Commentary

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Helm’s chapter and the other chapters in this book address a great theme. The theme goes far beyond the point that natural resources are once again back in the limelight, that ten years ago mineral commodities were neglected, and that in this decade people rediscovered that economies do run on energy and raw materials, that everything cannot be done over the Internet. What makes these chapters especially interesting is that they focus, in a very nitty-gritty way, on identifying the desirable institutions to deal with commodity booms—what is state-of-the-art, what is best practice—so that resource-rich countries can avoid the mistakes of the past.

This commentary begins by placing Helm’s chapter in the general context of the time-inconsistency problem that institutions face. Then it considers the importance of the example of the United Kingdom presented in Helm’s chapter. Finally, it motivates and asks a question about attempts at better contracts in practice that are highlighted by the chapter.

Time Inconsistency

A number of the contributors to this volume, including myself, teach classes on aspects of development, in which we talk about the role of “institutions” in determining whether some countries perform better than others. Our students have grounds to tease us, in that we talk about institutions so much but sometimes are not specific enough about what good institutions are. The design of contracts or wealth funds to deal with natural resource cycles is a good example of what they want to hear.

The central theme seems to be the conflict between the incentives that exist ex ante, which is for a government to offer attractive terms
so that—whether it is an outside multinational or a domestic firm coming in—it will invest and develop the resources, versus the incentives that exist ex post, which is often to renge on the contract. In particular, if the commodity price subsequently goes up on world markets, governments ask why the company should get all the gains.

This is an area where better design of mechanisms and incentives and institutions can make a big difference. As the introduction points out, the formulation of the problem goes back at least to Ray Vernon. Like Dieter Helm, I think the phrase “time inconsistency” applies. It is a simple idea: the incentive you have to promise ahead of time is different from the incentive you have after the investment has been made.

A classic illustration is the story of Odysseus and the Sirens. The story, of course, is that Odysseus was warned that his ship was going to sail past the Sirens; they sing so sweetly that the sailors would be irresistibly tempted to dive into the water and be drowned. He gave orders to his men to plug their ears with wax, but he wanted to listen. So the captain ordered them to tie him to the mast and no matter how much he begged to be let go, they should not free him. Odysseus hears the Sirens and tells his men to let him go, but they do not because the ex ante commitment is successful.

It is ironic that this metaphor has become best known and best established in monetary theory. Central banks have an incentive to say ahead of time that they will not print a lot of money and will not be inflationary, in order to get price expectations and wages down. After the fact, they have an irresistible temptation to be more expansionary. The lesson is that governments need institutions to tie their own hands, either bodies such as a constitutionally independent central bank or a currency board, or rules like a fixed exchange rate or inflation targeting.

Time inconsistency actually applies better to some areas of microeconomics. Note 1 in Helm’s chapter gives a reference on global climate change. This concept of time inconsistency is important, though not widely acknowledged in existing analyses of global climate change. Despite all the complications that are in typical models, it has been largely missing. Absent in the design of the optimal path is the idea that governments have an incentive to promise ex ante that, though they will start off slowly, they will cut emissions very sharply in the second half of the twenty-first century. But this assurance is not very credible because this set of policymakers is not going to be around in the second half of the twenty-first century. When the time comes it
will be expensive for the new crop of policymakers to do it. Furthermore, everybody knows this. Nobody believes the century-long commitment path to begin with. That is a big problem with the economic modeling of climate change.

**Time Inconsistency in Utilities in the United Kingdom**

The problem of resource contracts is an excellent application of the time-inconsistency problem. The pattern has been repeated so many times in so many countries: the price goes up, and then the government wants to renege on its contracts. It does not want to give the company all the profits and, in a sense, why should it? Certainly the political pressures are typically very strong. It has become such a familiar pattern that it seems, by now, that contracts ought to have been designed that are robust with respect to this inconsistency. For example, one might have expected contracts in which the parties write in ahead of time, “If the price goes up by X, then the gains are split between the company and the government.”

Looking at the UK example is useful and interesting. Helm’s chapter provides a good review of the British case. It is clearly written; one can learn a tremendous amount on each page, even knowing little about the subject to begin with. One of the reasons to look to the United Kingdom is as a developed country. For a country like Bolivia (chapter 10), it seems likely that the government could write any contract in the world and people still would not believe it because of past history and the institutional roots that are not deep enough. The fear is that such a country would end up reneging. Thus, it is useful to start off with a country where the regulators are supposed to be professional and keep their word, and where they rank high on the indices of Transparency International and the other rankings the political scientists have developed to measure the quality of institutions.

Here the institution is the RPI-X mechanism, which is a fixed-price contract, but only for four or five years, after which it is to be revised or renegotiated.

There is no need to go through and repeat the points that are presented effectively in the chapter. The overall conclusion is that the mechanism has not worked very well. The case study specifically says that this regulation has not worked as well as perceived. First the regulator and then the government reneged on the ex ante contracts. The narrative goes through the two examples of 1994 and 1995 distribution
prices and windfall profit taxes, which is something everyone can relate to. Probably in any country, when there are huge profits, there is political pressure from the public to claw back a share of them.

The chapter discusses some unintended side effects. It says the company violated the implicit contract in shifting its financing composition toward debt. It is not clear whether there in fact was an implicit contract; instead it might be called an unintended consequence. Can you really blame a company—given its incentives, given a rate of return determined by the weighted average cost of capital, and given its responsibility to its shareholders—if it shifts toward debt when that action is more profitable? It may not be appropriate to call this shift "breaking an implicit contract," unless it was discussed ahead of time and the only sense in which it was not explicit is that it was not written down.

One of the reasons the chapter gives for why the RPI-X mechanism has not worked as well as one might hope or expect, is that the UK system is less rule-based than the U.S. system. If one proceeds along the lines that the parties will write down a contract ahead of time and stick to it, maybe that is an arena in which the U.S. approach works better. People are beginning to have doubts about that when it comes to financial-regulation accounting practices. Maybe the European system has some advantages. But in this case, where it is apparently left up to some "good chaps," on the one hand keeping your word is a nice British attribute, but on the other hand doing what is in the interests of your citizens is also a good attribute. If one has the discretion it is hard not to use it. And in some sense the regulator of the government would be just as negligent not to use such discretion as the company would be negligent not to do something in the interest of the shareholders. The whole point is to bind people ex ante so that they do not have that option.

An Open Question: Attempts at Optimal Contracts

One significant aspect of the mechanism to consider is this: it is not clear from the chapter that anything approximating optimal contract design was really tried in Britain. The mechanism is very crude. As the chapter explains, it was not designed to implement some theoretically optimal contract, but arose by historical happenstance. So the first question for experts in this area is, what about some attempts at contracts that build in contingencies? If the price goes up by X, the
company gets to keep some of it but some of it goes back to the government. The rule is applied symmetrically if the price goes down.

One predictable response is that there are a lot of contingencies. The price is not the only thing going up and down; there are various other contingencies and it is very hard to write them all in ex ante. Another part of it has got to be that in a situation where the government already has a lot of credibility—for example, when it is ranked high by Transparency International or the political scientists’ indices of governance and rule of law—it can withstand a bit more moral hazard without killing off investment. However, for a country without such a good history of institutions and property rights and rule of law, the situation is the opposite. A government could do a great job writing the contingent contract and yet that would not right away establish its reputation and bring in all the investment it wanted.

What is important to find out is if the United Kingdom or other countries have experimented and have learned from their mistakes. The general thrust of the chapter is to present some ideas that did not work. It would be good to hear about some well-designed contracts—not just optimal in theory, but informed by practice—that could be robust and could have some hope of holding up ex post.