World Development Vol. 37, No. 3, pp. 521–532, 2009

0305-750X/$ - see front matter
www.elsevier.com/locate/worlddev
doi:10.1016/j.worlddev.2008.07.002

Is Transparency the Key to Reducing Corruption in Resource-Rich Countries?

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Summary. — Transparency is increasingly viewed as central to curbing corruption and other dysfunctions of resource-rich developing countries. The international development community has pushed transparency in resource revenues through such initiatives as the Extractive Industries Transparency Initiative (EITI). Despite the popularity of the transparency concept, its role in reducing corruption and averting the resource curse is poorly understood. This paper reviews the main mechanisms through which transparency can reduce corruption. It argues that transparency is insufficient in itself, and needs to be complemented by other types of policies. Transparency reform should focus on the areas most important to alleviating the resource curse. In view of the resource curse literature, the emphasis of the EITI on revenues rather than on expenditures appears misplaced.

Key words — natural resources, corruption, transparency, EITI

1. INTRODUCTION

Corruption is a huge problem in many developing countries that are rich in natural resources. It is central in explaining why resource-rich countries perform badly in terms of socio-economic development, a phenomenon that has been termed the resource curse. Two prominent contributions to the resource curse literature, Mehlum, Moene, and Torvik (2006) Robinson, Torvik, and Verdier (2006), see corruption as a key issue, in the form of rent-seeking and patronage, respectively. [1] As of late, *transparency* has been viewed as a key factor in reducing corruption and other dysfunctions in natural resource-rich countries. Several initiatives have therefore been taken to improve transparency in resource-rich countries, such as the Extractive Industries Transparency Initiative (EITI), which focuses on transparency in revenues from extractive industries such as petroleum and minerals.

Despite the popularity of the transparency concept, its role in reducing corruption and its importance in averting the resource curse are poorly understood. There is certainly a correlation between a lack of transparency and high levels of corruption, as shown in Figure 1. However, this cannot be taken to imply causality which is needed to underpin policy in this area. Moreover, to gauge the role of increased access to information, and inform the design of transparency reform, it is imperative to understand the ways in which transparency can affect corruption, as well as the limitations to an approach that centers on this concept.

This paper provides a systematic analysis of the relationship between transparency and corruption, with an emphasis on resource-rich developing countries. Besides being important for policy, the paper fills a gap in the literature on corruption in resource-rich countries. There has been little formal research on what role access to information plays in improving development outcomes in a resource-rich context. The paper draws on both economic theory and relevant empirical studies to address this omission. The aim is to explore the basic mechanisms through which transparency may affect corruption, attendant limitations, and complications of such a perspective, and implications for transparency reform in natural resource-rich countries.

The main conclusions of the paper are that though transparency may affect corruption in several ways, it is insufficient in itself, and needs to be complemented by other types of reforms. In certain cases, transparency can also increase corruption. Moreover, we argue that increased access to information should focus on the areas most important to alleviating the resource curse. In view of the resource curse literature, the emphasis of the EITI on revenues rather than on expenditures appears misplaced.

The paper is structured as follows. Section 2 explores the main theoretical mechanisms through which transparency can be expected to affect corruption, drawing predominantly on information economics and the corruption literature. Section 3 reviews limitations of an approach focused solely on information access, summarizing the empirical literature on information and corruption. These limitations highlight the need for complementary measures to improve abilities to process information and abilities and incentives to act on the processed information in order to reduce corruption. Section 4 explores two perspectives that suggest that transparency may in certain cases increase corruption, highlighting the importance of providing access to the right kind of information. Transparency can mean a number of things, and transparency initiatives differ in coverage and approach. Section 5 deconstructs the concept of transparency, and argues that transparency initiatives in resource-rich countries should focus on the areas deemed most important by evidence from the resource curse literature. In Section 6, the EITI is critically reviewed on the basis of the preceding discussion. Section 7 concludes with some thoughts on the role of transparency reform in addressing the resource curse, and suggestions for future areas of research.

* The authors thank Jakob Svensson, Gaute Torsvik, Elissaios Papyrakis, Aled Williams, and three anonymous referees for helpful suggestions. Financial support from the U4 anti-corruption program is gratefully acknowledged. Any remaining errors or omissions are the responsibility of the authors. Final revision accepted: July 14, 2008.

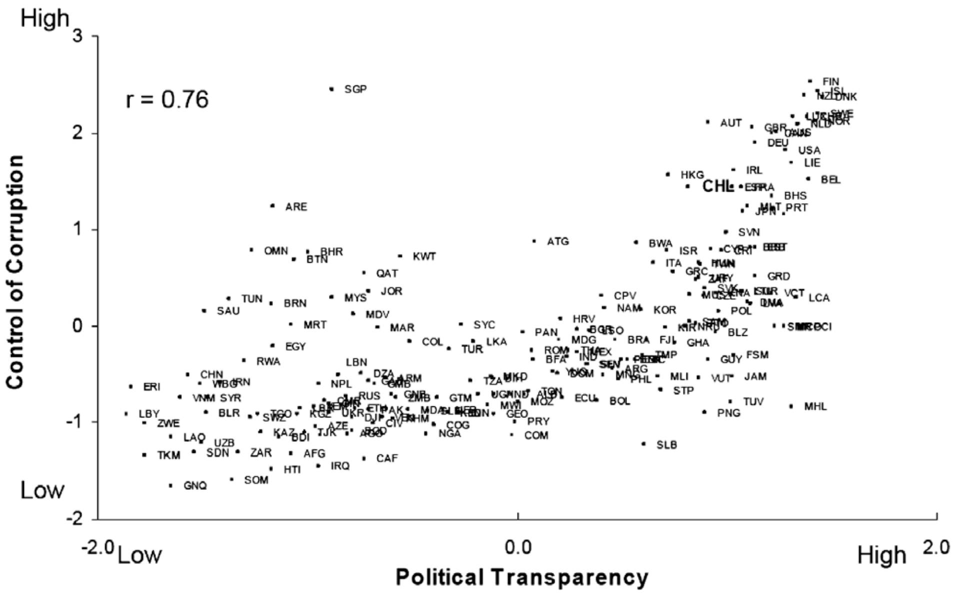

Figure 1. *Political transparency and corruption. Source: Kaufmann and Bellver (2005).*

2. WHICH PROBLEMS DOES TRANSPARENCY ADDRESS?

Transparency is defined in the following as public access to information, or more precisely "timely and reliable economic, social and political information … accessible to all relevant stakeholders".[2] Corruption is defined as the abuse of public office for private gain. For the purposes of this paper, the commonly used distinction between political corruption and bureaucratic corruption is helpful. Political corruption is abuse of office by those who make the rules of the game, for example, decide on laws and regulations, and the basic allocation of resources in a society. Bureaucratic corruption takes place at the implementation end of public policies, capturing corrupt acts among those who implement the rules made by top officials.

To better understand what corruption-related problems transparency solves, or the problems caused by a lack of transparency, it is vital that we understand how information affects the decisions of potentially corrupt agents. Though a lack of transparency causes a number of difficulties, Stiglitz (2002a) for instance argued that transparency is an essential part of good governance more generally, this section focuses on the corruption-specific issues. The magnitude and nature of corruption varies across countries. One should expect that political corruption is most prevalent in resource-rich countries as the political elite controls huge resource rents. As a benchmark for the analysis of political corruption, however, it is instructive to start with a model of bureaucratic corruption. This section makes the following points:

- A lack of transparency makes corruption less risky and more attractive.
- A lack of transparency makes it harder to use incentives to make public officials act cleanly.
- A lack of transparency makes it hard to select the most honest and efficient people for public sector positions or as contract partners.
- Informational advantages give access to rents, making reform difficult.
- A lack of transparency makes cooperation more difficult to sustain, and opportunistic rent-seeking more likely.
- A lack of transparency may undermine social norms and reduce trust.

(a) *Transparency and the decision of a potentially corrupt agent*

The following basic model of corruption provides a good starting point for analyzing the importance of information. The model is most easily presented by using the stylized example of a public official collecting tax revenues from the oil sector. We assume that the public official has two choices. He can either be honest or corrupt. If he is honest, he reports the factual costs of the oil company, and receives a fixed wage with certainty. Alternatively, he can be corrupt and receive a bribe in addition to his wage. A bribe might not, however, be a perfect substitute of wages as there might be moral costs of receiving bribes. For simplification, the bribe is a form of compensation to the bureaucrat for reporting a higher cost of the oil company, thereby reducing the company's taxes.

The bureaucrat maximizes expected utility. If he is honest, his utility is determined by his wage rate. If he is corrupt, he will receive his wage and a bribe, but there is a probability that he will get caught and be sanctioned (e.g., in the form of a fine). It follows from such a model that corruption decreases when[3]

- The wage of the bureaucrat is increased.
- The fine is increased.
- The bribe is reduced.
- The probability of being caught is increased.
- The moral costs of getting income from bribery increases.
- The bureaucrat's risk aversion increases.

From such a simplified framework, it follows that the combination of a large bribe, low wages, and lack of enforcement are factors that stimulate corruption (Becker & Stigler, 1974). These factors prevail in resource-rich developing countries. There is, for instance, ample space for bribes when resource rents are huge.

As our focus is on transparency, let us discuss this in more detail. Firstly, transparency has a direct impact on detection (the probability of getting caught). The more transparent the cost structure of the oil company is, the more difficult it is for the bureaucrat to distort information and the easier it is to be caught doing so. When information is sparse, it is difficult to reveal whether a bureaucrat is corrupt or not.

Secondly, transparency might also have indirect impacts on the other explanatory factors of corruption referred to above. Transparency might, for instance, have an indirect impact on law enforcement. Under non-transparent circumstances proof is more difficult to generate and corrupt officials are able to buy their way out of punishment. Transparency might also have an impact on the bribe size. On the one side, a lack of transparency may lead to a higher bribe as corrupt officials have greater bargaining power when information is sparse. On the other hand, a lack of transparency reduces the expected costs of being corrupt and might therefore decrease the bribe the bureaucrat requires for being corrupt. We will argue below that transparency has an indirect impact on moral costs through its effect on social norms. In sum, transparency is likely to reduce corrupt behavior.

(b) *Lack of transparency makes it difficult to provide incentives*

So far, we have seen the corruption decision from the perspective of a potentially corrupt official or agent only. But the agent can be viewed as acting on behalf of a government (the principal). [4] The principal is aware that the agent can behave corruptly, but cannot directly observe whether the agent takes bribes. He would therefore like to offer the agent a contract that gives him incentives to behave honestly. [5] As he can only observe an imperfect signal or outcome of the agent's action, he can only influence the choice of the agent by giving a payment conditioned on the observable outcome. In our example, the principal can only observe the costs reported by the agent. This cost is an imperfect indicator or signal of the agent's action. Reporting low costs indicates that the agent behaves honestly. If the agent is given a higher payment (bonus) when he reports low costs, he gets an incentive to behave honestly.

The more noise related to the reported cost measure, the more difficult is it to base incentives on this measure. A lack of transparency increases the bias and variance of the signal. A lack of transparency may therefore make it more difficult for the principal to induce non-corrupt behavior through incentives. So not only is it hard to directly expose corruption in an un-transparent environment, but it is also difficult to indirectly reward clean behavior. [6] More generally, a lack of information may make it harder to identify appropriate anti-corruption policies.

(c) *Lack of transparency makes it difficult to select honest bureaucrats or contract partners*

When agents have different levels of integrity and the principal has imperfect information about whether an agent is honest or not, the principal faces a so-called adverse selection problem. The principal would prefer to select an honest agent to one likely to be corrupt, but does not know the type of the agent. For instance, he would prefer to hire a tax administrator that is more inclined to report the true costs of oil companies, but this trait is hard to observe.

There are generally two solutions to the problem of adverse selection. One is for honest agents to signal their type, for instance, through some sort of certification mechanisms, reputation, or guarantees. The alternative is that the principal designs a screening contract through which the agent's type is revealed. One would, for instance, expect that the honest bureaucrat would accept a lower fixed wage than a dishonest one as long as he gets a high bonus for reporting low costs. Providing a bonus presents a type of information rent to the agent in order to disclose their type. Different types of contracts may therefore attract different types of people and the principal should seek to identify those contracts that attract honest people. [7]

If information is scarce, there is little hard evidence that agents are of a particular type, making the adverse selection problem a salient one. Moreover, in an un-transparent environment, there are few trustworthy signals of honesty, through which honest agents can signal their integrity. [8] It is also more difficult or costly to design and implement contracts that reveal the type of the agent. The more difficult it is to reveal whether the oil tax collector is honest or not, the more difficult it is to recruit honest tax collectors and fire dishonest collectors. Similarly, the more difficult it is to judge the cost efficiency of a contract partner, the more difficult is it to sign contracts with the most cost effective oil company.

If this is the case, the principal must base his recruitment and remuneration decisions on "average characteristics" of the applicants. This may produce terms unacceptable to the most efficient agents, who drop out of the public sector or private sector relationship entirely. To the extent that transparency reduces asymmetric information about characteristics of the agent, transparency increases the probability that one select the "right" type of agents. This is particularly important in situations where their type influences efficiency. For instance, in an oil-rich country, it is important to select the most cost-effective oil companies and government officials with the highest competence and integrity.

(d) *Information is power and rents*

In the examples referred to above, the agent gains from his informational advantage. This suggests that it is in the interest of an agent to control or capture information, particularly when the gains are huge and when the cost of making information non-transparent is low (as in a country with huge natural resources, lack of an opposition and a free press). So far, the government or principal has been assumed to be benevolent, which may not be the case. The government may be as interested in capturing rents from oil, as bureaucrats in lower tiers. The government may therefore also gain by making information less available.

Another way to look at this is to change the principal agent model into a framework where the voters in a resource-rich country are the principal, while the government is the agent and democracy is the contract between the parties. If the government does not behave according to the terms set by the voters, in principle it can be replaced through an election. For this type of vertical accountability to work, however, voters have to be informed of the actions of governments. Where information is scarce, this type of accountability does not work properly. [9]

The point is that information capture influences political outcome. Lack of transparency discourages public participation in democratic processes. Secrecy raises the price of information and thereby discourages voters or groups without special interests from participation. Interest groups might on the other hand lobby for their interests. Voters use available information to decide whether to keep the current party in power or to replace it with the opposition, but if, at the time of election, they are uninformed about the responsibilities for or consequences of current policies, they might not punish the current ruling party.

Secrecy is an important way in which government officials attempt to influence public opinion or create rents for themselves. When the government controls information, it therefore gives rise to an additional adverse selection problem: It makes it less likely that voters punish bad government as bad politicians or policies are less likely to be identified and therefore replaced. Information capture also intensifies the moral hazard problem: Elected politicians are more likely to engage in rent extraction as they know they are not likely to be caught. Conversely, transparency reduces the possibilities of rent-seeking activities and increases the accountability of the government.

It follows that corrupt governments would forgo huge rents if they implemented reform increasing access to information. As noted by Stiglitz (2002b), public officials have an incentive to increase information asymmetries to increase their information rents. This shows that information problems may be perpetuated where appropriable rents are large. This is related to the rentier state perspective, which suggests that resource revenues undermine democracy in several ways (see Ross, 2001). Firstly, resource revenues may reduce the need for domestic taxes, and the public is in turn less likely to demand government accountability (including access to information). Secondly, resource revenues may be spent on patronage, which similarly reduces pressure for democratization. And thirdly, resource wealth may be used directly to oppress a population or prevent the formation of social groups independent of the state.

(e) *Information failure undermines cooperation and trust*

Information is also central to facilitating and sustaining cooperative behavior. From the corruption literature we know that if two independent agencies regulate a firm or an individual, these two may set bribes too high compared to what is optimal for them both (Shleifer & Vishny, 1993). The reason is that, in setting bribe levels, each agency does not take into account that demanding higher bribes reduces the opportunity of the other agency to extract bribes. In other words, these types of externalities imply that what is individually optimal for each agency, is not jointly optimal for the agencies. In the oil industry, for instance, oil companies commonly relate to several public sector bodies, such as the ministry of finance and the national oil company, which means that this type of problem may arise.

This argument is commonly taken to imply that centralizing the tasks of the two agencies to a single agency would reduce bribe levels and make everyone better off. However, a reduction of bribe levels would also be possible if the two agencies were able to collude in setting bribes, in other words if they were able to reach and enforce some sort of cooperative agreement. And this requires information about the other agency.[10] If you do not know what the other agency does and how it affects you, or vice versa, it is hard to attain an agreement on how to set bribes. In an un-transparent environment, these types of cooperative agreements may thus not be realized, and the efficiency of the economy may be severely restricted.

Collusion in setting bribes may not in general be optimal. However, the basic argument extends to cooperative behavior above and beyond collusion in setting bribes. It has been pointed out that windfall gains (such as aid or natural resource rents) make it more lucrative for agents to deviate from a cooperative agreement to spend revenues on public goods, and instead privately appropriate a part of the revenues (Svensson, 2000). Natural resources may thus increase rent-seeking and corruption. The existence of a cooperative agreement in the first place depends on the possibility that those deviating from it can be punished in subsequent periods. However, where information on the actions of others is imperfect, it can be harder to form or uphold these types of cooperative agreements. An absence of transparency may therefore exacerbate problems of reaching and sustaining cooperative social arrangements, intensifying the detrimental effect of natural resource rents.[11]

This is also related to the question of social norms. Several studies suggest that corruption feeds corruption, that the extent to which it pays to be corrupt, depends on whether others are corrupt (Andvig & Moene, 1990). Where corruption is widespread, this means that corruption is also highly persistent, as small changes in the number of corrupt individuals are unlikely to make others follow suit. For purely self-interested individuals, social norms against corruption may be hard to uphold in the absence of information, since it is hard to establish mechanisms for punishing the corrupt.[12] For individuals who have internal social motivations (such as a desire to reciprocate the actions of others), disguised actions and motivations of others may cause distrust, which may cause them to act opportunistically where they would otherwise act in more benign ways. In sum, this means that a social compact challenged by the lure of natural resource rents is all the more vulnerable in the absence of transparency.

3. TRANSPARENCY IS INSUFFICIENT

As shown in the previous section, a lack of transparency can exacerbate corruption-related problems in natural resource-rich economies. There is also empirical evidence suggesting that transparency is associated with less corruption. Brunetti and Weder (2003) found a strong association between greater press freedom and less corruption, and Suphachalasai (2005) found that a higher degree of media competition significantly decreases corruption. Several studies argue, however, that the effect of transparency on corruption is not unconditional. In other words, transparency is a necessary, but not sufficient condition to reduce corruption. In addition to access to information, you need an *ability to process* the information, and the *ability and incentives to act* on the processed information.[13]

Education is a key precondition for the ability of a population, or a more limited group of stakeholders, to process information. There is some evidence that education in itself is associated with less corruption (Svensson, 2005). In addition, there is evidence that the effect of transparency on corruption is conditional on education. In particular, Lindstedt and Naurin (2005) provided empirical evidence that the effect of press freedom on corruption is dependent on the level of education. It has been pointed out that resource-rich economies often engender economic structures that are not conducive to skill formation. Where the resource sector is dominant, there will be little transition toward industrialization and the creation of a large skilled labor force. Instead, there will be a large unskilled workforce in primary production, and a smaller skilled and politically favored labor aristocracy in the resource sector, or in protected sectors. The result is large income inequalities and low social capital accumulation, which causes political conflict and obstructs institutional development (Auty, 2001; Woolcock, Pritchett, & Isham, 2001).

Having information on the conduct or performance of public officials is of little avail if other agents do not have the ability to punish abuses of office. The extent to which other agents can hold public officials to account is therefore a condition for more information to result in reduced corruption. Lindstedt and Naurin (2005) also provided evidence that the effect of press freedom on corruption is conditional on the level of democracy, though this result is less robust than their result on education. The issue of democratic accountability is an important and particularly problematic one in resource-rich countries. Several studies find that oil hinders democracy, that is, that countries that have high revenues from oil are less democratic (Ross, 2001; Aslaksen, 2007). This is frequently attributed to the aforementioned rentier effect. By controlling substantial oil revenues, governments can reduce pressures for democratization through patronage, that is, by providing advantages to supporters, for instance in the form of public sector positions. Similarly, where oil revenues are high, there is less need for taxation, and hence less pressure for political representation from the population. Finally, a government may use oil revenues to repress or otherwise obstruct the formation of social groups competing for political influence.

On an individual country level, it is hard to find a systematic relationship between transparency and corruption in countries that are rich in natural resources. If we compare Angola with Liberia, both countries have after the end of their respective civil wars become more transparent according to the press freedom index used in the above studies.[14] But only in Liberia has the level of corruption been reduced, as measured by the Kaufmann control of corruption index. This comparison might serve as an illustration of the conditional effect of transparency, since Liberia has seen improvements in democratic accountability in the period in question, whereas Angola has not.[15]

Perhaps the best knows example that access to information may limit corruption is from Reinikka and Svensoon (2005). Following surveys in Uganda showing that only 13% of education grants actually reached schools in the 1990s, the rest being captured by local government, the Ugandan government started to publish monthly grants to districts in newspapers. This had a substantial effect on the amounts that schools received, in 2001 more than 80% of grants on average reached schools. Reinikka and Svensoon (2005) found that the effect of access to this information on grants received was positive and statistically significant.

However, a study by Olken (2004) provided an important nuance to this result, by showing that the effect of information depends very much on the incentives to act on reports of leakage of funds. Olken used data from a field experiment in Indonesia to show that local participation in village road projects only changed the form of corruption, not its overall level. In the villages where participation was increased, there was reduced theft of villagers' wages, but this was offset almost completely by a corresponding increase in the theft of building materials. Wages are clearly a private good to villagers, in the sense that they accrue to them only, and not to a larger group of individuals. A worker whose wages are embezzled, has a clear interest in reporting and sanctioning the shortfall, since the benefits of doing so accrue completely to himself. By contrast, building materials that should have been used to build a road have more of a character of a public good, where there may be substantial free-riding problems. Providing information is therefore likely to be effective for government activities that provide private goods, such as subsidized food, whereas it is relatively ineffective in the provision of public goods such as infrastructure.

This has implications in terms of the type of information that is provided to the population in resource-rich countries. For instance, providing highly aggregate macroeconomic figures on oil revenues (cf. the EITI initiative) or expenditures, is likely to result in collective action problems, where individual incentives to act on the information are weak. An alternative would be to make public information on district or individual entitlements, and the extent to which these are met. This relates also to the discussion of a decentralization of oil revenues, which has been suggested as a means of making oil revenues less appropriable and hence avoiding some of the dysfunctions caused by oil (Sala-i-Martin & Subramanian, 2003).

Some caution is nevertheless advised in targeting information to topics of private interest. As argued by Keefer and Khemani (2005), citizens are often more easily mobilized to demand private benefits of an inefficient kind, such as subsidies or unproductive public sector employment, than to demand more widely beneficial public goods such as service quality improvements. Information focused according to private interests risks feeding into this negative process of patronage and clientilism. Khemani (2006) therefore suggested that information campaigns in developing countries should focus on the quality of service delivery, using objective data and clearly identifying the responsible public officials.

The incentive of citizens to act on corruption-related information also depends on the form of corruption. Where corruption is extortive (that is, a public official demands payment from a private agent for a service or goods that they are entitled to) the existence of effective channels of information (such as a free and active media) can influence extortive corruption by lowering the costs of complaint for private agents. Where corruption is collusive (that is, where the private agent is a willing participant in the corrupt act because it is mutually beneficial), the private agent has no incentive to report corruption because it is mutually beneficial (Brunetti & Weder, 2003). Shleifer and Vishny (1993) similarly distinguished between corruption with and without theft from the government, where the briber only benefits in the case of theft, and is therefore more likely to inform on a government official in the case without theft (where the briber in addition to the bribe pays the full price of a public service). These arguments suggest that in resource-rich countries, where corruption is widespread and most agents implicated in some way, transparency by itself may do little to uncover illicit acts.

4. TRANSPARENCY MAY CAUSE PROBLEMS

Though transparency may be important, it is fairly obvious that maximal and all-encompassing transparency is not necessarily optimal. There are opportunity costs to spending resources on informing the public or relevant stakeholders. A public sector that is to always keep the public informed on all details of its activities, will not be very effective in pursuing its activities. In other words, if you keep a diary of everything you do, you won't be doing much. Negotiations may also become more cumbersome, as bargaining parties become more cautious in exchanging relevant information, or in striking deals that may undermine their position in other domains. Confidentiality is also highly legitimate in certain cases, such as in personnel matters.

Bac (2001) pointed out that while transparency makes it more likely that corrupt officials are detected, it can also identify the relevant officials to bribe. In other words, transparency reveals to potential bribers who they need to establish contact with in order to acquire an unfair advantage. For instance, a more transparent bureaucracy may make it easier for an oil company to identify the bureaucrats it needs to bribe to circumvent, for example, environmental regulations. In certain cases of small improvements in transparency, the identification effect may dominate the detection effect, and transparency may thus actually increase corruption. For large improvements in transparency, however, the detection effect dominates, and corruption is reduced. The scope of transparency is also central in this context; improving information on how decisions are made, not just who makes them, would produce more beneficial effects.

Certain types of information can also have unintended consequences in a political economy setting. Fox (2007) considered the case where incumbent politicians are better informed on the consequences of actions than the electorate, but where acting on this information could be misinterpreted by the electorate as having an ideological bias. This could lead a politician who cares about being re-elected to vote against his better judgment. For instance, if a politician knew US oil companies to be more efficient than firms from other countries, he might still favor licenses to companies from other countries, in order to not be seen as overly friendly to the US. This could include not acting on information that licenses were won through bribery. In these types of cases, making politicians' voting records public could actually produce worse policy decisions. On the other hand, disseminating information on the subject of decision, for instance the efficiency or corrupting influence of oil companies, would have beneficial effects because it would be more difficult to misrepresent political decisions. In a similar model, Prat (2005) showed that a principal is better off being informed about the consequences of an agent's actions than about the actions themselves, since the latter could make the agent conform to the expectations of the principal rather than act on private information that would benefit the principal.

It should also be pointed out that increased transparency in the form of more effective channels of information can have undesirable consequences if access to these channels is significantly unequal. Where a government controls information channels, false allegations of corruption against political opponents may be levied, or a government may mount counter-publicity campaigns to fend off allegations against itself. Nor can information channels independent of the government always be assumed to be a benign force, the media may concoct false allegations to increase profits, or use information to get access to rents rather than to hold a government to account. [16]

5. THE MANY FACES OF TRANSPARENCY AND THE RESOURCE CURSE

As the previous section suggests, transparency can, in certain cases, be a double-edged sword. Information is power, but this power can also be abused to gain access to the rents generated by natural resources. van de Walle (2001) pointed out that policy reform has been instrumentalized by leaders in many countries to acquire access to rents. Transparency initiatives to a large extent have to be implemented by governments, and their implementation can therefore be expected to be uneven and subject to government interests. Even in the case where there is pressure for reform, transparency is a complex and multi-faceted term, which provides substantial room for manipulation and circumvention.

A deconstruction of the transparency concept provides an illustration of this, and points to further challenges in designing transparency reform. In particular, the many opposites of transparency reveal the number of ways in which information may be contained:

- Secrecy
- Opacity
- Wrong information
- Biased information
- Spin
- Incomplete information
- Inaccessible information
- Unequal access to information
- Information overload
- Irrelevant information

In addition, there are a number of public sector activities in which transparency may be important, which raises questions of priorities, coverage, and sequencing of reform to increase access to information. The following is a non-exhaustive list of areas where transparency may be important:

- Public revenues
- Public expenditures
- Awarding of contracts/licenses
- Public procurement
- Ownership interests of public officials
- Awarding of positions and promotions in the public sector
- Regulation and facilitation of private sector activities

Ultimately, reform in resource-rich countries should focus on those policies whose effect on corruption and the resource curse more generally is the greatest. In effect, this implies the need to take a step back and ask the two following questions: Firstly, whether an emphasis on transparency is the appropriate approach over other policy alternatives. Though transparency can have an effect on corruption, this does not necessarily imply that increasing access to information should receive the highest priority in addressing corruption in oil-rich countries. Fighting corruption in oil-rich countries can be done in a number of ways, of which transparency reform is only one. And secondly, if transparency is sufficiently important to merit priority over other types of reforms, which of the above or other areas should be stressed by this type of reform.

There exist at present no systematic studies of the relative impact of transparency compared to other types of feasible policies in resource-rich countries. However, the resource curse literature provides substantial evidence on the mechanisms behind the curse, and the role corruption plays in this problem complex. Arguably, policies to reduce corruption should be based on the evidence that is available on the causes of the problem. Recent studies on the resource curse have stressed the importance of good institutions for transforming resource rents into favorable development outcomes. In particular, two prominent contributions see institutions as key to avoiding corruption-related problems that are at the heart of the resource curse. Mehlum *et al*. (2006) suggested that the main problem is that resource rents draw skilled people out of productive activities and into rent-seeking. In their perspective, the key thing is to increase the attractiveness or profitability of the productive sector, through improvements in institutions such as the rule of law. Robinson *et al*. (2006) argued that the resource curse arises due to patronage, that is, because politicians use resource rents to generate political support, in particular through the inefficient allocation of jobs in the public sector. Hence, they suggest that the key to avoiding the resource curse are institutions that limit the ability of governments to distribute public sector positions to political supporters, that is, institutions of democratic accountability.

Information is a factor in neither of these two studies, and it is therefore not immediately apparent that transparency reform should receive priority. This needs to be more carefully examined, however. To this end, we rerun the growth regressions of Mehlum *et al*. (2006), including transparency as an

Table 1. *Introducing transparency in natural resource growth regressions*

	Sachs and Warner (1997a)	Mehlum *et al.* (2006)	Regression 3	Regression 4
Initial income level	−1.76***	−1.82***	−1.31***	−1.68***
	(0.21)	(0.2)	(0.19)	(0.22)
Resource abundance	−10.57***	−16.36***	−9.56***	−18.36***
	(1.51)	(3.23)	(2.16)	(3.45)
Openness	1.33***	1.53***	2.40***	1.58***
	(0.4)	(0.4)	(0.35)	(0.39)
Investments	1.02***	0.95***	1.31***	0.91***
	(0.29)	(0.29)	(0.22)	(0.28)
Rule of law	0.36***	0.18		0.2
	(0.1)	(0.13)		(0.14)
Rule of Law * Resource abundance		1.96**		1.83*
		(0.97)		(1.02)
Transparency			−0.34	−0.54*
			(0.30)	(0.32)
Transparency * Resource abundance			2.47	2.42
			(1.64)	(2.28)
Constant	12.9***	14.17***	8.9***	13.63***
	(1.6)	(1.68)	(1.42)	(1.76)
Observations	71	71	84	70
Adjusted R^2	0.72	0.74	0.67	0.74

Standard errors in parentheses, ***indicates significance at the 1% level, ** at 5%, * at 10%.

explanatory variable. [17] The results are presented in Table 1. The first column repeats the analysis of a classic study by Sachs and Warner (1997a), which shows that resource abundance significantly reduces economic growth. Mehlum *et al.*, used the data set of the Sachs and Warner study, but introduced an interaction term of the rule of law index and resource abundance, which they found significant and positive, as replicated in the second column. [18] Their results imply that a negative impact of natural resources can be reduced or avoided in the presence of good rule of law institutions.

The new results are presented in columns 3 and 4 in Table 1. Here, we add transparency and its interaction term with resource abundance to the regressions, to test whether the extent of transparency affects the negative impact of resources on growth. We follow Brunetti and Weder (2003) and Lindstedt and Naurin (2005) in using data from Freedom House on freedom of the press as our proxy for transparency. [19] The results show that the interaction term is not significant, whether the transparency variables are introduced as an alternative to the institutional variables (column 3), or added to them (column 4). [20] This indicates that transparency does not affect the extent to which resource abundant countries suffer a resource curse.

In sum, neither the existing studies in the resource curse literature nor our results indicate that transparency is key to lifting the resource curse. The most one can say on the basis of the existing studies, is that if transparency is important, it is so to the extent that it impacts on the basic mechanisms underlying the resource curse, which are rent-seeking and patronage. It follows that transparency reform should focus on increasing access to information in areas that matter for reducing rent-seeking and patronage. These perspectives suggest that the latter two areas in the above list are the most important to transparency reform in resource-rich economies. In particular, patronage is a question of the allocation of public expenditures, which suggests that transparency reform should focus on expenditures rather than on revenues. [21] There is thus something of a disconnect between prominent current transparency initiatives, and the literature on the resource curse.

6. THE EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE (EITI)

Based on the preceding analysis, we can examine more closely the Extractive Industries Transparency Initiative (EITI), which is a key initiative in the area of transparency. [22] There are also other initiatives in this area, such as the IMF Guide on Resource Revenue Transparency, the Transparency obligation initiative of the EU, and guidelines by the International Accounting Standard Board. It is, however, beyond the scope of this article to elaborate on these in any detail.

The EITI is a voluntary initiative that supports improved governance in resource-rich countries through the verification and full publication of company payments and government revenues from oil, gas, and mining. The EITI is a process initiated by donor country governments in order to reduce resource curse problems by improving governance and transparency. [23] The main motivation for the initiative is that oil rents are seen as the property of the country. Thus, mechanisms to collect, distribute, and use the rents should be clear and acceptable to all.

The EITI focuses on one facet of the value chain only; transparency in revenue collection. It does not address upstream activities, such as procurement, which constitute a significant part of the value chain in oil and gas, nor does it cover the distribution of income and public expenditure stemming from the extractive industry revenues (see Figure 2). [24]

There are two categories of countries under the EITI initiative: candidate countries and compliant countries. *Candidate countries* are those who have signed up to implement the EITI and met all four indicators at the sign up stage (committing to implement EITI; committing to work with civil society and the private sector; appointing an individual to lead implementation; and producing a Work Plan that has been agreed upon with stakeholders). Once a country has signed up, there are four steps in the implementation of the EITI. These include preparation (establishing a multi-stakeholder committee and reporting procedures), disclosure (verifying company and government disclosure) and dissemination (agreeing on quality of dissemination). Finally, the country undertakes external

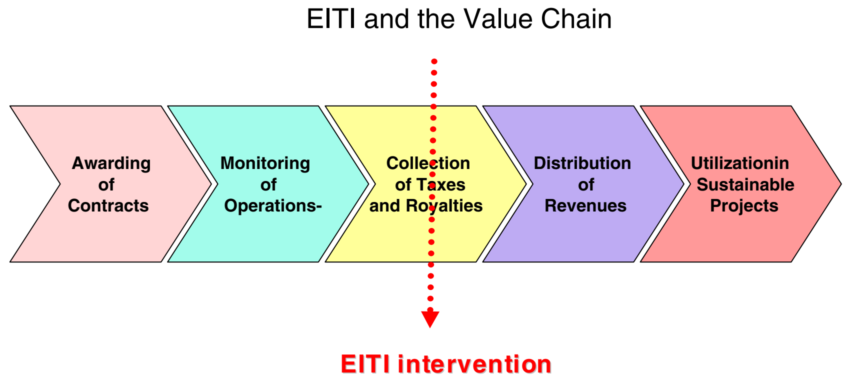

Figure 2. *The coverage of the EITI. Source: Alba (2006).*

independent validation to assess whether the country has met the 20 implementation indicators. Based on this validation, the EITI Board decides whether the country will be designated as EITI Compliant.*Compliant countries* have fully implemented the EITI.[25]

The rate of progress of implementing the EITI principles has been somewhat disappointing. An evaluation of the EITI undertaken in 2006 shows that of the 20 countries that had committed to EITI principles and criteria, only[26]

- Two had published fully audited and reconciled EITI reports.
- Eight had yet to take even the initial step of appointing an individual to lead the EITI process.
- Ten had not yet formed the required multi-stakeholder committee.
- Eleven did not have a drafted and approved work plan.

There are no publicly available recent evaluation reports of the EITI, only references to public statements and claims that the EITI is successful.[27] As the EITI contains 23 candidate countries, and the establishment of a work plan is one of the criteria for becoming a candidate country, this indicates some progress in implementation since 2006. In addition, 10 countries have to date published EITI reconciliation reports, up from two in 2006.[28] Since the full validation process was only agreed on in March 2008, no country has yet has time to complete an EITI validation, but only one country (Azerbaijan) is in the process of being validated. The reach of the initiative is also limited, as candidate countries only comprise 7.6% of proven global oil reserves and 6.4% of global oil production.[29]

The EITI provides a partial basis for accountability in the management of revenue flows from oil and other extractive industries. By comparing the payments made to governments by companies with the payments received by governments, the revenues to governments are subjected to closer verification than would otherwise be the case. Since substantial amounts are otherwise believed to disappear in the process of collection, this is no doubt important. Nigeria is frequently used as an example of higher identified revenue flows as a result of EITI participation, according to one account savings have been in the order of USD 1 billion in 2004–05.[30] These types of findings need to be verified more closely, however, since increased revenues may be attributable to a number of factors other than EITI implementation.

The EITI underscores the importance transparency plays in governance. With this emphasis, stakeholders are more aware of potential problems that might arise in the absence of transparency. At the same time, the EITI creates a platform of communication between government authorities, the extractive industry (oil and mining companies including oil service firms), and civil society (press, unions, local and international NGOs). Dealing with resource management involves complex issues that need comprehensive analysis, transparent information, and participation from many stakeholders. The EITI also represents an international standard on transparency and good governance, which makes it easier for oil companies and government to aspire to better practices, and constitutes a focal point for civil society in addressing inefficient governance, or for financial institutions to use in certification processes.

There are a number of challenges and problems related to the EITI initiative. Firstly, the EITI is an initiative that focuses on *revenues* from extractive industries in resource-rich countries. This implies a narrow take on transparency, as only a small section of the public sector is covered. Other parts of the oil extraction value chain are not addressed by the initiative. Importantly, the initiative does not address transparency in the use of public resource, that is, the *expenditure* side. The expenditure side is clearly the key in many of the corruption-related problems faced by resource-rich countries. Patronage politics, whereby funds or positions are transferred to supporters, is clearly about the expenditure side. The study by Robinson *et al.* (2006) suggests that accountability in the use of public resources, is the key to avoiding the resource curse. There is, therefore, a possibility that the EITI initiative is not only narrow, but that it also gives priority to the wrong set of issues in resource-rich countries. While one may argue that it is an advantage that an initiative is focused, this is true only insofar as the initiative focuses on the right issues.[31] On a related note, one could argue that since the spread of corruption starts at the early stages involving contracts and procurement, the EITI is introduced too late in the process to have much of an effect.

Secondly, EITI membership is *voluntar*y for states and companies. This means that countries and companies may choose whether to accede to the initiative, and whether to wholeheartedly follow up on it if they do join. For instance, a country such as Angola has opted not to join the EITI. Whether a government chooses to accede to an initiative of this kind most likely depends on what it has to gain and its compliance costs by doing so. As corrupt government officials may have vested interests in not promoting transparency in their country, expanding EITI membership and implementation is likely to remain a problem. This relates to the previous discussion of information rents and reform (cf. Section (d)). Unless membership status is linked to effective sanctioning mechanisms there is a low cost of non-accession or non-compliance with the validation criteria. For companies, effective sanctions could be introduced through public divestment policies or public procurement policies which exclude non-compliant companies from bidding.[32] For countries this is perhaps more challenging, but in principle oil certification schemes or restrictions of access to international financial markets could be used to increase the costs of non-compliance.

Thirdly, as argued in Section 4, transparency is, in and of itself, insufficient in improving government behavior. In the absence of accountability, whereby other groups can hold a government to account and sanction misbehavior, it is unclear that the EITI will have much of an effect. It is, for instance, unclear that failing to meet EITI criteria will necessarily have any repercussions on a government, in countries where accountability mechanisms are weak. Moreover, in addition to accountability, the effect of the initiative will depend on the degree to which other groups are able to process the information made available, that is, their level of education. In addition, a number of EITI countries have seen a reduction in transparency in other areas, such as press freedom, notably Gabon, Madagascar, São Tomé, and Timor-Leste.[33] As pointed out earlier, there are also potential free-rider problems in providing highly aggregate data that affect everyone in general but noone in particular. It is likely, therefore, that the EITI needs to be coupled with other types of reforms to have an effect on corruption in oil-rich countries.

Fourthly, the EITI includes the construction of a multi-stakeholder group to participate in the validation process. There are three main groups of stakeholders involved in the EITI process: representatives of the government, oil companies, and of civil society, and the initiative seeks to build multi-stakeholder partnerships in developing countries. While this has the potential of improving accountability and participation in revenue management, there is also a risk that the group can become another arena for rent-seeking and patronage. Though civil society is to be represented in the multi-stakeholder group, civil society is not one thing nor necessarily representative of the population. Civil society in many resource-rich developing countries is also weak.[34] Since the multi-stakeholder group is to be appointed by the government, there is a chance that it will be peopled with government supporters.[35] Or along the lines of rentier state arguments, a government may use its power of appointment to undermine the existence of social groups independent of the government. Moreover, fractionalistic stakeholder groups may use their potential leverage in the EITI to acquire a greater proportion of resource rents. This suggests the need for a critical analysis of the composition and behavior of the multi-stakeholder system of the EITI to assess the commitment of the government to real reform in the area of transparency.

7. CONCLUDING REMARKS

Transparency, or access to information, can have an effect on corruption. Transparency can reduce bureaucratic corruption by making corrupt acts more risky, by making it easier to provide good incentives to public officials, and by easing the selection of honest and efficient people for public service. Transparency can reduce political corruption by helping make politicians more accountable to the public. More generally, transparency can facilitate cooperation over opportunistic rent-seeking and help maintain norms of integrity and trust.

However, transparency has an effect on corruption only under certain circumstances. Agents whose access to information is increased, must also have an ability to process the information, and the ability and incentives to act on that information. The impact of transparency therefore depends on the level of education of an electorate, the extent to which key stakeholders have the power to hold a government to account, and the private or collective nature of the goods about which information is provided. Transparency reform may also backfire if the type of information provided eases identification of the relevant officials to bribe. Moreover, since government officials may obtain large rents due to informational advantages, transparency reform may be hard to implement.

More fundamentally, though transparency can have an effect on corruption, this does not necessarily imply that increasing access to information should receive the highest priority in addressing corruption in resource-rich countries. Arguably, priority should be given to the types of reform that have the greatest effect in reducing corruption and alleviating the resource curse. The resource curse literature provides evidence that proper institutions that constrain rent-seeking and patronage, are the key to avoiding a detrimental effect of resource rents. In this perspective, it is not immediately apparent that transparency reform should receive priority. At the very least, the effectiveness of improving transparency should be more systematically evaluated *vis-à-vis* other policy options.

If transparency in some form is sufficiently important as to merit priority, increased access to information should focus on the areas most important to curbing corruption and alleviating the resource curse. Current approaches, such as the EITI, have tended to focus on transparency in public revenues. Given the centrality of public expenditures in patronage politics in resource-rich countries, the focus on revenues is not necessarily the most effective one in addressing corruption. In view of the resource curse literature, the emphasis of the EITI on revenues rather than on expenditures, thus appears misplaced.

Transparency has become a popular concept among donors and other policy makers. At the present time, however, the evidence base unfortunately does not match the popularity of the transparency concept. More research is needed to inform policies in this area. Future research should be conducted to explicitly integrate information into theoretical models of the resource curse, and test empirically the relative importance of transparency compared to other types of policies in reducing corruption and generating favorable development outcomes in natural resource-rich countries.

NOTES

1. See also Leite and Weidmann (1999), Kolstad, Wiig, and Williams (in press).

2. See Bellver and Kaufmann (2005) for a further discussion of definitions.

3. The results below hold in a simple model where bribes are exogenous. If bribes are endogenously determined, for example, in a bargaining framework, some of these results will go the other way (see Mookherjee & Png, 1995).

4. In political science and economics, the problem of motivating one party to act on behalf of another is known as ‘‘the principal-agent problem”. The principal-agent problem arises when a principal compensates an agent for performing certain acts that are useful to the principal and costly to the agent, and where there are elements of the performance that are costly to observe. The principal (the uninformed party) moves first (a la Stackelberg) and is imperfectly informed of the actions and/or the characteristics of the informed party (the agent). This theory deals with the design of optimal incentive contracts (see, for instance, Salanié, 2005).

5. Here we assume that the principal is benevolent.

6. Providing information might also be a double-edged sword. In an environment where information is sparse and the decision process is chaotic, the oil company may fear that if it pays a bribe in order for the inspector to report high costs, the inspector may take the bribe but report low cost and collect the bonus as well. Since everything is so chaotic and un-transparent, he could just claim that his report was not ‘‘used” by the political authorities. In that case, the oil company may not find it beneficial to bribe the bureaucrat in the first place.

7. There is no clear cut answer on how to provide a bonus contract in this example, and in cases with proper monitoring systems and severe punishment of corrupt transactions, a high base wage would be more attractive to honest tax bureaucrats than to crooks. The main point is, however, clear: one should seek to provide contracts that reveal the type and behavior of the agent. For a more general discussion on wage incentives and corruption see Besley and McLaren (1993).

8. This might be more of a problem for public officials than for oil companies who have access to international certification systems.

9. See Keefer and Khemani (2005). See also Strömberg (2001) for a formal model of the effect of media information on corruption, and Besley and Burgess (2002) on the effect of media on government responsiveness.

10. See Farrell (1987) for the general argument.

11. It should be noted that more information is not necessarily a good thing in a second best world. For instance, in a prisoner's dilemma game repeated a finite number of times, only the non-cooperative outcome is subgame perfect if both players know each other to be rational payoff maximizers. Given some uncertainty about the type of the other player, however (i.e., that he may be a tit-for-tat type), cooperation becomes possible in at least some rounds.

12. Kolstad (2007) defined social norms as ‘‘a pattern of behavior that persists across a significant share of agents and over time”, and provided an argument that punishment in some form is required to uphold cooperative norms.

13. Moreover, whether the media is an effective channel of information depends on the extent to which the media is captured by the government, see Besley and Prat (2006).

14. See McMillan (2005) for more specific information about transparency in Angola.

15. The period of comparison in this example is 2002–06. Liberia has seen improved accountability (from 3 to 7) on the PolityIV Democracy index, while accountability in Angola has remained low (at 2).

16. See Vaidya (2005). See also Kolstad, Fritz, and O'Neil (2008) for a summary of the literature on media and corruption.

17. The reason for expanding on Mehlum *et al.*, rather than on Robinson *et al*. (2006) is that Kolstad (in press) finds rule of law institutions a more robust explanation of the resource curse than democratic accountability institutions.

18. Mehlum *et al*. (2006) used data from Sachs and Warner (1997b) in their main text, and Sachs and Warner (1997a) in an appendix, but qualitatively the results are the same.

19. To minimize endogeneity problems, we use as early data as possible for press freedom. Freedom House has data from 1980, but numerical data only from 1994. We therefore construct an index based on categorical data for 1980, where the category ‘‘Not free” is assigned a value of 0, ‘‘Partly free” a value of 1, and ‘‘Free” a value of 2, which we then average across printed and broadcast media. Cf. http://www.freedomhouse.org/template.cfm?page=274. Comparing this indexing approach for categorical data from 1993 (which, however, does not distinguish between print and broadcast media) with numerical data for 1994, yields a high correlation (0.87).

20. The transparency term is significant (with a negative sign) in the last specification, but only marginally so, and the previous regression shows that this is not a robust result.

21. A recent report from Angola points to the lack of accountability in public expenditures as a major problem (Isaksen, Amundsen, Wiig, & Abreu, 2007).

22. The EITI is actively supported by many companies in the extractive industries, over 70 institutional investors, and international organizations, such as the World Bank, G8, G20, EU, and the African Development Bank.

23. For more information, see http://www.eitransparency.org/section/abouteiti.

24. A current EITI + initiative from the World Bank seeks to address a more comprehensive perspective on the whole value chain (see Alba, 2008).

25. See http://eitransparency.org/countryimplementation.

26. Publish What You Pay, Revenue Watch Institute (2006):

27. See, for instance, Report of the Africa Progress Panel (2008) which the EITI explicitly refers to on its homepage: ‘‘The Africa Peer Review Mechanism (APRM) launched by the New Partnership for Africa's Development (NEPAD), the African Union Convention on Corruption, and the Extractive Industries Transparency Initiative (EITI) have had significant success in improving governance.”

28. Information from the EITI as of July 2, 2008.

29. Though this is set to increase with the commitment of Iraq and Norway to implement the initiative. See also the EITI. Secretariat Workplan 2008.http://www.eitransparency.org/files/document/EITI%20Secretariat%20Workplan%202008.pdf.

30. See http://allafrica.com/stories/printable/200701020805.html.

31. The World Bank initiative on EITI+ therefore seems a promising avenue of extending the EITI, but this does not directly fall within the scope of the EITI's own mandate.

32. See Kolstad *et al.* (2008) for a discussion of alternatives to voluntary initiatives for the private sector.

33. Comparison using data for 2002–06 from http://www.freedomhouse.org/template.cfm?page=274.

34. See, for instance, Amundsen and Abreu (2006, p. 56) on the civil society in Angola: "Civil society is inherently weak in Angola, and the political and societal space for civil society is limited. Angolan authorities have not fully accepted civil society's voice, watchdog and control functions, and the legal framework is restrictive."

35. To reduce this risk, the validator should according to the validation guide find evidence of whether the invitation to participate in the stakeholder group is open.

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