Democracy endures only if it is self-enforcing. It is not a contract because there are no third parties to enforce it. To survive, democracy must be an equilibrium at least for those political forces which can overthrow it.

Przeworski 2006, 312)

The capacity for strategic calculations by maximizing monarchs results in the owners of mobile factors, which the monarch seeks to tax, being . . . given greater voice over the policy choices of governments.

Bates and Lien 1985, 61, 312)

- Classic modernization theory argues that countries are more likely both to become democratic and to stay democratic as they develop economically. We present empirical evidence to support these claims. Specifically, we show that democracy is more likely to emerge and survive in high-income countries.

- One criticism of classic modernization theory is that it lacks a strong causal mechanism linking national income with democracy. A more recent variant of modernization theory offers a potential solution to this criticism. The theory posits that changes in the socioeconomic structure of a country that accompany economic development in the modernization process (not high income per se) promote the emergence and survival of democracy.

- This variant of modernization theory explains why democracies are more likely to emerge and survive in high-income countries. It also helps to explain why countries that are abundant in natural resources such as oil, diamonds, or minerals tend to be dictatorships. The theory also has important insights for the role that foreign aid, economic inequality, and economic performance play in the democratization process.
In the post–cold war era, in which the world’s only superpower has suggested that it is interested in spreading democracy, it is worth asking where democracy comes from and why it survives. In the previous chapter, we examined the criteria that political scientists use to classify a country as democratic or dictatorial. With this knowledge in hand, we can now ask the following two questions: Why do some states become democratic but not others? Why does democracy survive in some states but fail in others? In this chapter, we focus on so-called economic arguments for democracy. In particular, we investigate how economic development and the structure of the economy influence the likelihood that a country will become and remain democratic. In doing so, we illustrate how the predatory view of the state discussed in Chapter 4 can help to explain why some states are democratic and others dictatorial. In the next chapter, we turn to so-called cultural arguments for democracy.

CLASSIC MODERNIZATION THEORY

Most economic explanations for democracy can be linked to a paradigm—a family of explanations—called “modernization theory.” Modernization theory argues that all societies pass through the same historical stages of economic development. The claim in the aftermath of post–World War II decolonization was that contemporary underdeveloped countries were merely at an earlier stage in this linear historical process of development than more developed countries. For example, economic historians, such as Rostow (1960) and Gerschenkron (1962), believed that countries in Africa, Asia, and Latin America in the 1950s and 1960s were just “primitive” versions of European nations and that they would eventually “develop” and come to look like Western Europe and the United States. These primitive or immature societies were characterized by large agricultural sectors and small industrial and service sectors. Eventually these countries would “grow up” and become mature societies characterized by small agricultural sectors, large industrial and service sectors, rising urbanization, higher educational attainment, and increasing societal “complexity.”

Although modernization theory was originally developed by economists and economic historians, it was later taken up by political scientists, most famously by Seymour Martin Lipset (1959, 1960). Modernization theorists in political science claim that as a society moves from being immature or “traditional” to being mature or “modern,” it needs to change to a more appropriate type of government. Dictatorships might be sustainable in immature societies, but this is no longer the case in mature societies once they develop economically. Przeworski et al. (2000, 88) summarize modernization theory in the following way:

1. Modernization scholars eventually came to believe that countries could jump stages by copying and learning from countries further ahead of them. This was important because it helped to explain how the Soviet Union could advance so quickly during the middle of the twentieth century.
As a country develops, its social structure becomes complex, new groups emerge and organize, labor processes require the active cooperation of employees, and, as a result, the system can no longer be effectively run by command: The society is too complex, technological change endows the direct producers with autonomy and private information, civil society emerges, and dictatorial forms of control lose their effectiveness. Various groups, whether the bourgeoisie, workers, or just the amorphous “civil society,” rise against the dictatorial regime, and it falls.

In effect, democracy is “secreted” out of dictatorship by economic development. Although Przeworski et al. (2000) highlight modernization theory’s claim that countries will become democratic as they develop economically, Lipset (1959, 75) argues that modernization theory also implies that democracy will be more likely to survive in economically developed countries—as he puts it, “the more well-to-do a nation, the greater the chances that it will sustain democracy.” In sum, classic modernization theory predicts that economic development will help both (a) the emergence of democracy and (b) the survival of democracy. The basic outline of classic modernization theory is shown in Figure 6.1.

For many people, the terminology used by modernization theory and its implications are unsettling and troubling. After all, the theory suggests that all countries, once they mature, will eventually come to look like the United States and Western Europe. In effect, countries just need to grow up—rather like a baby growing up into a responsible adult. Attempts have since been made to change the terminology used to describe these “primitive” countries. These countries used to be called primitive, but scholars started to refer to them as “backward.” As this new terminology took on negative connotations of its own, “backward” countries soon became “third world” countries. With the collapse of the Berlin Wall, this new term began to seem outmoded because the “second world” countries—the command economies behind the “iron curtain”—were no longer set apart from the rest of the world in

![Figure 6.1: Classic Modernization Theory](image-url)
the way they once were. In addition, “third world” began to take on negative connotations because the term third implied that these countries were somehow behind the “first” and “second” worlds. As a result, scholars started referring to these countries as “underdeveloped.” This too has recently changed to “developing” countries. Although scholars have changed the terminology of classic modernization theory and felt disturbed by the implication that all countries will eventually come to look like the United States and Western Europe, we should not let political correctness stop us from asking whether this theory is actually falsified or not in the real world. Just because we do not like some of the implications of our theory is not a good reason to reject it—we have to ask what the empirical evidence says. Is classic modernization theory falsified or not?

One of the central implications of modernization theory is that there should be a strong relationship between how economically developed a country is and whether it is a democracy. But is there a relationship between income and democracy? Let’s look at some data. Figure 6.2 graphs the proportion of countries that are democratic at different levels of income. In this case, income is measured by GDP per capita calculated in 1985 PPP U.S. dollars (see Box 6.1). Figure 6.2 clearly indicates that a country is much more likely to be a democracy if its average income is high rather than low. Although virtually all

**Figure 6.2** Proportion of Democracies at Various Levels of Income, 1950–1990

![Graph showing proportion of democracies at various levels of income](image)

*Source: Data are from Przeworski et al. (2000, 80).*
countries with a GDP per capita above $8,000 are democratic (the proportion is close to 1), only 12 percent of the countries with a GDP per capita of less than $1,500 are democracies, that is, 88 percent of these countries are dictatorships.

**COMPARING INCOME ACROSS COUNTRIES**

In order to study economic development, we need to measure it. One commonly used indicator of economic development is the amount of income per person in an economy, or “GDP per capita.” GDP stands for gross domestic product and measures the value of all goods and services produced in a country during a specified period, usually one year. GDP per capita is a country's gross domestic product divided by the size of the population. While development is typically thought of as broader than mere income, income is the most commonly used indicator of development because countries tend to become richer as they develop.

In this chapter, we measure income as GDP per capita calculated in 1985 purchasing power parity (PPP) U.S. dollars. But what exactly does this mean? GDP per capita is normally measured in each country's own currency. So, GDP per capita would be measured in pounds in the United Kingdom, pesos in Mexico, dinars in Iraq, rupees in India, euros in France, and so on. If we want to compare one country's income with that of another, we have to express both countries' GDP per capita in the same currency. One way to do this would be to use one country's actual exchange rate to transform it into the currency of the other country. However, this method is considered problematic by most scholars because a country's exchange rate does not appropriately reflect price differences on goods and services between countries. As a result, the standard method employed by economists and political scientists to transform each country's GDP per capita into the same currency is to use what is known as purchasing power parity (PPP) exchange rates. How does this work?

PPP calculates the price of a particular bundle of goods in each country using each country's local currency. To calculate the exchange rate between two countries, one simply takes the ratio of the two prices. A simple example of a measure of PPP is the Big Mac index popularized by the *Economist* magazine. The Big Mac index looks at the prices of a Big Mac burger in McDonald’s restaurants in different countries. If a Big Mac costs US$4 in the United States and GB£3 in Britain, then the PPP exchange rate would be £3 for $4. The *Economist* magazine uses this Big Mac PPP exchange rate to see how much a country's actual exchange rate is under- or overvalued. Obviously, economists and political scientists use a much more representative bundle of goods than just a Big Mac, but the idea is the same.

The most common PPP exchange rate comes from comparing goods in each country with equivalent goods in the United States. As a result, we get what is known as a PPP U.S. dollar exchange rate. These PPP exchange rates are calculated at specific points in time—in our case, 1985. This is important because, over time, inflation can change the value of a currency even within countries. We hope that you are now able to understand what we mean when we say that a country's income is measured as the gross domestic product (GDP) per capita calculated in 1985 purchasing power parity (PPP) U.S. dollars.
Clearly, there seems to be a strong relationship between income and democracy. But does this necessarily mean that classic modernization theory is correct? Recall that modernization theory predicts that increases in income promote both the emergence and the survival of democracy. The data in Figure 6.2 are certainly consistent with modernization theory, but it turns out that they are also consistent with a slightly different story, which we will call the “survival story.” According to the survival story, increasing income promotes the survival of democracy but does not affect whether a country becomes a democracy in the first place. But which story is more accurate? Does increased income only help the survival of democracy, or does it also help the emergence of democracy? In recent years, scholars have conducted a great deal of research in an attempt to answer this question (Boix 2011; Boix and Stokes 2003; Epstein et al. 2006; Inglehart and Welzel 2005; Przeworski 2005; Przeworski et al. 1996, 2000; Przeworski and Limongi 1997).

This new round of research began when a well-known comparative political scientist, Adam Przeworski, argued that increased income helps democracies survive but does not help countries become democratic in the first place. Why does Przeworski think that income helps democracy to survive? Well, he argues that the decision to choose democracy or dictatorship depends on the types of outcomes that citizens expect democracy or dictatorship to produce for them. Whereas Przeworski describes democracy as a system in which they can expect at least a moderate level of consumption, he describes dictatorship as a system in which they might win or lose everything. In democracies, citizens are normally guaranteed at least some minimal standard of living because resources are distributed relatively broadly. In a dictatorship, though, citizens are likely to do extremely well if they are part of the dictator’s circle but extremely poorly if they are not. Not only is a dictatorship a world of extremes, but it is also a world in which the probability of being part of the dictator’s circle is very small.

Imagine that you are a wealthy person living in a democracy. Consider what life would be like for you in a dictatorship. There is a small probability that you would be in the dictator’s circle, and you might become richer. Still, there is a very large possibility that you would not be in the dictator’s circle and that you would lose everything and become much, much poorer. Thus, switching to a dictatorship is very much of a gamble if you are wealthy. According to Przeworski, this is why most wealthy people prefer to stay in democracies and, hence, why countries where the average person has a high income tend to remain democratic. Now imagine that you are a poor person living in a democracy. Consider what life would be like for you in a dictatorship. There is a large possibility that you would remain poor. There is, however, a small possibility that you could become very rich if you were in the dictator’s group. Given that you are already poor and really have nothing to lose, you might want to take a gamble and switch to a dictatorship. According to Przeworski, this is why poor people may be more willing to take a chance with dictatorship and, hence, why democracy tends to be unstable in poor countries. As you can see, this line of reasoning implies that democracy is more likely to survive in a rich country than in a poor country.
Notice that Przeworski’s “survival story” looks at the situation from the standpoint of decision makers who already find themselves in a democracy. He argues that the process by which countries become democratic may be unknowable, but if actors find themselves in a democracy at any given point in time, then the level of income will, for the reasons just indicated, influence whether they stay in a democracy. This has led Przeworski and various coauthors (1996, 1997, 2000, 2005) to argue that the emergence of democracy may be entirely unrelated to the level of income in a country but that we will still observe a long-run relationship between increased income and democracy because rich democracies survive longer than poor ones. Why? Well, imagine that a country flips between dictatorship and democracy at random. Sometimes a country will flip to democracy when it has a high income. Even though, from this perspective, increased income did not cause this country to become democratic, it will help it stay democratic. Sometimes a country will flip to democracy when it is poor. Because the country is poor, it will likely collapse back into dictatorship. If this story is correct, then we will end up with a world in which nearly all the rich countries are democratic but in which the poor countries continue to alternate between democratic and dictatorial episodes. Unless countries for some unknown reason flip more frequently to democracy than they flip to dictatorship, democracies will—on average—be richer than dictatorships.

As you can now see, the evidence presented in Figure 6.2 showing a positive relationship between income and democracy is consistent with (a) modernization theory and its prediction that high income promotes both the emergence and the survival of democracy and (b) the survival story, in which income has no effect on the emergence of democracy but does help democracy to survive once it is established. The reason is that both of these stories predict that democracy is more likely in high-income countries than in poor ones. As a result, we cannot simply look to see if democracy and high levels of income go together as we did in Figure 6.2 to determine whether modernization theory is consistent with the observed world. You may remember from our discussion of the scientific method back in Chapter 2 that political scientists often have competing theories to explain the same empirical observation. This is exactly what we have here, because modernization theory and the survival story both explain the observed positive association between income and democracy. When political scientists find themselves in this type of situation, they must try to deduce additional hypotheses from their theories in the hope that these additional hypotheses will help them decide which of the competing theories is most consistent with the observed world. As we saw in Chapter 2, competing stories will always share some implications in common (otherwise they would not be explanations for the same phenomena), but they must always differ in others (otherwise they would not be different explanations). It is up to the political
scientist to identify these divergent implications and come up with a critical test to identify which story is most consistent with the observed world.

Boix and Stokes (2003) summarize the implications of modernization theory and the survival story by plotting how each story expects the probabilities of a transition to democracy and of a transition to dictatorship to change with increasing income. We reproduce their basic graph in Figure 6.3. Note that both modernization theory and the survival story predict that the probability of a transition to dictatorship decreases as income increases (the solid lines in both panels slope down). In other words, both stories predict that increased income helps democratic survival. What about transitions to democracy? Although modernization theory predicts that a transition to democracy increases with income (the dotted line in the left panel slopes up), the survival story predicts that the probability of a transition to democracy is unaffected by increasing income (the dotted line in the right panel is flat).

Note that the probability of any type of transition is simply the sum of the probability of a transition to dictatorship and the probability of a transition to democracy weighted by the frequency of each type of transition. According to the survival story, the probability that a country will experience any kind of regime transition declines with increased income. This is because the survival story predicts that increased income increases democratic stability (fewer transitions to dictatorship) but has no effect on the stability

**Figure 6.3** Expected Probability of Regime Transitions as Income Increases according to Modernization Theory and the Survival Story

Source: Adapted from Boix and Stokes (2003).
of dictatorships (no effect on transitions to democracy). In contrast, the effect of increased income on the probability of any kind of regime transition is ambiguous in modernization theory. This is because higher average incomes increase the stability of democracy but reduce the stability of dictatorships—modernization theory does not tell us which effect is stronger. In sum, then, modernization theory and the survival story share two implications in common but differ on two as well. All four implications are summarized in Table 6.1.

We now evaluate the implications of both modernization theory and the survival story using data from Przeworski et al. (2000). As predicted by both stories, democracies are more common in rich countries than poor countries (Implication 1). We saw this earlier in Figure 6.2, which showed that the proportion of countries that were democratic at different levels of income was larger when income was high than when income was low. This result is further confirmed by Figure 6.4, which plots the number of years that all countries (country years) have lived under democracy or dictatorship at different levels of income between 1950 and 1990. As you can see, when countries are very poor (say, when GDP per capita is below $2,000), almost 9 out of every 10 country years in the data set are lived under dictatorship; that is, there are roughly 900 country years under dictatorship and 100 country years under democracy when GDP per capita is lower than $2,000. When countries are relatively rich, however (say, when GDP per capita is above $8,000), virtually all the country years in the data set are lived under democracy. For a broad swath of countries in between (say, when GDP per capita is between $4,000 and $6,000), there are about as many country years under democracy as there are under dictatorship.

Table 6.1 Implications from Modernization Theory and the Survival Story

<table>
<thead>
<tr>
<th>Modernization theory</th>
<th>Survival story</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Democracy is more common in rich countries than poor countries.</td>
<td>3b. Transitions to democracy are unaffected by increases in income.</td>
</tr>
<tr>
<td>2. Transitions to dictatorship become less likely as income increases.</td>
<td>4b. Regime transitions become less likely as countries become richer.</td>
</tr>
<tr>
<td>3a. Transitions to democracy become more likely as income increases.</td>
<td></td>
</tr>
<tr>
<td>4a. Regime transitions may or may not become less likely as countries become richer.</td>
<td></td>
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</tbody>
</table>

2. Przeworski et al. (2000, 88–92) are very clear on this point—as income increases, the probability of transitioning to democracy remains constant but the probability of transitioning to dictatorship goes down.
The two critical implications that allow us to distinguish between modernization theory and the survival story concern (a) the frequency of regime transitions in general and (b) the effect of increased income on transitions to democracy in particular. In Figure 6.5, we plot the number of transitions to democracy, the number of transitions to dictatorship, and the total number of regime transitions at different levels of income. Recall from Table 6.1 that the survival story predicts that regime transitions become less likely with increases in income. At first glance, there appears to be evidence in support of the survival story, because poor countries seem to experience more transitions than rich ones in Figure 6.5. Can you think why this evidence might be problematic? Comparing the raw number of transitions in this way can be quite misleading, because the number of transitions that might take place is limited by the number of countries that are democracies or dictatorships at each level of income. The problem is that both modernization theory and the survival story predict, and our observations have already shown, that the number of dictatorships and democracies is not constant across different levels of income. Moreover, we have also seen that the world has had more experience with poverty than with wealth. Thus, even if the probability of a regime transition were the same for poor countries and rich ones, the fact that there are more poor countries in the world will mean that the raw number of transitions in poor countries will be larger than that in rich countries. Thus, the evidence shown in Figure 6.5 is not sufficient to show that regime transitions become less likely with increases in income as the survival story predicts.
Instead, what we need to do is look at how income affects the probability of regime transition and not just at how it affects the raw number of regime transitions. The probability of a regime transition, given a particular level of income, is calculated as follows:

\[
\Pr(\text{Regime Transition} \mid \text{Income Level}) = \frac{\text{Number of Transitions to Democracy or Dictatorship}}{\text{Number of Country Years}}. \]

This equation tells us that the probability of a regime transition given a particular level of income is equal to the total number of transitions at that income level divided by the number of cases (or country years) at that income level.

In Figure 6.6, we plot the probability of a regime transition at different levels of income. As you can see, there is no strong relationship between income and the probability of a regime transition. Specifically, it does not appear that the probability of a regime transition decreases linearly with income as the survival story predicts. Thus, the evidence presented in Figure 6.6 would seem to falsify one of the implications of the survival story (Implication 4b, Table 6.1). In contrast, an increase in the probability of a regime transition when levels of income are low, as shown in Figure 6.6, is consistent with modernization theory; a certain amount of resources may be necessary for any change to take place. A decrease in the probability of a regime transition at high levels of income, as shown in Figure 6.6, is also consistent with modernization theory; by this point democracy should have emerged in nearly all countries, and there is no reason according to modernization theory for it not to survive.
Although the evidence suggests that the survival story is incorrect when it predicts that the frequency of regime transitions declines linearly with income, the key implication that allows us to distinguish between the survival story and modernization theory has to do with whether increases in income actually make transitions to democracy become more likely. In Figure 6.6, we looked only at the effect of increases in income on regime transitions in general. We now need to examine the effect of increased income on transitions to democracy and transitions to dictatorship specifically. The probability of transitioning to democracy is calculated as:

\[
\text{Pr (Transition to Democracy | Income Level)} = \frac{\text{Number of Transitions to Democracy}}{\text{Income Level}}
\]

The probability of transitioning to dictatorship is calculated as:

\[
\text{Pr (Transition to Dictatorship | Income Level)} = \frac{\text{Number of Transitions to Dictatorship}}{\text{Income Level}}
\]

In Figure 6.7, we plot the probability that a country will transition to democracy and that it will transition to dictatorship at different levels of income. The numbers in the figure indicate how many times more likely it is for a country to transition one way rather than the other. The numbers are gray whenever a country is more likely to transition to
dictatorship than democracy and black whenever a country is more likely to transition to democracy than dictatorship. Although there was little evidence in Figure 6.6 that income affects the probability of regime transitions in a consistent way, Figure 6.7 clearly shows that the kind of transition that countries experience is a function of income. As predicted by both the survival story and modernization theory, the probability of transitioning to dictatorship (the gray dotted line) declines as income increases. In other words, the downward-sloping dotted line indicates that high levels of income encourage democratic survival (Implication 2, Table 6.1).

In direct contradiction to the survival story but entirely consistent with modernization theory, however, the probability of a democratic transition increases with income (the solid black line slopes upward). In other words, countries do seem more likely to become democratic as income increases (Implication 3a, Table 6.1). Note that the likelihood that a country transitions to democracy rather than dictatorship clearly increases with income. For example, transitions to dictatorship are eighteen times more likely than transitions to democracy when GDP per capita is less than $2,000. The reverse is true in rich countries, however—transitions from dictatorship to democracy are much more likely to occur than transitions from democracy to dictatorship. For instance, the probability of becoming democratic is six times larger than the probability of becoming dictatorial when GDP per capita is greater than $6,000.

![Figure 6.7: Probability of Transitions to Democracy and Dictatorship as a Function of Income, 1950–1990](image)

Source: Data are from Przeworski et al. (2000).

Note: The numbers in the figure indicate how many times more likely it is for a country to transition one way or another. For example, the gray “2x” indicates that a country is twice as likely to transition to dictatorship as transition to democracy when its GDP per capita is $4,000.
In sum, the evidence that we have just presented suggests that the observed world looks more like the one envisioned by modernization theory than the one envisioned by the survival story. The bottom line is that additional income appears to increase both the likelihood that democracy will emerge and the likelihood that it will survive. This is entirely consistent with the predictions of classic modernization theory. Later in the chapter, we show that these results continue to hold even when we take account of other factors that might affect the emergence and survival of democracy. We summarize our findings for now in Table 6.2. Those implications supported by the data are shown in the shaded cells.

**A VARIANT OF MODERNIZATION THEORY**

In the previous section, we examined the claim made by classic modernization theorists that countries are more likely to become democratic and stay democratic as they become wealthier. One common criticism of classic modernization theory is that it lacks a strong causal mechanism and that it simply relies on an empirical correlation between income and democracy (Acemoglu and Robinson 2006; Rueschemeyer, Stephens, and Stephens 1992). We now examine a variant of classic modernization theory that explicitly provides a causal mechanism linking economic development and democracy.

<table>
<thead>
<tr>
<th>Modernization Theory</th>
<th>Survival Story</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Democracy is more common in rich countries than poor countries: YES</td>
<td></td>
</tr>
<tr>
<td>2. Transitions to dictatorship become less likely as income increases: YES</td>
<td></td>
</tr>
<tr>
<td>3a. Transitions to democracy become more likely as income increases: YES</td>
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</tr>
<tr>
<td>4a. Regime transitions may or may not become less likely as countries become richer: YES</td>
<td>4b. Regime transitions become less likely as countries become richer: NO</td>
</tr>
</tbody>
</table>

Note: The hypotheses in the shaded cells are supported by the data, whereas those in the nonshaded cells are not.

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3. Evidence in support of the theoretical predictions of classic modernization theory has been provided by a whole host of empirical analyses in recent years (Barro 1999; Boix 2003, 2011; Boix and Stokes 2003; Epstein et al. 2006; Inglehart and Welzel 2005; Londregan and Poole 1996; Ross 2001). While evidence to the contrary would seem to come from Przeworski et al. (2000, 124), their famous claim that income does not increase the probability of democratic transitions is contradicted by results from their own fully specified model.
This variant of modernization theory says that it is not income per se that encourages democracy but rather changes in the socioeconomic structure of a country that accompany economic development. This variant of modernization theory incorporates a predatory view of the state and helps to show why some rulers share power or limit their extractive activity (democracy) whereas others do not (dictatorship). As such it helps to answer one of the puzzles that we were confronted with at the end of Chapter 4 when we examined the origins of the modern state. Not only does this variant of modernization theory explain why democracies are more likely to emerge and survive in rich countries, but it also helps to explain why countries that are abundant in natural resources, such as oil, diamonds, or minerals, tend to be dictatorships rather than democracies. The theory also has important insights for the role that foreign aid, economic inequality, and economic performance play in the democratization process. Specifically, it offers a potential explanation for why foreign aid might be detrimental to democratization efforts (Bueno de Mesquita and Smith 2004; Easterly 2002), why economic inequality might not necessarily be harmful to the emergence and survival of democracy (Boix 2003; Reenock, Bernhard, and Sobek 2007), and why economic performance in dictatorships tends to be much more heterogeneous than in democracies (Bueno de Mesquita et al. 2003; Przeworski et al. 2000).

**Economic Development, Natural Resources, and Democracy**

As we mentioned earlier, one of the central features of modernization theory is the idea that all societies proceed through a similar series of economic and political stages (Rostow 1960). As a society proceeds through these stages, it undergoes structural changes. A key structural change has to do with the relative size of the “sectors” in the economy. According to this view, and illustrated in Figure 6.1, all economies can be divided into the same set of sectors—agricultural (sometimes referred to as the “traditional” sector) and manufacturing and services (sometimes referred to as the “modern” sector). Just as the relative sizes of a human’s body parts change as they mature, so too—according to some modernization theorists—do the relative sizes of a society’s economic sectors. Specifically, countries tend to have large agricultural sectors but relatively small manufacturing and service sectors in the early stages of development. As the modernization process brings about efficiencies in the agricultural sector, resources are freed up for use in manufacturing and service sectors. Over time, and as countries continue to develop and mature, the manufacturing and service sectors become larger and larger relative to the agricultural sector.

Many scholars have argued that this is precisely what started to happen in early modern Europe. As agriculture became more efficient, fewer peasants were needed to work the land, and traditional feudal bonds that tied peasants to the land were torn asunder. This, eventually, led to a population shift from rural areas to urban ones. This shift occurred both at the...
top and at the bottom of the social spectrum. Peasants found themselves dispossessed of lands that they had traditional claims to, and members of the gentry found themselves drawn into the commercial activities of the towns. A key feature of the commercialization of the agricultural gentry in England at this time was the shift from grain production to the grazing of sheep to feed the growing demand of wool producers (Moore 1966). As Bates and Lien (1985) have argued, this change in the composition of the British economy played a crucial role in the creation of representative government in England.

By the seventeenth century, the modernization process in England had brought about a shift in economic power from a relatively small number of traditional agricultural elites, who controlled large domains producing easily quantifiable agricultural products, to a rising class of wool producers, merchants, and financial intermediaries, who controlled assets that were much more difficult for the state to count—and, hence, more difficult for the state to tax. In contrast to the traditional agricultural elites, who were unable to hide their fields from the Crown’s tax collectors, wool producers and the new commercialized gentry could better hide their sheep (by moving them around) and their business profits. According to Bates and Lien (1985), the ability of the gentry to hide their assets from state predation changed the balance of power between modernizing social groups and the traditional seats of power—specifically, the Crown. Suddenly, the kings and queens of England, who needed money to keep hold of power at home and to wage their wars abroad, found themselves in a position in which predation no longer worked; instead, they had to negotiate with economic elites in order to extract revenues. Because the growth of towns and the rise of the wool trade had also led to an increase in the number of economic decision makers whose actions determined the share of revenues available to the Crown, it was, perhaps, natural for these actors to use their newfound bargaining power to increase the strength of institutions, such as the Parliament, that helped aggregate their interests. The result was the supremacy of Parliament and the withering away of old avenues of representation, such as the Star Chamber, which had formerly served the traditional elites. Note that the increased mobility of assets—the ability to move and hide sheep or the ability to invest money in the Netherlands rather than in England, for example—can be thought of as equivalent to an increase in the value of the “exit option” possessed by economic elites. We return to this later in the chapter.

North and Weingast (1989) present a similar argument, in which they claim that the development of economic actors who could hide their assets led the Crown to look for ways to credibly commit to honoring its financial obligations to the emerging financial class from whom it wished to borrow money to fund its external wars. One way to do this was by strengthening the power of Parliament in relation to the king. To see how this argument works, imagine a king who has a temporary need to raise resources above and beyond what existing tax revenues can cover. Perhaps the king is conducting an expensive foreign war against a rival power. Although the king might like to simply exploit his citizens and take the money he needs by force as he did in the past, this option is less realistic now that the new gentry can hide their assets. Instead, it is likely that the king must borrow the money he needs from the gentry and promise to pay it back with interest at a later date. The problem is that the king controls the use of violence within his territory. As a result, private capital
holders always have to worry that the king will default on his debts after the war is over and that they will not get their money back. In contrast to a student who takes on large amounts of debt while in college, there is no authority over the king who can threaten to forcefully collect the debt once the smoke has cleared and the battles have been fought. In other words, sovereign debt—debt accrued by the sovereign, or Crown—creates what is known as a credible commitment problem (see Box 6.2). Although the king would like to credibly commit, or promise, to pay back the money he borrows from the gentry, he cannot do this because there is nothing that the gentry can do to force the king to pay the debt back once the money has been borrowed. Knowing that they cannot force the king to pay the debt back, the lenders are unwilling to lend the king any money in the first place. As North and Weingast (1989) suggest, one solution to this problem is to make the Crown’s potential financial backers more powerful by strengthening the role and importance of the Parliament vis-à-vis the king. If the king reneges on his debts now, he will suffer punishment at the hands of the Parliament. This is precisely the explanation proposed by many scholars to explain the institutional reforms that led to the establishment of modern parliamentary democracy in Britain during the Glorious Revolution of 1688 (Acemoglu and Robinson 2000, 2006; Stasavage 2002).

Bates and Lien (1985) argue that the introduction of this more limited state occurred earlier and more definitively in England than it did in France because of the unique structure of the economy that early modernization had produced in England. To see why this is the case, it is useful to return to the Exit, Voice, and Loyalty Game that we first analyzed in Chapter 3. In the prehistory of the game, the Crown, under the exigencies of war, has confiscated the assets of a segment of the elite represented by Parliament. We shall refer to this segment of the elite as the Parliamentarians. At this point, the Crown is still behaving in its usual predatory fashion as though the economic development sweeping through English society does not concern it directly. However, the Parliamentarians are operating from a newfound position of strength vis-à-vis the Crown. The Parliamentarians have three options. The first option is to take what assets remain and do everything they can to shield them from further confiscation—in part by taking their assets out of production or consuming them (exit). If the Parliamentarians no longer invest their assets, the economy is likely to stagnate, and there will be less for the Crown to tax or confiscate in the future. The second option is to petition the Crown for protections against future confiscations in exchange for a promise to continue investing their assets in the economy (voice). We will assume that the petition calls for the Crown to accept limits on future predatory behavior, say, by granting Parliament the right to veto all future increases in taxation or by constructing an independent judiciary capable of policing the Crown’s behavior. The third option is for the Parliamentarians to continue investing their assets as they did before the confiscation (loyalty).
CREDIBLE COMMITMENT PROBLEMS

North and Weingast (1989) suggest that kings who wish to borrow money from economic elites may have difficulty credibly committing or promising to repay any loans that they obtain. The basic reason is that although the king may promise today to repay the loans in the future, the king might use his power to renege on his promise when the loans actually come due. Credible commitment problems like the one outlined here have (at least) two basic characteristics. One is that they always involve a temporal dimension: what is in your interest to promise today may not be in your interest to promise in the future. Some people refer to credible commitment problems as “time-inconsistency problems” for this very reason. The second is that they always involve situations in which power is in the hands of those who make the promise and not in the hands of those who expect to benefit from the promise. For instance, it is the king who has the power and not the economic elites in North and Weingast’s example.

Credible commitment problems are not confined to politics; in fact, they occur in many areas of our lives. For example, consider an employer who promises to pay a worker at the end of the month for the work that she does. The worker must do her work before she actually gets paid. A commitment problem arises if the employer promises to pay the worker at the end of the month, but when payday comes, it is no longer in the interests of the employer to make the payment. You should immediately be able to see why the employer might have an incentive to not pay the worker once the work is done.

Society has developed at least three ways to deal with credible commitment problems like this: (a) contracts, (b) repeated interactions, and (c) institutions that alter the distribution of power (Acemoglu and Robinson 2006, 134).

1. Enforceable contracts: One of the most common ways to deal with a credible commitment problem like the one in our employer–worker example is with an enforceable contract. In effect, the worker and the employer could sign a contract in which the employer promises to pay the worker for her work. If the employer reneges and the contract is enforceable, the worker can file a complaint with an outside agency, such as a court of law, which can force the employer to pay up. As you might expect, this solution is not without its problems. For example, the court must presumably determine whether the quality of the work done by the worker is up to the standards promised in the contract. Although contracts may sometimes prove ineffective at solving credible commitment problems in economic settings for reasons such as this, they are likely to be even less useful in more political settings. This is primarily because the outside agency that typically enforces the contract (the state or the king perhaps) may well be one of the actors involved. For instance, it should be obvious that the economic elites and the king in North and Weingast’s example cannot write a contract to solve their credible commitment problem for the simple reason that it would have been the king—who has an incentive to renege—who would have had to enforce it.
2. *Repeated interactions:* Another solution to potential credible commitment problems occurs when the two sets of actors are involved in repeated interactions. For example, employers may be deterred from reneging on their promise to pay workers at the end of the month if they need those workers (or others) to work the next month. In effect, employers do not want to develop a bad reputation because they need people to be willing to work for them in the future. Note that this solution to the credible commitment problem assumes that the actors making the promise care enough about the future that they are willing to forgo the benefits that they could get today from reneging on their promise. This assumption helps to explain why the repeated interactions solution to potential credible commitment problems is often not very useful in political settings. For example, the king’s promise to repay his loans in the North and Weingast story is not particularly credible even though the king and the economic elites are likely to be involved in repeated interactions. The reason has to do with the fact that the king is often under financial stress, and hence in need of loans, precisely when foreign wars threaten his continued survival. In these circumstances, the king may not be particularly forward looking. In other words, he may come to discount the future so steeply that he is relatively unconcerned with the implications of his behavior on his future reputation. After all, we are only really concerned with our future reputation when we are reasonably confident that we will have a future.

3. *Institutions that alter the distribution of power:* Recall that one of the reasons why certain promises suffer from a credibility problem is that the actor making the promise has power and the beneficiary of the promise does not. It is this asymmetric distribution of power that allows the promiser to renege. Given this, one solution to potential credible commitment problems is to create institutions that transfer power from the actor making the promise to the beneficiary of the promise. In our employer–worker example, one could create a trade union that would give workers the power to punish employers who renege on their promises through things like strikes. It is this ability to punish the employer that (a) encourages the employer to stick to his promise to pay the worker at the end of the month and (b) makes the worker believe that the employer will follow through with his promise and thus provide the labor in the first place. This solution to potential credible commitment problems is quite common in political settings and is precisely the solution that the king of England employs in North and Weingast’s example to make his promise to repay the loans from the economic elites credible. By transferring power to Parliament, which represents the interests of the economic elites and which could realistically punish the king if he reneges, the king is able to solve his credible commitment problem.
Despite these potential solutions, the difficulty in solving credible commitment problems should not be underestimated in politics. Consider the following three examples.

1. **Iraq:** Imagine that you are a member of an armed Sunni group in Iraq following the U.S. invasion in 2003. Both the United States and the Shia-dominated government want all armed militias to hand in their weapons to reduce the killing and violence. The problem is that if you hand in your weapons, you have no guarantee that the Shia-dominated government will not take advantage of this to repress you. Any promise by the Shia-dominated government not to repress Sunnis, to include Sunnis in the government, and to share funds from oil production with Sunnis is not credible, because the Shias have an obvious incentive to renege once you and your fellow Sunnis have handed in your weapons.

2. **Northern Ireland:** Imagine that you are a member of the Irish Republican Army (IRA), which has been involved in violent activities designed to force the British government to give up control of Northern Ireland. Suppose that the British government and forces in Northern Ireland loyal to London promise to sit down and negotiate a political settlement as long as you first give up your weapons. The problem is that this promise is not necessarily credible. If you give up your weapons, then you are likely to lose any leverage that you would have in the upcoming negotiations. What’s to stop the British government from ignoring or repressing you as soon as you give up your weapons? It is this credible commitment problem that has played a large role in hampering attempts to end the decades-long civil war in Northern Ireland. Attempts to solve the problem have typically involved both sides making small, incremental steps toward peace in an attempt to develop a reputation for following through on their word. For example, the IRA has periodically allowed an Independent Monitoring Commission to verify that it has put increasing numbers of its weapons beyond use. At the same time, the British government has periodically responded by removing army posts from Northern Ireland or making reforms to the Protestant-dominated Royal Ulster Constabulary (the Northern Irish police force) that has traditionally been closely linked to the British government in the minds of many Catholics. These incremental steps that have been necessary to develop reputations for not reneging on promises help to explain why moves toward a peaceful resolution of the civil war in Northern Ireland have been rather slow.

3. **South Africa:** Imagine that you are a member of the white minority that controlled South Africa during the apartheid era. Apartheid was a system of racial segregation that was enforced from 1948 to 1994 to ensure the economic and political dominance of whites over the indigenous African population. Suppose that you have come to believe that apartheid is unsustainable and that you think full democracy should be introduced in South Africa. The problem is that in a democratic South Africa, the indigenous African population would represent a clear majority of the electorate and could pass
policies to redistribute income and assets from the rich white minority to the poor black majority. This is likely to make you reluctant to introduce democracy. Imagine that the indigenous Africans, led by the African National Congress (ANC), promise that they will not redistribute too much if you allow democracy. Is this promise credible? Not really. Once democracy is established, what’s to stop the ANC from reneging on its promise and using its large majority to redistribute wealth away from the white minority? This credible commitment problem may well help to explain why the apartheid system lasted so long. Note that the inability of the ANC to credibly promise not to redistribute too much may have prolonged the life of the apartheid system even if both the white minority and the black majority preferred to live in a low-redistribution democracy. You may be wondering why the apartheid regime finally came to an end in 1994. One answer is that the credible commitment problem faced by the ANC was solved by structural changes in the South African economy (Wood 2000). These changes included the increased mobility of the economic assets of the white minority that resulted from the globalization of the South African economy during the 1980s and early 1990s. In effect, this change in the mobility of the assets controlled by the white minority altered the power relationship between the white minority and the ANC. Now, if the ANC reneged on any promise not to redistribute too much, members of the white minority had the ability to simply remove their assets from South Africa and take them somewhere else. Because the economic performance of the South African economy depended heavily on these assets, the ANC’s promise not to redistribute them became credible. This helps to explain why the transition to democracy in South Africa occurred when it did.

If the Parliamentarians decide to use voice and petition the Crown, the Crown can respond in one of two ways. First, it can accept the new limits on its power to tax (accept). In this case, we assume that the Parliamentarians will happily continue to invest their assets and the economy will grow. Second, it can reject the new limits (reject). If the Crown rejects the limits, then the Parliamentarians must choose whether to continue investing as before (loyalty) or to withdraw substantial portions of their assets from the market (exit). Depending on whether the Parliamentarians choose to continue investing their assets, the economy will either stagnate or grow. This strategic interaction between the Parliamentarians and the Crown is shown in Figure 6.8, going from left to right.

As you may recall from our analysis of game-theoretic models in Chapters 3 and 4, we cannot say what we expect the actors to do unless we can make statements about how they evaluate the potential outcomes. In what follows, we use the same payoffs as we did when evaluating the Exit, Voice, and Loyalty Game in Chapter 3.5

5. To see where these payoffs come from, we encourage the reader to refer back to Table 3.2 in Chapter 3.
According to the story that we have been telling, the Crown is dependent on the Parliamentarians—the Crown needs their money. In regard to the payoffs in our model, this means that \( L > 1 \). For now, let us assume that the Parliamentarians (\( P \)) have credible exit threats (\( E > 0 \)). In other words, the Parliamentarians have mobile assets—the value they get from their assets when they hide them from the Crown is higher than it is when they obediently pay their taxes in a confiscatory environment. In Figure 6.9, we solve the Exit, Voice, and Loyalty Game for the situation in which the Crown is dependent and the Parliamentarians have a credible exit option. The subgame perfect equilibrium is (Demand limits, Disinvest; Accept limits), and the observed outcome is a limited government with a growing economy. In effect, the Crown decides to accept limits on its predatory behavior because it knows that it is dependent on the Parliamentarians for its money and because it knows that the Parliamentarians will disinvest and exit if it rejects the limits. Knowing that its petition will be effective, the Parliamentarians use voice and demand limits from the Crown. This particular scenario helps to explain why the Crown in England, which was dependent on a social group with a credible exit threat (mobile assets), agreed to accept limits on state power.

In contrast to England, Bates and Lien (1985) argue that the agricultural sector in France had undergone considerably less modernization and, as a result, the engine of the economy—such as it was—continued to be a traditional oligarchy that derived its wealth from agricul-
Solving the Exit, Voice, and Loyalty Game When the Parliamentarians Have a Credible Exit Threat ($E > 0$) and the Crown Is Dependent ($L > 1$)

The subgame perfect equilibrium is (Demand limits, Disinvest; Accept limits).

Note: $C =$ Crown; $P =$ Parliamentarians; $E =$ Parliamentarians’ exit payoff; $1 =$ value of benefit taken from the Parliamentarians by the Crown; $L =$ Crown’s value from having loyal Parliamentarians who do not exit; $c =$ cost of using voice for the Parliamentarians. It is assumed that $c > 0$; $E < 1 - c$; $E > 0$; and $L > 1$.

The term “quasi-feudal” often referred to agricultural production based on quasi-feudal processes that were easy to observe and, therefore, easy to tax. In the terminology of our Exit, Voice, and Loyalty Game, the relevant elites in France did not possess credible exit threats ($E < 0$). The French Crown, though, was as dependent on its economic elites as was the case in England. In Figure 6.10, we solve the EVL Game for the situation in which the Crown is dependent and the Parliamentarians do not have a credible exit option. The subgame perfect equilibrium is (Pay taxes, Pay taxes; Reject limits), and the observed outcome is unlimited government and a growing economy. In effect, the Crown will reject any demands to limit its predatory behavior in this situation because it knows that, although it is dependent on the Parliamentarians for money, the Parliamentarians will continue to invest and pay their taxes even in a predatory environment because they do not have a credible exit option. Knowing that the Crown will ignore their petitions, the Parliamentarians simply continue to invest and pay their taxes at the beginning of the game. This scenario helps to explain why the French Crown remained absolutist at a time when the English monarchy was accepting limits on its predatory behavior. For example, the Estates General, the chief French representative body at the time, did not meet between 1614 and
May 1789, by which point financial crises had reached such proportions that the French Revolution may have been unavoidable. For nearly two centuries, then, French elites had little choice but to try to influence the Crown’s behavior through the intricacies of court politics rather than through a parliament.

Up to this point, we have assumed that the Crown depends on the Parliamentarians for money and other resources. What happens, though, if the Crown is autonomous—it has other sources of money—and does not depend on the Parliamentarians? There are two scenarios to consider—one in which the Parliamentarians do not have a credible exit option and one in which they do. Instead of explicitly solving the EVL Game for these two scenarios—we leave that for you to do—we simply describe the expected outcomes of the game. If the Parliamentarians do not have a credible exit option (mobile assets), then they will respond to state predation by continuing to invest and pay their taxes. They will do this because they know that the Crown does not depend on them in any way and so will ignore any of their petitions. In this scenario, the fact that the Parliamentarians continue to invest their assets means that the economy will grow. If the Parliamentarians do have a credible exit option, though, then they

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**Figure 6.10** Solving the Exit, Voice, and Loyalty Game When the Parliamentarians Do Not Have a Credible Exit Threat ($E < 0$) and the Crown Is Dependent ($L > 1$)

The subgame perfect equilibrium is (Pay taxes, Pay taxes; Reject limits).

Note: C = Crown; P = Parliamentarians; $E =$ Parliamentarians’ exit payoff; $1 =$ value of benefit taken from the Parliamentarians by the Crown; $L =$ Crown’s value from having loyal Parliamentarians who do not exit; $c =$ cost of using voice for the Parliamentarians. It is assumed that $c > 0; E < 1 – c; E < 0; $ and $L > 1$. 

will choose to exit and disinvest in the economy—they realize that there is no point in petitioning the Crown to limit its predatory behavior because the Crown does not depend on them. In this scenario, the Parliamentarians’ disinvesting means that the economy stagnates.

The outcomes of the four different scenarios are shown in Table 6.3. Note that we expect democracy (limited government) to emerge and survive only when the state (Crown) depends on economic elites (Parliamentarians) who have credible exit options (mobile assets). This was the case during the Glorious Revolution in England. The English Crown found itself dependent on a set of societal elites with whom it was forced to bargain. It had to bargain with them because a sufficient number of these elites possessed assets that were mobile and, hence, difficult to tax. It was as a result of this that the Crown ultimately accepted serious limitations on its power, thereby bringing limited and representative government into being in England. This central argument can be stated more broadly: representative government (of which democracy is an example) is more likely to emerge and survive when the rulers of a country depend on a segment of society consisting of a relatively large number of people holding liquid, or mobile, assets. Barrington Moore Jr. (1966/1999, 418) essentially stated the same argument quite succinctly in his book about the social origins of democracy and dictatorship—“No bourgeois, no democracy.”

The argument that we have just made helps alleviate some of the concern that political theorists such as Locke had with Hobbes’s solution to the state of nature. Recall from our discussion in Chapter 4 that Hobbes saw the creation of a powerful state that would hold its citizens in “awe” as the solution to the “war of all against all” and the “solitary, poor, nasty, brutish, and short” life that characterizes the state of nature. Although theorists such as Locke recognized that the creation of the state might solve the political problem that citizens have with each other, they thought that it created a potential new problem between the citizens and the state. By surrendering control over the means of violence to the state, what was to

### Table 6.3

**Summary of Outcomes in the Exit, Voice, and Loyalty Game**

<table>
<thead>
<tr>
<th>Parliamentarians</th>
<th>Crown Is autonomous $L &lt; 1$</th>
<th>Crown Is dependent $L &gt; 1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a credible exit threat (mobile assets) $E &gt; 0$</td>
<td>Poor dictatorship (unlimited government, stagnant economy)</td>
<td>Rich democracy (limited government, growing economy)</td>
</tr>
<tr>
<td>Have no credible exit threat (fixed assets) $E &lt; 0$</td>
<td>Rich dictatorship (unlimited government, growing economy)</td>
<td>Rich dictatorship (unlimited government, growing economy)</td>
</tr>
</tbody>
</table>
prevent the state from using its power against its citizens? The argument that we have just presented here illustrates that there are some conditions under which the state will voluntarily agree to limit its predatory behavior: when the state depends on segments of society with mobile assets.

Our discussion of the Glorious Revolution in England makes it clear that it is not just a large group of actors with an interest in restricting the Crown's arbitrary behavior that produces parliamentary supremacy; the key is that this group has plausible exit options. A concept central to the viability of exit options is what economists call quasi-rents. A quasi-rent is the difference between an asset's value and its short-run opportunity cost. In other words, how much value does an asset return in its best case scenario usage compared with its second best case scenario usage? When this difference is large, the asset is said to generate large quasi-rents. For example, the first best use of a copper mine is to produce copper. If it is not producing copper, there is not a lot you can do with a copper mine. In fact, the second best use of a copper mine may be to fill it with water and use it as a not-so-attractive swimming pool. Similarly, if an offshore oil platform is not used to produce oil, its second best usage might be for sunbathing, fishing, or, perhaps, bungee jumping. As attractive as these activities might be, the return they are likely to bring the oil company is certain to be considerably less than that provided by oil. This is why things like copper mines and offshore oil platforms are said to generate large quasi-rents.

The concept of quasi-rents can be used to generalize the argument that we have made about the Glorious Revolution in England still further. All societies contain some actors who derive their wealth from the control of assets that produce huge quasi-rents. These actors, the owners of oil wells, copper mines, and other hard-to-redeploy assets, suffer great losses when the price of their commodity produced in the first best use of their asset plunges. Still, all societies also contain some actors who derive their wealth from the control of assets that can be relatively easily redeployed in response to price changes. These actors derive their wealth from their assets’ flexibility, not from quasi-rents. Members of the first group (fixed asset holders), who control assets producing large quasi-rents, are not likely to possess credible exit options—it is hard for the owners of a copper mine or an oil company to profitably redeploy their assets (the mine, the oil rig, and so on) if the state decides to prey upon these assets. Members of the second group, however, who control relatively liquid assets, do possess credible exit options; if the state decides to prey upon them, they simply redeploy their assets elsewhere, out of the state's reach. According to the analysis of the Exit, Voice, and Loyalty Game that we have just presented, the state will tend to be attentive to the needs of liquid asset holders and relatively unresponsive to fixed asset holders even if the state depends equally on both groups of actors. This suggests that when states depend on liquid asset holders for investment and resources, they are more likely to accept limits on their predatory behavior.
This inference is supported by numerous empirical studies showing that democracy is unlikely to emerge and survive in countries in which fixed asset holders are prevalent. For example, many scholars have shown that democracy is less likely to emerge and survive in countries where oil production (perhaps the quintessential quasi-rent–generating fixed asset) is central to the economy (Barro 1999; Ross 2001). In fact, scholars have come to refer to the rentier state to describe the pervasive and negative effects of oil (Beblawi 1987; Mahdavy 1970). Other studies have also shown that democracy is less common and less stable in countries that rely on other primary resources, such as minerals, diamonds, and copper (Jensen and Wantchekon 2004), or whose economy is dominated by large landowners (Rueschemeyer et al. 1992). These empirical results have led some to speak of a resource curse (see Box 6.3).\(^6\) Note that the existence of dictatorships that are rich due to their abundance in natural resources contradicts the claim of classic modernization theory that increased income produces democracy (Bueno de Mesquita and Downs 2005; Przeworski and Limongi 1997).\(^7\) Although the existence of a few wealthy dictatorships, such as Saudi Arabia or Oman, might appear anomalous in the context of classic modernization theory, it is entirely compatible with the present variant of modernization theory, because these countries tend to rely for their income on fixed assets such as oil, gas, minerals, and so on.

Whereas natural resources such as oil are seen as detrimental for democracy, Bates (1991) and Rogowski (1998) have both argued that when human capital (the quintessential liquid asset) becomes the engine of economic growth in an economy, states are forced to bargain with the holders of such assets in such a way that democracy is almost unavoidable.\(^8\) To the extent that globalization leads to increased capital mobility and an increased reliance on human capital, the EVL framework would suggest that it should aid democratization efforts around the world. Suggestive evidence that this might be the case comes from the fact that Huntington's (1991) first and third waves of democracy, which we describe in Chapter 8, coincide with periods of increased economic globalization and financial integration.

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6. A large literature also shows that states that rely primarily on fixed assets such as oil are also prone to poor governance, low levels of economic development, and civil war (P. Collier and Hoeffer 2002, 2005; Dunning 2005; Fearon 2005; Humphreys 2005; Karl 1997; Ross 1999; Shafer 1994).

7. If you reexamine Figure 6.7, you will see that the probability that a country transitions to democracy actually declines slightly for rich countries with a GDP per capita over $7,000. The ability of rich dictatorships to sustain themselves can be explained by our variant of modernization theory in terms of their abundant natural resources.

8. Haber, Razo, and Maurer (2003) have argued that states are likely to be less predatory and more limited when the technology of production is sophisticated. In the terminology of our argument, one reason for this is that sophisticated technologies of production make states dependent on actors with high levels of human capital and credible exit threats.
NATURAL RESOURCES AND DICTATORSHIPS

Many scholars believe that natural resources like oil hinder democratization. As we have noted, one reason for this is that states tend to be less responsive to fixed asset holders like those found in resource-rich countries than they are to liquid asset holders. This is because fixed, or immobile, asset holders have less credible exit threats and, therefore, exert less leverage over the state. In effect, leaders in resource-rich states can afford to be more predatory, dictatorial, and less responsive to their citizenry than their counterparts in resource-poor states. In a new book, Ross (2012) describes at least three other reasons why natural resources tend to help dictators stay in power.

1. Revenue without taxation: Revenue from natural resources allows dictators to buy off citizens by providing them with benefits without high levels of taxation (Ross 2004; Timmons 2005). As our own discussion of the emergence of representative institutions in early modern Europe indicates, there is often a close connection between taxation and representation (Bates and Lien 1985; Levi 1988; North and Weingast 1989). In effect, citizens often demand greater representation and accountability when their leaders want to raise taxes. As Ross (2011, 3) notes, though, oil-funded leaders like those in the Middle East “typically respond to demands for greater accountability by offering new handouts, lowering taxes, or both—and this usually works.” In response to the Arab Spring in 2011, for example, “Algeria announced plans to invest $156 billion in new infrastructure and to cut taxes on sugar; Saudi Arabia directed $130 billion toward increasing wages in the public sector, unemployment benefits, and housing subsidies; Kuwait offered each of its citizens a cash gift of 1,000 dinars (about $3,600) and free food staples for fourteen months” (Ross 2011, 3–4).

2. Low information environment: Resource-rich dictators can use their control over national companies, such as oil companies, to hide their countries’ finances. As Ross (2011, 4) remarks, “secrecy helps give oil wealth its democracy-repelling powers: citizens are satisfied with low taxes and seemingly generous benefits only when they do not realize how much of their country’s wealth is being lost to theft, corruption, and incompetence . . . A 2010 survey by the International Budget Partnership found that autocracies in the Middle East that have little or no oil, including Egypt, Jordan, and Morocco, release at least some information about their finances; by contrast, oil-rich autocracies such as Algeria and Saudi Arabia disclose almost nothing.” As Ross (2011, 4) goes on to remind us, “it is worth remembering that the revolts in Egypt and Tunisia were sparked by the people’s growing awareness of government corruption.”

Evidence in support of these first two mechanisms—revenues without taxation and low information environments—comes from an interesting recent field experiment conducted in Indonesia (Paler 2011). The experiment involved 1,863 randomly sampled and randomly assigned adults from 93 villages around the oil- and gas-rich district of Blora being assigned to
one of four possible “treatment” groups depending on (1) whether they were primed to think that the district budget came primarily from windfall revenue generated by natural resources or primarily from taxes, and (2) whether they received information about government spending performance or not. In effect, there was (a) a less informed windfall group, (b) a less informed tax group, (c) a better informed windfall group, and (d) a better informed tax group. In line with the first mechanism outlined above, Paler finds that citizens are more motivated to monitor their government and punish incumbents when state revenues come primarily from taxes as opposed to “windfalls.” She also finds that the main reason for this is that taxation instilled a greater sense of ownership over government funds. In line with the second mechanism outlined above, she finds that greater information about government spending encourages citizens to monitor their governments more closely and hold them accountable. There was, however, no evidence of a conditional relationship between taxation and information. In other words, the “positive” effect of providing information about government spending was no different in the windfall group than in the tax group.

3. **Rewarding the military.** Revenues from natural resources allow dictators to buy the loyalty of their armed forces. For example, Ross (2011, 4) notes that “Iranian president Mahmoud Ahmadinejad . . . has given billions of dollars in no-bid contracts to businesses associated with the elite Revolutionary Guards . . . Some of the world’s biggest oil producers, including Oman, Saudi Arabia, and the United Arab Emirates, are also some of the biggest military spenders. When the citizens of Oman and Saudi Arabia took to the streets [in 2011], their armies proved relatively willing and able to suppress the protests.”

Further evidence for this line of reasoning comes from a comparison of Libya and Egypt during the Arab Spring. In Libya, Muammar al-Qaddafi was able to use oil revenues to hire mercenaries from countries like Chad, Niger, Mali, and Sudan to fight rebel groups. It is widely believed that without the intervention of NATO forces in March 2011, these mercenaries, along with the rest of the Libyan military, would have easily defeated the rebels. As we indicate towards the end of this chapter, the per capita revenues generated by oil and gas were considerably lower in Egypt than in Libya. As a result, it was much harder for the long-time dictatorial leader in Egypt, Hosni Mubarak, to keep the support of his military. Mubarak had historically relied on two mechanisms to ensure the loyalty of his military. One mechanism involved transferring vast amounts of aid provided by the United States to the military. Since 1979, the United States had provided Egypt an average of $2bn a year, much of it in the form of military aid. In fact, Egypt was the second largest recipient of U.S. aid after Israel during this period (Telegraph, January 29, 2011). The other mechanism was to allow the military to take over large parts of the Egyptian economy. The Egyptian military owns companies that sell everything from fire extinguishers and medical equipment to laptops, televisions, bottled water, and olive oil. It also runs a large number of hotels and bakeries. Exactly how much of the economy is controlled by the military is unclear, with estimates varying from a low of 5% to a high of 45% (Washington Post, November 12, 2011). With the United States threatening to reconsider its military aid to Egypt and the military viewing the people camped out in Tahrir Square as “customers” as much as they did as protesters, it is little surprise that the military showed a marked reluctance to fire on the people and began to distance itself from Mubarak. Without the support of the Egyptian military, it was only a matter of time before Mubarak had to step down.
In sum, the variant of modernization theory that we have just examined helps to explain the relationship seen between (a) economic development and democracy and (b) the abundance of natural resources and dictatorship.

**Foreign Aid, Inequality, and Economic Performance**

This variant of modernization theory also has insights for the role of foreign aid, inequality, and economic performance in the democratization process.

**Foreign Aid**

As the outcomes in Table 6.3 illustrate, democracy is unlikely to emerge when the state is autonomous, that is, when it does not depend in any way on economic elites or its citizens more generally. This suggests that anything that reduces the dependence of a state on its citizens will harm the prospects for democracy, and it raises an interesting issue regarding the use of foreign aid. By giving foreign aid to a state, one is arguably reducing the dependence of that state on its citizens. In many cases, one is also reducing the incentive for the state to produce good economic performance, thereby making the life of the average citizen more miserable and making future donations of foreign aid more necessary. One implication of our argument, then, is that providing foreign aid to dictatorships—at least when aid reduces their dependence on citizens—may actually inhibit the emergence of democracy. Although it may be hard to see citizens living in destitution under harsh dictatorial rule, attempting to ease their pain by providing foreign aid to their governments may, under some circumstances, simply result in the prolonging of their suffering. This implication is consistent with many studies showing that foreign aid to dictatorships harms the welfare of the average citizen in these countries and helps dictators stay in office through corruption and exploitation rather than through the production of effective public policy (Bräutigam and Knack 2004; Bueno de Mesquita et al. 2003; Bueno de Mesquita and Smith 2004; Burnside and Dollar 2000; Clark, Doces, and Woodbery 2006; Djankov, Montalvo, and Reynal-Querol 2005; Easterly 2002; Morgenthau 1962; Van de Walle 2001). More recent work suggests that the relationship between foreign aid and things like economic growth and democratization is slightly more complicated and may depend on the institutional structure of the recipient country. For example, Wright (2010) finds that foreign aid has a negative effect on economic growth when institutions in the recipient country encourage leaders to cultivate a “personal vote” (see Chapter 13), but a positive effect when they do not. Wright (2009) also finds that while aid helps those dictators with a narrow support base—a small winning coalition (see Chapter 10)—hang on to power, it can encourage some dictators with larger support bases, and who might therefore have a good chance of winning fair elections, to democratize or, at least, liberalize.

Foreign aid is just one example of a policy that potentially undermines democracy by reducing the dependence of the state on its citizens. A similar story can be told about the
policy of decolonization in Africa (Herbst 2000). By directly handing over power to particular elites and supporting their rule, European colonial powers essentially reduced the dependence of these new elites on their own citizens. A result was that these elites never felt particularly obliged to offer democratic concessions in return for the ability and right to rule. This helps to explain why almost all of the fledgling democracies that were established by the colonial powers in Africa before they left in the 1950s and 1960s soon collapsed into dictatorships.

**Inequality**

A number of recent studies have argued that economic inequality undermines democracy (Acemoglu and Robinson 2000, 2001, 2006; Ansell and Samuels 2010; Boix 2003; Dunning 2006; Huntington 1991; Reenock et al. 2007; Rosendorf 2001). The claim that inequality is bad for democracy actually goes back at least as far as Tocqueville ([1835] 1988, 49–55, 128–136), who argued that economic equality was important for the introduction and persistence of democratic institutions. The basic argument in virtually all of these studies is that the emergence of democracy in unequal societies is likely to produce political cleavages based on divisions of wealth and income (class) and lead to significant pressures for economic redistribution from the rich to the poor. The possibility that the poor would attempt to expropriate the rich through the ballot box is thought to make democracy appear quite costly to elites. As a result, economic elites are expected to step in to block attempts at democratization or to conduct coups to reverse democratization in highly unequal societies. Empirical evidence in support of this type of theory comes from several Latin American countries (Argentina, 1976; Chile, 1973; Guatemala, 1954), where right-wing elites launched coups in order to block redistribution under democracy (Drake 1996; O’Donnell 1973; Stepan 1985). This type of argument also helps to explain why the framers of the U.S. Constitution extended suffrage only to (male) property holders—the framers believed that, were the poor to be given the vote, they would soon expropriate the rich (Roemer 1998).

Despite the strong intuitive nature of these arguments, the existing empirical evidence in support of them is not particularly consistent or compelling (Acemoglu and Robinson 2006; Reenock et al. 2007). For example, Boix (2003) finds that economic inequality actually promotes democratic survival when a country’s wealth is taken into account. Other scholars have found that inequality has no clear effect on the stability of democracy (Barro 1997; Bollen and Jackman 1985, 1995; Przeworski et al. 2000). That the spread of universal suffrage in the twentieth century has not historically led to the expropriation of the rich by the poor would also seem to call these arguments into question (Roemer 1998).

One potential explanation for these mixed or inconsistent findings has to do with the paucity or poor quality of the available inequality data (Barro 1997; Przeworski et al. 2000). The logic inherent in our variant of modernization theory offers an alternative explanation for the inconsistent results, however, because it offers a reason for why the poor do not always expropriate the rich and, hence, why economic inequality need not necessarily be bad for democracy. We saw earlier that economic elites who had credible exit options could force a dependent state
to accept limits on its predatory behavior. That these economic elites have credible exit options and can realistically withdraw their much-needed investment in the economy also helps to explain why the poor will not vote to expropriate them (Ansell and Samuels 2010; Przeworski and Sprague 1988). In effect, the poor “depend” on the economic elites for the economy to grow. If this is true, then existing empirical studies examining the link between economic inequality and democracy need to be modified. Economic inequality should be bad for democracy only in countries where the economic elites do not have credible exit options; where they have credible exit options, the elites should be willing to accept democracy knowing that the poor will have incentives to curb their demands for redistribution. This may help to explain why the white minority in South Africa, who had increasingly mobile assets, were finally willing to introduce democracy to end the apartheid regime in 1994 despite the high level of economic inequality that characterized the country (see Box 6.2 for more detail). The failure of existing studies to take account of the way in which credible exit threats alter the impact of economic inequality on democracy may explain the inconsistent findings regarding inequality and democracy in the literature.

Recently, Ansell and Samuels (2010) have extended this line of research profitably by arguing that the effect of inequality on democratization will depend on the type of inequality we are talking about. In particular, it will depend on whether we are talking about income inequality or land inequality. To be more specific, Ansell and Samuels argue that income inequality actually increases with the creation of a large middle class—typically made up of liquid asset holders. But since these actors possess credible exit threats, they do not fear redistribution under democracy. In contrast, high land inequality typically signals the existence of a large landed aristocracy that holds primarily immobile assets. These landed aristocrats do have much to fear from democratization. In line with their argument, the authors find evidence that income inequality is positively associated with democratization, but that land inequality is negatively associated with democratization.
**Economic Performance**

In addition to providing predictions about whether we expect to see democracy or dictatorship, our EVL Game also offers predictions about the conditions under which we expect to see growing or stagnant economies. In particular, the outcomes in Table 6.2 illustrate that although good economic performance should characterize democracies on the whole, the economic performance of dictatorships should vary considerably. Specifically, dictatorships in which citizens have no credible exit threat should perform relatively well, because citizens have little option other than to continue investing, making the best of what they have and hoping that the state does not exploit them too much. In contrast, dictatorships in which citizens have credible exit threats will perform poorly, because the citizens will redeploy their assets elsewhere to avoid state predation. The prediction that dictatorships should exhibit more variation in economic performance than democracies is consistent with several theoretical and empirical studies (Bueno de Mesquita et al. 2001, 2003). It is also supported by evidence from Przeworski et al. (2000, 176), who find that the standard deviation (a measure of how much something varies) in economic growth rates between 1950 and 1990 was 7.04 for dictatorships and just 4.85 for democracies. Further supportive evidence comes when they write that the “lists of [economic] miracles and disasters are . . . populated almost exclusively by dictatorships” (Przeworski et al., 2000, 178).

That some dictatorships are expected to have growing economies may help to explain why so many economists and political scientists have failed to find compelling evidence that democracies routinely produce better economic performance than dictatorships (Przeworski and Limongi 1993; Sirowy and Inkeles 1991; see also Chapter 9 of this book). The variant of modernization theory that we have examined here would suggest that it is inappropriate simply to compare the economic performance of democracies and dictatorships, because economic performance across these regimes should depend on the presence or absence of credible exit options. Specifically, regime type should have little impact on growth when fixed asset holders dominate the economy. We look in more detail at the theoretical reasons as to why some dictatorships have incentives to produce good economic performance but others do not in Chapter 10.

**SOME MORE EMPIRICAL EVIDENCE**

Before turning to cultural explanations for the emergence and survival of democracy in the next chapter, we first evaluate some of the arguments that have been presented in this chapter using statistical analyses. We begin by examining how a country’s status as an oil producer, its income, and its economic growth affect the probability that it will become a democracy using data provided by Przeworski et al. (2000) on all countries from 1946 to 1990. The results of our analyses are shown in Table 6.4. To estimate the effects of our economic variables, we use a dynamic probit model—this sounds somewhat complicated, but it really isn’t. Let us briefly describe how to interpret the information shown in Table 6.4.
The dependent variable listed at the top of the table is the thing we want to explain. In this case, the dependent variable is the probability that a country becomes a democracy given that it was a dictatorship in the previous year. The independent, or explanatory, variables, listed in the first column of Table 6.4, are the things we hypothesize might affect the emergence of democracy. In this case, our independent variables are income, growth, and oil production. Next to each independent variable (in the other columns) is a coefficient, and beneath this is a standard error. The sign of the coefficient indicates the direction in which the explanatory variable affects the probability that a country will become a democracy. Thus, a positive coefficient indicates that an increase in the explanatory variable in question is associated with an increase in the probability that a country will become a democracy, whereas a negative coefficient indicates that an increase in the variable is associated with a reduction in the probability that a country will become a democracy. The standard error beneath the coefficient essentially tells us how confident we are in our results. We tend to be more confident in our results the smaller the standard error is relative to the size of the coefficient. Typically, as a rule of thumb, we claim that we can be 95 percent confident that the coefficient is correctly identified as being either positive or negative if the coefficient is bigger

### Table 6.4 Economic Determinants of Transitions to Democracy

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>GDP per capita</td>
<td>0.00010***</td>
<td>0.00010***</td>
</tr>
<tr>
<td></td>
<td>(0.00003)</td>
<td>(0.00003)</td>
</tr>
<tr>
<td>Growth in GDP per capita</td>
<td>–0.02***</td>
<td>–0.02***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Oil production</td>
<td>–0.48**</td>
<td>–0.48**</td>
</tr>
<tr>
<td></td>
<td>(0.24)</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Constant</td>
<td>–2.30***</td>
<td>–2.27***</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>2,407</td>
<td>2,383</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>–233.01</td>
<td>–227.27</td>
</tr>
</tbody>
</table>

Source: Data are from Przeworski et al. (2000).
Note: Robust standard errors are in parentheses.
* = greater than 90% significant.
** = greater than 95% significant.
*** = greater than 99% significant.

A dependent variable is an outcome or thing we want to explain. An independent, or explanatory, variable is what we think will explain, or determine the value of, the dependent variable.
than twice the size of the standard error. If the coefficient is much larger than twice the size of the standard error, we become even more confident in our results. To save readers doing this calculation in their heads, authors often use stars next to the coefficient to indicate their confidence in the results. In Table 6.4, one star indicates that we are over 90 percent confident in our results, two stars indicate that we are over 95 percent confident in our results, and three stars indicate that we are over 99 percent confident in our results. No stars next to a coefficient indicates that we cannot be confident that this variable has any effect on the probability that a country becomes a democracy.

So, what do the results in Table 6.4 tell us? First, we can see that the coefficient on GDP per capita is positive and that it is highly significant. This indicates that the probability that a dictatorship becomes a democracy increases with income as measured by GDP per capita. This result is entirely consistent with classic modernization theory. It is also consistent with a large body of empirical research that reaches the same conclusion (Barro 1999; Ross 2001; Boix 2003, 2011; Boix and Stokes 2003; Epstein et al. 2006; Inglehart and Welzel 2005; Londregan and Poole 1996). Second, we can see that the coefficient on growth is negative and statistically significant. This indicates that a dictatorship that produces economic growth is less likely to become a democracy. In other words, dictatorships that do well with the economy are rewarded, as it were, by being allowed to continue to control the economy. This implies that dictatorships have an incentive to produce good economic performance. As we'll see in Chapter 10, some dictatorships have more of an incentive to produce good economic performance than others. Third, we can see that the coefficient on being an oil producer is negative and significant. This indicates that a dictatorship is less likely to become a democracy if it is an oil producer. This result is consistent with our earlier claim that countries with fixed or immobile assets producing quasi-rents are less likely to become democracies. It is also consistent with a large empirical literature that has tested the effect of oil on democratization (Barro 1999; Jensen and Wantchekon 2004; Ross 2001, 2012; Wiens, Poast, and Clark 2011).

At this point you might be wondering exactly how much income, economic growth, and oil production really matter for the emergence of democracy. For example, how much more likely would it be for a dictatorship to transition to democracy if its GDP per capita rose by a certain amount? Take a country in Africa like Burkina Faso. In 1987 Burkina Faso was a dictatorship with a GDP per capita of $500; it was not an oil producer, and it had a negative growth rate (−2.15 percent). The average GDP per capita in the world in 1987 was $4,022. How much more likely would a country like Burkina Faso have been to become a democracy in 1988 if its GDP per capita had been $4,022 instead of $500? Although we do not show

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9. None of the coefficients in Table 6.4 requires one star, so we could have omitted the reference to the 90 percent level of confidence in this case. You will see coefficients with one star in other tables of results in this book (and elsewhere), however, so to be consistent we include it.

10. It should be noted, however, that a few scholars have begun to question the notion of a resource curse (Brunnschweiler and Bulte 2008a, 2008b; Haber and Menaldo 2011; Jones Luong and Weinthal 2010).
exactly how to do this here, it is possible to answer this question using the results in Table 6.4. The answer is that it would have been 3.07 times more likely to become a democracy if its GDP per capita had increased from $500 to $4,022. In other words, its probability of becoming a democracy would have risen by fully 307 percent. As this example illustrates, income is quite an important determinant for the emergence of democracy.

Let’s continue with the example of Burkina Faso. How much less likely would it be for a country like Burkina Faso in 1987 to have become a democracy in 1988 if its growth rate had been the same as that of the United States (2.55 percent) instead of –2.15 percent? Again using the results in Table 6.4, the answer is 23 percent less likely. In other words, increasing the growth rate of a dictatorial country like Burkina Faso from –2.15 percent to 2.55 percent could be expected to reduce the probability of a democratic transition by 23 percent. Finally, how much less likely would it be for a country like Burkina Faso in 1987 to have become a democracy in 1988 if it was an oil producer? The answer is 66 percent less likely. In other words, a dictatorship with a GDP per capita of $500 and a growth rate of –2.15 percent is 66 percent less likely to become a democracy if it is an oil producer than if it is not an oil producer.

Throughout the chapter we have claimed in line with classic modernization theory that economic development affects not only the emergence of democracy but also the survival of democracy. In contrast, since we have only argued that the predominance of fixed asset holders in society inhibit transitions from authoritarian to democratic regimes, we have no reason to believe that the presence of oil influences the survival of democracy. Using the same data as before, we now examine how a democratic country’s status as an oil producer, its income, and its economic growth affect the probability that it will remain a democracy. The results of our analysis using a dynamic probit model are shown in Table 6.5.

Whether a coefficient is positive or negative now tells us whether an increase in our independent variables increases or decreases the probability of democratic survival. So what do the results tell us? First, we can see that the coefficient on GDP per capita is positive and that it is highly significant. This indicates that increased income, as measured by GDP per capita, increases the probability of democratic survival. As you will remember from earlier in this chapter, this result is entirely consistent with the claims made by classic modernization theory that higher levels of income should help democracies survive. Second, the coefficient on growth is positive and significant. This indicates that economic growth helps democracies survive. In other words, good economic performance appears to help both dictatorial and democratic regimes survive. Finally, the coefficient on oil production is negative but insignificant. This indicates that, although being an oil producer helps dictatorships to survive (see the result in Table 6.4), being an oil producer does not make democracies more stable.\footnote{This result contradicts the finding by Benjamin Smith (2004) that oil wealth helps the survival of all regimes, whether they are democratic or dictatorial.}

But how much do income and economic growth really matter for democratic survival? To address this issue, let’s return to the example of Burkina Faso. Let’s imagine that Burkina
Faso was a democracy in 1987. How would making it richer or improving its economic growth affect the chances that a country like this would still be a democracy in 1988? What if we increased GDP per capita from $500 to the world average in 1987 of $4,022? The results in Table 6.5 indicate that an increase like this would increase the probability of democratic survival by 12 percent. What if we increased the economic growth rate from –2.15 percent to that of the United States in 1987 (2.55 percent)? The answer is that the probability of democratic survival would increase by 4 percent.

**CONCLUSION**

There is considerable evidence to support the claim made by classic modernization theory that countries are more likely to become democratic and remain democratic as their economies become more “modern.” Higher levels of income encourage both the emergence and the survival of democracy. Changes in economic structure that accompany changes in income also matter. We have shown that limited government in early modern Europe was more likely to arise in polities in which the Crown was dependent on elites with mobile assets. As we stated earlier, this argument can be generalized to account for the emergence and survival of democracy in more contemporary periods. States that are more reliant on fixed assets that generate quasi-rents are

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**Table 6.5: Economic Determinants of Democratic Survival**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>GDP per capita</td>
<td>0.00020***</td>
<td>0.00020***</td>
</tr>
<tr>
<td></td>
<td>(0.00004)</td>
<td>(0.00004)</td>
</tr>
<tr>
<td>Growth in GDP per capita</td>
<td>0.04***</td>
<td>0.01</td>
</tr>
<tr>
<td>Oil production</td>
<td>–0.21</td>
<td>(0.269)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.13***</td>
<td>1.12***</td>
</tr>
<tr>
<td></td>
<td>(0.13)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>1,584</td>
<td>1,576</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>–149.71</td>
<td>–144.11</td>
</tr>
</tbody>
</table>

*Source: Data are from Przeworski et al. (2000).*

*Note: Robust standard errors are in parentheses.*

* = greater than 90% significant.

** = greater than 95% significant.

*** = greater than 99% significant.
less likely to sustain democracy. In support of this claim, we cited considerable evidence that
democracy is less likely to arise in countries that are heavily dependent on oil production. In our
own statistical analyses, income and economic growth continue to be important contributors to
the emergence and survival of democracy even after taking account of oil production. In a more
detailed study than the one presented here, Ross (2001) shows that increased income affects
democratization by bringing about additional changes such as increased occupational
differentiation, improved education, and the growth of the service economy. All of these changes
can be thought of as parts of a broader process of modernization. Moreover, all of these changes
can be expected to increase the “exit options” available to citizens.

Arguments linking the prospects for democracy to the structure of a nation’s economy are
not popular with democratic activists. If democracy arose in Great Britain as a result of a
gradual change in the British economy that took centuries to unfold, then what hope is there
for people living under authoritarian regimes today? What are the chances that the rapid
spread of protest throughout the Middle East and North Africa in the spring of 2011 will lead
to the successful consolidation of democracy in these countries, many, though certainly not
all, of which can be described as oil rich? In a recent opinion piece, Michael Ross (2011)
argues forcefully that while it is not impossible for successful transitions to occur in oil-rich
countries, it is highly unlikely. In an age of Twitter and the Internet, protest may spread
quickly, but it is not yet clear whether the process of democratization has sped up appreciably.
Ross (2011, 5) points out that “no country with more oil wealth than Venezuela had in
1958” when it transitioned to democracy “has ever successfully democratized.” While it is too
soon to tell if any of the regimes that faced widespread opposition during the Arab Spring
will transition to stable democracies in the near future, there are good reasons to believe that
the likelihood they will do so will be negatively correlated with their oil wealth.

In Table 6.6, we report Ross’s (2012) estimates of recent per capita oil and gas production
in a set of countries in North Africa and the Middle East. If the structure of a nation’s economy
places constraints on the propensity to democratize, as we have argued in this chapter, all other
things being equal, we would expect countries near the top of this list to be much less likely to
democratize in the future than countries near the bottom of this list. Removing autocrats from
office is a necessary, but not sufficient, condition for democratization. It is, perhaps, telling that
the rulers of Tunisia and Egypt—countries with the lowest levels of per capita oil and gas produc-
tion in Table 6.6—were the first leaders to lose their grip on power during the Arab Spring.

In Ross’s (2012, 2) words, as of November 2011, “the Arab Spring has seriously threatened just
one oil-funded ruler—Libya’s Muammar al-Qaddafi—and only because NATO’s intervention
prevented the rebels’ certain defeat.” And as of writing this chapter, it is by no means clear that
what replaces the Qaddafi regime will be a stable democracy.

If changes to the structure of the economy are prerequisites for democratization, change
is likely to come slowly—even in today’s fast-paced world. In the next chapter, we move away
from economic arguments about democracy to consider whether cultural traits influence the
emergence and survival of democracy. Unfortunately, for those who would like to speed the
pace of democratization, culture too changes slowly.
The problems that follow address some of the more important concepts and methods introduced in this chapter.

### Classic Modernization Theory

1. In this chapter we discussed classic modernization theory, which suggests that economic development is related to democracy. Answer the following questions.
a. The basic idea with classic modernization theory is that as countries develop from traditional societies into modern societies, they shift from dictatorial forms of government to democratic ones. What are the general characteristics of “traditional societies” and “modern societies”?

b. One implication of classic modernization theory is that rich countries tend to be democracies and poor countries tend to be dictatorships. In the chapter text, we argue that this association between income and democracy can be explained by both classic modernization theory and the survival story. Outline how these two stories explain the observed relationship between income and democracy.

c. Why does Przeworski say that increased income should help democratic survival?

d. Does the evidence presented in this chapter suggest that increased income makes the emergence of democracy more likely or less likely?

e. Does the evidence presented in this chapter suggest that increased income makes democratic survival more likely or less likely?

A Variant of Modernization Theory

2. In this chapter we discussed a variant of modernization theory. Answer the following questions.

a. According to the variant of modernization theory that we examined, why does democracy emerge as economies develop?

b. In early modern Europe, why did England develop a limited form of government and France develop an absolutist and autocratic form of government?

c. Country A is characterized by the following features: it is wealthy, it has an abundance of natural resources, and its population is poorly educated. Country B is characterized by the following features: it is wealthy, its economy is dominated by the financial service sector, and its population is well educated. Based on the variant of modernization theory that we examined, which country is most likely to be democratic and why?

d. Why might increased globalization lead to democratization around the world?

e. Many people have recently argued that countries with high levels of economic inequality are unlikely to become democratic. What is their basic argument? Based on the variant of modernization theory that we examined, do you expect economic inequality to always harm the prospects for democracy? Explain your answer.

Exit, Voice, and Loyalty Game

3. Earlier in the chapter we solved the Exit, Voice, and Loyalty Game for (a) the scenario in which the Crown was dependent and the Parliamentarians had a credible exit threat and (b) the scenario in which the Crown was dependent and the Parliamentarians had no credible exit threat. We did not explicitly solve the EVL Game for scenarios when the Crown was autonomous. The game tree for the Exit, Voice, and Loyalty Game is shown in Figure 6.11. Answer the following questions.

a. Use backward induction to solve the game for the scenario in which the Crown is autonomous ($L < 1$) and the Parliamentarians have a credible exit threat ($E > 0$). What is
6: The Economic Determinants of Democracy and Dictatorship

the subgame perfect equilibrium? Do we get democracy or dictatorship? Do we get good economic performance or bad economic performance?

b. Use backward induction to solve the game for the scenario in which the Crown is autonomous ($L < 1$) and the Parliamentarians do not have a credible exit threat ($E < 0$). What is the subgame perfect equilibrium? Do we get good economic performance or bad economic performance?

c. In the chapter we suggest that providing foreign aid to dictators may hinder the chances that democracy will emerge. Based on the outcomes from the two scenarios in the EVL Game that you have just examined, explain why we reach this conclusion.

Credible Commitment Problems

4. In the chapter we introduce the concept of credible commitment problems. Answer the following questions about them.

a. What two factors characterize credible commitment problems?

b. Can you think of a nonpolitical situation in which actors face a credible commitment problem? Can you think of a way to solve this problem?

c. Can you think of a political situation in which actors face a credible commitment problem? Can you think of a way to solve this problem?
Dependent and Independent Variables

5. In this chapter we introduce the concept of dependent and independent variables. Dependent variables are the outcomes or things that we want to explain. They are the “effects” in cause-and-effect relationships. Independent variables are the factors that we think might explain or determine the value of the dependent variable. They are the “causes” in cause-and-effect relationships. Look at the following statements and identify the independent variable and the dependent variable.

a. Smoking causes cancer.
b. Incumbents lose elections when economic performance is bad.
c. When a country develops economically, it will become a democracy.
d. Obesity is caused by eating too much food.
e. Democracy is stable in rich countries.
f. If citizens have mobile assets, then the government will not exploit them.
g. Crime is caused by poverty.
h. Economic inequality is bad for democracy.
i. Countries with high levels of natural resources are less likely to be democratic.
j. A good grade in class is the result of hard work.

Oil and Democracy: The Resource Curse

6. Obtain a copy of Michael L. Ross's 2001 article, “Does Oil Hinder Democracy?” from the journal World Politics (53:325–61) using your institution’s library resources. Read the article and then answer the following questions.12

a. What is Ross's dependent variable? How is it measured? What is the main independent variable? How is it measured?
b. What is the main hypothesis of this article? What evidence would falsify this hypothesis?
c. Why does Ross believe that having oil might be detrimental to the development of democracy? Summarize the argument’s three proposed causal mechanisms in a couple of sentences.
d. Ross tests his theory using statistical analyses. Given his dependent variable, what sign (positive or negative) does Ross predict for the coefficient on his primary explanatory variable? (Hint: See your answers to parts a and b.) What sign does he find? Is the coefficient on this variable statistically significant? How do you know? (Hint: The answer is in Table 3.3, column 1, page 341.)
e. Does Ross find that being an oil producer hinders the development of democracy only in the Middle East?
f. Does Ross find any evidence that nonfuel (not oil or gas) minerals help or hinder the development of democracy?

12 The following series of questions is based on several similar questions posed by Powner and Bennett (2005:118–20).