire and South Africa.

Table 1

Mechanisms by Which Oil Affects Political Stability[3]

Primary Source	Stability	Instability
Domestic: The state	1. Rents encourage the status quo. 2. Rents build a "rainy day" fund. 3. Rents fund a security apparatus that provides security for the population.	4. Rents attract dictatorships and repressive regimes. 5. Price collapse deprives the government of revenue, preventing it from meeting its obligations. 6. Rents lower government accountability to its citizens. 7. Rents lower government accountability to the international community. 8. Rents trigger predatory behavior. 9. Rents allow policies that encourage economic distortion. 10. Rents encourage political corruption. 11. Rents discourage development of other sectors of the economy. 12. Rents discourage development of infrastructure. 13. Rents discourage the development of an effective state bureaucracy.

[3] Mechanisms are numbered in Table 1 in order to assist the reader in tracking them through the remainder of the paper.

Primary Source	Stability	Instability
Domestic: Political elite	14. Rents buy stability from elite.	15. State attempts to buy stability, creating corruption and triggering additional rent-seeking. 16. Elites discourage economic diversification. 17. Elites create instability to gain larger share of rents.
Domestic: Civil society	18. Rents fund social welfare programs. 19. Rents support a security apparatus to repress dissent.	20. Rents repress a desire to form a strong civil society. 21. Rents support illegal or unpopular programs. 22. Rents create the perception of inequality in their distribution. 23. Rents prevent development of skilled labor force. 24. Rents prevent class changes that encourage democracy. 25. Oil infrastructure displaces portions of society.
Domestic: The economy	26. Rents support successful infant industry protection or import-substituting industrialization.	27. Infant industry protection or import-substituting industrialization creates a dysfunctional economy. 28. Dutch disease. 29. Social welfare programs trigger rent-seeking.
International: Other states	30. Government assists in creating stability to protect its oil interests.	31. Governments create or exacerbate existing tension by building or maintaining oil infrastructure.
International: Multinational corporations		32. Corporations create instability to increase profits or lower costs.
International: Populace		33. Foreign workers create resentment among local population.

One fact on which all of the aforementioned researchers agreed was that oil itself did not create stability or instability within states. Humphreys (2005) noted that the effect of oil production is more negative within weak states. Colgan agreed, specifically stating, "the causal effect of oil on international conflict depends on the political conditions within the petrostate" (2010, p. 5). Thus, in the following discussion, I note where oil itself acts as an exacerbating or mitigating factor and where oil effects mix with other elements of society to create stability and instability.

Côte d'Ivoire

For several decades following its independence on 7 August 1960, Côte d'Ivoire was considered one of Africa's most stable and prosperous former colonies, both politically and economically (Klaas, 2008). Unfortunately, its dependence on cocoa, lack of stable governing institutions, and overt racism disintegrated its society, causing its civil war during the mid-2000s and electoral crisis following its 2011 presidential elections. Oil is not one of its primary exports, but the country has produced oil since 1965 and has extracted its own oil since 1980. It exported just over 7,000 barrels per day in 1986 and has ranged between 38,000 and 55,000 barrels per day in the past decade; production and extraction rents are estimated to have ranged from $74M USD to $1.8B USD over the same time (The World Bank, 2011).[4] Based on this data, I examine how oil production and exportation from 1980 through the present has affected Côte d'Ivoire's political stability from 1980 through the present.

In this section I discuss Côte d'Ivoire's recent history, including its independence from France, the replacement of President Houphouet-Boigny, and the causes of the conflict of the past two decades. I discuss the country's political system; its governance and political stability; its budget, including revenue and expenditures; and its economic development and current economic challenges. I also address oil production and exportation in the country, including locations and control of oil fields and government revenue from oil. Finally, I analyze each of the mechanisms that relate oil wealth to stability and their applicability to Côte d'Ivoire and its oil industry.

[4] The data does not specify whether estimates are held constant at a specific year's dollar or in each year's dollar. Thus, estimates should not be used for specific comparisons but are useful for discussing general trends.

History of Côte d'Ivoire

The first French mission in Côte d'Ivoire was established at Assini, on the coast, just east of present-day Ghana, in 1687 (Handloff, 1988). The country elected Felix Houphouet-Boigny as President in 1960 following its independence. Houphouet-Boigny was the head of the Democratic Party of Côte d'Ivoire (PDCI), which had been associated with the French Communist Party (Encyclopaedia Britannica, *n.d.*), and was the only functioning political party in the state from 1960 through 1990 (Handloff, 1988). He defeated several weak coups and led a stable country; for decades, Côte d'Ivoire was a model of economic and human development. Although its modernization was not quick or complete, it modernized successfully without abandoning human right standards (Brayton, 1979).

One challenge to Ivorian development has been ongoing French involvement in the country. Côte d'Ivoire agreed to remain part of the French community following independence. In 1961, it signed an agreement granting France priority in extracting raw resources from Côte d'Ivoire and obligating Côte d'Ivoire to import strategic products from France (Busch, 2008). Côte d'Ivoire's civil service was also built on the prior French civil service, with French citizens composing almost 20% of Côte d'Ivoire's civil service in the 1980s. Busch notes, with emphasis, "These Frenchmen set policies, handled the budgets, regulated hiring, negotiated contracts, and ran the country for the Ivorians" (2008, p. 53). French influence in the country lingers, as Côte d'Ivoire's lack of friendliness towards labor movements and trade unions is largely attributable to French attitudes (Busch, 2008).

Côte d'Ivoire experienced significant economic problems in the 1980s. President Houphouet-Boigny had developed Côte d'Ivoire's agriculture at the expense of other sectors of its economy (Brayton, 1979). Food crops such as yams and plantains comprised almost 40% of agriculture production by the late 1980s, but the cash crops cocoa and coffee were still heavily emphasized and provided over half of the country's export earnings at the same time (Handloff, 1988). The collapse of cocoa prices in the 1980s reduced state revenue and challenged the bureaucracy, particularly because the civil service employed approximately 40% of the country's labor force (Klaas, 2008). Côte d'Ivoire was forced to accept Structural Adjustment Loans from the International Monetary Fund (IMF), and the conditions of the loans had severely negative impacts on Ivorian society. First, Côte d'Ivoire was required to reduce spending on social welfare programs and reduce the size of its civil service. This reduced society's social safety net and resulted in increased unemployment at the same time, with a devastating effect on Ivorian citizens (Klaas, 2008). Côte d'Ivoire was also required to open its political system and institute democracy. However, President Houphouet-Boigny did not institute a true democracy, but rather erected a facade of democracy around the existing system (Klaas, 2008).

President Houphouet-Boigny's death in 1993 was the first major source of instability in the country. The country elected Henrie Bédié as interim president, but the state's institutions were not robust, and his transition to the presidency was rocky (Klaas, 2008). Throughout his six-year term, President Bédié frequently blamed foreigners for the country's problems, a charge that resonated with young people in the country as they contrasted the poverty of their own families with the opulence of foreigners (Klaas,

2008). President Bédié also institutionalized racism into the country's elections, amending the country's constitution to require that Ivorians seeking office have two Ivorian parents (Klaas, 2008). This strategy was primarily aimed at preventing one of the President's most likely challengers, Mr. Alassane Ouattara, from competing in the October 2000 presidential election, as his mother was Burkinabe.

In December 1999, before elections could be held, General Robert Guei seized power in a bloodless coup. He placed the military in control and suspended the country's Constitution, courts, and Parliament ("Coup leader tells diplomats he will honor Ivory Coast's debts," 1999). He permitted the October 2000 election to proceed, excluding Mr. Ouattara from the ballot, but faced stiff opposition from a "pure" Ivorian, Mr. Laurent Gbagbo. He rigged the election in his favor by disqualifying two parties, but his actions prompted multiple parties to call for a boycott (Onishi, 2000). Mr. Gbagbo was declared the winner and sworn in as President, but the illegitimacy of the election and post-election clashes began a conflict that continued for nearly a decade (Klaas, 2008).

It took nearly two years for the country to disintegrate into civil war. The country experienced two failed coup attempts, one in September 2001 and a second in September 2002 ("Former ruler killed in Ivory Coast coup attempt," 2002). The second attempt sparked open fighting, and rebel groups supporting Mr. Ouattara gained control of the northern half of the country (Klaas, 2008). Traditional hunters, known as *donzo*, joined resistance groups in favor of Ouattara (Basset, 2003), and a significant number of student groups armed themselves, joining both sides of the conflict (Banegas, 2011). Checkpoints proliferated across the country, and many groups used them to fund their fighters (Klaas, 2008). Profits from cocoa sales were also used to fund new arms and fighters (Klaas,

2008). Although the political elite used ethnic and religious differences to start the conflict, there is no evidence of any source of the conflict other than a desire for political control over the state ("Ivory Coast profile," 2014).

Anti-French and anti-foreigner sentiment grew stronger as conditions in the country deteriorated. The Ivorian Air Force "accidentally" bombed a French base, and pro-government militias harassed French nationals (Klaas, 2008). In November 2004, the United Nations Security Council passed resolution 1572, imposing an arms embargo, travel ban, asset freeze, and certain restrictions on the diamond trade (UNSC Resolution 1572, 2004). This resolution was renewed annually until 2011 (UNSC Resolution 1643, 2005; UNSC Resolution 1727, 2006; UNSC Resolution 1782, 2007; UNSC Resolution 1842, 2008; UNSC Resolution 1893, 2009; UNSC Resolution 1946, 2010). Throughout the mid-2000s, numerous cease-fires and agreements to end the conflict failed to hold, incentives to end the conflict were not strong enough to overcome involved parties' desire for power (Klaas, 2008). President Gbagbo utilized every instrument of state power to attempt to terminate the conflict, including political, military, press, and economic resources (Banegas, 2011). He failed to hold the 2008 Presidential election for nearly two years (Klaas, 2008) and used state police armed forces to break up pro-Ouattara rallies prior to the election in 2010 (Banegas, 2011).

Although Mr. Ouattara won the election, President Gbagbo refused to cede power ("Ivory Coast profile," 2014). Instead, he had security forces corner Mr. Ouattara, and his soldiers conducted attacks on civilians in Ouattara-friendly neighborhoods throughout Abidjan (Nossiter, 2011). President Gbagbo was only forced from power when an international coalition of French and UN helicopters conducted military strikes on his

heavy weapons caches, allowing Mr. Ouattara's forces to capture him (Nossiter, Sayare, and Bilefsky, 2011). He was charged with crimes against humanity for his role in the deaths of over 3,000 Ivorians in the four months of fighting between Mr. Ouattara's election to President and his own capture (Sekularac, 2011). The civil war took a heavy toll on the country, with officials describing disarmament of the civilian population as a high priority. Nossiter, Sayare, and Bilefsky (2011) described the scene in the capital city of Abidjan:

> Few were out after days of urban warfare that had kept the city's residential areas in lockdown and provoked a serious humanitarian crisis. Water and food are lacking. Sporadic bursts of gunfire could still be heard...bodies still spilled out of bombed-out vehicles in the city's eerily deserted highways.

The country has not been completely successful at re-stabilizing since the war ended. The United Nations Operation in Côte d'Ivoire (UNOCI) peacekeeping force still has over 9,400 troops and 1,300 civilian staff in country (United Nations, *n.d.*). In early 2013, Amnesty International reported that soldiers and militias were still attacking civilians, carrying out extrajudicial killings and making political arrests (Bavier, 2013).

Stability and Instability

Although CI was never a liberal democracy, President Houphouet-Boigny was able to maintain political stability for several decades following independence by emphasizing political solidarity and building an extensive patronage network among the elite (Klaas, 2008). He encouraged citizens to provide input to the political process (Brayton, 1979), even to the point of encouraging foreigners to vote (Basset, 2003). He

restricted conflict to constitutional bounds, and Côte d'Ivoire's military expenditures were among the lowest in Africa (Brayton, 1979). This approach created a stable society during President Houphouet-Boigny's tenure but did not set the proper conditions for the successful passing of power to his successor, President Bédié (Klaas, 2008).

President Bédié inherited a stable country with significant potential to develop its natural resource wealth. However, instead of continuing to develop the country, he reinforced the patronage networks and turned its civil service into a fully corrupt organization. He alienated his political rivals by emphasizing racial purity, and his strategy appeared so successful that his successors perpetuated these policies in their own terms (Klaas, 2008). However, this strategy was a source of conflict, as northern Ivorians were made to feel as if they were second-class citizens (Busch, 2008). By the mid-2000s, foreigners were treated so poorly that other nations and international organizations such as France, the Economic Community of West African States, and the African Union refrained from intervening for fear that President Gbagbo would conduct reprisals against their nationals (Banegas, 2011). Political battles over citizenship, ethnic and religious divisions between the Muslim north and Christian south, and land access rights finally triggered the country's civil war.

The World Governance Indicators and economic freedom rankings assist in identifying elements of Ivorian society that may trigger a backslide into instability and in clarifying expectations of Ivorians. Figure 1 shows the World Governance Indicators assessment of government effectiveness and political stability in Côte d'Ivoire. The assessment of government effectiveness reflects public perceptions of government services provided, the quality of the country's civil servants, the likelihood that political

considerations will affect government services, government policies, and government commitment to its own policies (Kaufmann, Kraay, and Mastruzzi, 2010). The political stability indicator "captures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism" (Kauffmann et al., 2010, "Series"). These indicators are unsurprising, as they show near-complete instability during the middle of the civil war, between 2000 and 2009, reflecting Ivorians' complete lack of confidence in the ability of their government.

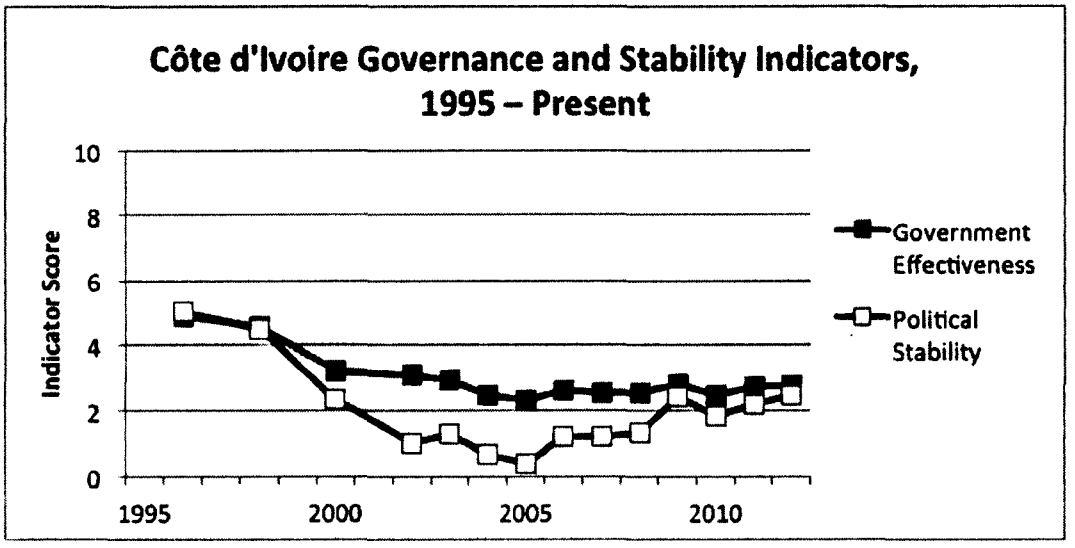

Figure 1. Côte d'Ivoire Governance and Stability Indicators, 1995–Present (Kaufmann et al., 2010[5]).

Corruption and the country's legal system are two other important elements of society that can work with the country's oil industry to push it towards stability or instability. Pervasive and increasing corruption reflects expectations of civil servants that

[5] The World Governance Indicators measure six indicators of the quality of governments on a scale from 2.5 to 2.5; here they are translated to a scale of 0.0 to 10.0 for ease of comparison with other similar indicators. Indicators measure control of corruption; government effectiveness; political stability; and the absence of violence, regulatory quality, rule of law, and voice and accountability (World Bank, 2014d).

they will not be punished for accepting bribes, as well as expectations from civil society that the state does not provide adequate services. It also provides a loophole for oil corporations to abuse resources, labor laws, or other elements of society to their own benefit. Despite infrastructure challenges, oil smuggling is a lucrative business, with both petrol and crude oil products being smuggled into Côte d'Ivoire from Ghana and Nigeria (Guesnet, Müller, and Schure, 2009; Rosenstein, 2005). The rule of law, legal system, and fair enforcement of regulations also contribute to a potential lack of state integrity that could be exploited. Corruption is an ongoing problem in Côte d'Ivoire that does not appear to be improving.

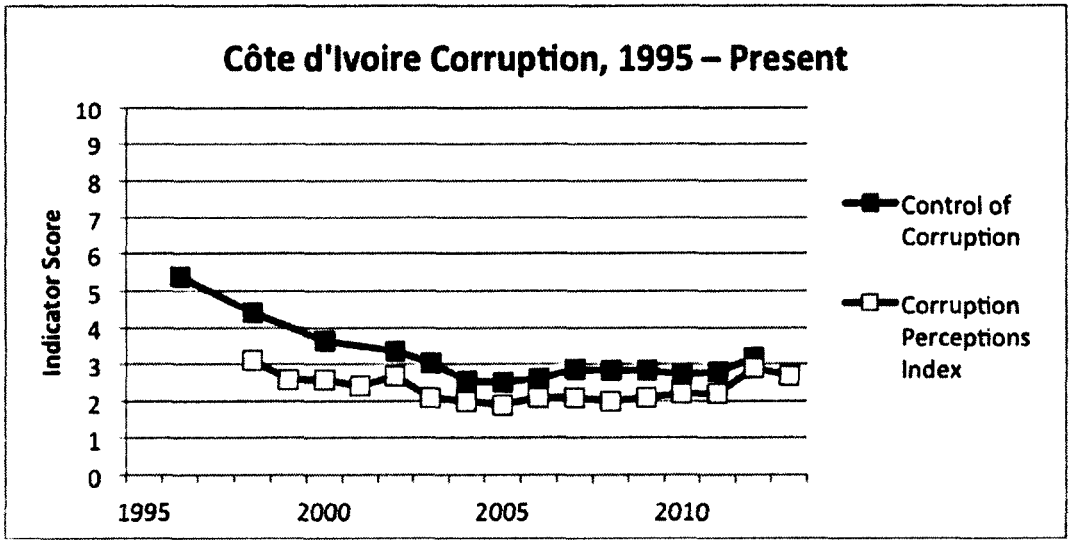

Figure 2. Côte d'Ivoire Corruption, 1995–Present (Kaufmann et al., 2010[6]).

The country's indicators for rule of law are discouraging but not surprising. Rule of law, impartial courts, military interference in civilian issues, and the integrity of the state's legal system can each link the state's oil industry to its political stability. Fair

[6] The Corruption Perceptions Index was scaled from 1–10 between 1995 and 2011, then changed to a scale of 1–100 starting in 2012. Data is shown here on a scale from 1–10 for consistency, with data from 2012–2013 divided by 10.

enforcement of property rights through the courts is critical, as the rights are essential for extracting infrastructure-intensive natural resources such as oil (Acemoglu and Johnson, 2005; Di John, 2007; Ross, 1999). Without confidence in the state's rule of law, corporations may be unable to capitalize on their investment, or they may take advantage of the state's inability to enforce regulations, to the detriment of the state and its citizens.

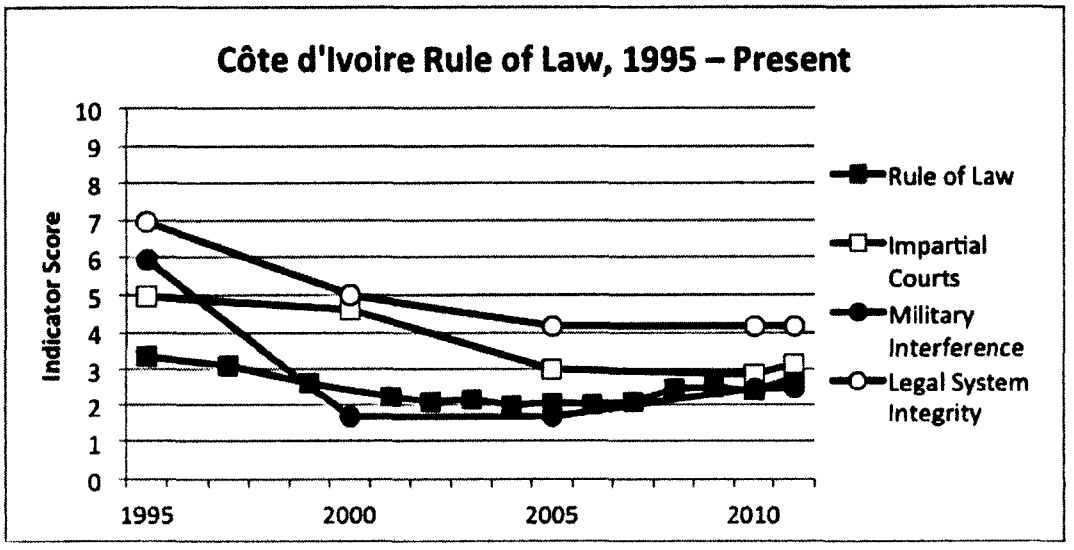

Figure 3. Côte d'Ivoire Rule of Law, 1995–Present (Kaufmann et al., 2010; The World Bank, 2011).

International stability. Côte d'Ivoire imports crude oil and both imports and exports refined petroleum products. The state is considered a regional energy hub and exports petroleum products to Benin, Burkina Faso, Ghana, Mali, and Togo (Avery, 2010). Annual data on exports and their destinations is not readily available,[7] so it is difficult to analyze Côte d'Ivoire's stability within regional oil networks. The state has the second-highest oil refining capacity of Central Africa, following Nigeria (Avery, 2010), and imports a significant amount of Nigerian crude oil (Guesnet et al., 2009). The

[7] The Ivorian government does not publish export quantities or destinations.

state was accused of stealing Nigerian oil in the mid-2000s, but the effect of these accusations and the resolution of the situation is unclear (Guesnet et al., 2009).

Côte d'Ivoire's domestic stability is slowly improving with the stabilization of its Presidency and reform measures following its civil war. Its appears stable within global and regional networks, mostly due to its limited capabilities compared to major petroleum exporting states, but its industry lacks the transparency necessary to assess current and future stability trends.

Economy

Côte d'Ivoire's economy was a source of stability directly following its independence, developing as a capitalist system with a strong agricultural sector (Brayton, 1979). However, President Houphouet-Boigny pushed the state to develop its agricultural sector, in particular its coffee and cocoa crops, at the expense of its other sectors (Brayton, 1979). This strategy became a source of instability when the downturn in prices of cocoa and coffee in the late 1970s reduced citizens' incomes and state revenues. Economic restructuring in the 1980s exacerbated these issues, and although the state attempted to fill the gaps with alternatives such as the oil and gas industries, it never developed other economic sectors enough to employ large portions of its labor force. Today, Côte d'Ivoire imports a significant portion of the unskilled labor employed within its borders, and many skilled labor positions are not open to Ivorians (Busch, 2008). Côte d'Ivoire also has a historically anti-union attitude, primarily due to French attitudes against labor organizations (Busch, 2008).

Côte d'Ivoire's economic freedom also contributes to its stability. The Fraser Institute conducts an annual evaluation of states' economic freedom, assessing each

country's government's size and effectiveness, legal system and property rights, the quality of its money, its freedom of international trade, and economic regulation, and rates each factor on a scale of 1-10. Figure 4 shows Côte d'Ivoire's raw scores and rankings since 1980.

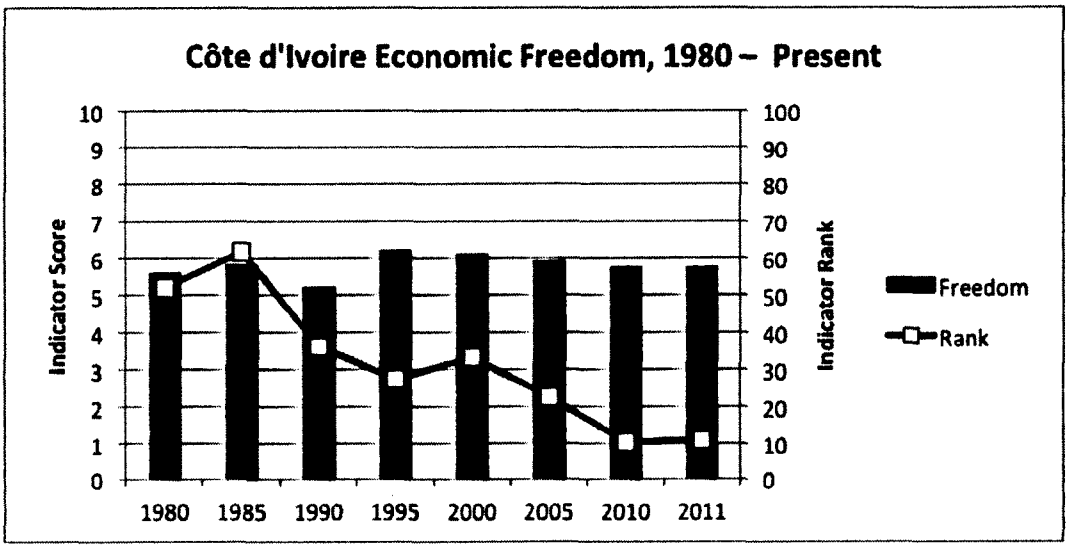

Figure 4. Côte d'Ivoire Economic Freedom, 1980–Present (Gwartney et al., 2013).

Many of the elements that make up Côte d'Ivoire's economic freedom rating could affect its oil industry, thus affecting the industry's impact on stability in the state. Elements of economic freedom in a nation that could affect the oil industry include the size of the government, soundness of its money, freedom of international trade, and business regulation.

Government size. The methodology used examines four factors: government consumption, government transfers and subsidies; government enterprises and investment, and the top marginal income tax rate.[8] Government consumption is scaled from 40% or more of total consumption receiving a rating of 0.0, and government

[8] The top marginal income tax rate is not discussed here, as it does not affect oil.

consumption under 6% receiving a rating of 10.0. The category of government transfers and subsidies receives a score of 0.0 when government transfers and subsidies compose 37.5% of the country's GDP, and 10.0 when government transfers and subsidies are 0.5% or less of the country's GDP. Government investment is calculated using the following scale: government investment at 25%–30% of total investment is rated a 6.0, government investment at 30%–40% of total investment is rated a 4.0, government investment at 40%–50% of total investment is rated a 2.0, and government investment above 50% of total investment is rated 0.0. Côte d'Ivoire's scores for government size are shown in Figure 5.

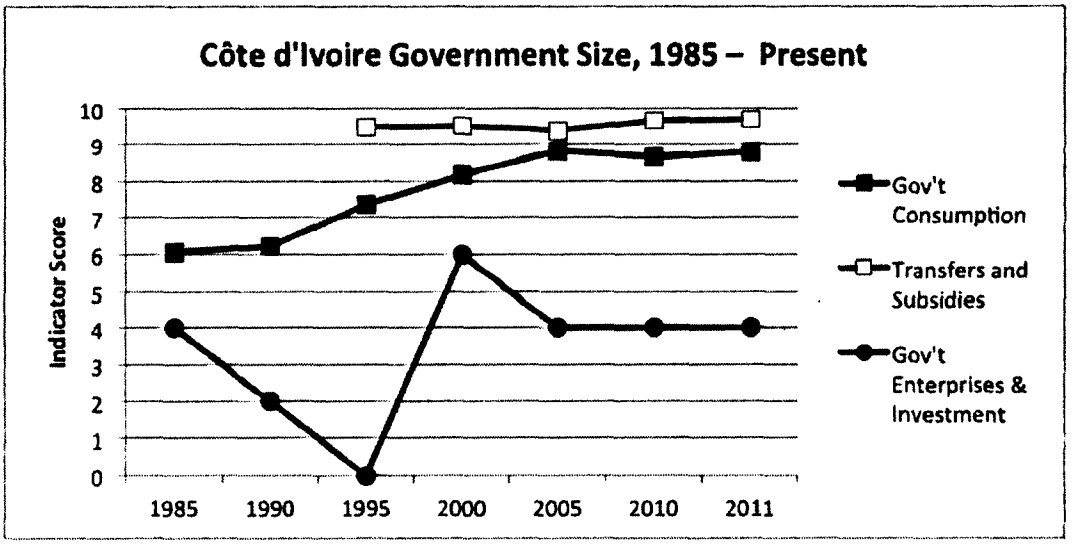

Figure 5. Côte d'Ivoire Government Size, 1985–Present (Gwartney et al., 2013).

The ratings reflect negatively on larger government consumption, transfers, and subsidies based on the theory that government consumption substitutes for personal choice and that transfers and subsidies reduce individuals' freedom to keep what they earn. This directly conflicts with Côte d'Ivoire's experience, where economic restructuring and reduction of government consumption, subsidies, and transfers created

significant poverty and made the country prone to instability. Thus, although the study assumes greater freedom is associated with positive outcomes, the opposite may be true.

Sound money. The methodology examines money growth, the standard deviation of inflation, recent inflation, and the freedom to own foreign currency. Money growth scales the growth of the money supply to the growth of the real GDP, with 0.0 representing a 50% growth of the money supply relative to the GDP, and 10.0 representing 0% growth of the money supply relative to the GDP. The standard deviation of inflation measures how predictable inflation is and is scaled with 0.0 representing a 25% standard deviation of inflation and 10.0 representing 0% standard deviation of inflation. Recent inflation measures the previous year's inflation, with 0.0 representing inflation at or above 50% and 10.0 representing inflation at 0% (2-3% inflation, a level that many economists consider to be "healthy," would represent a score of 9.4–9.6). Côte d'Ivoire's score of 0.0 on Foreign Currency Permitted reflects restrictions on foreign currency bank accounts, both domestically and abroad. Figure 6 shows Côte d'Ivoire's ratings for this category.

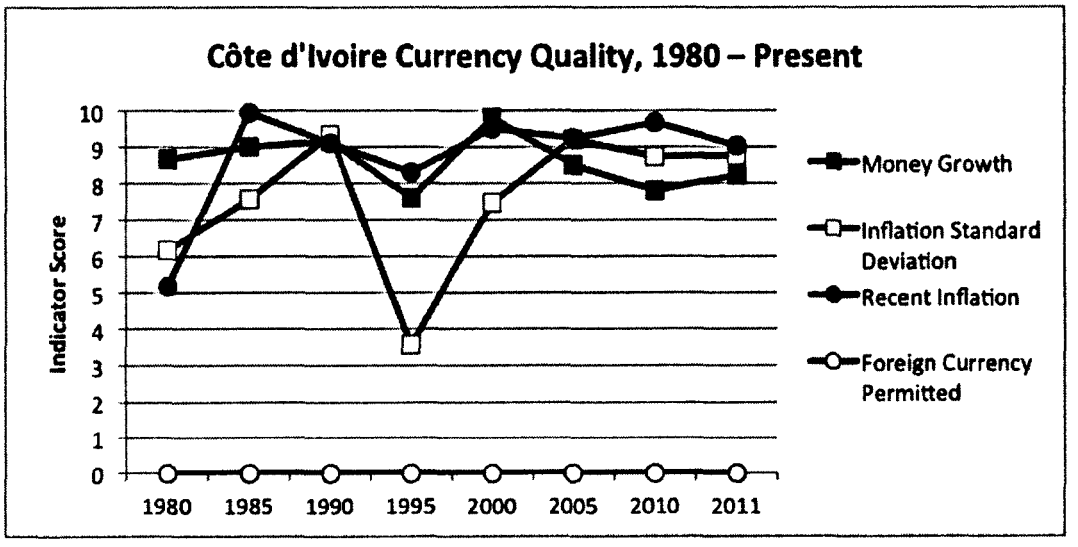

Figure 6. Côte d'Ivoire Currency Quality, 1980–Present (Gwartney et al., 2013)

Overall, these ratings reflect that with the exception of unpredictable inflation during the mid-1990s, Côte d'Ivoire's currency[9] is stable. An unstable or unfavorable currency may have detrimental effects on oil refineries or exports for both the state and oil corporations.

Freedom of international trade. This category assesses mean tariffs, regulatory barriers to trade, black market exchange rates, and controls on the movement of capital and people. The final category examines restrictions on foreign investment and ownership, capital controls, and freedom of foreigners to visit. Unfortunately, only black market exchange rates and capital controls have been measured for a significant portion of the time Côte d'Ivoire has been producing oil; useful indicators such as regulatory trade barriers have only been measured since 2010. Figure 7 shows freedom of international trade in Côte d'Ivoire since 1980. Aside from a slight loosening of capital

[9] Côte d'Ivoire shares its currency, the West African Franc, with Benin, Burkina Faso, Guinea-Bissau, Mali, Niger, Senegal, and Togo.

controls in the mid-2000s, conditions of international trade in Côte d'Ivoire have likely had a negligible impact on oil and stability.

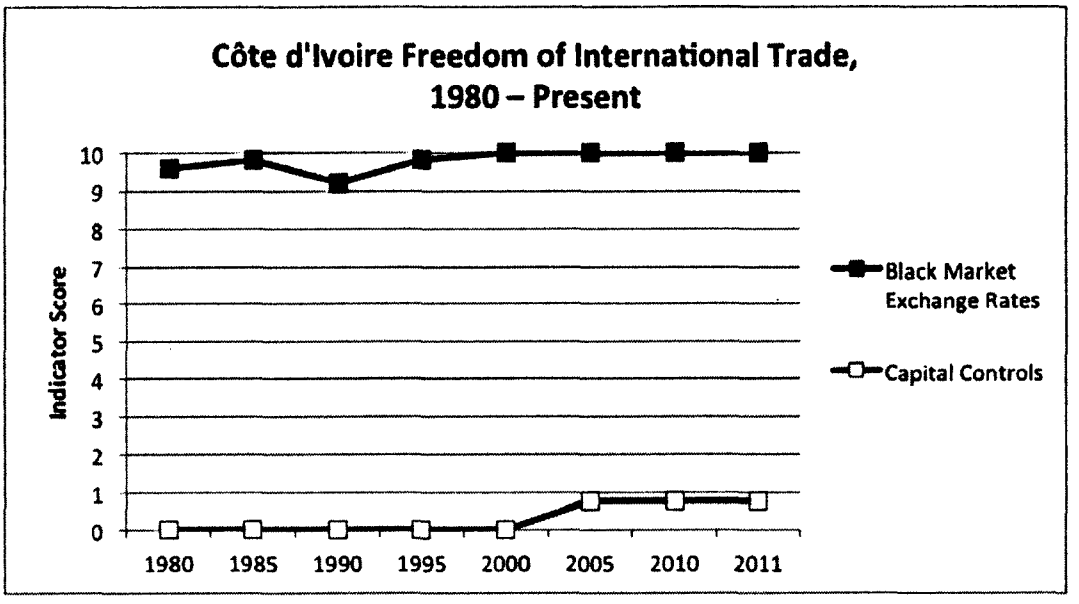

Figure 7. Côte d'Ivoire Freedom of International Trade, 1980–Present (Gwartney et al., 2013).

Regulation. The methodology examines regulation of the credit markets, the labor market, and businesses. Unfortunately, these indicators were not measured in Côte d'Ivoire until 2005, so trends cannot be identified during the time the state has been producing and exporting oil. However, we can assess their general impact. Due to oil corporations' size and international basing, it is unlikely they rely on local credit in Côte d'Ivoire and thus also unlikely that local credit markets affect their production and export operations. Improvements in the labor markets, such as greater freedom in collective bargaining, may affect the state's oil production. However, given the state's historical objections to worker rights, this is unlikely. Business regulations would affect oil production but would likely have contradictory effects, since they would affect corporations and the government in opposite ways.

Economic inequality. Inequality can frequently be a source of instability. Figure 8 shows the income distribution in the country.

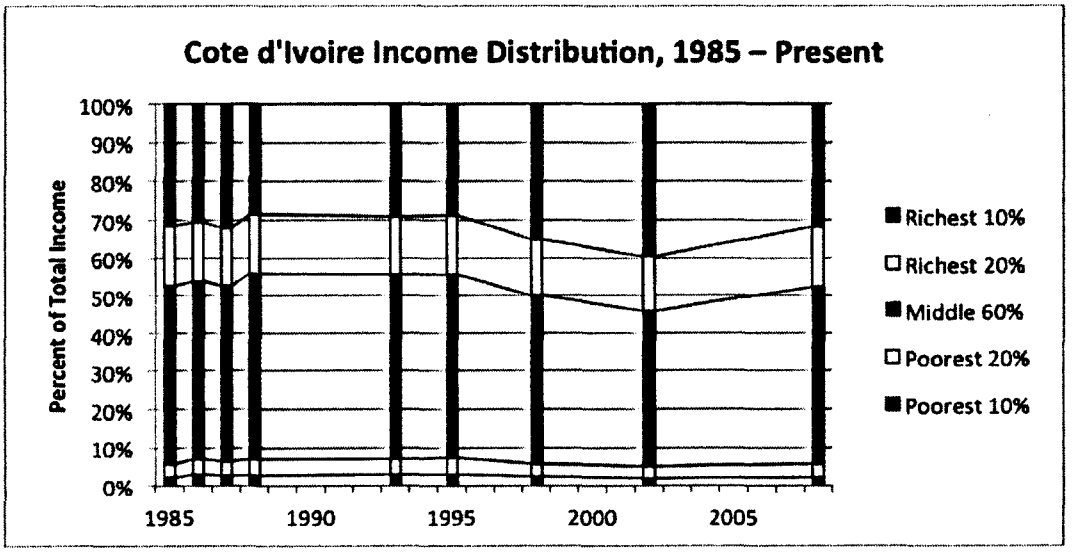

Figure 8. Côte d'Ivoire Income Distribution (*The World Bank*, 2013).

Figure 8 displays a graph of the income of the poorest 10% of the country, the second-poorest 10% of the country (summing to the poorest 20% of the country), the income earned by the middle 60% of Ivorians, and finally the richest 20% and 10% of the country. This chart shows that despite economic restructuring in the 1980s, the country reduced inequality, as the share of income by the richest in the country declined, and the share of income by the poorest in the country increased. These gains reversed throughout the late 1990s and the civil war, but the state began making progress again after the war.

Figure 9 shows the absolute poverty in the country but does not elicit similar cause for optimism. The number of people in poverty, those surviving on less than $2 per day (2005 PPP), and number of people in extreme poverty, those surviving on less than $1.25 per day (2005 PPP), has steadily increased since poverty has been measured. The impact of the IMF's structural adjustment loans is evident, with poverty increasing 46%

between 1988 and 1993 and extreme poverty increasing 53% in the same time (*The World Bank*, 2013).

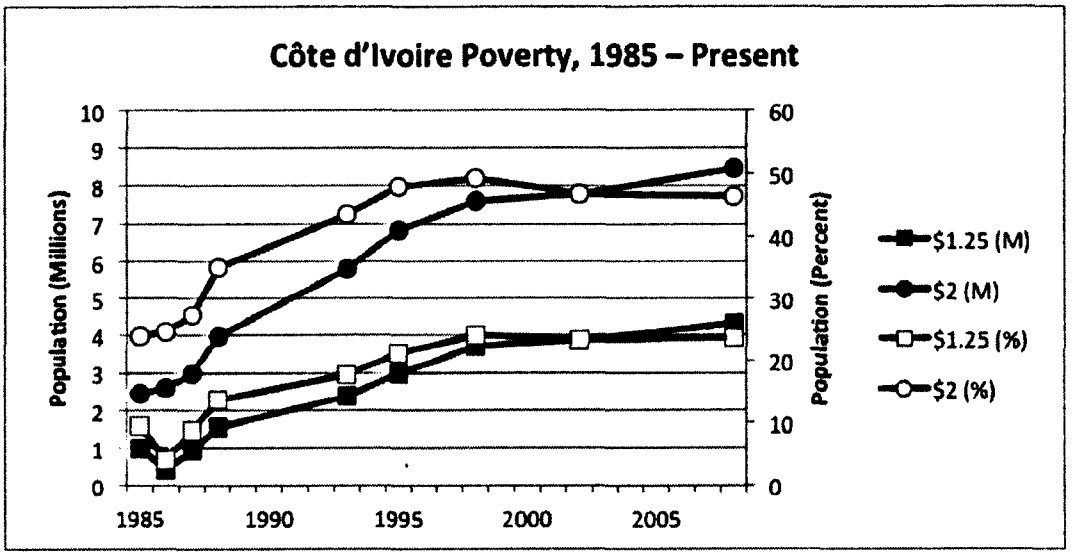

Figure 9. Côte d'Ivoire Poverty, 1985–Present (*The World Bank*, 2013).

Despite the significant number of people in the country living in poverty, poverty itself is not necessarily a source of instability. However, one source of instability during the war was the number of armed checkpoints throughout the country and extortion at these checkpoints by a range of armed forces. Poverty prior to the war likely contributed to the number of individuals who felt they had to extort their fellow citizens to survive.

Oil in Côte d'Ivoire

Oil was first discovered in Côte d'Ivoire in 1974, off the shore of Côte d'Ivoire close to its border with Ghana (Société Nationale d'Opérations Pétrolières de la Côte d'Ivoire, *n.d.*). This field was named the Aries oil field, and the nearby Espoir and Bélier fields were discovered shortly thereafter (Handloff, 1988). These fields were small and in deep water, offering significant challenges for extraction, but ESSO (Developing Markets Associates, n.d.), Phillips Petroleum, and Exxon developed the fields and began producing oil in the early 1980s (Handloff, 1988). Output reached between 28,000 and

30,000 barrels per day (BPD) quickly but then fell off, and by 1986 the state could not produce enough oil for its own needs (Handloff, 1988).

Today Côte d'Ivoire's coast is split into 44 offshore blocks. Three have existing oil concessions, and 19 have ongoing exploration efforts (Petroci, n.d.). The state oil company, the National Petroleum Operations Company of Côte d'Ivoire (PETROCI), is currently developing other fields ("Ivory Coast: Rialto, Petroci submit Gazelle field development plan," 2011) and building a pipeline reaching from Abidjan, its capital, to Bouaké, the country's second-largest city. This pipeline is intended to provide oil to not only Côte d'Ivoire but also Mali and Burkina Faso ("Project pipeline," 2014).

Oil management in Côte d'Ivoire is conducted by the Ministry of Mines, Petroleum, and Energy and PETROCI. The Ministry of Mines, Petroleum, and Energy is responsible for implementing Ivorian energy policy, securing the country's hydrocarbon supply, promoting its research and development activities, and regulating and controlling petroleum stocks (Informations relatives, 2013). PETROCI is responsible for all petroleum operations within the country and maintains a minimum financial interest in all oil fields. This financial interest currently ranges from 5% in the Gazelle field ("PETROCI increases stake," 2012) to 31.5% in block CI-102 ("Ivory Coast grants exploration rights," 2007). A 10% interest, as with the CI-523 and CI-525 blocks (Afren Plc., n.d.), is typical.

Although the Extractive Industries Transparency Initiative (EITI) certified Côte d'Ivoire as compliant in May 2013, there is still a significant amount of secrecy surrounding the state's oil industry. Ivorian law states that all of the country's oil deposits belong to the state and that state officials cannot hold financial interests in oil contracts,

but concrete details beyond that are difficult to come by, as most of the details of oil agreements are contained within the contracts themselves, which are not made public (Guesnet et al., 2009). Production Sharing Contracts (PSCs) between Multinational Corporations (MNCs) and PETROCI are the most common vehicle for developing oil concessions (CMS Cameron McKenna LLP, 2013; Mieu, 2013), and as of 1998, Côte d'Ivoire had signed eight PSCs (Bindemann, 1999).

Figure 10 shows Côte d'Ivoire's oil production and consumption. Consumption has remained consistent over time, but production has varied greatly. The Société Ivoirienne de Raffinage (SIR) refinery was opened in 1965 with a capacity of approximately 14,000 BPD. The plant's capacity was expanded to approximately 80,300 BPD by 1980, but the recession and increase in crude prices in the early 1980s reduced demand, and the refinery's capacity was reduced for economic reasons. Political instability following General Guei's coup made it difficult for the refinery to maintain operations, but by 2003 the refinery was able to resume normal operations. The refinery only processes Nigerian crude oil and stores (but does not refine) Ivorian crude oil ("Oil refining in Côte d'Ivoire," *n.d.*).

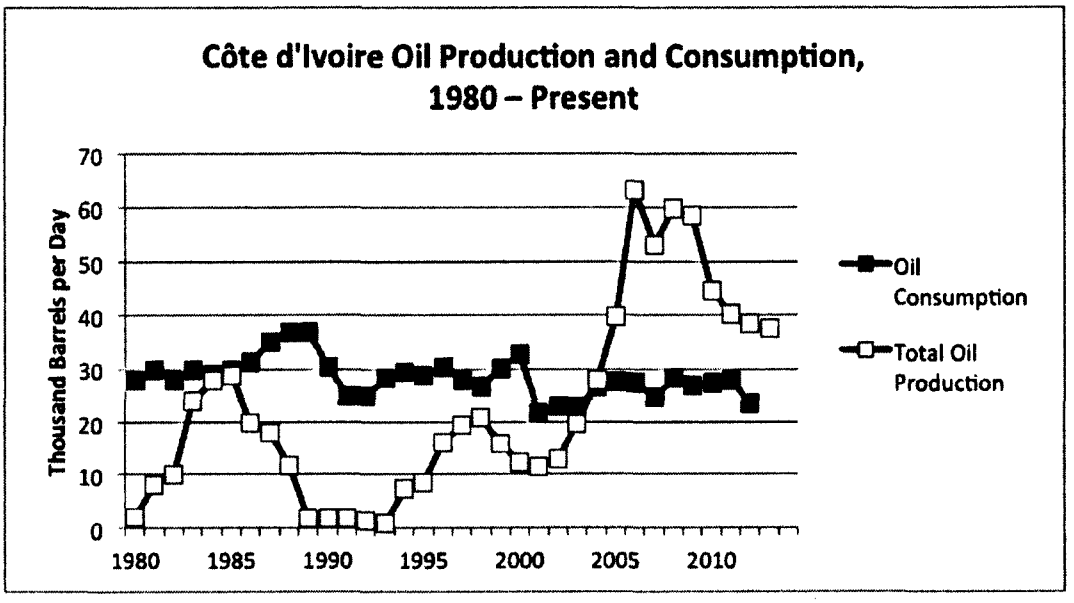

Figure 10. Côte d'Ivoire Oil Production, Consumption, and Imports, 1980–Present (The World Bank, 2011).

Figure 11 shows refined petroleum imports and exports. Imports have been steady at a level below consumption, but it is unclear how the difference is supplied. Exports have been significantly higher than production, particularly during the late 1990s, and it is also unclear how the country exported more refined products than it produced.

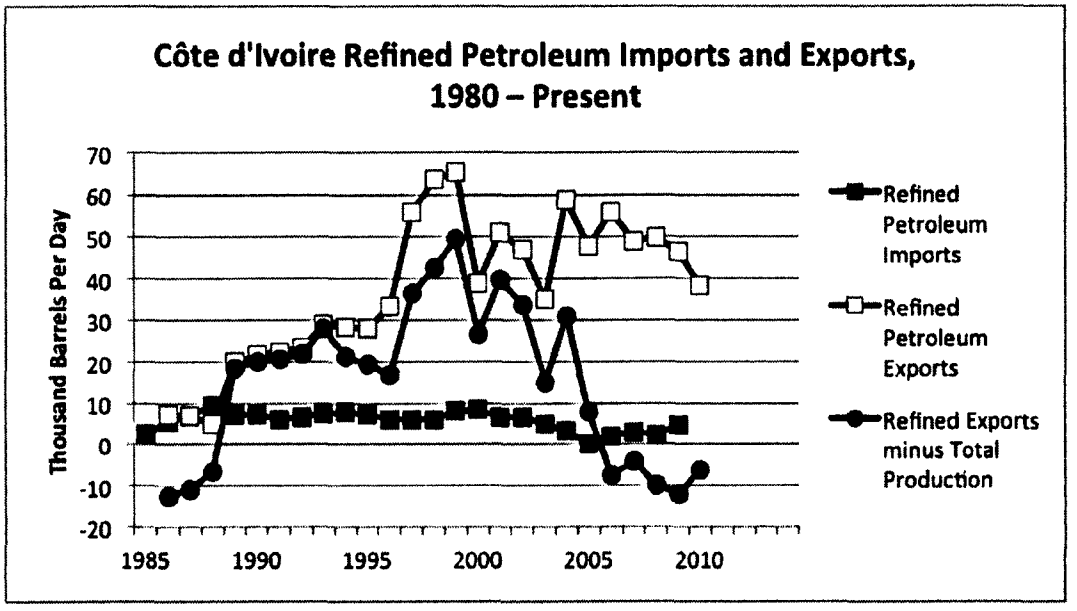

Figure 11. Côte d'Ivoire Refined Petroleum Imports and Exports, 1980–Present (The World Bank, 2011)

Multiple MNCs operate oil fields in Côte d'Ivoire's offshore territory. These companies include:

Afren Plc. Afren markets itself as an internationally independent company but is headquartered in Britain. It holds a 20% interest in block CI-523 and a 51% interest in block CI-525 and is currently conducting seismic exploration in both blocks. The British-owned Taleveras Group and PETROCI also hold interests in both blocks ("Blocks CI-523 and CI-525," *n.d.*).

African Petroleum Côte d'Ivoire. African Petroleum Côte d'Ivoire is a subsidiary of African Petroleum Corporation Limited, which has its offices in the UK (African Petroleum, n.d.). African Petroleum Côte d'Ivoire signed an agreement with PETROCI in March 2012 to hold a 90% interest in the CI-509 block, with PETROCI holding the remaining 10% interest. African Petroleum received exploration rights to the

CI-513 block in December 2011 ("African Petroleum acquires exploration permit," 2012).

Azonto Petroleum Limited. Azonto, which until November 2013 was known as Rialto Energy Limited ("Rialto Energy announces change of company name," 2013), is based in the UK (Azonto Petroleum Ltd, n.d.). Azonto operates multiple fields in block CI-202 ("Ivory Coast," 2011) and in April 2012 received 25-year rights for the Gazelle field ("PETROCI increases stake," 2012). Azonto has a profit-sharing agreement with PETROCI, and PETROCI is in the process of buying its share in the Gazelle field up from 5 to 16% ("PETROCI increases stake," 2012).

Canadian Natural Resources (CNR). CNR is in the process of developing the Espoir (CI-26) and Baobab (CI-40) fields (Canadian Natural Resources, n.d.).

Edison S.p.A. Edison is an Italian company that has an active presence in Côte d'Ivoire's oil fields (Edison, *n.d.*). However, company literature does not specify where or in what capacity the company operates in Côte d'Ivoire.

Jarikuma Marsaaf. Guesnet et al. (2009) state that Jarikuma Marsaaf is a Malaysian company that, in 2008, had interests in blocks CI-301, CI-302, and CI-303 ("Secteur pétrolier," 2008). It is unclear if Jarikuma Marsaaf still has holdings in these blocks.

Lukoil. Lukoil is a Russian company that operates exploration projects in blocks CI-101, CI-401, CI-205, CI-524, and CI-504. Lukoil has a production sharing agreement for these blocks, with Vanco holding a 28% interest and PETROCI holding a 15% interest ("Côte d'Ivoire," *n.d.*).

Oranto Petroleum. Oranto Petroleum, a Nigerian Company, was awarded a PSC for block CI-205 in 2011. Its portion of the contract is 27%, with Lukoil owning 63% and PETROCI owning 10% (Atlas Petroleum International Limited, 2011). Oranto reports that it has 100% ownership of block CI-206 (Atlas Petroleum International Limited, 2011), although this is unlikely given laws requiring that PETROCI own part of each contract.

Total. Total is a French company with interests in blocks CI-514, CI-515, CI-516, and CI-100. It holds a 54% interest in block CI-514 and acts as the block operator, with CNR holding a 36% interest and PETROCI holding a 10% interest ("Total buys stake," 2012). Total has a 45% interest in blocks CI-515 and CI-516, with Anadarko Petroleum also holding a 45% interest and PETROCI holding a 10% interest ("Total buys stake," 2012). Total holds a 60% interest in the CI-100 block, but it is not clear which company holds the remaining 40% interest ("Total buys stake," 2012).

Tullow Oil. Tullow is an Irish Company, but its head offices are in London. Tullow owns a 21% interest in block CI-26, the Espoir field, sharing interests with CNR and PETROCI. It also has a 30% interest in block CI-303, which it owns with Anadarko and PETROCI (Tullow Oil, *n.d.*).

Vanco Energy. Vanco Energy is a US company with a PSC for blocks CI-101, CI-401, CI-205, CI-524, and CI-504 (Lukoil Overseas, n.d..).

Yam's Petroleum. Yam's is an Ivorian company that previously owned the entirety of block CI-100. In 2010 it sold 60% of its share to Total and 15% of its share to PETROCI (Mieu, 2013).

Zetah Oil Company. Zetah is an Ivorian subsidiary of the French corporation Maurel & Prom that conducts operations in Benin, Gabon, and the Republic of Congo (Brazzaville), but does not own any financial interests in Ivorian oil fields (Development, 1999). The Wildlife Conservation Society has accused Zetah of failing to adhere to international environmental standards and failing to conduct environmental impact assessments as it conducts seismic explosive operations off the coast of the Congo (Tsoumou, 2007). Both Zetah and Maurel & Prom have denied that their operations are harmful to the environment.

Other. Guesnet et al. (2009) also list Al Thani (United Arab Emirates) as a company with oil interests in Côte d'Ivoire, but I was unable to find any information on their holdings.

Côte d'Ivoire has a robust oil industry, but most do not believe the industry benefits Ivorians. Busch notes that "The oil and gas businesses are burgeoning but the money never seems to reach the people, nor is there cheap fuel" (Busch, 2008, p. 54). Catholic bishops in the region have noted the damage created by oil companies and have asked both oil companies and churches to assist in ending inequities created by the industry (Frica, 2002). A 2006 incident involving Trafigura Beheer BV, a Dutch oil company, resulted in the Ivorian company Tommy dumping toxic waste from oil processing into the Abidjan port. Following the dump, hospitals documented at least 8 deaths, a dozen hospitalizations, and thousands seeking medical treatment. The port official that authorized the dumping of the toxic waste resigned shortly following the incident, but the ship originally carrying the toxic waste was blockaded in an Estonian port ("The toxic trade," 2006). It was not until four years later that a Dutch court found

Trafigura guilty of exporting toxic waste and ordered it to compensate approximately 30,000 victims a total of 28.7M pounds. Even after the verdict, Trafigura denied it caused any harm and claimed that it legally disposed of the waste through a local company (Neate, 2012). Finally, as I will discuss in the next section, the United Nations believes Côte d'Ivoire used its oil wealth in the mid-2000s to purchase weapons and conduct its civil war (UNSC Resolution 2045, 2012).

Government Revenue and Expenditures

One historical issue with Côte d'Ivoire's oil industry is a lack of transparency. Guesnet et al. (2009) state, "the amount of output that is produced and exported by the oil companies, the share that the state receives and the kind of use that the money is put to" (p. 66) are problematic. The UN Group of Experts tasked with investigating Côte d'Ivoire's oil industry was unable to adequately investigate due to a lack of information (UNSC Resolution 1842, 2008) and was stonewalled by PETROCI (UNSC Resolution 1946, 2010). More recently, the state has permitted independent agencies the Hart Group and Fair Links to investigate its oil industry to support EITI certification, although the UN notes continuing discrepancies with information the state has provided (UNSC Resolution 2153, 2014).

Here I examine general state revenues and expenditures, tax revenues reported by EITI, and World Bank estimates of oil production and extraction rents. State revenues and expenditures are taken from the Banque Centrale des Etats de L'Afrique de L'Ouest (BCEAO), which issues the West African Franc (CFAF), manages monetary policy, supervises banking activities, and provides assistance to eight member states (Banque

Centrale des Etats de L'Afrique de L'Ouest, *n.d.*). Figure 12 shows state revenue from 1960 through 2013 and estimated oil rents.

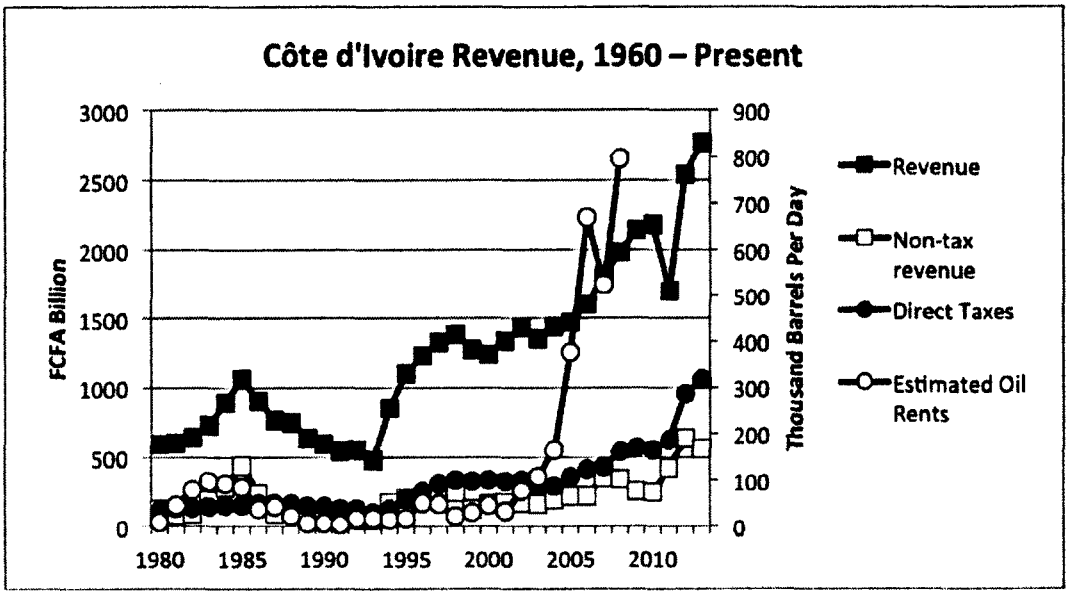

Figure 12. Côte d'Ivoire Revenue, 1960–Present (BCEAO, 2011; The World Bank, 2011).

Unfortunately, government revenues are published with little explanation as to what information is included in each category. Revenue is provided in four categories: total revenue and grants, total revenue excluding grants, current revenue, and revenue. Tax revenues break out foreign trade taxes, direct taxes, and other taxes and fees. It is unclear which revenue streams capture oil rents. Additionally, these revenue streams capture all state revenue, not only revenue specific to the oil industry. Thus, revenues cannot be used for specific calculations, only for general trends.

Reports published by EITI and independent audit agencies list multiple categories of revenue that are specific to the oil industry. Table 2 shows data published on the EITI website regarding taxes corporations reported paying, revenue the state reported having received, and the difference between the two. Additional data is provided by the Heart

Group (2006–2007) and Fair Links (2008–2011), but these reports are written in French, and data is provided in a variety of units: USD, FCFA, and Billion Barrels of oil. Thus, I use EITI reported figures only.

Table 2

Oil Corporation Revenues Paid and Received

Year	Corporate taxes	State revenue	Difference
2006	58.2	72.9	14.7
2007	62.0	93.0	31.0
2008	665.6	594.8	70.8
2009	288.6	281.4	7.2
2010	273.0	240.4	32.6
2011	393.3	390.2	3.1

Source: EITI (*n.d.*)

Oil production rents data are similarly unclear. They come from the World Bank Databank and are estimated from the GEM Commodities database, IMF World Economic Outlook, International Energy Agency, OPEC, United Nation's Monthly Bulletin of Statistics, BP, and IPE. Rents are calculated by subtracting unit cost from unit rents and multiplying net unit rents by yearly production. The type of dollars (actual or PPP, by year or constant year) are not specified with the data, but I have converted data from USD to the West African Franc using historical exchange rates.[10] Figure 13 shows estimated oil rents from 1980 through the present.

[10] Exchange rates for the West African Franc prior to 1995 are not available, so the 1995 exchange rate was used for years 1980–1995.

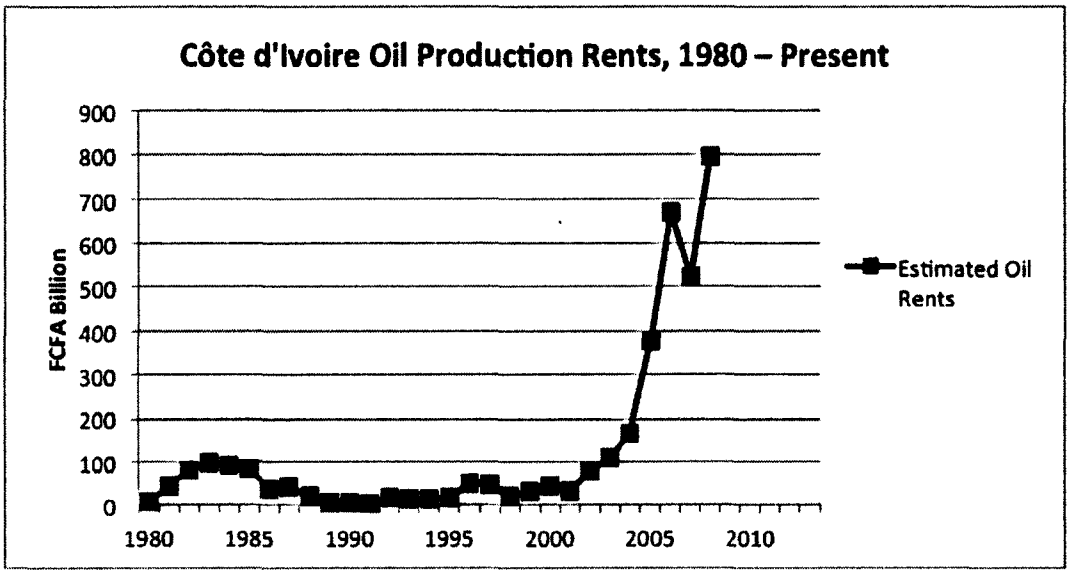

Figure 13. Côte d'Ivoire Oil Production Rents, 1980–Present (The World Bank, 2011).

Estimated rents were low for much of the country's oil production history, but increased significantly beginning in 2002–2003. While the state has not been dependent, rents have provided significant revenue to the economy, forming 17% of the country's GDP in 2006 (UNSC S/2007/611, 2007). Thus, for my analysis of how rents contribute to stability, I considered Côte d'Ivoire as "dependent" beginning in 2002.

Although oil rents and state revenue are both related to rents received by the state, neither is an accurate judge of how much revenue the state received. Oil rents are unrelated to corporate income taxes, and we do not know what happens to profits PETROCI makes. There is no obvious correlation between estimated oil rents and any category of revenue provided by BCEAO. Particularly because Côte d'Ivoire is well-known for its corruption, it is entirely possible that revenue received from oil production is siphoned off by officials in the revenue chain and that very little of this money is found in Côte d'Ivoire's reported revenue.

Figure 14 shows Côte d'Ivoire's expenditures starting in 1980. Expenditure data are no clearer than revenue data; categories of data are undefined. Here I assume that transfers and subsidies to public enterprises represent the mass distribution of funds to the public.

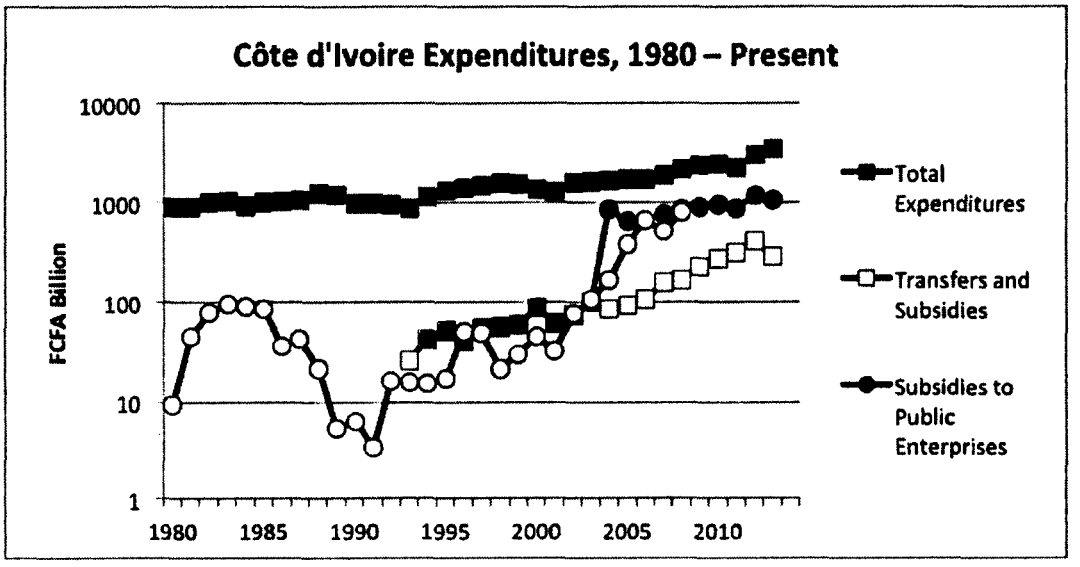

Figure 14. Côte d'Ivoire Expenditures, 1980–Present (Banque Centrale des Etats de L'Afrique de L'Ouest, 2011).

The only significant correlation between state expenditures and oil rents is an increase between 2002 and 2004. However, correlation between these two pieces of data does not imply causality, so we do not know what role oil rents play in the increase of expenditures.

South Africa

South Africa's period of stability, from shortly after the 1993 abolishment of apartheid through the present day (Beall, Gelb, and Hassim, 2005; Fedderke, de Kadt, and Luiz, 2001; O'Flaherty and Freeman, 1999), only roughly corresponds to the period in which it has produced oil, which began in 1981 and continues until today (U.S. Energy Information Administration, n.d.). The country's transition to political stability was independent of its dramatic increase in refined petroleum exports, which were estimated at 0 BPD in 1993 but rose steadily and peaked at 264k BPD in 2004. Today it is not dependent on oil in the sense that the oil extraction and production industry does not form such a large portion of its GDP, and an industry price collapse would not cripple its economy by denying its government critical revenue.[11] However, the industry comprises approximately 6% of the country's GDP, employs over 100,000 South Africans, and provides revenue to support government programs and initiatives (South Africa Petroleum Industry Association, 2012). The country has opened itself to international influence as it has awarded exploration concessions to a number of multinational corporations. The industry is significant enough that it could affect the country's stability through one of the mechanisms previously discussed.

This section discusses South Africa's relevant history, including its colonial history, the development and abolishment of the apartheid system, and its transition to stability over the past two decades. It discusses the country's political system, state budget, revenue sources and outlays, and economic development. It examines the

[11] South Africa is dependent on oil in much the same way that other developed nations are, in that its oil consumption is rising, and alternative energy solutions have not been identified and implemented to insulate the country against potential disruptions to the market.

country's oil exploration and production capacity and discusses the nation's interaction with the aforementioned multinational corporations. Finally it concludes with an analysis of how the oil industry contributes to the country's political stability or instability.

History of South Africa

South Africa's apartheid history and its effects on the political stability of the country are well known. Unlike Côte d'Ivoire, it provides a case study of a country that has experienced significant political instability over its history but has since transitioned to a stable government.

South Africa first came under European influence in the late 15th century, as mariners began sailing around the continent. The first European settlement was founded in 1652, when the Dutch East India Company, or Verenigde Oostindische Compagnie, established a supply station on the cape peninsula (Byrnes, 1996). Conflict began in 1654 following two years of Dutch expansion, when the indigenous Khoikoih tribe began armed attempts to expel the Dutch from the peninsula. The country's colonial history from the mid-seventeenth century to the early twentieth century includes nearly continuous conflict between not just indigenous peoples and European settlers, but also between the Dutch and British colonizing powers. By 1860, there were four European colonies and an estimated 248,000 Europeans spread throughout the settlements (Byrnes, 1996), and likely more than over a million indigenous people living within the Zulu, Sotho, Pedi, and Swazi kingdoms (Byrnes, 1996).

The 1867 discovery of diamonds in South Africa drastically changed South African society, setting it on the path to a balance of power favoring White South Africans that exists to this day. By 1900, the European population had doubled in

response to the diamond and gold mines established in the late 1800s, and the British fought wars against both native tribes and Boer (Dutch-speaking) settlements in order to award their land to British settlers (Byrnes, 1996). The South African war, fought between the British and Boers, lasted from 1899 to 1902 and ended only when the British torched over 30,000 farms. The peace treaty incorporated Dutch settlements into the British Empire, but allowed the White settlements to exclude Blacks from suffrage. A Zulu uprising in 1905-1906 was the last native uprising against colonial rule (Byrnes, 1996).

The 1910 Union of South Africa Act formed the basis of the country's modern government (Commey, 2012). Unfortunately, the country quickly began implementing legislation that formed its apartheid system, even though apartheid policy was not formally implemented until 1948. The first discriminatory legislation was the Native Land Act (1913), which limited Black land ownership to a mere 7% of land. Even though a later modification to this law expanded land ownership to up to 13% of land in resource-poor areas, the legacy of this act remains today, as Whites still control 83% of the country's land (Commey, 2012). Other legislation perpetuated racist policies established by the Dutch and British during previous centuries (Byrnes 1996). The Native Labour Regulation Act (1911) made it illegal for Blacks but not Whites to break work contracts. The Mines and Works Act (1911) restricted Blacks from holding skilled positions in mines. The Dutch Reformed Church Act (1911) prevented Blacks from becoming members of the Dutch Reformed Church. These and other pieces of legislation passed in the early twentieth century put South Africa firmly on the path of institutionalized racism (Byrnes, 1996).

The African National Congress (ANC), initially known as the South African Native National Congress (SANNC), was formed in 1912 (Commey, 2012). Although it formally changed its name in 1923, it did not become a significant actor in South African politics until 1943 when Nelson Mandela, Anton Lembede, Oliver Tambo, and Walter Sisulu revitalized the party by starting the ANC Youth League (ANCYL; Commey, 2012). The ANCYL began by organizing protests against the introduction of Nazi ideology into the South African political system and the formal implementation of apartheid policy in 1948 (Commey, 2012).

Despite some ANCYL successes such as the 1955 passage of the Freedom Charter, which stated that South Africans' rights were not dependent on their race, they were unable to prevent the passage of multiple pieces of discriminatory legislation. The 1953 Bantu Education Act was one of the apartheid government's first formations of racist policy (Commey, 2012). Legally, it brought all schools under the jurisdiction of the state, but the intent of the legislation was to create "an inferior and badly-resourced education system with a curriculum that taught Blacks to be servants destined to minister to the needs of the White master" (Commey, 2012). Other acts designed to restrict Blacks' rights were the Prohibition of Mixed Marriages Act (1949), the Immorality Amendment Act (1950), Group Areas Act (1950), and Suppression of Communism Act (1950), all of which restricted Blacks' freedom of movement and association (Fedderke et al., 2001). Other laws passed extended the arbitrary power of the state, further eroded the freedom of association, and authorized indefinite detention without trial; "the combined effect of this legislation was to further limit the freedoms of association,

assembly, publication and speech as well as to further restrict the right to legal due process" (Fedderke at al., 2001).

The 1960s were a turbulent decade for South Africa, beginning with the Pan-African Congress splitting from the ANC in 1960. One of its first acts was to initiate protests against "pass laws," which were designed to regulate the movement of Blacks around the country. Within a year, a demonstration outside a police station ended with police killing 67 demonstrators and injuring 186; this event is now known as the Sharpeville Massacre (Byrnes, 1996). In response to the Sharpeville Massacre and other grievances by the apartheid police, the ANCYL opened its militant wing in 1962. As a result, Nelson Mandela and other ANC leaders were arrested, tried on charges of sabotage, and sentenced to life in prison (Commey, 2012). The imprisonment of ANC leaders quieted the anti-apartheid movement for years.

The anti-apartheid movement resumed in 1976 following a law that forced the Afrikaans language to be taught on an equal basis with English in schools. This was offensive to students and school administrators, primarily because Afrikaans was identified with the apartheid government. On 16 June 1976, hundreds of students staged a demonstration against the law in the Soweto township of southwest Johannesburg. Soweto residents joined in the demonstration, which the police answered with tear gas and gunfire (Byrnes, 1996). The incident resulted in the deaths of four students, including a thirteen-year-old boy (African National Congress, n.d.). Demonstrations and violence continued over the next year, and by February 1977, official figures estimated almost 600 South Africans had been killed (Byrnes, 1996).

The political and civil liberties situation was very stable in its degraded state between the late 1960s and the early 1980s. During the 1980s, Black civil society began working with White civil society to integrate the state. Beall et al. (2005) note "there was slowly growing recognition of interdependency in relation to the survival and growth of organisations on both sides of the divide" (p. 685). Unfortunately, they did not begin to see the results of their labor until the mid to late 1980s, when the formal structure of political and civil rights began to improve (Fedderke et al., 2001). Real improvements did not begin until President de Klerk's address to Parliament on 2 February 1990. In his address, he invited Black leaders to negotiate freely within the bounds of the established political system and announced the repeal of the prohibition against the ANC, PAC, the South African Communist Party, and other political opposition parties. He also announced the formal abolishment of the apartheid system and the repeal of many racist laws (De Klerk, 1990). Apartheid was formally dismantled in 1993, when President de Klerk freed Nelson Mandela from his life sentence, instituted multi-racial elections, and rewrote the constitution to guarantee Black property rights (Commey, 2012). The ANC won the following elections (in 1994) with over 62% of the vote and has held the country's Presidency since then (African National Congress, 2011).

South Africa's apartheid legacy has presented significant challenges to its modern-day government. Its transition to a full democracy in the early 1990s was hindered by its focus on race relations because Black society was not integrated into formal state functions (Beall et al., 2005). Although the country made significant progress throughout the late 1990s and early 2000s, its weakness meant that non-state actors frequently made decisions for the state (Beall et al., 2005). The government is still

unable to effectively execute many functions of a state, such as properly managing taxation, preventing the flow of illegal goods and drugs across its borders,[12] and preventing gangs or organized crime (Beall et al., 2005). These failures continue to limit the state and prevent it from full stability.

Stability and Instability

South Africa today is considered stable, yet with caveats due to serious social issues in the country that threaten to undermine that stability. Some characterize it as having a "fragile" stability, due to the number of issues that could push the country towards political instability. My previous definition of stability can illuminate parts of this discussion, as can analysis of specific institutions and elements of governance in South Africa. Finally, South African relationships with other countries and its place in global oil distribution networks is much more stable following the abolishment of apartheid and the repeal of international sanctions in the early 1990s.

Domestic stability. Beall et al. (2005) describe the South African state as stable because it has had a democratically elected political regime with no serious threats. The state is a constitutional democracy with 13 parties currently represented in Parliament (Brand South Africa, 2014). The ANC has been in power since 1994 (African National Congress, n.d.), and its cooperative and consensus-building approach has limited conflict and ensured that political decisions hold once made (O'Flaherty and Freeman, 1999). Its approach to power is not entirely in accordance with principles of liberal democracy, as it uses its influence to force support for unpopular political issues and has prevented competition from separate political groups that could present a serious challenge during

[12] Even nations able to effectively execute the basic functions of a state struggle with this function.

elections (Beall et al., 2005). However, elements of the South Africa state today, such as its focus on nation building, race relations, and Black Economic Empowerment (BEE), have had some positive effects on the state, particularly in that they have de-racialized both the state and those in the state who hold economic power.

Despite the state's strengths, most recognize that South Africa's stability is very fragile (Beall et al., 2005). The ANC's dominance over political issues has prevented buy-in from other political groups, reducing their willingness to share political risks and burdens; this has undermined the role of civil society in state functions and has kept the state in a fragile nature (Beall et al., 2005). The focus on BEE, while beneficial to some, has increased economic inequality within the Black community (Beall et al., 2005). The country's GINI coefficient, measured at 63.14 in 2009 (down from 67.4 in 2006), is one of the highest in the world (*The World Bank*, 2013). South Africans today would be unable to survive without the black market (O'Flaherty and Freeman, 1999). The state currently faces many challenges such as poverty, inequality, unemployment, HIV/AIDS, and gender relations (Commey, 2012). Beall et al. (2005) posit that "average individual income and welfare are low, in that people are pessimistic and risk-averse in their decision-making for the future, and in that 'society's collective power to pursue its national goals'[13] is low" (p. 698).

The stability analyses conducted by Beall et al. (2005) and O'Flaherty and Freeman (1999) tend to focus on the expectations of two actors—the government and civil society—with some discussion of the expectations of the state's political elite. The ANC expects to remain in power and has used its power to ensure that other political

[13] Kohli and Shue, *

groups will be unable to seriously challenge it in free and fair elections (Beall et al., 2005). Most civil societies expect the government to provide basic social services and a secure environment; the South African government's efforts are clearly acceptable, as there are no serious ongoing protests or demonstrations.

Many believe that the government's inability to solve serious problems facing South African society could trigger instability. One potential trigger was thought to be the death of Nelson Mandela. Some believed he was the "glue" that held the nation together and that following his death the country would unravel into either a genocide against its White population or a class war (Smith, 2013). Others expressed concern that Mandela's death meant the disintegration of the country's political environment, that the country would reach a "corruption gridlock," and that the country was regressing from the ANC's two original principles of non-racism and clean government (Smith, *n.d.*). These beliefs indicate that civil society has higher expectations of the South African government and that specific events could bring these expectations to the forefront.

The World Governance Indicators and economic freedom rankings also assist in identifying elements of South African society that may trigger instability or in clarifying expectations of South African civil society. Figure 15 shows the World Governance Indicators assessment of government effectiveness and political stability in South Africa. These indicators are disappointing, as they show a steady decline in government effectiveness and minimal improvements in political stability, reflecting only marginally greater confidence by South Africans that their government will not be overthrown (Kaufmann et al., 2010).

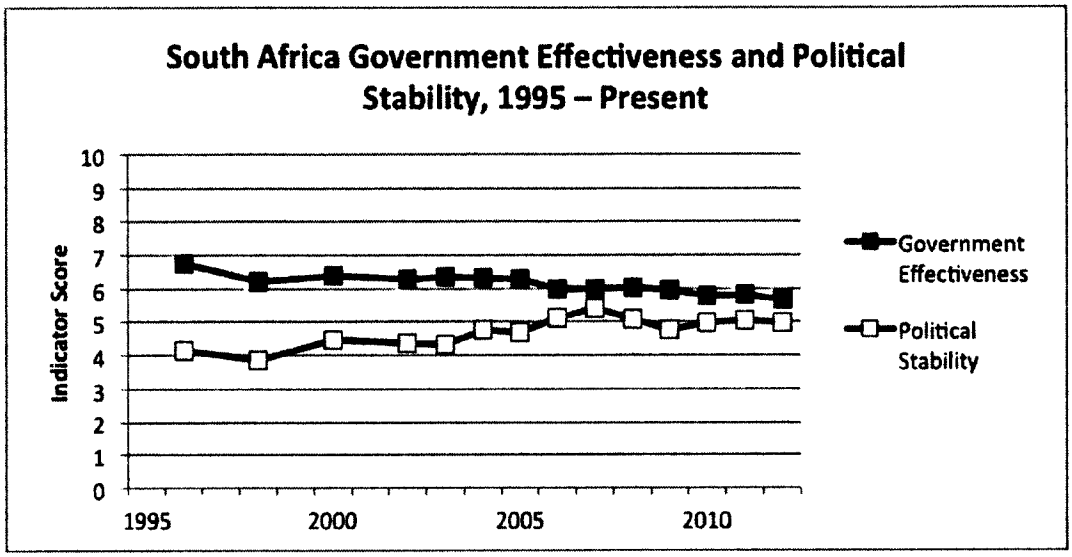

Figure 15. South Africa Government Effectiveness and Stability Indicators, 1995–Present (Kaufmann et al., 2010).

Corruption and the country's legal system are two other important elements of society that could work with the country's oil industry to push it towards stability or instability. Pervasive and increasing corruption reflects expectations of civil servants that they will not be punished for accepting bribes and expectations from civil society that the state does not provide adequate services. It also provides a loophole for oil corporations to abuse resources, labor laws, or other elements of society to their own benefit. The rule of law, legal system, and fair enforcement of regulations also contribute to a potential lack of state integrity that could be exploited.

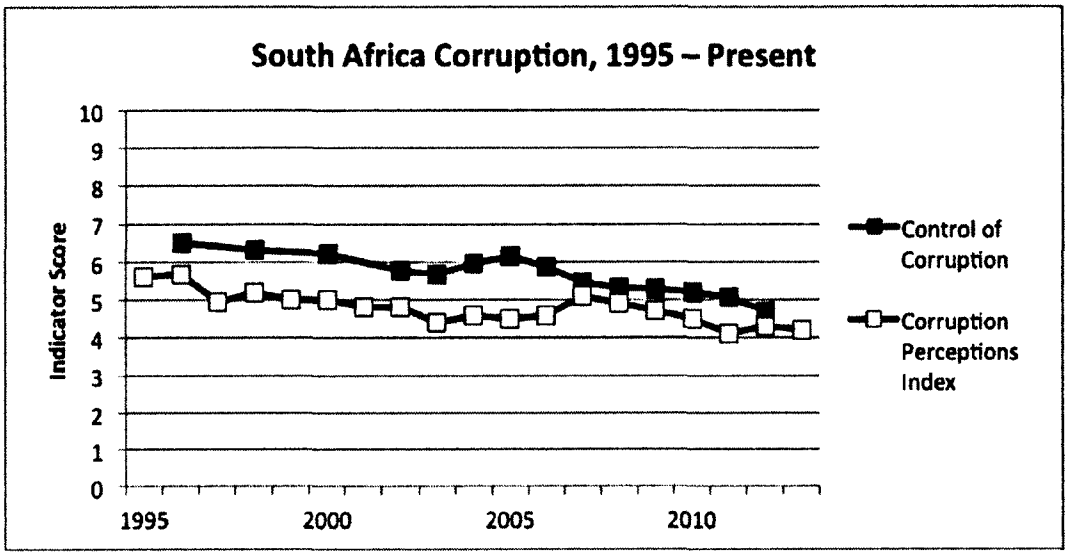

Figure 16. South Africa Corruption, 1995–Present (Kaufmann et al., 2010). Data show that corruption is a serious and growing issue in South Africa.

Transparency International's 2013 report estimated that 60% of South Africans had paid a bribe within the previous two years, and South Africa's Auditor-General, Mr. Terence Nombembe, claims that billions of Rand are stolen annually (Hartley, 2013).

The country's indicators for having impartial courts and a lack of military interference in its government are positive, but overall indicators for rule of law and the integrity of its legal system are not optimistic. Figure 17 shows multiple indicators relating to the rule of law in South Africa.

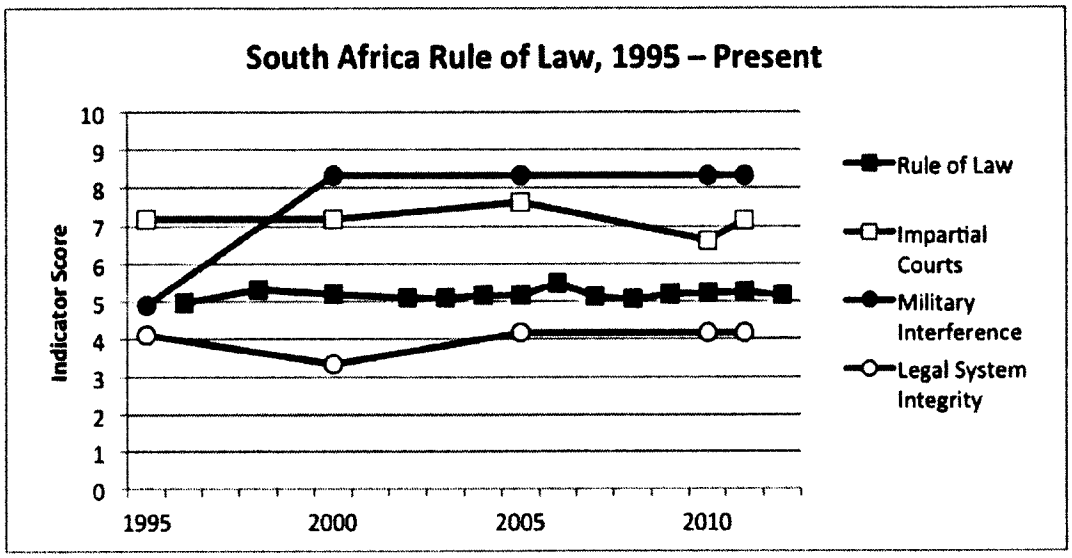

Figure 17. South Africa Rule of Law, 1995–Present (Kaufmann et al., 2010; The World Bank, 2011).

These indicators provide two potential ways to link South Africa's oil industry to its political stability. The first is that the country's legal system and its ability to fairly enforce regulations has the potential to affect oil production, exploration, and revenue flows. The second is that the oil industry also has the potential to contribute to the lack of integrity in the system. Although South Africa is a member of the Anti-Bribery Convention, only ten allegations of South African officials bribing public officials of other countries have been made; four of these are under investigation, and none of have been prosecuted (Ugwumadu, 2014). If other states expect corruption and bribes from South African officials, the effects of corruption will likely not be too destabilizing within regional and international blocs. However, growing corruption, as shown in Figure 16, could destabilize relationships, while the reduction of corruption could improve the state's reputation and its business relationships.

International stability. As a nation that imports crude oil and exports refined petroleum products, South Africa's stability within the international system is also

important. As a state that has net oil imports, the oil embargo enacted during the apartheid era obviously affected the state's stability within this network. However, the embargo prevented the state from importing oil to meet its internal energy needs, or at least increased the price the state paid for that oil. Because the focus of this paper is production and exports, the stability of the state's distribution networks is of more interest.

The country currently uses most of its refined petroleum for internal needs, but still exports refined petroleum products. Table 3 lists the headquarters countries of major corporations operating in South Africa (as discussed below) and the maximum portion of petroleum imports those states receive from South Africa.

Table 3

South Africa Oil Exports 2014

Country	Portion of Country Imports	Notes
China	< 3%	Included in "Others"
UK	< 4%	South Africa included in "Other Africa"
US	No data available	Net exporter to South Africa
India	< 8%	South Africa included in "Other Africa"
Jordan	No data available	
Canada	No data available	

Source: U.S. Energy Information Administration, n.d.

Table 3 shows that while South Africa does export oil, its exports do not make up a significant portion of any single country's imports for major global powers. Thus, if any single country were to refuse South African exports or become a difficult country to export to, the state could easily absorb those exports into the volume of oil it produces for

internal use. South Africa's contributions to global oil distribution are not significant enough for the state to have a significant impact on the stability of this network.

South Africa's stability within the South African Customs Union (SACU) is a separate matter. The Department of Energy states liquid fuel exports of petrol and diesel are supplied to Botswana, Namibia, Lesotho, and Swaziland (Republic of South Africa Department of Energy, "Petroleum sources," n.d.). As one of only two major oil producers in the region ("Country comparison," *n.d.*),[14] South Africa supplies a significant portion of the region's refined petroleum products. Botswana is dependent on South African imports, and its access to oil is affected by South African demand (Mfosi, 2011). Namibia (Namibia Ministry of Mines and Energy, *n.d.*), Swaziland (Swaziland Ministry of Natural Resources & Energy, *n.d.*), and Lesotho (Tsehlo, 2012) also import all of their petroleum products from South Africa.

Compared to Lesotho and Swaziland, South Africa certainly meets the definition of a hegemon, as it has sufficient military, political, and economic power necessary to maintain a dominant position in the relationship. However, it is not apparent that the state supports the development of a strong and stable oil regime in the region, given its struggles meeting its own needs (Mfosi, 2011). It is also unclear how South Africa's economic relationship with Botswana meets the requirements of HST, as the countries' per capita GDPs have remained within 10% of each other throughout the past decade (The World Bank, 2014). South Africa has a slightly more dominant relationship with

[14] Malawi, Mozambique, Zambia, and Zimbabwe each also produce oil, but quantities are equal to or less than 200 BPD, compared to Angola's 1.8M BPD and South Africa's 181k BPD ("Country comparison," *n.d.*).

Namibia, as South Africa's per capita GDP hovered around 140% of Namibia's per capita GDP throughout the 2000s (The World Bank, 2014).

The South African state has a reasonable amount of domestic political stability. Corruption and the rule of law present challenges to the state, and growing corruption could trigger civil unrest should the problem exceed civil society's expectations on its government. The state is currently stable within regional and international oil distribution networks, largely because its oil exports are not a significant portion of receiving countries' imports. Given the country's existing reserves, refining capacities, and domestic needs, this is unlikely to change soon.

Economy

South Africa's economy presents several challenges to its political stability. Macroeconomic policies, wealth, and income inequality and apartheid's legacy of property rights each have the potential to push the country towards instability.

Economic policies. South Africa has a nominally free market economy with significant state investment and infrastructure projects intended to support job creation and economic growth (Cook, 2013). The country's fiscal policy since the mid-1990s has focused on macroeconomic goals such as deficit reduction, financial control and accountability, and improving the state's financial system (Beall et al., 2005). These policies have been successful in stabilizing the state's economic conditions, but its monetary and exchange rate policy have had a destabilizing effect (Beall et al., 2005). These have resulted in capital flow crises multiple times in the late 1990s and early 2000s, causing the state to increase interest rates and sell foreign currencies to maintain the Rand's value (Beall et al., 2005). The result has been an unstable economic

environment that has degraded the state's production sectors and discouraged capital investment and job creation (Beall et al., 2005).

The price of oil is also of interest to the state, as the South African Reserve Bank believes it has the ability to undermine the state's progress towards its economic goals (Wakeford, 2006). The state is highly dependent on petroleum-based energy sources and thus more vulnerable to oil price shocks than other states in southern Africa. South African economic experts have recommended the state relax some of its fiscal policies to mitigate against future oil price shocks (Wakeford, 2006).

Like with Côte d'Ivoire, I assess economic restrictions and benefits on South Africa's oil industry via the Fraser Institute's Economic Freedom report. Data on South Africa's economic freedom is assessed back to 1970; however, like Côte d'Ivoire, detailed support for its assessment is only provided for many of the categories back to 1995 and 1980.

Figure 18 shows South Africa's raw scores on the left axis and its effective ranking scored on the right axis against a relative top score of 100. It shows relatively high economic freedom through the 1970s, and the gains made by Blacks in the mid- to late-1990s are clearly visible. Unfortunately, it also shows declines in the 1980s and stable yet relatively low freedom compared to other countries throughout the 2000s.

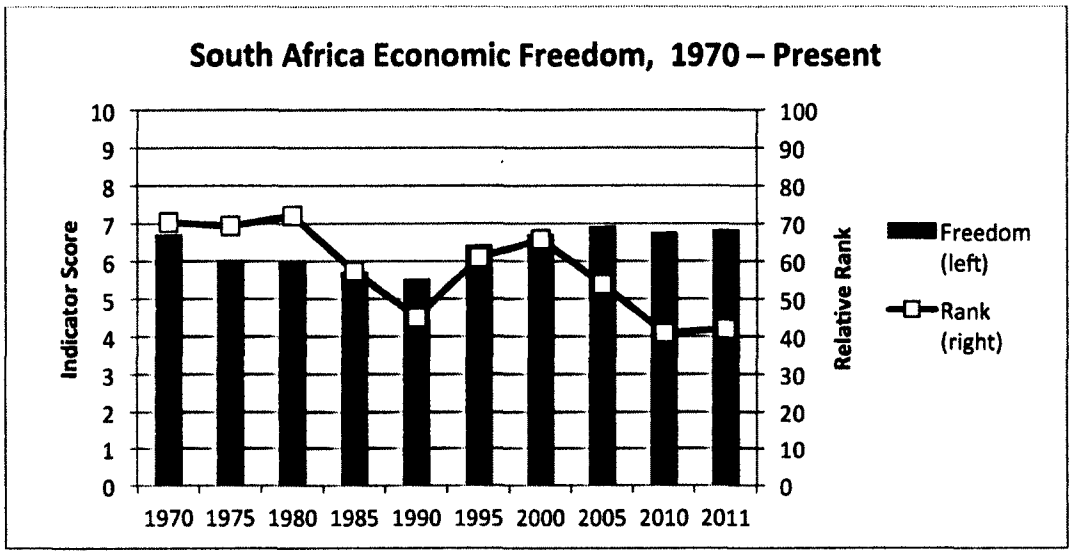

Figure 18. South Africa Economic Freedom, 1970–Present (Gwartney et al., 2013).

The methodology used to assess South Africa's economic freedom is the same as that used to assess Côte d'Ivoire's economic freedom. The specific elements of South Africa's economic freedom are the size of its government, the soundness of its money, freedom of international trade, and business regulations.

Government size. South Africa's scores for government size are shown in Figure 19. Government transfers and subsidies are judged as very beneficial, or very low with slight increases, throughout the period assessed. Government investment is assessed as a small portion of total investment (reflecting a relatively high score), rising to 30–40% of total investment by 2010. Finally, government consumption is rated as rising throughout the entire period. As noted in the Côte d'Ivoire case study, these rankings of economic "freedom" do not necessarily correspond positively to stability. In fact, based on my assessment of South Africa's political stability throughout the period represented, I can say that these indicators—starting high with general declining trends—also inversely correspond to political stability.

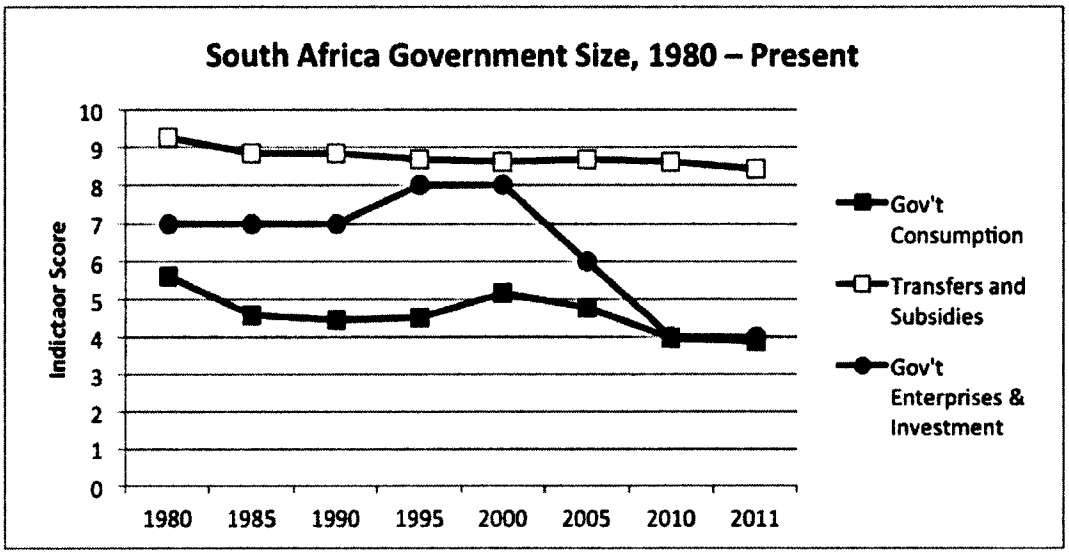

Figure 19. South Africa Government Size, 1980–Present (Gwartney et al., 2013).

Sound money. Figure 20 rates the stability and quality of the Rand. Like Côte d'Ivoire, South Africa also shares its currency with other states (Swaziland and Lesotho) in accordance with the provisions of the Common Monetary Area. However, unlike Côte d'Ivoire, South Africa maintains control over its currency. Overall, South Africa's currency is assessed as stable, with generally improving indicators throughout the period.

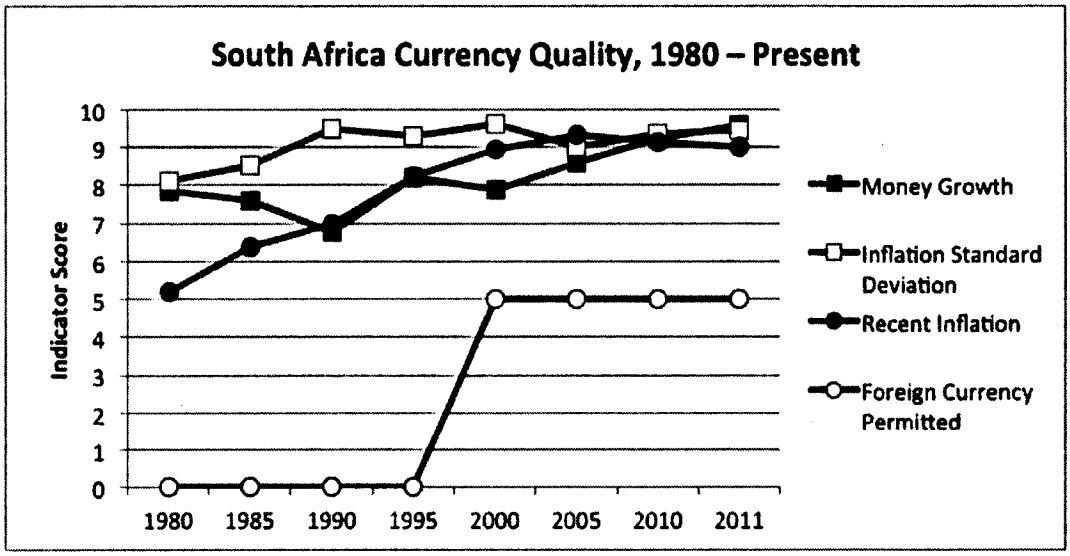

Figure 20. South Africa Currency Quality, 1980–Present (Gwartney et al., 2013).

Freedom of International Trade. Figure 21 shows South Africa's ratings in its international trade.

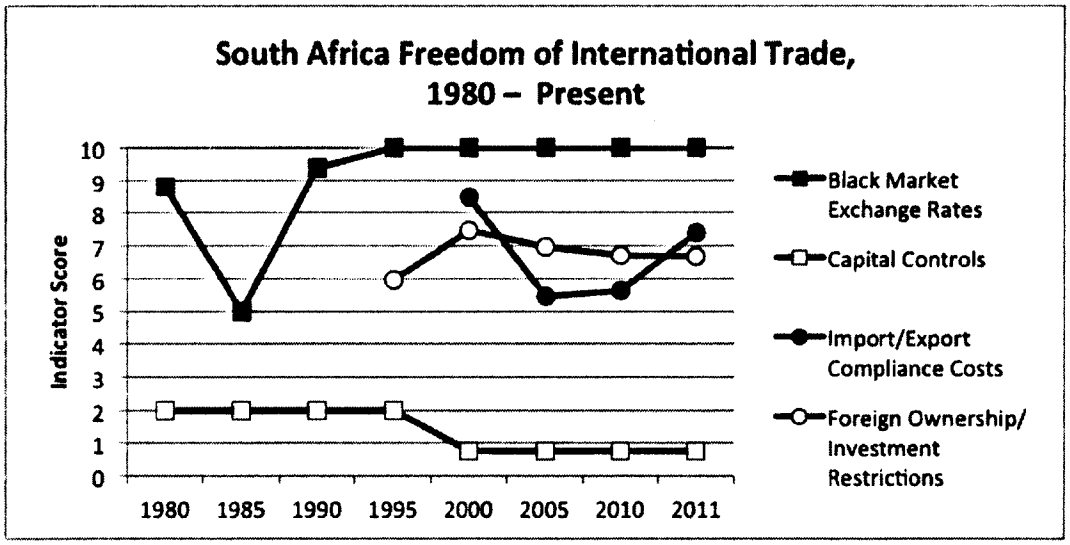

Figure 21. South Africa Freedom of International Trade, 1980–Present (Gwartney et al., 2013).

This category reflects significant differences in South Africa's economic policy and significantly different impacts on its oil industry. With the exception of one significant dip in the mid-1980s, black market exchange rates have not interfered with the

economy. As discussed below, this dip occurs around the time that South Africa began producing oil, but because oil is an unlootable resource, the black market likely did not have a significant effect on South Africa's production or exportation of oil.[15] Each of the other three indicators can provide difficulty for corporations attempting to produce or export oil. Capital controls, which would prevent corporations from moving funds or major pieces of equipment to support oil production operations, have been significant throughout the entire time period. This, combined with the high levels of corruption, could create significant costs for capital-intensive industries such as oil production. Import and export compliance costs, which increased significantly during the early 2000s, would have a similar affect.

High foreign ownership or investment restrictions might have a similar impact, or depending on the country's technology level, they might discourage ownership by foreign companies and encourage ownership and production by local companies. Unfortunately, only one of the sixteen corporations operating South African oil fields, Sungu Sungu Petroleum, is a South African Company.[16] The majority of the companies are based out of the United Kingdom, with several based in the US and others in China, India, and Jordan. Thus, restrictions on foreign ownership and investment do not appear to have had a significant constricting effect on foreign investment in the country's petroleum industry.

Regulation. This indicator assesses regulation of the credit markets, the labor market, and businesses. Regulation of South Africa's credit market is unlikely to have a

[15] This does not mean that the sale and distribution of oil within the country was not affected by the black market, just that production and export were likely unaffected.
[16] Sasol Petroleum International is another South African petroleum company, but it does not have exploration concessions or produce oil in South Africa.

significant impact on its oil industry. However, it will have an impact on the country's single privately owned petroleum exploration company, Sungu Sungu Petroleum, and any other domestic corporations wishing to conduct petroleum exploration. Fortunately, the index indicates that South Africa's banking and private credit sectors do not impede businesses and thus would not unduly inhibit domestic petroleum corporations.

The foundation for South African labor laws today was established in a set of legislation passed in the mid-1990s. Sarah Christie, a former senior convening commissioner of the country's existing body for labor dispute resolution, the Commission for Conciliation, Mediation, and Arbitration, believes the commission helps maintain political stability within the country (Christie, 2001). However, many businesses see labor laws as a whole as overly restrictive, making it difficult for employers to lay off workers, and contributing to the country's high unemployment rate (Cohen and Martinez, 2012). Figure 22 shows that while legislation governing bargaining, hiring, and firing has become more restrictive over the past twenty years, the restrictions placed on the hours assigned to workers have become less restrictive.

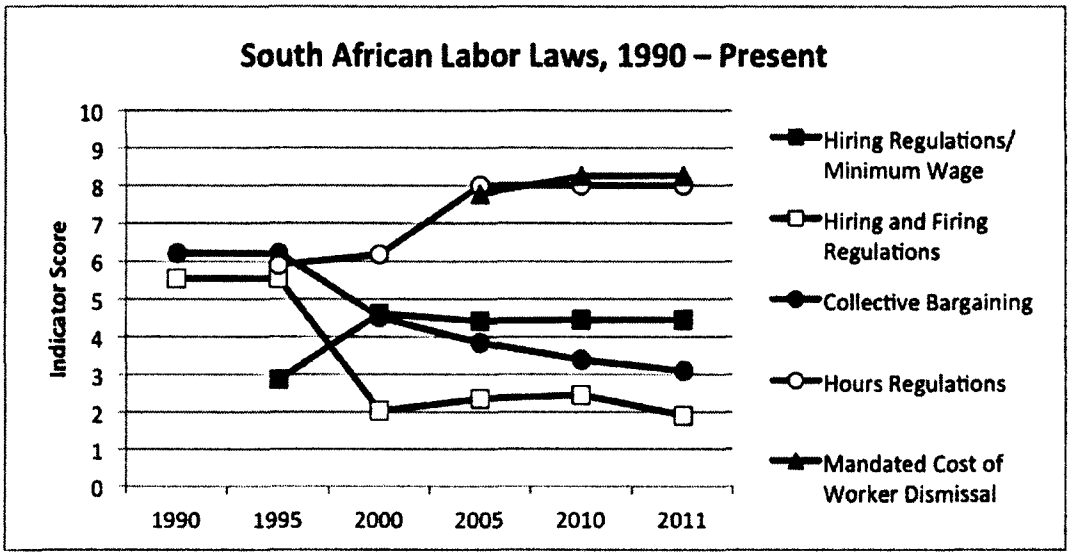

Figure 22. South African Labor Laws, 1990–Present (Gwartney et al., 2013).

South Africa's current labor laws have not had a significant effect on reducing the country's unemployment, which has not been below 20% for almost two decades (Yueh, 2014). While labor laws may not encourage the industry to lay off workers, the very least we can assume is that labor laws do not encourage the petroleum industry to hire more permanent workers.

Finally, the methodology reflects "the extent to which regulations and bureaucratic procedures restrain entry and reduce competition" (Gwartney et al., 2013) in the country's industries, penalizing regulation that restricts competition. Based on this discussion, one might conclude that the very existence of a state-owned petroleum company and its award of contracts based on the condition that the state shares a portion of the profits would reflect negatively in this index, even though that policy may be a net benefit to the state and reflect its values. However, the methodology itself reflects more easily measured criteria, such as the cost of bureaucracy in starting a business, bribes paid, licensing restrictions, and the cost of tax compliance. Figure 23 shows these indicators.

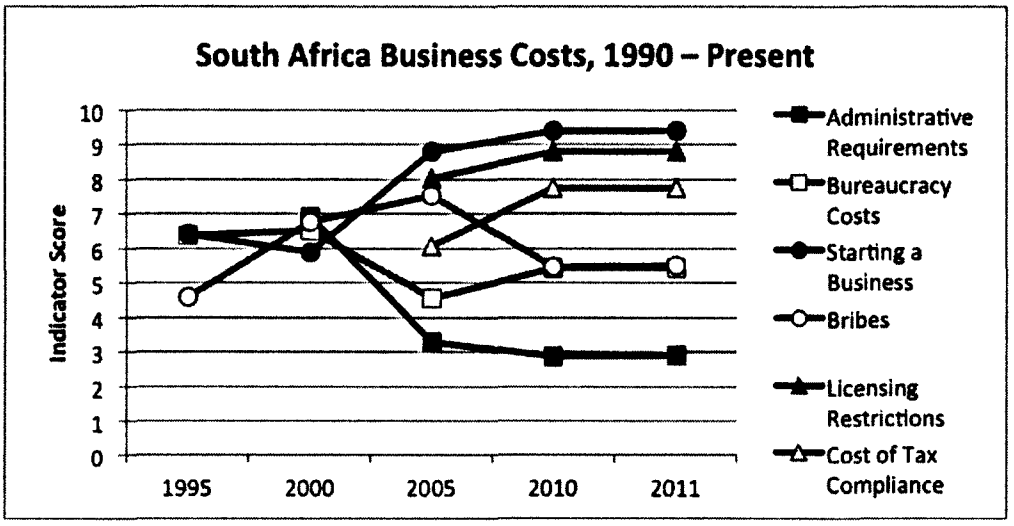

Figure 23. South Africa Business Costs, 1990–Present (Gwartney et al., 2013).

Unfortunately, these indicators are not positive as a whole and likely present challenges to petroleum operations, regardless of their net effect on the stability of the country. None of these indicators specifically addresses the petroleum industry or its effect on the country's stability.

Economic inequality. Poverty and racial economic inequality are still significant problems facing South African society. Black South Africans still have not risen to the same economic achievement as their White counterparts: Whites still control 95% of the economy and 83% of the country's land (Commey, 2012). Economic inequality is particularly obvious in the state's income distribution, shown in Figure 24.

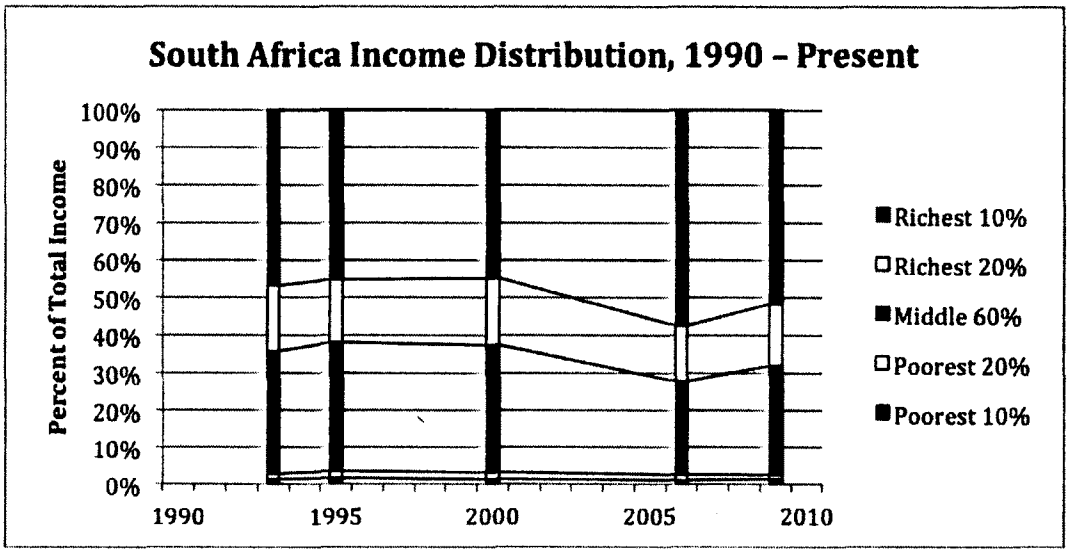

Figure 24. South Africa Income Distribution, 1990–Present (*The World Bank*, 2013).

Poverty in South Africa is also reflected in the absolute income earned, and Figure 25 shows the number of South Africans living on less than $1, $2, and $5/day.

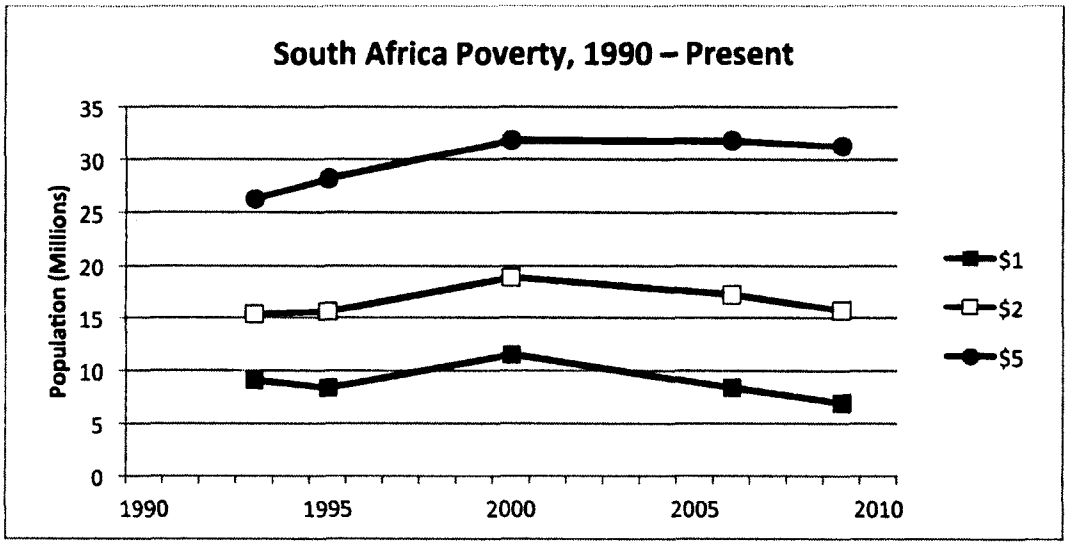

Figure 25. South Africa Poverty, 1990–Present (*The World Bank*, 2013).

High levels of poverty and inequality will make the country more prone to political instability. The oil industry could affect both of these indicators, either by providing well-paying jobs for unskilled South Africans or by increasing inequality by enriching already wealthy South Africans. The industry employs an estimated 100,000

individuals via both direct and indirect employment, with member corporations of the South African Petroleum Industry Association employing over 6,000 in semi-skilled or skilled technical positions with (South Africa Petroleum Industry Association, 2012).

Property rights. In 2008, Fedderke and Luiz (2008) conducted a case study of South Africa's government institutions, political stability, and investment structures, focusing on property rights and their effect on a state's economy. They found property rights are a necessary but not sufficient condition for economic growth and that they can simultaneously provide political stability. This study is particularly pertinent given the continuing inequality in property ownership between Black South Africans and White South Africans. If property rights are necessary to stimulate economic growth, then a lack of property ownership among Black South Africans will retard their economic development and increase inequality.

Oil in South Africa

South Africa has identified minimal oil reserves—only 15 million barrels of proven reserves as of 2013—and primarily uses coal to meet its energy needs (U.S. Energy Information Administration, n.d.). The country has a privately owned, advanced synthetic fuels processing system, the Mossul Gas-to-Liquids (GTL) plant, and uses both coal and liquid gas to produce gasoline and diesel. These synthetic liquid fuels provide almost 90% of the country's petroleum fuel consumption (U.S. Energy Information Administration, n.d.). The country's oil consumption has grown steadily over the past decades, from approximately 300,000 barrels per day in 1980 to over 600,000 barrels per

day in 2012 (U.S. Energy Information Administration, n.d.).[17] Unfortunately, it does not have the oil reserves or production capability to meet its own consumption demands and has imported oil to meet these demands for the duration of time that data is available (from 1980). Figure 26 shows South African oil consumption, production, and net imports.

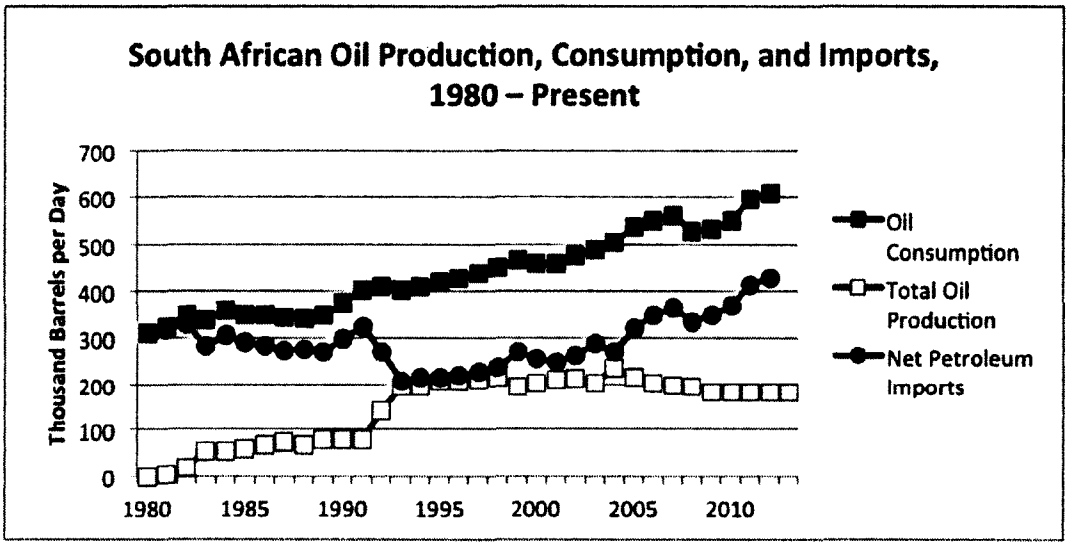

Figure 26. South African Oil Production, Consumption, and Imports, 1980–Present (The World Bank, 2011).

Although the country imports oil to meet its needs, it also exports both crude oil and refined petroleum products, as shown in Figure 27.

[17] United States Energy Information Administration (US EIA) statistics for South Africa are based on figures provided in the Digest of South African Energy Statistics, published yearly by the Department of Energy. Statistics provided by the Department of Energy are provided in terrajoules (TJ); US EIA converts figures to thousand barrels per day for comparison with other countries.

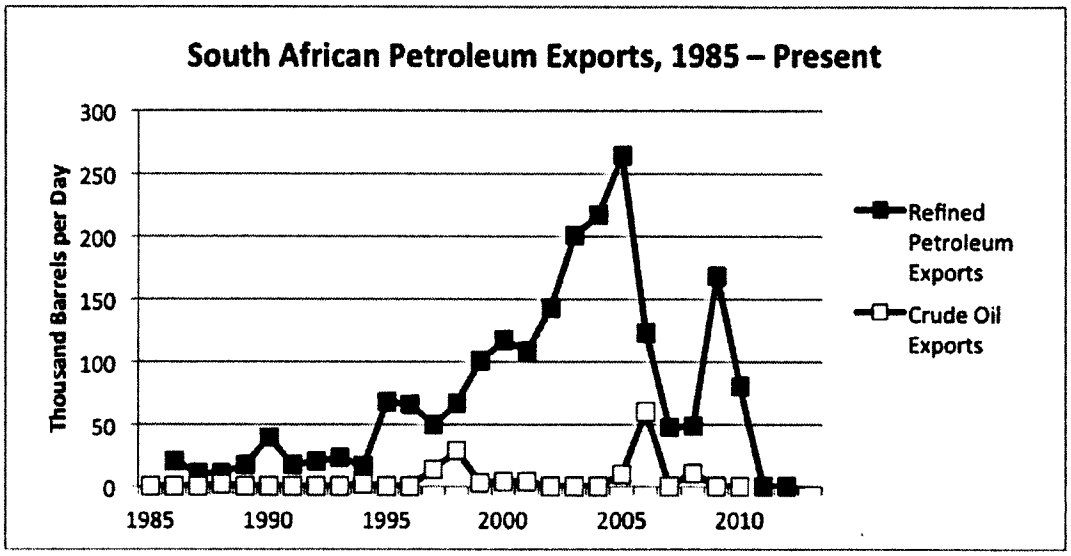

Figure 27. South African Petroleum Exports, 1985–Present (The World Bank, 2011).

The oil industry is regulated by the South African Department of Energy, which oversees "exploration, development, processing, utilisation, and management of South Africa's mineral and energy resources" (Republic of South Africa Department of Energy, "About us," n.d.). This is critical because the state plays a primarily regulatory role; its involvement in exploration and production is limited to its ownership of the Petroleum Agency of South Africa (PetroSA), which is discussed below. The Department of Energy regulates all petroleum exports, whether of crude oil or refined petroleum products, by approving export licenses issued by the International Trade Administration Commission. It is required by law to approve such requests unless the license will result in a fuel shortage inside the country or is otherwise against the national interest (Republic of South Africa Department of Minerals and Energy, 2006).

The Department of Minerals and Energy also sets energy prices within the country, including gas prices for motor vehicles. A 2005 report on gas pricing discusses the country's need to import a significant portion of the oil it uses (Republic of South

Africa Department of Minerals and Energy, 2005). Notes from a 2007 national energy summit state, "The key question that this session intended to discuss was how the best energy prices could be set in order to promote development" (Republic of South Africa Department of Minerals and Energy, 2007, p. 29). The summit report also notes that allowing the markets to determine the cost of energy, including petrol, without government intervention had two undesirable outcomes. First, the free market does not account for the social cost of energy usage and distribution, and second, the free market does not provide for social benefits. The report states the new policy was designed to counteract unintended consequences of previous energy policy, which tended to provide greater benefits to middle and upper class households, largely because poor households consumed less energy than rich households.

Multiple domestic and foreign companies operate South African oil fields or hold exploration concessions off the country's coast. The state typically awards four types of contracts: reconnaissance permits, technical cooperation permits, exploration rights, and 30-year production rights (Akpata, Bredenhamm, and White, 2013). Production rights are typically in the form of production-sharing contracts, with a minimum state share set by law but negotiated by contract. Corporations holding offshore oil exploration and production rights in South African waters are:

Andarko. Andarko is a US-held company based out of Texas. Andarko is a recent entry into the South African oil production industry, as it first acquired interest in South Africa in 2012. Andarko holds an 80% interest and is the operator of Blocks 5/6 and 7, while PetroSA holds the remaining interest (Flak, 2012).

Bayfield Energy. Bayfield Energy Holdings is a British-based company with holdings in Trinidad and Tobago and South Africa. In 2012 it acquired 100% exploration rights in the Pletmos Inshore Block, which is directly off the southern coast between Port Elizabeth and Mossel Bay (Bayfield Energy, 2012).

BHP Billiton. BHP Billiton is a US-held company that holds interests in oil and gas operations in the US, Australia, England, Algeria, Trinidad and Tobago, and Pakistan (BHP Billiton, n.d.). In 2010, BHP Biliton was awarded 60% exploration and operator rights in Blocks 3A/4A, with PetroSA holding 30% interest and Sasol holding the remaining 10% interest. BHP Billiton also holds 90% rights in blocks 3B/4B, with the remainder held by Global Offshore Oil Exploration South Africa. All blocks are located off the northwest coast of South Africa, near Cape Town (Creamer, 2010).

Cairn India. Cairn India, a subsidiary of the Indian-owned Vedanta Resources, gained a 60% interest in Block 1 in 2012, with PetroSA holding the remaining interests. Block 1 is in the Orange Basin, off the northwest coast near Namibia, and Cairn India is the block operator. The company is conducting exploration operations in the block, gathering 1,981 square kilometers of seismic data in FY14 ("Orange basin," *n.d.*).

Canadian Natural Resources. In 2012, CNR International (South Africa) Limited finalized a joint agreement with Total SA and the South African government to acquire a 50% interest in Block 11B/12B off the southern coast. The agreement states Total will maintain 50% operatorship rights and ownership, with CNR receiving an up-front cash payment and a 50% recovery of past incurred costs. The company scheduled drilling to begin in 2014 (Canadian Natural Resources, 2013).

Edgo Energy. Edgo Energy was founded in the Middle East, and its headquarters are located in Amman, Jordan. The company holds exploration rights in blocks 3326D, 3327C, 3326B, and parts of 3427A off the western shore and blocks 3422A/B/D off the eastern shore. Edgo Energy is partnering with OK Energy (see below) to develop environmental management plans for these blocks (Edgo Energy, *n.d.*).

ExxonMobil. ExxonMobil Exploration and Production South Africa Limited is a subsidiary of the US-based ExxonMobil. It acquired a 75% interest in the Tugela South Exploration area in 2012, with Impact Africa, a subsidiary of Impact Oil & Gas, holding the remaining interest. The agreement also includes a 75% interest in three other offshore areas currently covered by Technical Cooperation Permits (TCPs; ExxonMobil, 2012). ExxonMobil has a separate TCP with the government of South Africa in the Deepwater Durban Basin off the east coast (Carnie, 2014).

Impact Oil & Gas. Impact Oil & Gas is held in the United Kingdom; it was formed in 2009 with the intent of conducting oil and gas exploration in Africa. The company holds a license for four blocks in the Tugela area, which it holds with Silver Wave Energy ("Acquisition of 80% intereste," 2012). It also holds TCPs in the north Tegula area, the Western Bresadorp Basin, and the Transkei and Algoa areas (Impact Oil & Gas, *n.d.*). With the exception of the Western Bresadorp Basin, all of these permits are on the southeast coast of South Africa.

OK Energy. OK Energy Limited, a British company, has applied for a license to explore blocks 3013 and 3113, which are ultra-deep territories in the Orange Basin off the northwest coast (OK Energy, 2014). OK Energy also has interests in two other locations: the Northwest Pletmos exploration area near Port Alfred and a third area off

the southern coast near Mossel Bay (Petroleum Agency SA, 2013). OK Energy submitted an Environmental Management Programme for the Northwest Pletmos area in July 2013 ("Offshore oil and gas," 2013).

New African Global Energy South Africa (New AGE SA). New Age SA is headquartered in Jersey, in the Channel Islands off the coast of France (Bloomberg, n.d.). New Age SA holds exploration rights both off the southwest coast near Port Elizabeth and in deep water areas off the west coast (Petroleum Agency SA, 2013). PetroSA recently required that New Age SA suspend exploration activities due to a complaint lodged by a scientist. The complaint alleged that New AGE SA's exploration activities were disrupting the normal migratory patterns of humpback whales. New Age SA was permitted to resume exploration after it changed its methods to avoid affecting the whales' migration (Blaine, 2013).

Petroleum Agency of South Africa. PetroSA is the state's petroleum supervisory agency, registered as a commercial entity but a subsidiary of South Africa's Central Energy Fund and reporting to the Department of Energy. It was founded in 2002 by a merger of three other companies and currently operates the Oribi and Oryx oil fields off the south coast. Its goal is to supply 25% of South Africa's liquid fuel requirements by 2020 (Petroleum Agency SA, n.d.).[18]

Sasol Petroleum International. Sasol is headquartered in Johannesburg and conducts hydrocarbon exploration and production activities all over the southern portion of the African continent. Sasol provides the technology for the Mossel Bay GTL plant,

[18] Because PetroSA operates the Mossel Bay GTL plant, not all of this requirement will be filled from the production of crude oil.

but does not conduct any oil exploration or production within the country (Republic of South Africa Department of Energy, "Sasol," *n.d.*).

Shell International Exploration & Production. Shell International is based out of Houston, TX, but is a subsidiary of Royal Dutch Shell ("Order," 2010). It retains exploration rights of approximately 37,000 square kilometers in blocks 3014, 3114, 3214, and 3215 (Petroleum Agency SA, 2013) in the Orange Basin near Namibia.

Silver Wave Energy. Silver Wave Energy is registered in Singapore but owned by a Burmese businessman with reported ties to the country's military junta (McKune, 2011). The company owns the exploration rights for thirty blocks of the deep-water areas off the east coast (Petroleum Agency SA, 2013; BFI Holding, *n.d.*) and has an application for portions of block 3620 off the south coast (Petroleum Agency SA, 2013). In 2013, the company contracted a French company, CGG Services, to conduct seismic surveys in areas where it owns exploration permits (Carnie, 2013).

Sinopec. Sinopec is China's "state-owned company solely invested by the State, functioning as a state-authorized investment organization in which the state holds the controlling share" (China Sinopec, *n.d.*). In 2013, the company finalized an agreement with PetroSA to build a refinery in Port Elizabeth expected to produce 360,000 BPD; the agreement also encourages joint oil and gas exploration and the development of "related" projects in South Africa (Mungadze, 2013). Unlike many other oil companies operating in South Africa, Sinopec does not have existing exploration rights within South Africa's territorial waters (Petroleum Agency SA, 2013).

Sungu Sungu Petroleum. Sungu Sungu Group is a South African company based out of Johannesburg (Sungu Sungu Group, "Contact us," *n.d.*). Sungu Sungu owns

exploration rights in portions of multiple blocks in the Orange Basin, totaling 19,500 square kilometers at depths of 200 to 450 m (Sungu Sungu Group, "Sungu Sungu Petroleum," *n.d.*).

Thombo Petroleum South Africa. Thombo Petroleum is based in London but primarily operates in South Africa. The company holds a 75% interest in the exploration rights of block 2B directly off the northwest coast, with the remaining 25% held by Afren Plc (Thombo Petroleum, 2012). In early 2013, the company announced award of a contract to WesternGenco to acquire seismic data and provide more information on an oil discovery found by Soeker in 1988 ("The first true 3D marine seismic system," 2013).

This review of exploration and drilling rights in South Africa shows that PetroSA has awarded a significant number of exploration and production concessions within the past five years. This indicates the state has a significant interest in additional petroleum production. In early 2014, the African National Congress passed a new law regarding state ownership and participation in oil exploration, which members of South Africa's parliament described as an effective nationalization of the country's oil industry (Vecchiatto, 2014). One clause gives the state a 20% interest on all new exploration and production rights awarded on oil and gas contracts. The second clause caps the state's interest at 80%, up from the 30% authorized under current law. The new law is unsurprisingly opposed by multiple companies that are members of the Offshore Petroleum Association of South Africa (Opasa), including 11 of the 17 companies listed above.

Government Revenue and Expenditures

Here I discuss sources of revenue to the government of South Africa from 1985 onward, the dates during which the country has been producing petroleum. I also discuss oil rents as estimated by the World Bank.

Published sources indicate there are multiple ways in which the state generates revenue from the industry.[19] Oil and gas taxation is established under South Africa's Tenth Schedule to the Income Tax Act, which grants favorable taxation rates to oil and gas companies. If a company holds oil or gas rights under the Mineral and Petroleum Resources Development Act (2002) and does not participate in other forms of trade, the company qualifies for a 28% income tax rate (Republic of South Africa National Treasury, 2012), vice the 32% or 34% rate applied to other companies (Republic of South Africa National Treasury, 2006). The company will also qualify for a tax rate of 5% on dividends, vice a 15% dividend tax rate applied to other companies (Strydom & Arelas, 2013). The company may even qualify for a 0% tax rate on dividends if the company's oil and gas rights stem from an OP26 right, granted under a 1965 law (Republic of South Africa National Treasury, 2006). The state also gathers income from petroleum excise taxes, although it is not clear which specific corporations or exports are taxed.

Figure 28 shows revenue from corporate income taxes,[20] revenue from petroleum excise taxes, and the World Bank's estimate of oil rents. The oil rents estimate includes rents from both extraction and production and subtracts approximate unit costs from gross revenue to provide net profits.

[19] All following data regarding South Africa's sources of revenue and expenditures are taken from Appendix B of its annual budget review. The categories here were the only categories I could identify as likely to reflect collection of resource rents.

[20] This figure includes income taxes on all corporations, with the exception of a dividend tax, not only corporations that focus on oil extraction or exportation.

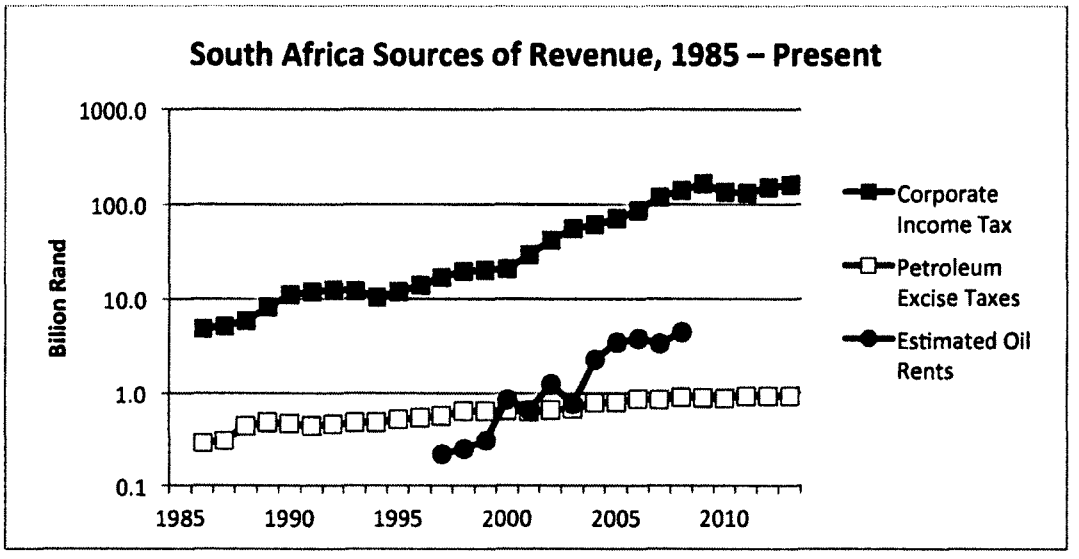

Figure 28. South Africa Sources of Revenue, 1985–Present (Republic of South Africa Department of Finance, 1993–2014).

Unfortunately, South Africa's annual budget review does not list income taxes collected by industry, so we cannot know what portion of corporate income taxes listed above are collected from petroleum corporations. Knowing that the oil industry is only a portion of the country's GDP, just under 6.5% in 2012 (South Africa Petroleum Industry Association, 2012), we can extrapolate that rents collected as income taxes do not make up a significant portion of state revenue.

It is not clear how PetroSA, the state-owned oil corporation, contributes to the state budget or how its profits are used. PetroSA holds interests in every exploration concession granted and operates the Mossel Bay GTL Plant, but it is not known how this revenue enters the state budget. Additionally, the country has six refineries, all of which have been operating since the early 1990s. It is likely the corporations that own these refineries pay income taxes, but it is unknown if the state collects rents from them via other means.

Finally, the state has a fuel levy, or gas tax, that provided just over 5% of the country's revenue in 2013. Figure 29 shows revenue from the fuel levy.

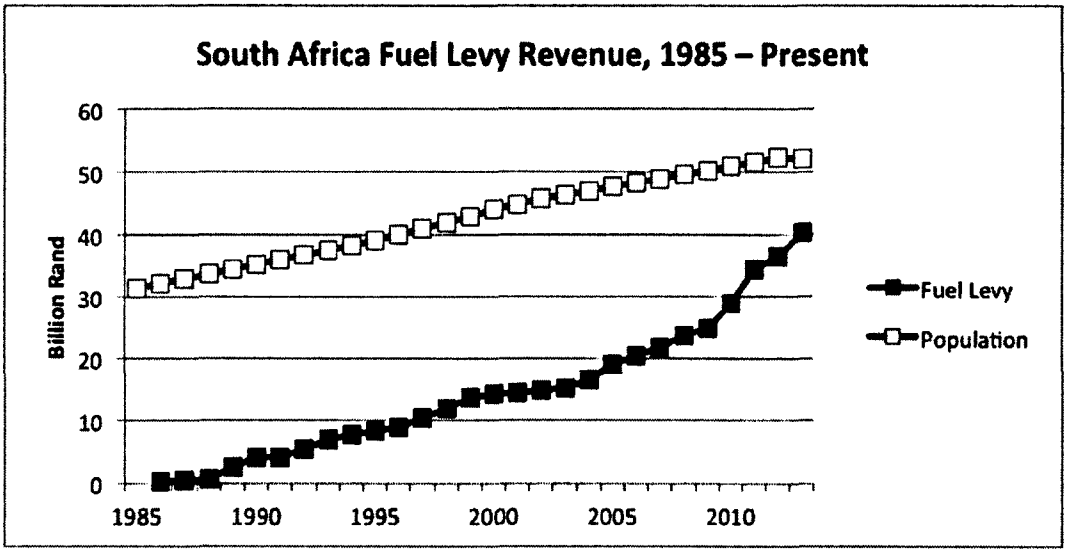

Figure 29. South Africa Fuel Levy Revenue, 1985–Present (Republic of South Africa Department of Finance, 1993–2014).

This levy is on consumption, not production, and demonstrates two key points. First, this increase on the levy will scale the growth of the upper and middle class of South African society. The poor will pay this tax as it applies to their heating or cooking fuel, but it is unlikely they will pay this levy directly for vehicle fuel (although they will pay it indirectly as they pay for public transportation). Second, this is a levy and not a subsidy: the South African state does not use its resources to subsidize petrol for the poorer members of its society. As previously discussed, natural resource rents can be distributed throughout the state by using them to subsidize state services such as education or health care. The fuel levy creates the potential that this mechanism could work in reverse: a levy on basic needs could strain citizens' finances and create instability.

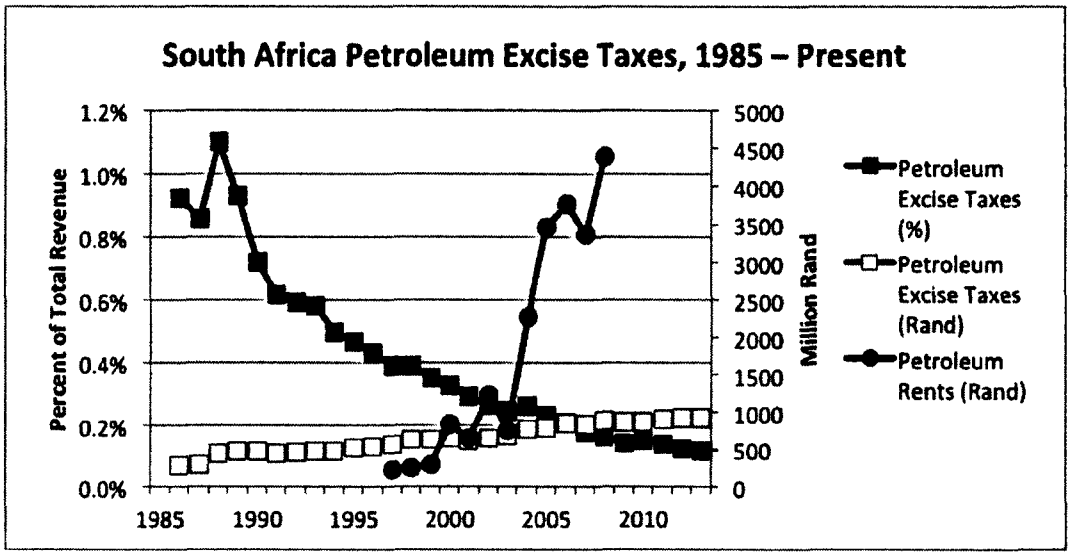

Figure 30. South Africa Petroleum Excise Taxes, 1985–Present (Republic of South Africa Department of Finance, 1993–2014).

Figure 30 contrasts petroleum excise taxes, both in absolute measures and as a percentage of total revenue collected, with estimated rents from extracted oil.[21] Thus, the comparisons are not exact, but they do reveal general trends. One item of note is that estimated oil rents are frequently lower than revenue collected from petroleum excise taxes until the mid-2000s, which indicates estimated oil rents do not include petroleum excise taxes. This is unsurprising, as most oil produced remains in state and is not exported; we should not expect to see significant revenue from export taxes. Corporations that export oil are liable for export taxes, but both exports and export revenue are low (Republic of South Africa Department of Finance, 1993–2014).

Documented state income can be compared to estimates of oil rents. Figure 31 shows rents estimated by the World Bank's "Wealth of Nations" data set, which documents production annually and estimates rents to the state based on the price of oil.

[21] Estimated rents have been converted from USD to Rand using the mean currency conversion rate between the two currencies over the entire year.

Rents are estimated from crude production, so the figure includes crude production as estimated by the US EIA. Estimated rents are not as accurate as records published by the South African government, but they provide a more comprehensive picture of wealth generated for the state. Published records do not reflect funds generated for the state that are not collected via taxes and likely do not reflect money siphoned off by corruption. These estimates cannot be used for comparisons or calculations, but can show general trends.

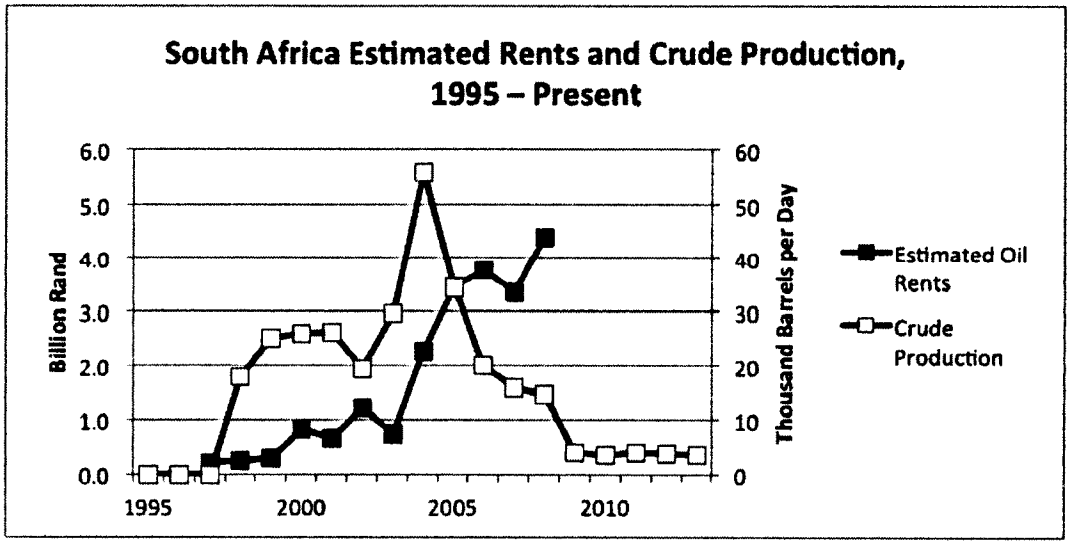

Figure 31. South Africa Estimated Rents and Crude Production, 1995–Present (The World Bank, 2011; U.S. Energy Information Administration, n.d.).

Unfortunately, rents are only estimated through the year 2008, so I have included crude production estimates from the US EIA for comparison. Rents cannot be directly estimated for the years after 2008, the last point at which data is available, but given sharply falling production in the late 2000s, we can assume that rents will be low.

The next three figures compare South Africa's expenditures on social services and law enforcement and defense to refined petroleum exports and estimated oil rents.

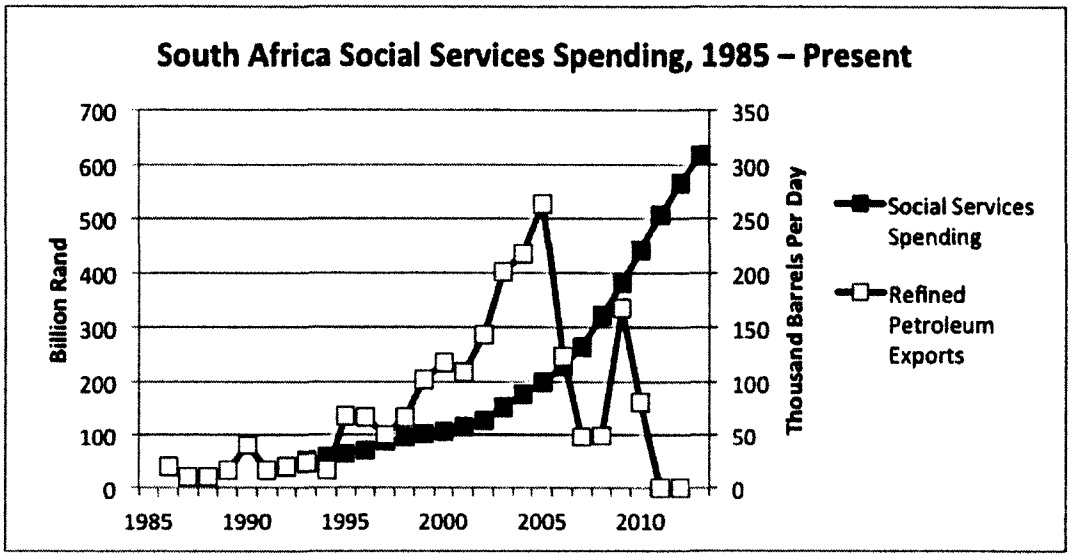

Figure 32. South African Social Services Spending 1985–Present (Republic of South Africa Department of Finance, 1993–2014, The World Bank, 2011).

Figure 32 contrasts South Africa's social spending to its petroleum exports. Social spending includes housing development, community programs, water supply, health services, recreation and culture, education, and "social protection," or South Africa's social security program. This estimate includes a wide variety of programs, but is important because states can use oil rents to maintain stability by subsidizing social programs. Unfortunately, estimated oil rents never grow large enough to sustain any significant portion of South Africa's social spending.

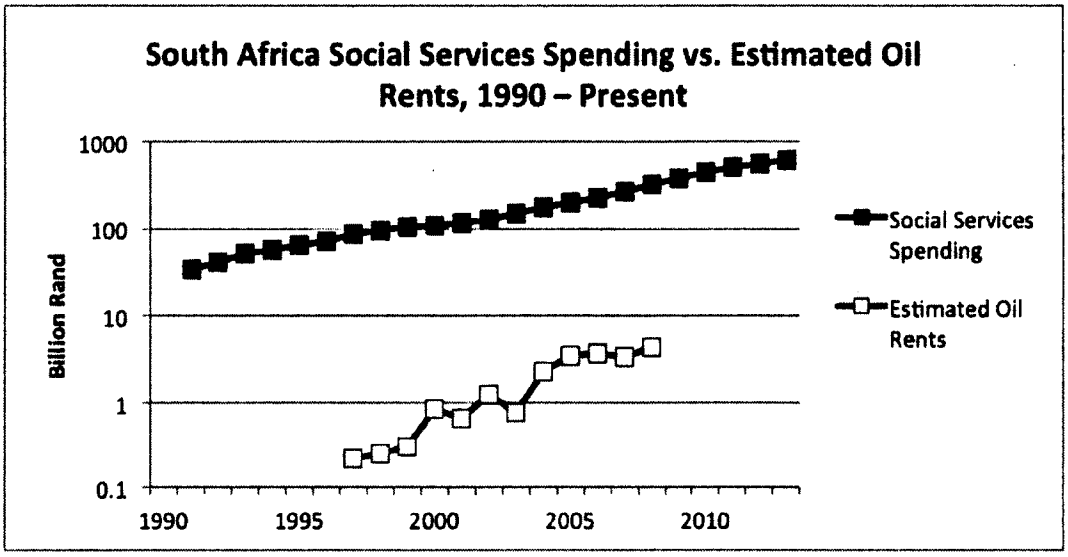

Figure 33. South Africa Social Services Spending vs. Estimated Oil Rents, 1990–Present (Republic of South Africa Department of Finance, 1993–2014, The World Bank, 2011).

Figure 33 compares expenditures on social programs with estimated oil rents;[22] for the period that estimated rents are available, they never reach more than 2% of social spending. Thus, the state will be unable to use rents to provide a significant amount of support for social programs.

Another way that states use oil rents to create stability is by funding large security forces, either via the state's armed forces or via a large police force. Figure 34 compares South Africa's spending on its defense and law enforcement with estimated rents. Again, rents cannot provide funds for a significant portion of this spending, as they never pass more than 6% of defense and law enforcement spending. Thus, oil rents cannot be used to support the state's security apparatus.

[22] Estimated rents are again converted from USD to Rand using the mean currency conversion rate between the two currencies over the entire year.

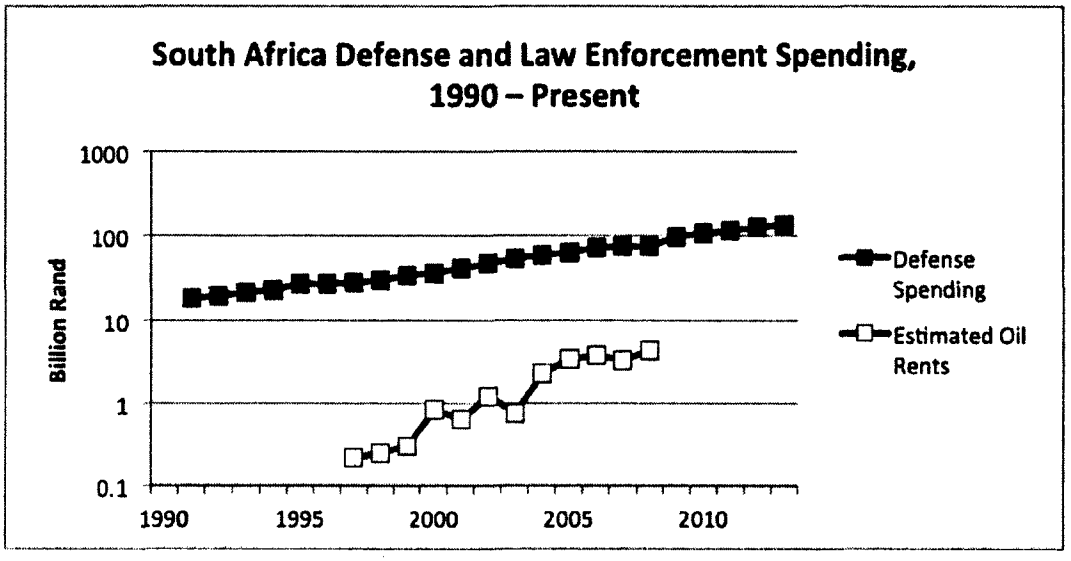

Figure 34. South African Defense and Law Enforcement Spending, 1990–Present (Republic of South Africa Department of Finance, 1993–2014, The World Bank, 2011).

Petroleum and Political Stability

Mechanisms Supporting Stability.

In this section, I examine each of the mechanisms discussed in the literature review and determine which, if any, encourage either stability or instability in Côte d'Ivoire and South Africa.[23]

(1) Rents encourage the status quo. This mechanism specifically applies when oil rents are high and the state functions well, with state control over a significant portion of economic agents in the state (Auty, 2004). These conditions have not yet existed in Côte d'Ivoire, as the oil industry was only a small portion of the country's economy until the mid-2000s, and the state has only functioned well within the past 2-3 years following the civil war. Thus, this mechanism does not apply to Côte d'Ivoire, but could apply in the next few years.

South Africa has had a relatively well-functioning state for much of the time that it has been exporting oil, but oil rents have never exceeded more than 1% of state revenue. However, although oil rents provide only a small portion of the state budget, these rents support stability within the state to the extent that the state is stable. Thus, oil rents are likely to have encouraged political stability within South Africa via this mechanism.

(2) Rents build a "rainy day" fund. The World Bank has estimated state's net national savings by calculating gross national savings (gross national income plus transfers minus public and private consumption) and subtracting consumption of fixed

[23] Mechanisms are numbered using the scheme established in table 1 for ease of identification.

capital. Figures 35 and 36 show gross national savings and estimated oil rents for both countries.

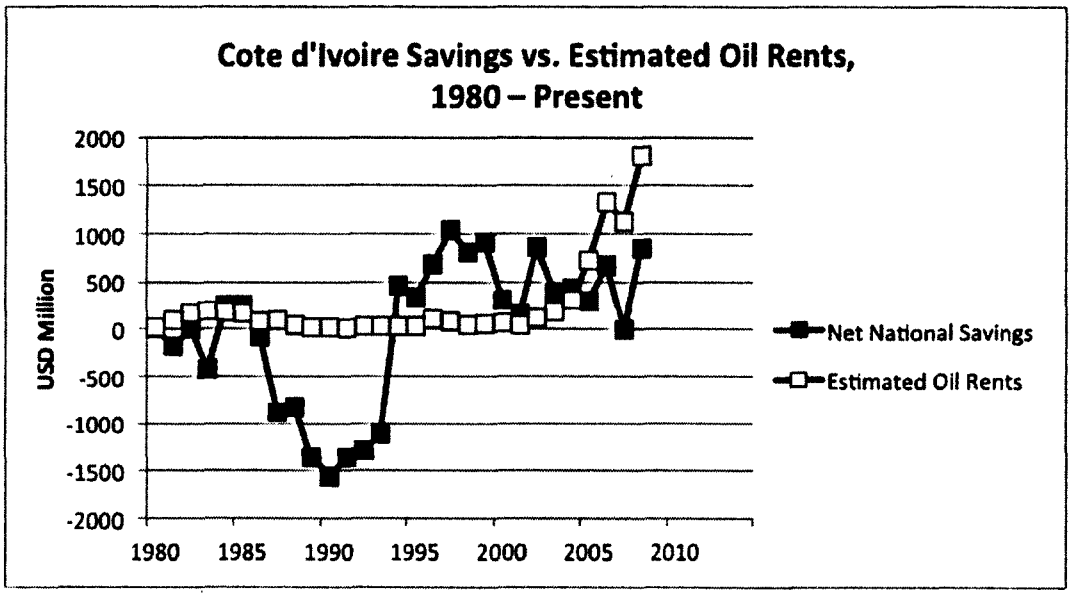

Figure 35. Côte d'Ivoire Savings vs. Oil Rents, 1980–Present (The World Bank, 2011).

These data show that Côte d'Ivoire has not developed a "rainy day" fund to buffer its economy against price shocks or other economic sources of instability. Thus, this mechanism does not apply to Côte d'Ivoire.

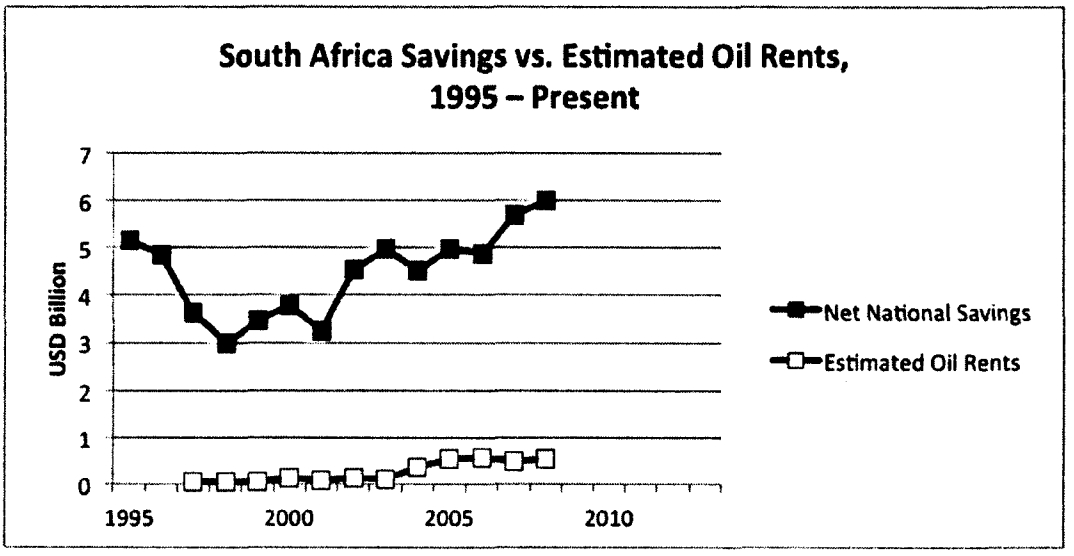

Figure 36. South African Net National Savings vs. Oil Rents, 1985–Present (The World Bank, 2011).

South Africa has had limited success at building its national savings, but rents from extraction and production have never comprised any significant portion of those savings, ranging from 1.3% of net national savings in 1997 to just shy of 12% in 2006. More importantly, there is no evidence that the state used rents to increase its savings. World Bank estimates are based on a variety of factors and do not indicate the state has built a "rainy day" fund. Additionally, the SADC recently called for establishment of an emergency fund for the region, indicating the state has not already established its own (Hatyoka, 2014). Thus, this mechanism is unlikely to have been a source of stability in South Africa.

(3) Rents support a security apparatus. Typically, this mechanism describes spending on police or armed forces to protect citizens from external threats. This mechanism does not apply in South Africa, as the state did not face external threats during the time it has been producing oil. Côte d'Ivoire has also not been a target of external state aggression, although Guinea has been a source of instability and the border

between the two countries has been porous (*Stopping Guinea's slide*, 2005). However, there is no evidence of state-sponsored aggression against Côte d'Ivoire, so it is unlikely oil rents have created stability in Côte d'Ivoire via this mechanism.

(4) Rents attract dictatorships or repressive regimes. In Côte d'Ivoire, oil rents were low (32.2M USD) when Prime Minister Bédié became President in 1993, compared to their peak at 197.1M USD a decade earlier (The World Bank, 2011). Rents were still low when General Guei conducted his coup in 1999, and it was only during the period that President Gbagbo unconstitutionally held onto power, during the mid-2000s, that oil rents increased significantly. It is not unreasonable to assume that increasing oil rents may have played a part in either President Gbagbo's or President Ouattara's desire to control the state, but there is no direct evidence either for or against this mechanism. Thus, it is undetermined whether this mechanism worked to create instability in Côte d'Ivoire.

Although apartheid South Africa was a repressive regime, the regime did not benefit from crude production, and other petroleum exports were low. The state's oil wealth or potential oil wealth has not attracted any unconstitutional challenges to power; McGowan (2003) found no coups in South Africa, successful or unsuccessful, between the years 1956 and 2001. Thus, oil rents are unlikely to have contributed to instability in South Africa via this mechanism.

(5) Rent collapse prevents government from meeting its obligations. This mechanism has two pre-conditions: first, state dependence on rents; and second, a price collapse that significantly reduced rents. There is evidence that a collapse in the price of cocoa and coffee in the late 1970s was the initial source of Côte d'Ivoire's current

instability, but this was not the case with oil rents. Figure 13, showing estimated oil rents in Côte d'Ivoire, indicates there has never been a collapse in oil rents while the state has been producing oil. Thus, this mechanism does not apply to Côte d'Ivoire.

South Africa also does not meet these pre-conditions; Figure 31 shows estimated rents never form more than 1% of the state's revenue. Thus, this mechanism also does not apply to South Africa.

(6) Rents lower government accountability to citizens. This mechanism has the pre-condition that the state is dependent on rents, or at least that rents are significant enough that the state does not need to collect tax revenue. This mechanism does not apply to South Africa due to low rents. This mechanism could have applied to Côte d'Ivoire during the recent civil war and may apply in the near future due to the recent expansion of the oil industry in the state. While there is no direct evidence that rents lowered President Gbagbo's accountability to his citizens, it is clear the state drew increasing revenues from the industry, and thus it is likely oil rents contributed to instability in Côte d'Ivoire via this mechanism.

(7) Rents lower government accountability to international community. This mechanism applies when states use oil rents to fund aggression against surrounding states. South Africa has not been overtly aggressive towards other states since it began extracting and refining oil, and Côte d'Ivoire's conflict was largely contained within its borders. Thus, oil has not been a source of instability via this mechanism for either South Africa or Côte d'Ivoire.

(8) Rents trigger predatory behavior. This mechanism occurs when rents prompt an executive or state minister to seek additional personal wealth from oil rents.

The state's low estimated revenues in 2005 indicate officials were siphoning off rents prior to them reaching state coffers (UNSC S/2006/204, 2006). Guesnet et al. (2009) also reported civil servants looting state coffers prior to the 2008 election, fearing they would not be reappointed following the election. Thus, this mechanism was likely to have contributed to instability in Côte d'Ivoire. In South Africa, this would likely be reflected in corruption statistics, whereby the executive or minister would request bribes or kickbacks from oil corporations. There is evidence that corruption is a part of South Africa's oil industry, both today and during the apartheid era (Van Vuuren, 2013; Ugwumadu, 2014). Thus, it is likely that oil has contributed to instability in South Africa via this mechanism.

(9) Rents permit policies that economically distort the country. This mechanism has the pre-condition that the state is dependent on oil rents, or that the state receives a significant portion of its revenue from rents, and that the state's economy already functions well. Rents have not been a significant portion of South Africa's revenue, so this mechanism does not apply to South Africa. They have been significant in Côte d'Ivoire during the past decade, but it is not accurate to say that Côte d'Ivoire's economy functioned well during the war and electoral crisis. Close observation over the next decade will show if the state allows its oil wealth to undermine other sectors of its economy, but it is unlikely oil rents have contributed to instability in Côte d'Ivoire via this mechanism.

(10) Rents encourage political corruption. This mechanism occurs when the state is aware that officials are stealing rents but does not act to stop it because reduced rents still provide sufficient wealth. Based on the low value of South Africa's estimated

oil rents, it is unlikely this mechanism contributed to instability in the state. However, there is no evidence either for or against this mechanism in Côte d'Ivoire.

(11) Rents discourage development of other sectors of the economy. This mechanism has pre-conditions of dependence on the natural resource and pre-existing stability. Because South Africa is not dependent on rents, this mechanism does not apply. In Côte d'Ivoire, the state has only had dependence and stability within the past 2-3 years, so it is too early to tell whether rents have discouraged economic development elsewhere in the state. Thus, it is undetermined whether oil rents have contributed to instability in Côte d'Ivoire via this mechanism.

(12) Rents discourage development of infrastructure. This mechanism assumes dependence, but we have previously assumed that even small rents can contribute to stability or instability. Thus, if this mechanism applied, we would expect to see minimal infrastructure development, as the country would depend on natural resource rents instead of other economic sectors. This does not appear to be the case in either Côte d'Ivoire or South Africa. Côte d'Ivoire has a significant number of public works projects under way (Yembiline, Traoré, and Padilla, 2014), and South Africa has an aggressive infrastructure construction plan, encompassing eighteen Strategic Integrated Projects across all sectors of the economy and all provinces in the country ("Summary," 2012). Thus, it is unlikely oil rents have contributed to instability in either Côte d'Ivoire or South Africa via this mechanism.

(13) Rents discourage development of an effective state bureaucracy. This mechanism typically requires dependence to a higher degree than other mechanisms, as governments will draw less revenue from other sources. This is clearly not the case of the

government of South Africa, as data published on the state's National Treasury website shows it has established a bureaucracy capable of monitoring and taxing its economy. This also does not appear to be the case in Côte d'Ivoire, as the 2014 Bertelsmann Stiftung report on the state assesses it is making progress in reestablishing its administrative capabilities. Thus, oil rents have not contributed to instability in South Africa or Côte d'Ivoire via this mechanism.

(14) Rents buy stability from the political elite. This mechanism specifically addresses use of oil rents by the executive to "buy" stability from the state's political elite. There is evidence oil concessions have been used in this manner in Côte d'Ivoire: a 2009 report by the Bonn International Center for Conversion stated President Gbagbo was suspected of awarding oil concessions to companies in order to maintain his patronage network (Guesnet et al., 2009). While this does not specifically address oil production and exports, which are the focus of this study, it is likely they also contributed to stability in Côte d'Ivoire via this mechanism.

South African leaders also rely on patronage politics to maintain their power. A 2013 report by the Mapungubwe Institute for Strategic Reflection, a research institution focusing on South Africa's long-term challenges, states that patronage politics is endemic at the local level, with only 5% of municipalities receiving clean audits from the Auditor General's office (Ndletyana, Makhalemele, and Mathekga, 2013). At the national level, a 2012 report by the Auditor General on President Jacob Zuma showed that the President financed an extravagant lifestyle by accepting money from a large number of influential South Africans (Brümmer and Sole, 2012). Hyslop (2005) noted that South Africa's

patronage system, developed during its late colonial days and early days as a state, has been a system of entrenched corruption since the 1970s.

There is evidence that President Jacob Zuma has engaged in corruption and patronage in the oil industry. In May 2014, the newspaper City Press reported that President Zuma recently negotiated with President Joseph Kabila of the Democratic Republic of the Congo (DRC) to give two DRC oil fields to President Zuma's nephew, Khulubuse Zuma. The production of the oil fields was estimated at 100B Rand over their lifetime (Pauw, 2014). In January 2013, the Daily Maverick reported that President Zuma's son had ties to South African companies Ithesbe Petroleum and Ithesbe Oil and Gas, and that in addition to his DRC investments, Khulubuse Zuma had ties to the Impinda Group, which ships crude oil and gas (De Waal, 2013).

This oil-related patronage within South Africa does not directly indicate this mechanism is at work because it demonstrates favors by the political elite to those in power. However, given the presence of patronage politics in the industry, it is reasonable to think that rents were used in this manner. Thus, oil rents have likely contributed to stability in South Africa via this mechanism.

(15) State attempts to buy stability from elite, but instead creates corruption and rent-seeking activity. This mechanism is an extension of the previous, whereby an executive attempts to create a political patronage network using oil rents, but instead encourages greed and rent-seeking activity from the country's elite, thus creating instability. If this mechanism were at work, we would expect to see increasing corruption

with increasing oil rents. The following two figures show corruption perceptions[24] with estimated oil rents in both Côte d'Ivoire and South Africa.

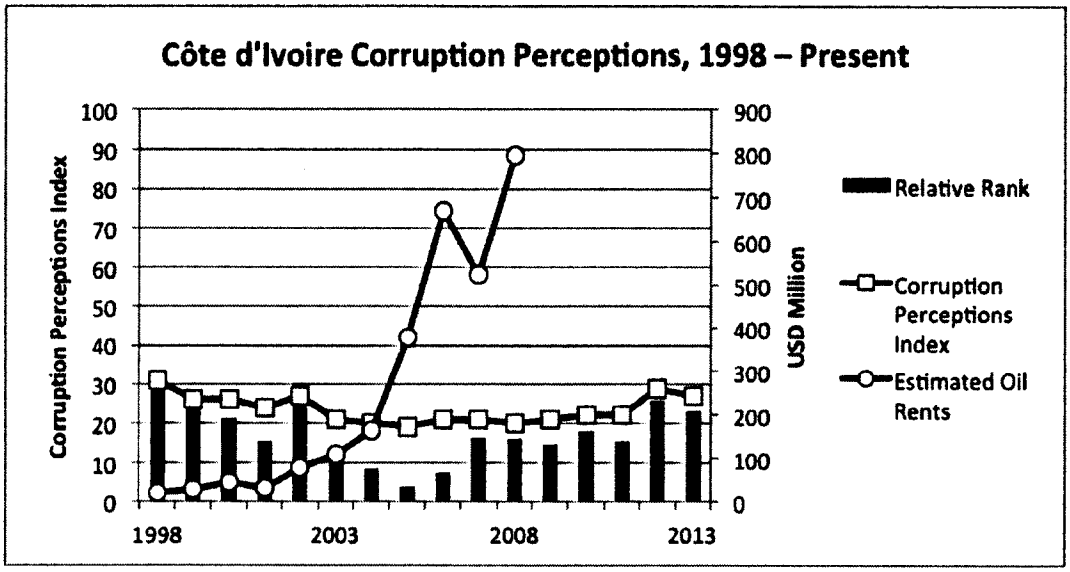

Figure 37. Côte d'Ivoire Corruption Perceptions, 1998–Present (Transparency International, 1998–2014; The World Bank, 2011).

[24] The Corruption Perceptions Index quantifies corruption within the country using a number from 0.0 - 10.0. Values of 10.0 signify that the country is completely free of corruption, while values of 0.0 represent corruption in every aspect of life within that country. For reference, the highest rated countries in 2013 were Denmark and New Zealand with a rating of 91/100, while the U.S. had a score of 73.

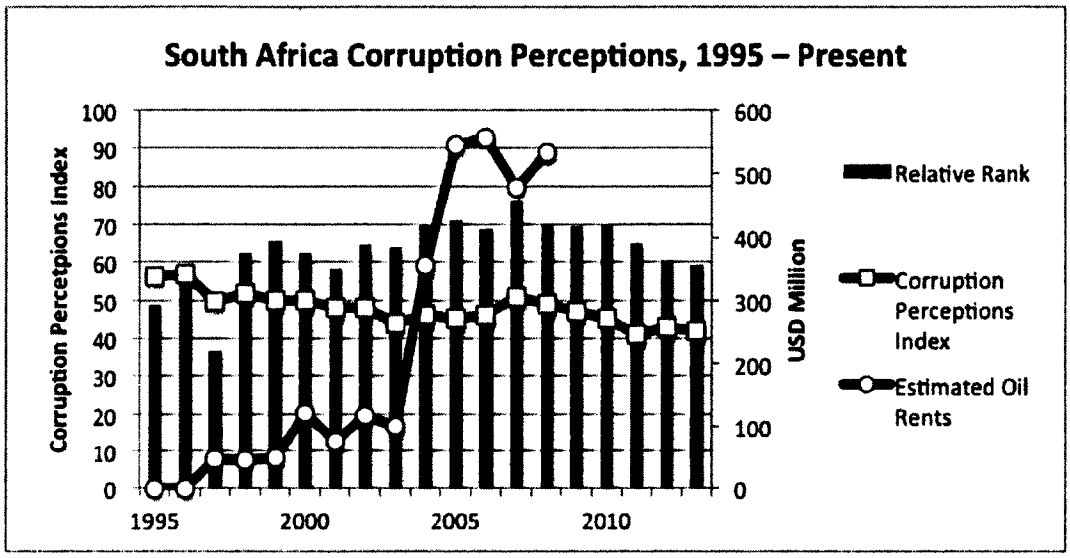

Figure 38: South Africa Corruption Perceptions, 1995–Present (Transparency International, 1995–2014; The World Bank, 2011).

Based on this data, there does not appear to be a significant correlation between estimated oil rents and increasing corruption (decreasing index). Additionally, corruption was already a significant problem in both countries prior to an increase in oil rents, so it is unlikely that the additional rents significantly increased. Thus, it is unlikely oil rents increased instability in either Côte d'Ivoire or South Africa via this mechanism.

(16) Elites discourage economic diversification. With this mechanism, we expect to see an economy that becomes less diverse during or immediately following periods with high oil rents. The following table summarizes the South African and Ivorian economies, showing the size of each major sector of their economies. For South Africa, the first date (1995) is prior to crude oil production and the second (2005) immediately follows a significant increase in oil production. Unfortunately, no data is available on Côte d'Ivoire's economy prior to its 2002 spike in oil production, but Table 4 shows more recent data economic data.

Table 4

Sectors of the South African Economy as a Percentage of GDP

Sector	South Africa			Côte d'Ivoire	
	1995	2005	2014	2008	2013
Manufacturing	18	18	12	12.9	13.0
Agriculture, forestry, and fishing	18	3	2	26.7	29.2
Finance, real estate, and business	14	21	22	12.0	11.0
General government services	14	15	17	13.9	12.9
Hotels and restaurants	12	14	17	14.7	15.0
Transportation, storage, and communication	8	10	9	No data	No data
Mining and quarrying	6	8	9	7.6	4.6

Source: Statistics South Africa, n.d.; Yembiline, Traoré, & Padilla, 2014

Table 4 shows that not only does Côte d'Ivoire have a fairly well-diversified economy, the major sectors of its economy are also fairly stable, and none appears to be growing at the expense of another. Thus, it is unlikely oil rents have contributed to instability in Côte d'Ivoire via this mechanism.

Table 4 also shows that the structure of the South African economy has changed over the past two decades. Agriculture has shrunk from nearly a fifth of the economy to a negligible portion of the economy, while the finance, government, and hospitality sectors have each grown. If this mechanism were at work, we would expect to see consolidation of economic power in the petroleum industry (mining and quarrying category) and restrained growth in other sectors. These data show that this did not happen, likely because oil was not a large enough sector of South Africa's economy on which to base economic power. Thus, it is unlikely oil rents have contributed to instability in South Africa via this mechanism.

(17) Elites create instability to gain larger share of rents. A potential indicator of this mechanism is significant instability in government positions that control the state's resources. In South Africa, this is the Department of Energy, which was formed in 1999, or the Department of Minerals and Energy, its predecessor. The ministers of these organizations are listed below.

Table 5

Historical List of South African Ministers of Minerals Energy

Minister	Department	From	To
Tina Joemat-Pettersson	Department of Energy	May 2014	Present
Ben Martins	Department of Energy	July 2013	May 2014
Elizabeth Diupo Peters	Department of Energy	2009	2013
Buyelwa Sonijca	Department of Minerals and Energy	2006	2009
Phumzile Mlambo-Ngcuka	Department of Minerals and Energy	1999	2005
Penuell Maduna	Department of Minerals and Energy	1996	1999

Sources: Compiled from official sources and news articles

Table 5 shows that although the most recent ministers have only held their posts for short periods, the ministers from the mid-1990s through the late 2000s each held their posts for a number of years. Based on this, it is unlikely oil rents have contributed to instability in South Africa via this mechanism.

Unfortunately, the same data is unavailable for Côte d'Ivoire, and the only way to find evidence for this mechanism would to be to conduct personal interviews with the political elite and cabinet ministers, which is outside the scope of this project. Thus, we cannot determine if oil rents have contributed to instability in Côte d'Ivoire via this mechanism.

(18) Rents fund social welfare programs. With this mechanism, a state uses rents to support significant social welfare programs in return for citizens permitting corruption and allowing current leaders to remain in power. Figure 33 graphs social services spending against estimated oil rents, showing that estimated rents could fund only a very small portion of the country's spending on social services. Thus, although their impact is minimal, it is likely oil rents have supported stability in South Africa via this mechanism.

Understanding social welfare spending in Côte d'Ivoire is more difficult, as the government has not published either its current or historical budgets. We know that social welfare spending formed a significant portion of the state budget following independence through the 1980s (Klaas, 2008), but understanding recent social spending is more difficult. A 1996 World Bank report on Côte d'Ivoire describes social welfare spending in Côte d'Ivoire between the years 1980 and 1996, noting that government expenditures on education are approximately 45% of the state budget throughout the 1980s and 1990s (Demery, Dayton, and Mehra, 1996). However, key findings of this report are that Ivorian subsidies to both the health and education sectors greatly benefitted the richest individuals in the state more than the poorest individuals. Table 6 shows the portion of 1995 government subsidies in these sectors to both the richest and poorest quintile of Ivorians. It shows that although the state expended a significant portion of its budget on social welfare programs, this money did not provide the greatest benefit to Ivorians. Additionally, although the government made significant expenditures on its citizens' welfare, outcomes did not reflect spending, with health outcomes in Côte d'Ivoire lower than those in other African countries with similar spending.

Table 6

South Africa 1995 Government Subsidies in Health and Education

Subsidy	Poorest Quintile	Richest Quintile
Health	11%	31%
Education	14%	35%

Source: Demery et al.,1996

This data is limited because it only covers the period from 1980–1995, and oil rents did not increase significantly in Côte d'Ivoire until the mid-2000s. Additionally, this mechanism works by improving the quality of life of poorer Ivorians, and it is not clear that historical spending provided this result. Thus, it is undetermined whether this mechanism contributed to stability in Côte d'Ivoire.

(19) Rents support a security apparatus to repress dissent. This mechanism differs from the mechanism previously discussed in that it assumes the security apparatus creates stability by repressing the population. There is solid evidence that security forces in both Côte d'Ivoire and South Africa have mistreated citizens, but the evidence that oil rents supported these security forces and that security forces were successful in creating stability is less clear.

In Côte d'Ivoire, oil production significantly increased beginning in 2002, the same year the civil war started (Guesnet et al., 2009; see also figure 13), but UN investigations between 2006 and 2013 were never able to prove corruption or illegal use of oil funds due to PETROCI's refusal to comply with the investigation (UNSC S/2008/598, 2008; UNSC S/2010/197, 2010). However, the UN Group of Experts charged with the investigation noted PETROCI's diversion of funds for agricultural products (UNSC S/2012/766, 2012), unexplained financial costs charged to the state (UNSC S/2012/766, 2012), and payments to Mr. Charles Blé Goudé, an individual under

UN sanctions allegedly involved in violations of the UN arms embargo during the 2010-2011 electoral crisis (UNSC S/2013/228, 2013). They also reported that one of President Gbagbo's advisors executed a deal with PETROCI Director General Kassoum Fadika and that some of the profits from this deal were used to purchase arms (UNSC S/2013/228, 2013). Finally, they reported oil revenues were used to buy arms separate from the PETROCI deal (UNSC S/2012/766, 2012). Although the group was forced to retract this claim in 2014, it noted that management of oil revenues and the process for contracting and bidding on oil concessions remains "opaque" (UNSC S/2014/266, 2014, p. 16).

The group described other discrepancies in their reports: in 2005, the state estimated revenues of only 35 USD per barrel of oil produced, an under-estimation of almost 50% with no explanation of where additional revenues went. Thus, while there is no proof that oil revenues were used to support state police or militias, it is highly likely they did. Additionally, while this mechanism is typically thought to support stability, the use of oil revenues to support Ivorian security forces certainly prolonged both the civil war and the electoral crisis, creating instability in the country. Thus, we can say this mechanism is likely to have contributed to instability, vice stability, in Côte d'Ivoire.

Figure 34 shows estimated oil rents[25] as a source of revenue while the state has increased spending on its law enforcement and defense forces. Although this figure does not show causation, it is likely the state used rents to support law enforcement spending. Unfortunately, there is evidence that security forces are not a source of stability in the state; South Africa's Independent Complaints Directorate recorded 4,923 allegations of

[25] Although exports of both crude and refined oil products were very low prior to 1997, when crude production began, the state has been exporting oil since the mid-1980s (*International Energy Statistics*, n.d.).

police abuse in its 2011-2012 report and 720 deaths resulting from police actions (Raphaely, 2013). Police and armed forces may not be directed to repress South African society, but significant abuses of power occur and do not foster a stable civil society. Rather, it appears that instability is a more likely result due to South Africans' lack of trust in their police forces. Thus, it is likely rents also contribute to instability in South Africa via this mechanism.

(20) Rents repress a desire to form a strong civil society. This mechanism has a pre-condition that rents are being used to support strong welfare programs; the strength of these programs then creates a lack of desire for civic groups that typically support democracy. This is not the case in either Côte d'Ivoire or South Africa. First, in Côte d'Ivoire, the executive and state were weak during the period where rents were a non-negligible portion of Côte d'Ivoire's budget, from 2002 through the present. Second, there were a number of student groups that formed following the 2010 election that were willing to fight for their chosen candidate (Banegas, 2011). While these were not civic groups in the mold discussed by Ross (2001), these groups' formation indicates a desire in society to form civil groups. Thus, oil rents were unlikely to have caused instability in Côte d'Ivoire via this mechanism.

In South Africa, state welfare programs have not repressed South Africans' desire to form strong a civil society. Beall et al. (2005) discussed how civil organization integration in the 1980s was critical towards racially integrating the state. Ranchod (2007) stated that the ANC's current approach to governance has actually encouraged the formation of civil organizations. Thus, it is unlikely that oil wealth has contributed to instability in South Africa via this mechanism.

(21) Rents support illegal or unpopular programs. It is difficult to assess this mechanism's applicability to Côte d'Ivoire due to a lack of information on its social welfare spending. As previously discussed, social welfare spending throughout the 1980s and 1990s was far from equal, with subsidies supporting the richest Ivorians more than the poorest Ivorians. During President Ouattara's term, the state has prioritized social welfare spending by providing free health services to Ivorians in 2011. This plan was scaled back in 2012 due to deficiencies in the country's health infrastructure, with its focus on pregnant women, children, and emergency health services (U.S. State Department, 2013). However, there is no evidence these programs were illegal or unpopular. Thus, it is unlikely rents have contributed to political instability in Côte d'Ivoire via this mechanism.

South Africa is easier to assess, as the state has robust social security programs that distribute funds to a large number of South Africans, including the Old Age Grant, the War Veteran Grant, the Disability Grant, the Child Support Grant, and others (South African Social Security Agency, 2012). An increasing number of South Africans are benefiting from these programs, as grants grew from approximately 30% of households in 2003 to almost 50% of households in 2013 ("Social grants," 2014). Based on South Africa's robust social safety net, there is no reason for the President or other state agencies to create illegal social programs. Additionally, a survey of South Africa's social programs indicate that the programs themselves are not a source of difficulty or instability, and that corruption is a much larger factor in creating instability (Polgreen, 2012). Thus, it is unlikely that oil rents contribute to instability in South Africa via this mechanism.

(22) Rents create the perception of inequality in their distribution. Côte d'Ivoire's social programs were historically unequal, but more recent programs target those most in need and have been adjusted to better provide for the state's most vulnerable citizens. It is unclear whether historical inequality contributed to instability, but this occurred prior to the increase in oil rents. Today, programs do not significantly contribute to inequality. Thus, it is unlikely oil rents have contributed to political instability in Côte d'Ivoire via this mechanism.

Although there is no direct evidence that oil rents have been poorly distributed and contributed to inequality in South African society, the BEE approach has contributed to inequality. BEE was established in the early twentieth century, ostensibly to increase access to jobs and business ownership and management among Blacks. Despite its supposed purpose, McKinley (2011) described how "the leadership of the early ANC simply wanted a specific section of the black population to become an integral part of the capitalist system." BEE became mixed with a political "liberation" paradigm that prioritized a Black capitalist class and assumed that economic benefits would "trickle down" to the Black middle and lower classes; however, this focus on a Black capitalist class has increased inequality among Blacks.

Today, BEE is implemented by assessing businesses' progress against BEE goals using a scorecard system. These scores determine eligibility for public procurement, licensing, eligibility for government partnership deals and transaction, tax preferences, stock listings, and other economic transactions (Cook, 2013). So long as state revenues support BEE programs, they contribute to inequality. However, the connection between oil rents contributing to state revenues, state revenues supporting BEE, and BEE

promoting inequality is too tenuous to say that oil rents support inequality and thus instability. Thus, it is unlikely that oil rents contribute to instability in South Africa via this mechanism.

(23) Rents prevent development of a skilled labor force. Multiple authors have noted the fact that the oil extraction and processing industry requires skilled laborers (Ross, 2003; Isham et al., 2005). In Côte d'Ivoire, Willbros made a special effort to hire Ivorians and provided training for almost 30% of its Ivorian work force when it built pipelines in the state in the late 1990s ("Ivory Coast pipeline project," n.d.). This indicates the country does not depend on oil rents to the extent that its citizens are unwilling to develop their own skills. Thus, it is unlikely oil rents have contributed to instability in Côte d'Ivoire via this mechanism.

The South Africa 2012 report from SAPIA lists employment in member corporations by race, disability, and status as a foreign national for each occupational level: top management, senior management, specialists/mid-management, skilled, and semi-skilled. Reported employment shows that South Africans fill over 99% of skilled and semi-skilled technical positions. Thus, it is unlikely that oil wealth has contributed to instability in South Africa via this mechanism.

(24) Rents prevent class changes that cause democracy. This mechanism assumes that decreasing inequality within a country and the development of a middle class will push a state towards democracy. It also assumes rents distribution prevents the development of a middle class, or at least does not support the development of a middle class. For example, rents used to fund social welfare and anti-poverty programs support

the upward mobility of the poor, while rents pocketed by government officials or business owners contribute to inequality.

In Côte d'Ivoire, rents contribute to both equality and inequality. Health care funding for vulnerable populations such as pregnant women and children contributes to decreasing inequality (*Côte d'Ivoire Operational Plan Report*, 2013), while embezzlement of oil funds contributes to inequality (Guesnet et al., 2009). The state does have programs that specifically target the middle class, such as a home loan initiative (Boisvert, 2014). Because rents support programs promoting class equality, it is unlikely oil rents have contributed to instability in Côte d'Ivoire via this mechanism.

While South Africa still has significant problems with inequality, White economic control, and a small middle class, there is no indication these issues are perpetuated by resource rents. On the contrary, South Africa spends a significant amount of money on social welfare programs such as education, health care, and social security. Programs focusing on health care and social welfare tend to decrease inequality because they provide unequal benefits to the most impoverished in society. Thus, it is unlikely that oil rents contribute to instability in South Africa via this mechanism.

(25) Oil infrastructure displaces portions of society. Côte d'Ivoire's oil extraction occurs offshore, so it does not displace Ivorians. However, the planned pipeline between Abidjan and Boukae, the country's two major cities, could be a source of tension. PETROCI claims to have chosen a route of minimal impact, following routes already created by highways and electricity transmission lines (Petroci, 2014). News articles indicate other projects have experienced protests and disruptions—a 2009 in *The Globe and Mail* article discussed demonstrations against a gas pipeline but did not state

whether the pipeline displaced individuals. In addition, protests have occurred over a lack of profit sharing between the state and the village ("Ivory Coast villagers," 2009). Thus, it is possible, but unlikely, that oil production and exportation have contributed to instability in Côte d'Ivoire society via this mechanism.

South Africa has a similar approach: most of its oil infrastructure is offshore and does not create internally displaced persons or cause significant disruptions to society. Thus, it is also unlikely that oil production and exportation contribute to instability in South Africa via this mechanism.

(26) Rents support successful infant industry protection or import-substituting industrialization. Côte d'Ivoire utilized import-substituting industrialization to grow its economy immediately following independence (Bruton, 1998). However, its 2012–2015 National Development Plan does not use either import-substituting industrialization or infant industry protection, instead focusing on its agricultural sector, resource extraction, and transportation opportunities (African Development Bank Group, 2013). I was unable to find data on the country's economic strategy from the 1980s–2000s, but the analysis of Côte d'Ivoire's economic sectors above shows that manufacturing, which is best supported by these strategies, was a very small portion of the economy. Thus, because the state has not attempted to use these economic strategies to grow its economy, this mechanism does not apply to Côte d'Ivoire.

South Africa has protected its domestic products via tariff since before the end of the apartheid regime. Edwards and Lawrence (2008) noted that apartheid trade policies were inefficient and created "permanent infant" industries that did not justify their

protection. After the tariff structure was adjusted in the 2000s, they found it no longer followed an infant industry protection strategy, but rather provided general protections that did not support a comprehensive economic strategy.

The country underwent a similar shift with its import substitution policies. Prior to the end of apartheid, South Africa used import-substituting policies to support its motor vehicle manufacturing sector, but the result was that the industry produced a small number of products at a high cost. After apartheid, the country relaxed its duties and tariffs, and the industry grew from negligible production to manufacture of over 100,000 units per year by 2008 (Flatters & Stern, 2008).

In 1998, South Africa established a Competition Commission, which is directed to "investigate, control, and evaluate restrictive business practices, abuse of dominant positions and mergers in order to achieve equity and efficiency in the South African economy" (Competition Commission South Africa, n.d.). Today the commission's policies currently protect its food and agro-processing, intermediate industrial manufacture, and construction and infrastructure industries. The commission has the authority to take actions as wide-ranging as investigating companies and industries, levying fines, and approving or rejecting mergers (Competition Commission South Africa, 2013).

These data provide a basic outline of South Africa's trade policies. During the apartheid era, prior to the growth and development of the country's petroleum industry, the country had ineffective protectionist policies. After apartheid, the country liberalized its trade but did not develop a comprehensive strategy reflecting infant industry protection or import-substitution industrialization policies. Today, the country has

identified industries to promote but does not use infant industry protection or import-substituting industrialization strategies. Thus, given that these policies have not been effectively implemented during periods when South Africa had appreciable oil rents, it is unlikely oil rents have contributed to stability in South Africa via this mechanism.

(27) Infant industry protection or import-substituting industrialization creates a dysfunctional economy. This mechanism would not necessarily be reflected in data previously presented on the composition of the economy, as the subsidized industry would not develop as intended. However, Côte d'Ivoire has not attempted to use these strategies, and thus this mechanism does not apply to Côte d'Ivoire. South Africa's infant industry protection and import-substituting industrialization policies had a short period of overlap with the country's petroleum exports, which began in 1986. The period from 1986–1993 when revenues from refined petroleum exports helped enable the dysfunction of the South African economy, indicates it is likely that oil rents contributed to instability in South Africa via this mechanism.

(28) Dutch disease. This mechanism assumes the state's oil industry is strong enough to appreciate the state's currency against foreign currencies. This mechanism does not apply to Côte d'Ivoire, first because it does not control its currency and second because its oil industry has not been strong enough to appreciate its value. However, South Africa does control its own currency. Figure 39 shows the Rand climbed steadily against the dollar throughout the 1990s and has remained strong throughout the 2000s.

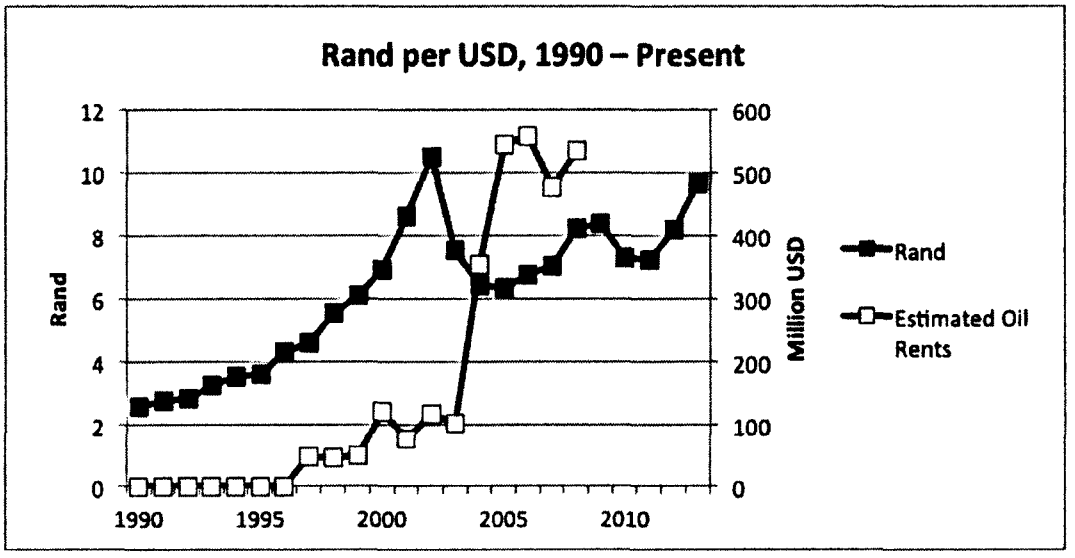

Figure 39. Rand per USD, 1990–Present (Oanda, 2014).

Although the Rand demonstrates the pre-conditions for Dutch disease, this data shows it is unlikely the oil industry contributed to the currency's appreciation, given that the Rand's appreciation led the country's estimated production rents by 2–3 years. Additionally, no data indicate this appreciation created unnecessary challenges for other industries. Thus, it is unlikely oil rents contributed to instability in South Africa via this mechanism.

(29) Social welfare programs trigger rent-seeking. This mechanism assumes oil rents support large social welfare programs, that either the general populace or the country's political elite perceive rent-seeking to be an effective strategy for acquiring wealth, and that this rent-seeking creates instability. This is unlikely to be the case in Côte d'Ivoire, as its social welfare programs have recently been reduced due to a lack of state revenue. Thus, it is unlikely oil rents contributed to instability in Côte d'Ivoire via this mechanism.

South Africa's social welfare programs have an uncertain effect on political stability: they create stability by helping to relieve poverty, and they create instability by providing an exploitable source of corruption (Polgreen, 2012). However, due to the size of the programs, any evidence of rent-seeking activity from the general population would be counteracted by government efforts to expand programs. Thus, it is unlikely that oil rents contribute to instability in South Africa via this mechanism.

(30) Governments assist in creating stability to protect their oil interests. This mechanism applies when external governments receive enough of the oil supplies from a given state that it is economically profitable to assist the state in maintaining stability. This does not appear to be the case in Côte d'Ivoire, as exports are so small, and the states that have oil companies operating in Côte d'Ivoire such as the US, UK, France, and Ireland have other more significant sources of oil. It is highly unlikely that any of these countries judge intervention in Côte d'Ivoire internal affairs worth the benefits they will gain from Ivorian oil. Additionally, foreign intervention in Côte d'Ivoire's civil war was limited to UN troops, particularly French troops.[26] French motivation to provide troops to stabilize Côte d'Ivoire was likely not based on the amount of oil it produces, but rather due to other French economic interests. Thus, it is unlikely the oil industry contributed to instability in Côte d'Ivoire via this mechanism.

Most oil corporations operating in South Africa are based in other states, including the US, UK, India, Canada, Jordan, and China. However, this mechanism has a pre-condition that a country must receive enough of its oil supply from South Africa to

[26] There is evidence that "regional" fighters from Guinea, Liberia, Sierra Leone, and Côte d'Ivoire have crossed these borders and intervened in conflicts in all states. However, these fighters remaind mobilized due to a lack of economic opportunities and effective programs to de-arm and train them for real professions, not because they desired to capture or maintain oil wealth (Human Rights Watch 2005).

economically profit from the stability it provides. As Table 3 shows, South African exports to other countries are an extremely small portion of each country's imports. While we cannot definitively rule out this mechanism, it is highly unlikely that these countries will find intervention in South African politics worth their time and money. Thus, it is unlikely the oil industry contributes to stability in South Africa via this mechanism.

(31) Governments create instability to lower oil costs. This mechanism applies specifically to governments building or repairing oil infrastructure, as the US did in Iraq following Operation Iraqi Freedom. Although many oil corporations operating in Côte d'Ivoire are headquartered in other states, they operate under regulations established by the government of Côte d'Ivoire and not as direct agents of an external state. Thus, this mechanism does not apply.

The same is true in South Africa. Due to official announcements of concessions granted in the past several years, it is clear that oil corporations conducting exploration or production activities in South Africa are operating under the authority of the South Africa government. Additionally, it is highly unlikely that foreign governments find intervention in South African politics worth their time and money. Thus, it is unlikely the oil industry contributes to instability in South Africa via this mechanism.

(32) Corporations create instability to increase profits or lower costs. Given Côte d'Ivoire's existing political and social instability, corporations would only need to contribute to and not create instability. Foreign corporation support for anti-government forces during the mid-2000s, or support for President Gbagbo following the 2010 election, would provide evidence for this mechanism. However, this evidence would only

likely be found by examining these corporations' finances or through extensive local effort within the country interviewing individuals who interacted with these corporations, which is outside the scope of this project.. Corporations may also conclude their contribution towards instability was unnecessary, and that regulations and taxes were sufficiently low that creating additional instability was not worth the effort and expense. Unfortunately, given the lack of information on regulation in the industry, it is difficult to tell whether this would be the case. Thus, we cannot determine whether this mechanism was at work in Côte d'Ivoire.

In South Africa, most oil corporations are also headquartered in foreign states, but political instability is a factor of concern to businesses in South Africa (G. Jones, 2013; "SA businesses," 2013). Therefore, it is unlikely that oil corporations see instability as beneficial, and it is unlikely the oil industry contributes to instability in South Africa via this mechanism.

(33) Foreign workers create resentment among local population. This mechanism assumes foreign national employment at the skilled and semi-skilled level will exclude local nationals from industry jobs, and local workers will come to resent foreign workers (Colgan, 2013). In Côte d'Ivoire, large populations of Liberian refugees in Guinea created resentment among local villages in the late 1990s and early 2000s (Gerdes, 2006), but there is no evidence foreign workers in the oil extraction and processing industries create resentment among Ivorians. In particular, because all of the state's oil extraction platforms are offshore, these workers are prevented from daily interaction with Ivorians, making it less likely Ivorians experience resentment. However, there is no direct evidence for or against this mechanism. Thus, it is undetermined

whether oil production and exportation created instability in Côte d'Ivoire via this mechanism.

This is not the case in South Africa: foreign labor in the oil industry is a negligible portion of overall labor. SAPIA's 2012 report shows foreign nationals comprise less than 1% of skilled and semi-skilled technical workers. Foreign workers are only a significant portion of total employees in the senior and top management levels, where they comprise 11% and 20% of total employment, but these employees are only 4% of the total work force (South Africa Petroleum Industry Association, 2012). Because foreign nationals are only a small portion of industry employees, it is unlikely the oil industry contributes to instability in South Africa via this mechanism.

Stability and Instability Analysis.

Tables 7 and 8 summarize the previous discussion. Mechanisms listed as "Source" or "Not a source" have direct supporting evidence, those listed as "Likely" and "Unlikely" have indirect evidence, those listed as "does not apply" do not have the necessary pre-conditions, and those listed as "undetermined" cannot be determined from existing evidence.

Table 7

Mechanisms Contributing to Stability in Côte d'Ivoire and South Africa

	Mechanism	Côte d'Ivoire	South Africa
1.	Rents encourage the status quo.	Does not apply	Likely
2.	Rents build a "rainy day" fund.	Does not apply	Unlikely
3.	Rents support a security apparatus.	Unlikely	Does not apply
14.	Rents buy stability from the political elite.	Likely	Likely
18.	Rents fund social welfare programs.	Undetermined	Likely

Mechanism	Côte d'Ivoire	South Africa
19. Rents support a security apparatus to repress dissent.	Source (instability)	Likely (instability)
26. Rents support successful infant industry protection or import-substituting industrialization.	Does not apply	Unlikely
30. Governments assist in creating stability to protect their oil interests.	Unlikely	Unlikely

Unfortunately, I have not found a conclusive link between the oil industry and political stability in either Côte d'Ivoire or South Africa. Although there are four mechanisms that are likely to link South Africa's oil industry to its political stability, the industry is only a small part of the country's economy. There is no direct evidence for any of these mechanisms; conclusions are based on data showing that the industry contributes to the state budget. Côte d'Ivoire is similar, with only one mechanism likely to be a source of stability. In both countries, a mechanism that is supposed to support stability actually supports instability. These results are not encouraging for understanding the links between oil exploration and production and political stability.

There are a couple reasons why oil appears to have such a low impact on stability. First, neither state has been dependent on oil, and many of the mechanisms assume this pre-condition. Côte d'Ivoire has recently become dependent, but has not been dependent long enough for effects on stability to become obvious. While South Africa both produces and exports oil, it is currently unable to meet its own oil consumption needs. Instead of exporting a large surplus, it runs the Mossel Bay GTL plant and imports several hundred thousand barrels of refined oil per day. This has the effect that the industry does not create a significant stream of revenue for the state. Second, the number of mechanisms that link oil to political stability is low compared to the number of

mechanisms that link oil to instability. Thus, we would expect the literature to support links to instability more easily than it supports links to stability.

Table 8 summarizes mechanisms contributing towards instability in both countries, using the same categories as Table 7.

Table 8

Mechanisms Contributing to Instability in Côte d'Ivoire and South Africa

	Mechanism	Côte d'Ivoire	South Africa
4.	Rents attract dictatorships or repressive regimes.	Undetermined	Unlikely
5.	Rent collapse prevents government from meeting its obligations.	Does not apply	Does not apply
6.	Rents lower government accountability to citizens.	Likely	Does not apply
7.	Rents lower government accountability to international community.	Not a source	Not a source
8.	Rents trigger predatory behavior.	Likely	Likely
9.	Rents permit policies that economically distort the country.	Unlikely	Does not apply
10.	Rents encourage political corruption.	Undetermined	Unlikely
11.	Rents discourage development of other sectors of the economy.	Undetermined	Does not apply
12.	Rents discourage development of infrastructure.	Unlikely	Unlikely
13.	Rents discourage development of an effective state bureaucracy.	Not a source	Not a source
15.	State attempts to buy stability from elite, but instead creates corruption and rent-seeking activity.	Unlikely	Unlikely
16.	Elites discourage economic diversification (creation of alternate bases of power).	Unlikely	Unlikely

Mechanism	Côte d'Ivoire	South Africa
17. Elites create instability to gain larger share of rents.	Undetermined	Unlikely
20. Rents repress a desire to form a strong civil society.	Unlikely	Unlikely
21. Rents support illegal or unpopular programs.	Unlikely	Unlikely
22. Rents create the perception of inequality in their distribution.	Unlikely	Unlikely
23. Rents prevent development of a skilled labor force.	Unlikely	Unlikely
24. Rents prevent class changes that cause democracy.	Unlikely	Unlikely
25. Oil infrastructure displaces portions of society.	Unlikely	Unlikely
27. Infant industry protection or import-substituting industrialization creates a dysfunctional economy.	Does not apply	Likely
28. Dutch disease.	Does not apply	Unlikely
29. Social welfare programs trigger rent-seeking.	Unlikely	Unlikely
31. Governments create instability to lower oil costs.	Does not apply	Unlikely
32. Corporations create instability to increase profits or lower costs.	Undetermined	Unlikely
33. Foreign workers create resentment among local population.	Undetermined	Unlikely

These results are also discouraging for understanding links between oil and instability, with only two mechanisms likely to be active in Côte d'Ivoire and two mechanisms likely to be active in South Africa. It is clear in Côte d'Ivoire that oil was not the cause of its instability or violent conflict, but it is surprising that oil did not contribute to instability via more mechanisms. This is likely due to the fact that although Côte

d'Ivoire has been exporting oil for multiple decades, oil has been an extremely small portion of the Ivorian economy until recently.

One weakness in this research is the high number of mechanisms, six out of 27, whose effect in Côte d'Ivoire was undetermined. I encountered a number of challenges in conducting research on Côte d'Ivoire. First, the state is still underdeveloped by today's standards, and much of the necessary data has never been captured and published. For example, if President Gbagbo's government had an economic development strategy for the country during the mid-2000s, that strategy has not been made publicly available. Second, much of the data that is published is not easily accessible, such as by being located on a government website, and is instead published by external agencies. One example is the Côte d'Ivoire 2012–2015 National Development Plan, which has been published by the International Monetary Fund as a country report. Finally, much of the data that is published, such as evaluations of the country's energy sector, was published in French, which I cannot read. Data that are more complete may show some of these mechanisms, such as rents triggering predatory behavior, encouraging corruption, or corporations creating instability, to be at work within the country.

There were several unexpected results from this research. They are the lack of a clear relationship between oil rents and either stability or instability, the inapplicability of the "greed and grievance" model, and the applicability of the "rentier state contract" model. Though one would expect there to be a clear link between oil and either stability or instability, that was not the case here because revenues from oil production and exportation in both states help create conditions that promote both stability and instability. Oil was not the most important factor in the deterioration of Ivorian society,

nor was it the most important factor in the development of stability in South African society. This lack of a clear link between oil rents and either condition is problematic for both sides of the larger discussion on resource rents and stability or violent conflict.

It was surprising that the "greed and grievance" model, used to explain links between resource wealth and instability, did not appear to apply to either of these countries. This model assumes the existence of a "rebel" force that desires to control resource rents or uses mismanagement of rents as part of its political platform. South Africa has not had a "rebel" force of this nature active within the state, and thus this model would not apply to the state. Côte d'Ivoire's resource wealth did not appear to be a significant factor in its civil war, likely because oil revenues did not form a significant portion of state revenues at the beginning of the conflict. This model may begin to apply to Côte d'Ivoire in the future, as oil has begun to make up a more significant portion of its GDP in the recent years, but its effect remains to be seen.

Finally, the alternate major theory used to analyze resource wealth effects, the "rentier state contract," *does* apply in both countries. With this model, states maintain stability by distributing resource wealth to citizens via large-scale social programs. This result is surprising because this model explains links between resource wealth and stability, and Côte d'Ivoire was chosen as a case study because of its political instability.

One element of oil extraction and political stability not discussed is each state's philosophy of oil extraction and production. Hellinger (2007) described the fundamental question: "Are the resources in a sovereign nation's subsoil a free gift of nature that lie worthless without the application of labour and investment, or do they constitute exhaustible 'natural wealth' for which the nation is entitled to compensation?" (p. 55).

States that see natural resource wealth as requiring labor and investment tend to permit greater profits to corporations that extract that resource wealth. Some argue that awarding mineral rights to corporations prompts them to innovate and take risk, permitting greater resource exploitation than would otherwise be possible (Heffner III 2014). However, states that see resource wealth as belonging to the citizens of the state will demand that resource profits be provided primarily to the state and provide less compensation to extraction corporations.

PSCs, originally designed to shift development risk to corporations while providing generous revenue to states, are the dominant type of contract in the industry because in practice they balance risk sharing between states and corporations (Bindemann 1999). They are supported as superior to oil concessions, which are popular in Côte d'Ivoire, because they grant corporations exclusive rights to extracted oil (Bindemann 1999). However, PSCs frequently provided lopsided revenue to corporations while forcing the state to take significant risk ("Uganda's oil contracts," n.d.). A lack of transparency in the industry means that contracts in both Côte d'Ivoire and South Africa are rarely available for public review, and thus citizens cannot scrutinize their benefits from these contracts.

Ultimately, oil's contributions to these states' economies depends not just on oil production and exportation but also the global oil market. Arieff, Weiss, and Jones (2010) stated, "The price slump in oil and many mineral commodities, combined with decreased external demand, dealt a severe blow to [Sub-Saharan Africa]," (p. 9). Côte d'Ivoire is also takes the global market into account in its planning, as the National Development Plan tracks the price of crude oil for state planning purposes. Côte d'Ivoire's industry has

declined recently, both due to reduced production and due to a decline in world crude oil prices (Nangbo, 2013). This decline may hurt the state, as oil has become a significant portion of its economy in the past decade (UNSC S/2007/611, 2007). As a net importer of oil, declining oil prices will help the South African economy, even though crude production has fallen off to only 3–4,000 BPD since 2009 (see Figure 31). However, effects of new market conditions on political stability in both states remains to be seen.

Conclusion

This paper has presented an analysis of how the production and export of refined petroleum products can affect the political stability and instability of a state, as well as case studies of Côte d'Ivoire and South Africa to better understand which mechanisms are at work in these countries. In each country, oil production and exportation are found to have both stabilizing and destabilizing effects. This approach is different from many in the published literature in that neither of these countries is dependent on oil, and therefore they make for a more nuanced case study than other countries where oil is a significant portion of the economy.

Aside from the small role of oil in each of these countries' economies, I experienced many challenges in this research. The three primary challenges were a lack of personal familiarity with each country, a failure on the part of Côte d'Ivoire to publicly publish (via the internet) official government documents, and Côte d'Ivoire's official language of French. While personal familiarity is not required for an academic study, it can add an essential element to the understanding of a culture and knowledge of where to seek out information. It can also facilitate interviews and the gathering of data from primary sources of information, rather than secondary or tertiary sources, which I was forced to use in this research on a number of occasions.

The lack of published documentation on Côte d'Ivoire was a challenge, as I found references to Côte d'Ivoire's state budget but could not locate this document from open sources. This was not the case in South Africa, as the state has published a significant amount of formal documents and informal data on open sources. South Africa's state

revenues and budgets have been published since 1993 and provided a significant amount of data that informed this research.

Finally, Côte d'Ivoire's official language presented a personal challenge to me as a non-French speaker; formal government documentation I could find was published only in French. I worked around this deficiency by using available translation tools such as Google Translate to better understand concepts discussed. I did not encounter this difficulty with South Africa, as English is one of its official languages.

This research could be furthered or enhanced in multiple ways. One approach suggested in the literature is to attempt to analyze what the situation would be like without the presence of the natural resource. Because oil is such a small portion of each country's economy, this line of questioning might not yield significant results. However, an investigative journalist that had access to interview country officials and a better understanding of the human terrain of the oil industry in each country might find surprising results from such an investigation.

A second potential avenue of research is the effect of importing oil into each of these countries, which is a mechanism not discussed in this paper. Despite the fact that it does export refined oil products, South Africa cannot meet its own energy needs and imports oil from Saudi Arabia (36% of total imports), Iran (34%), and Nigeria (16%). Côte d'Ivoire has been accused of stealing crude oil from Nigeria to support its refineries (Guesnet et al., 2009). Based on this data, South Africa likely provides revenues to support repressive regimes in Saudi Arabia and Iran. Côte d'Ivoire's theft of crude oil, if not stopped, could trigger conflict between the Côte d'Ivoire and Nigeria.

Although the results from this research are not as significant as the study of countries that are dependent on oil, the study of non-dependent countries is not without benefit. I believe it is just as important, because oil is an important resource easily capable of creating volatility and instability on an international scale, and yet the majority of oil-producing countries are not dependent on their oil industry. A better understanding of non-dependent states will help form a more complete picture of how oil affects political stability throughout the world.

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