Chapter 4

Institutions: concepts galore

4.1 What are institutions?

$\mathcal{I}$NSTITUTIONS is a nebulous term. It is therefore necessary to clarify the way institutions are regarded in this book, and how this understanding is related to the literature. The most prominent definition is advanced by Douglass North:

> "Institutions are humanly devised constraints that structure political, economic and social interaction" (North, 1991, p 97).

To put it more succinctly: They are the rules of the game (North, 1990). Greedy and rational people (Solow) pursue happiness within this set of rules, including efforts to bend and change these rules where appropriate. Good rules encourage people to make good decisions. Hence, carefully designed and enforced rules should direct private action in desired directions, for instance, towards economic development.

Still, this definition might be too vague to be workable. Institutions comprise a multitude of ideas and concepts which mostly overlap but which have at times different foci. Terms such as governance, property rights, transaction costs, civil capital, rule of law, and so forth, capture at least part of what is referred to as institutions. To slice through the black box, institutions can be categorised as:

- Efficient v incidental

- Rent-seeking v costly

- Economic v political v social

- Predatory v development

- Formal v informal

Most distinctions are pretty obvious. Efficient institutions are deliberately chosen by rational actors to maximise output, while the incidental view regards at least some institutions as byproduct of other social interaction. Rent-seeking institutions may be imposed by a minority—for instance a dictator—to extract resources from a majority (or vice versa; eg, majority shareholders' discrimination of minority positions). Maximising rents usually deters economic efficiency. Moreover, institutions may be costly to design and, in particular, to enforce. Depending on these costs, efficient institutions may or may not emerge—to put it differently; they are only efficient when their alleged benefits surpass the associated costs (Acemoglu, 2003a, pp 4-12). The distinction between economic, political, and social institutions is convenient, but the many overlaps render it somewhat difficult to countenance. Institutions may promote economic growth (development) or be an obstacle (predatory). Finally, institutions are rules, which may be formally laid down in laws, codes, or commandments; but may exist as well informally as customs, ethics, norms, values, and in the general notion of descent behaviour.

Table (4.1) is taken from an article by Oliver Williamson (2000). It gives an idea how institutions may be deconstructed into different layers. The first layer consists of long-lasting rules such as customs and religion. Relevent when created, they can hardly take into account the situation, say 1000 years later, and hence appear incidental today. They do not adjust at short notice, even when they prove to be inefficient. Subsequent layers address the formal rules of the game (2nd), in particular with regard to the protection of property rights, and transaction costs economics (3rd) which focuses on governance structures. The forth layer represents market-clearing in line with neoclassical and agency theory.

An example can illustrate the mechanism: The division of management and ownership is key to the modern corporation. Professional managers should have the ability and time to steer a firm, despite lacking the money to actually own it. Those who have the money might not only be inept to do the job, they might also lack the time and ambition. Moreover, in order to diversify risk, it makes sense to invest in many companies which could impossibly be managed in detail by the owner. The solution is the public company where owners only hold as much equity as they desire, and management is passed to elected executives. However, because of the endemic

Table 4.1: **Institutions**

	Level	Frequency (years)	Purpose
L1: Social Theory	Embeddedness: informal institutions, customs, traditions, norms, religion	100 to 1000	Often noncalculative, spontaneous
L2: Economics of property rights/ positive political theory	Institutional environment: formal rules of the game, esp property (polity, judiciary, bureaucracy	10 to 100	Get the institutional environment right, 1st order economizing
L3: Transaction cost economics	Governance: play of the game—esp contract (aligning governance structures with transactions)	1 to 10	Get the governance structures right, 2nd order economizing
L4: Neo-classical economics, agency theory	Resource allocation and employment (prices and quantities; incentive alignment)	continuous	Get the marginal conditions right, 3rd order economizing

Source: Williamson (2000)

principal-agent problem between management and shareholders, the firm's value is lower than with a company that is managed solely by its owner, provided he or she has the same skills (Berle and Means, 1932; Jensen and Meckling, 1976). To minimise this loss, the shareholders firstly have to find the appropriate candidate (4th layer). Second, incentive-compatible contracts may be applied to reconcile the interests of management and owners (3rd); stock-option plans are an example. Contracts complement and specify what is already laid down in more general codes, laws, and regulations—in short, the formal rules of the game (2nd). The more encompassing and better enforced these rules are, the less has to be put into contracts, thus lowering its costs. Laws against outright fraud and theft plus a police force and judiciary to enforce them are cases in point. Bankruptcy procedures hinder individual shareholders from making a run for assets in times of distress, something that might leave all owners worse off. Finally, the more decently managers behave, the less formal rules are required (1st). Even the most sophisticated rules may fail once individuals invest enough criminal energy and do not feel obliged to subscribe to any form of business ethics. Decency can hardly be compulsorily imposed, or can it? In reaction of the recent corporate and auditing scandals in the United States and elsewhere,

the Sarbanes-Oxley Act was introduced in July 2002. This act holds that executives have a duty of ethical behaviour and requires them to sign up to the accuracy of accounts. Moreover, business clubs and similar organisations can impose some degree of good conduct upon their members, where failure to comply may lead to exclusion.

The rules created on each layer complement (sometimes oppose) each other and together form the institutional framework where business is embedded. It should be noted that a maximum of rules is not necessarily best. On the contrary, the right dose is always a balance between over-regulation and disorder.[1]

This book works with a reduced definition of institutions which emphasises the development character. They are to reduce the costs of transactions and to protect from expropriation (Shirley, 2003, p 3). Bad institutions are assumed to distort resource allocation because they set incentives and constraints which lead to a less efficient usage of production inputs. If for instance, bad institutions take the form of high transaction costs then the degree of specialisation and division of labour will be reduced, even though this is one of the driving forces of economic efficiency (see below).

Definition 1. *Institutions: A set of rules and enforcement mechanisms which determines the efficiency of resource allocation. Enforcement and, to a lesser extent, design of rules is a costly process.*

Definition (1) highlights the importance of enforcement as a necessary feature of effective institutions. Designing and, in particular, enforcing rules is costly. The efficiency gains of good institutions must therefore be balanced with the costs they incur. This books understands institutions as costly development institutions. The next section develops the costs of bad institutions in more detail, while section (4.3) looks at the interaction between institutional quality and its costs.

4.2   Costs of bad institutions

Bad institutions translate into economic loss by various mechanisms. In a world with opportunistic business parties and where information is hard to observe, verify, and enforce, good institutions will be a decisive instrument to limit misallocations of economic resources. This section describes a small selection of cases where bad institutions materialise in the form of adverse

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[1]For instance, Djankow et al (2003) find that a high level of formalisation of rules and procedures may be detrimental in developing countries.

selection, moral hazard, and holdup. Section (4.4) takes a closer look at the empirical relation.

A canonical illustration is given by George Akerlof's (1970) lemon problem: Potential buyers of a used car are unable to observe the quality of offered cars, though they know probably from statistics that quality varies according to a known distribution. Moreover, each level of quality corresponds to a given market price. Potential buyers are willing to pay a price which reflects average quality because expected quality and price are in equilibrium. The quality of the car is of course known to the owner and seller, hence the information about the car is asymmetrically distributed. No seller would accept a price lower than the market price for his or her car's quality. Buyers suspect opportunism on the seller's side, therefore any assertions on the car's quality, other than that it is a lemon, are not credible. The lack of credibility is due to the lack of enforcement after the deal is struck: cars are usually sold as seen. Sellers with cars of superior quality abstain from selling at average prices,[2] therefore the average quality of the remaining cars in supply drops. As a consequence, buyers adjust their bid according to the average quality in the remaining sample, which in turn removes all sellers with cars above that quality. Again, buyers adjust prices and sellers remove supply of better-than-average cars. In the end, only cars of lowest quality—lemons—may be traded because sellers and buyers agree in their assessment of quality (Akerlof, 1970). The economic costs are the failure to trade any quality better than lemons, which may induce serious misallocations. If institutions were in place to verify the quality of cars and to enforce quality assertions, such a situation would be mitigated.

Asymmetric information creates problems in many markets. Companies looking for new staff are faced with unobservable characteristics of applicants. As a result, firms might be required to pay above market wages in order to be attractive to a sample of candidates which includes those of superior quality—ie, whose reservation wage is above the market rate (Weiss, 1980, 1990; Yellen, 1984).[3] Banks may be unable to equate demand for

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[2]This implicitly assumes that sellers have an alternative, such as keeping the car themselves.

[3]In fact, this offers a powerful explanation for the soaring compensation of company bosses which infuriates ordinary workers. Profits are sometimes extremely sensitive to the quality of bosses. High compensation may reflect uncertainty about the quality, rather than superior ability. This is supported by the observation that some chief executives earn comparatively modest salaries: Steve Ballmer of Microsoft receives less than a million dollar, according to Forbes.com. This may be because there is little doubt about their qualification and hence less need to attract *potentially* smart candidates with stratospheric

credit with supply of deposits by setting the interest rate accordingly because they fail to observe the quality of potential creditors appropriately. Hence, a rising interest rate could attract riskier creditors (adverse selection) and increasing probability of default could more than compensate the higher interest revenues. Hence, an interest rate below market clearing could be profit maximising, with credit rationing being the consequence (Stiglitz and Weiss, 1981).

Asymmetric information also gives rise to various principal-agent conflicts. The principal is unable to observe and verify the actions and efforts of his agents, hence the agent has leverage for rent-seeking, for instance in the form of corruption, shirking, perquisite consumption, et cetera (moral hazard). A government, which ideally serves as the agent of its principal—the electorate—may exploit asymmetric information to extract private rents. As an example, it may overstate security threats and bloat the defence budget in order to pass contracts and purchase orders with cronies. National security is a hard issue to observe and verify, in particular because the executive has the privilege to classify important sources of information. The result may an excessive tax burden and biased spending, hence, misallocations of resources when these are compared to voters' preferences (Persson and Tabellini, 2002, pp 69-91).

Principal-agent conflicts between managers and shareholders of public companies point in a similar direction. Managers can always blame low company profits to dire exogenous events, unrelated to their own qualifications or efforts. On the other hand, they readily claim credit during good years. The true state of the market environment is often hard to observe which creates the leverage for managers to stay idle or extract rents (Berle and Means, 1932; Fama, 1980). There are many ways to reduce managers' leverage, such as incentive compatible contracts or changes in the capital structure. Stock-option plans, for instance, may turn managers into shareholders of a sort, and hence realign interest. However, the costs of such plans may turn it into a second-best solution.[4] By the same token, a highly leveraged capital structure may reduce rent-seeking by managers because low profits lead to bankruptcy sooner: "Equity is a pillow, debt is a sword" (Stewart and Glassman, 1988). A high financial leverage may reduce principal-agent

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remunerations.

  [4]Stock-option plans are often regarded very sceptically, not only because they sometimes lead executives to inappropriate riches. If badly designed, they provide perverse incentives which aggravate the principal-agent problems (Winter, 1997) or even lead to fraud (Yermack, 1996).

conflicts between management and shareholders but at the price of a higher default probability (Jensen and Meckling, 1976).

Assets specificity may create additional problems. Specificity means that assets stay valuable only if they are used the same way or by the same people. A software firm, for instance, may have worked on a piece of code for the past time which, though not yet ready for the market, is the company's most valuable asset. However, this half-completed programme is not worth a lot if it is removed from the people who worked on it previously because it would be very difficult finding other programmers who could finish it. The same applies to a half-written dissertation or a half-shot movie. How to replace the lead actor if he or she refuses to continue? This in turn gives programmers and actors (although not PhD-students) some leverage vis-à-vis employers or financiers in the form of a quasi-rent which is given by the sunk costs into a half-finished project minus the remaining value once separated from key people. Actions to coerce these quasi-rents are perfectly observable and verifiable, and the problem is not, therefore, one of asymmetric information. However, enforcing the original contract—ie, the one without quasi-rents—is probably impossible or prohibitively expensive because contracts are necessarily incomplete; reality is more complex. A court may rule that an actor has to be physically present during the shooting of the movie which the actor signed for, but it cannot enforce the artistic quality of his work because this is subjective. Hence, the actor can always threaten to underperform if he does not get it his way (holdup).[5] Knowing this, business parties are reluctant to invest into assets which are specific to a certain relationship or usage because they may fall prey to renegotiations and extraction of quasi-rents after a contract was signed. The higher the degree of asset specificity in a business relation, the more likely it will be kept within a firm's hierarchy, instead of taken to the market (Williamson, 1985; Alchian and Woodward, 1988). Another consequence is that it is extremely difficult for entrepreneurs with owner-specific assets to find financing because the assets cannot be used as collateral.

Developing countries are places where there is often a lack of observability and verifiability, and difficulties surround the enforceability of contracts, transactions and property rights. In communities with traditional systems of land rights, individuals have difficulties verifying and enforcing their claim

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[5]A way to coerce compliance is to resort to equally non-standard ways of enforcement, such as intimidation, extortion, and other Mafia-methods. In fact, anecdotal evidence suggests that organised crime is particularly rampant in sectors where judical enforcement is difficult, such as in entertainment or construction.

to a traditionally owned tenure. This reduces the incentives to invest in this land because of fear of expropriation, and this also makes it impossible to trade it or use it as collateral in order to obtain a loan (Besley, 1995, pp 907-912). The resulting misallocations are occur because investments are potentially below their optimal level; people may be tied to a piece of land although they might prefer a different occupation; and credit constraints limit further business or consumption. Introducing legal property titles—a way to verify, and a help to enforce claims—can mitigate some of the misallocations. Erica Field (2003) finds that providing formal ownership to urban squatters in Peru reduces the need to keep individuals at home to protect property: the fraction of households doing so decreases by 36 percent. As a consequence, working hours per household increase by 17 percent (pp 3-4). In a study on ownership rights in Zambia, Klaus Deininger et al (1998) find that 50 percent of farmers feel that their tenure is insecure—ie, that their property rights to land are badly documented and probably hard to enforce. This insecurity discourages long-term investment, such as improved cultivation and fertilisation, and thus depresses output. Farmers would be willing to pay an average of $40 for better protection of property rights (Deininger, Olinto, Wamulume, and Chiwele, 1998), which is a lot, given that per capita income in Zambia is below $850.

There are of course rules which limit opportunism: pacta sunt servanda. Corruption is illegal in most countries, and managers and governments alike are obliged to serve in the interest of their principals. However, incomplete and asymmetric information, *ex ante* and *ex post*, as well as inalienable assets may render enforcement difficult. Good institutions are thus characterised by rules which aim at limiting opportunism and enforcement mechanisms which make these rule effective. In doing so, they reduce the degree to which business parties may exploit adverse selection, moral hazard, or holdup; and/or reduce the costs of second-best solutions.

Good institutions may, for instance, reduce the amount of rent-seeking by governments by introducing checks and balances on executive's behaviour. Moreover, the rules must be enforced in order to be effective. Enforcement requires resources devoted to the collection of information in order to observe and verify governments' actions. Bad institutions can appear as ill designed rules which set perverse incentives. But they may also appear as well designed rules which lack enforcement mechanisms, and thus thus remain paper tigers.

4.3 Costly development institutions

The balance between costs and benefits of institutions is delicate. Demsetz (1967, pp 353-355) and Alchian and Demsetz (1973) argue that certain institutions—here, property rights that protect Indian hunting grounds from over-hunting and degradation—were only introduced once their costs were at least matched by alleged gains (see also Ruttan, 2001).

In modern societies, the state holds the legal monopoly to exert violence in order to coerce compliance with the rules of the game. The police and bureaucracy monitor and execute compliance with formal rules, while the judiciary interprets the law and punishes perpetrators. The costs of maintaining these enforcement mechanisms may be tremendous, in particular with regard to developing or transition economies. The more sophisticated the rules, the more policemen, lawyers, attorneys, judges, and other bureaucrats are needed to put them into practice. Their equipments must be purchased and their wages have to be paid. A shortage in either money or skilled staff may severely limit the extent to which institutions are publicly enforced.

The costs of enforcement cast some doubt on the state's abilities to introduce whatever institutions it likes.[6] Good intended rules might not be enforceable at acceptable costs (with the given institutional framework) which prompts governments to dismiss them in the first place. But the focus on public enforcement may be misleading. Arguably, the majority of conflicts and disputes are not solved by public authorities but are privately settled. Hence, if the capacities to enforce certain rules are assessed, the impact of private action should not be omitted.

> "Even with an advanced modern state and legal system, the single most important action that one takes to secure property is probably the purely private action of locking one's door" (Grossman, 2001, p 347).

The importance of private action can be illustrated with the efficient market hypothesis, which basically says that stock prices include all information about a public company because if the stock price differed from the fundamental value, others would have already exploited this opportunity for profit. Arbitrage would have reconciled the stock price with the fundamen-

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[6]This stance follows the efficient but costly view of institutions, as described in Acemoglu (2003a).

tal value.[7] Hence, it does not pay to invest in research and analysis, because any information that one could hope to collect would be already processed in today's prices. That is why actively managed mutual funds are often found to perform worse than the market. They cannot find winners that predictably deliver excess returns. But here the paradox starts.

If nobody analyses the fundamental value of stocks, because all trust in market efficiency, then how can the market be efficient in the first place? Prices can hardly reflect information nobody collects. The answer to this puzzle is that strong market efficiency is an extreme view which is rarely found. Mutual funds do exist. Private stock analysis and research does exist. The *Wall Street Journal* does exist. In fact, only fools buy stocks, bonds, or certificates without at least a little screening effort. This screening has a positive externality because it increases the information-content of prices. The aggregated screening effort by all individual investors plus the regulatory framework determine market efficiency.

Obviously, there is a feedback loop. If markets are highly efficient, little screening is required to yield standard returns. And, any effort beyond this level would be futile. However, with a given regulatory framework, more aggregated screening would increase efficiency. But private investors do not include this (positive) externality, and therefore determine their screening amount purely according to private returns—ie, they increase screening as long as the marginal profit of a better investment choice exceeds the marginal screening costs. But there are two factors that determine aggregate screening: individual screening effort multiplied by the number of screening individuals. The size of the market matters, as well.

Let me denote aggregate screening efforts with SE, individual screening efforts by se, and n is the number of investors. The number of investors is probably a bad proxy; rather, it is the amount of money they put in the market that is important. The bigger the investment, the closer people will look after it. If market capitalisation, c, is the benchmark, then se shall denote screening efforts for one unit of c. For one dollar invested ($c = 1$), people may spend another, say, 5 cents for research and analysis ($se = 0.05$). For simplicity, assume that se is equal for all investors; then the aggregated screening activity becomes:

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[7]Any \$100-note you may spot on the sidewalk must be a fata-morgana, because somebody else would have picked it up already were it really to exist (Olson, 1996, p 3). Market efficiency is often distinguished by the degree of information reflected in asset prices. Today's prices may include the record of past prices (weak efficiency), past prices plus all published information (semi-strong); and all information that can be gathered, which constitutes the strong form of market efficiency (Brealey and Myers, 2000, pp 357-358).

$$SE = se \cdot c \tag{4.1}$$

Accordingly, stocks are better screened either when investors increase their individual efforts per dollar, *se*, or, ceteris paribus, a rising market capitalisation increases the number of dollars people look after. Big firms usually have more efficient stock quotes because more investors analyse them compared to small newcomers. To put it another way: It requires much more thinking and assessing to buy a small firm's equity—ie, higher *se*. But because there is less information in prices, chances are higher to spot a pearl—ie, a firm that predictably delivers excess returns—which may justify the higher search and monitoring costs in the first place.

Markets are more efficient when they mainly consist of companies with high capitalisation, because heavy scrutiny and trading increase the amount of information in each quote. Stockmarkets where a lot of companies with little capitalisation list, blur investors' attention and ambition. Their prices contain less screening effort and are thus less accurate. Again, the feedback loop; investors have to burden less screening costs when markets and prices are efficient which in turn attracts more investment and increase market size. People may buy stocks casually at the New York Stock Exchange but think twice before investing in any small and remote market.

It should be noted, however, that investors' self-interest does not necessarily deliver positive externalities. While research and analysis plus respective trading improves price-efficiency, other moves are conceivable which do not. Manipulating quotes or company news, for instance by bribing analysts, actually reduces the amount of (true) information reflected in stock prices.[8] If such actions dominate, a market must be shady and investment would require a lot of scrutiny. The manipulating activities must therefore be deducted from the more beneficial screening efforts.

What is true for stock-exchanges may hold for markets in general as well. Transactions are embedded in the institutional framework, which is created and determined by public rules and enforcement plus private action. The private play of the game feeds back into the public rules of the game, and vice versa. In countries where institutions are well designed and enforced, such as in most mature markets, little individual effort suffices to guarantee

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[8]In fact, illegal insider-trading does increase price-efficiency because private information is brought to the market. Because of the high profits which accrue to insiders, the incentive to produce and keep more insider-information deteriorates efficiency in the long run. That is why insider-trading is rightly banned from most respectable stock-exchanges.
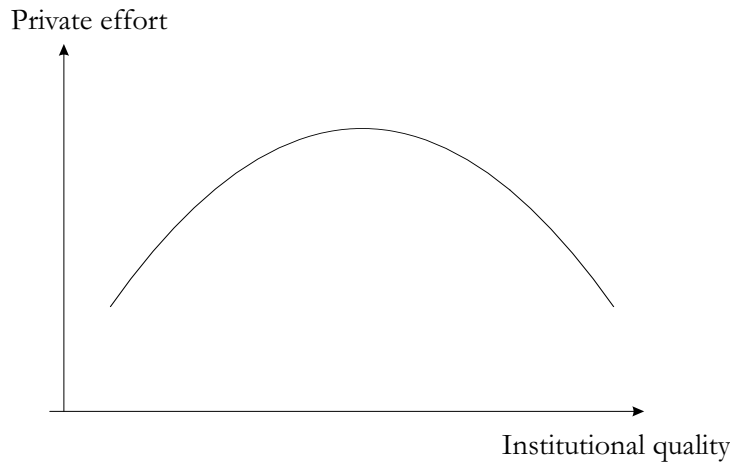
Private effort

Institutional quality

Figure 4.1: Institutional development and private action

more or less decent deals.

Poor countries usually have a worse institutional framework. This encourages or depresses private initiative. Individuals could substitute a lack of institutional quality with private action; or they might be discouraged because their efforts could only have a negligible effect on institutions. In this case, the costs of private action would outweigh the benefits. Instead, investors might restrict themselves to projects which are so profitable that they even pay when poor institutions suck away the lion's share of revenues. But apart from primary production, the majority of projects probably do not qualify. Diamonds in Angola and oil in Russia flourish. Other business does not.

Please recall that private action is expensive. Individuals will only spend as much as to optimise their personal profit calculations. The casual observations made above may suggest a Laffer-type relation between private action and institutional quality (see figure 4.1). With low institutional quality, high efforts might be futile because the environment is too uncertain. In a developed setting, institutional quality is already so high that further improvements would require substantial increases. In both cases, marginal increases in private action yield few institutional improvements. Only countries in an intermediate state of development would encourage individuals to devote more resources on private action.

The hypothesis taken from this analysis is that the incentive to improve institutions is sensitive to the quality of institutions already present in the economy; probably in the non-linear fashion drawn in figure (4.1). This

may create a poverty or development trap because a poor country with bad institutions may also be in a situation where the incentive to improvements is low. Chapter (6) picks up this motivation and introduces a model where the quality of institution depends on the resources devoted to their design and enforcement.

4.4 The empirical link

To most observers it does not come as a great surprise to learn that countries with less corruption, a more efficient bureaucracy, and a stable political environment grow faster than their less fortunate peers. How could it be otherwise? A buoyant literature supports this notion. However, from a statistical point of view, a number of problems arise related to identifying the effect of institutions on development.

4.4.1 Measurement problems

Institutions are a vague concept. How is one to compare the quality of rules, norms, and ethics? Fortunately, some serious money, aka institutional investors, is interested to learn something about the quality of institutions in order assess the riskiness of would-be engagements. This has created a market for information, and there are a number of public and private agencies eager to be of service. Indicators are published by Business Environment Risk Intelligence SA (BERI); Standard and Poor's; The Economist Intelligence Unit (EIU); Transparency International (TI); Freedom House; Gallup; Heritage Foundation; PriceWaterhouseCoopers; Political Risk Services (PRS), just to mention some of the private suppliers. These are supplemented by public sources, such as the European Bank for Reconstruction and Developement (EBRD); the World Bank's widely acclaimed Doing Business Database; the World Economic Forum, and many more (for a more detailed list see Aron, 2000, pp 107-113).

The sources on institutions share a common feature, in that they rely mostly on questionnaires. The somewhat difficult term 'institutions' is disaggregated into many sub-categories, such as rule of law, political stability, bribery (as a percentage of revenues), or bureaucratic quality. Analysts and experts are then asked to rate each variable. Depending on the provider, these results are then checked by peer reviews for coherence and comparability across countries.

The International Country Risk Guide (ICRG) published by the PRS Group has gained particular importance, partly because it is available at no

charge to scientific organisations.[9] A majority of studies refer to this indicator, most prominently those by Knack and Keefer (1995, 1997). ICRG surveys 135 countries since 1982, with minor exceptions, and assesses three risk categories: political, financial, and economic, with a total of 23 components. They include rule of law; corruption in government; quality of the bureaucracy; repudiation of contracts by government; and expropriation risk of private investments. Experts are also asked to score for military in politics, democratic accountability, and so forth. ICRG applies peer-review techniques (PRS Group, 2002).

Transparency International, a Berlin-based organisation, annually publishes the TI corruption perceptions index (CPI), which assesses the degree to which corruption is perceived to exist among officials and politicians. It is based on questionnaires taken out by 15 different institutions. Only countries with at least three independent inquiries are ranked. The 2002 CPI is headed by Finland while Bangladesh scores lowest.

The problem with questionnaires such as the ICRG indicator is their subjective character. People may assess a given situation quite differently depending on their personal experience and stance. Moreover, the results are sensitive to who is selected as expert and peer reviewer. People may be reluctant to give extreme grades, because thing can always get better or worse and results may be biased towards medium grades. The categories may be auto-correlated—ie, a country that scores high in corruption might also score low in quality of bureaucracy for the very same reason. It is hard to disentangle these effects. On the other hand, a fast growing country may receive good grades in corruption and other institutional variables just because it is growing fast. Analysts may underestimate problems as long as the economy performs well.

Another argument against the ICRG is its volatility. Glaeser et al (2004, pp 8-9) follow a definition by Douglass North and argue that institutions are to be understood as durable constraints on individual behaviour. Hence, the observed volatility in the ICRG (and other indicators) suggests that they measure policy choices and outcomes, rather than constraints on the executive, which presumingly change less. In fact, the variance in the ICRG is substantial. Figure (4.2) shows the correlation between the variance in the ICRG and average GDP per capita for the period 1984 to 2003 for a sample of 96 countries for which data was available (data is from the World Development Indicators database, 2004). The time-series of the ICRG

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[9]Since 2004, a time series of 1984 until present of the ICRG composite indicator is included in the subscription to the World Development Indicators.

indicator is cleared of a trend by deducting a smoothed series, created by using a standard Hodrick-Prescott filter. The most noticeable outlier is Kuwait (in the upper-right corner) which shows by far the strongest variance. However, the ICRG-rating collapsed during the war with Iraq in 1990/91 and recovered afterwards. This explains Kuwait's the extraordinary volatility.

By inspection of figure (4.2), one may find that richer countries tend to have a more stable institutional quality as measured by the ICRG, while poorer countries are exposed to higher volatility. The volatility itself does not contradict the notion of durable constraints because the ICRG measures perception. The perception of the effectiveness of executive constraints might vary more than the underlying formal rules. Hence, the ICRG might be a bad proxy for permanent constraints on the executive, but it may be a better proxy for institutional quality in a broader sense as in definition (1). Indeed, institutions as outcome as well as constraints on political (and private) action are probably a more practical interpretation.

Moreover, the displayed volatility in the ICRG—after removing a trend— suggests that institutions do change, and that the change is somewhat related to economic wealth because richer countries show less volatility. This supports the view that the quality of institutions is up to deliberate intervention, and the urge to intervene increases the poorer the countries are.

Given the subjective character of institutions, these survey may be as good as it gets. Moreover, the wide choice of suppliers allows to check for coherence. Kaufman, Kraay, and Zoido-Lobatón (1999, 2002) calculate an aggregate governance indicator for 175 countries drawing on a wide array of available sources (17 different publications from 15 sources).

Clague, Keefer, Knack, and Olson (1999) opt for a different approach. They try to find an objective indicator for good institutions, which they argue to have found in what they call *contract-intensive money* (CIM). CIM is calculated as the ratio of non-currency money to total money supply—ie, $CIM = (M2 - C)/M2$. $M2$ is broad money supply and C is currency held outside of banks. Intuitively speaking, the more people hold bank accounts and other non-cash financial assets, the more they reveal their trust in contract enforcement and security of property rights. During turbulent times, people will hold on to cash, preferably foreign currency. Quiet times allow them to invest, thereby losing immediate control over their asset. Some case studies show how sensitively the CIM reacts to dramatic changes, such as the Iranian revolution of 1978. For a sample of 72 countries the effect of CIM on investment and growth is calculated. Growth regressions report a positive and significant relation to growth, though much of the impact is alleged to increased investment rather than efficiency improvements (Clague
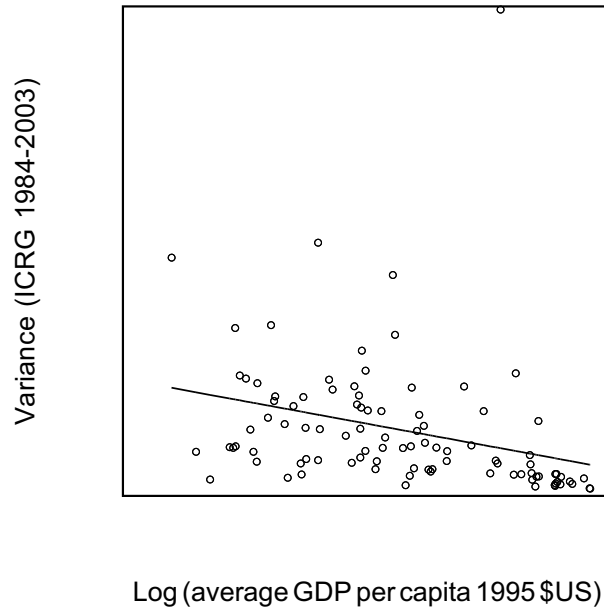
Figure 4.2: Volatility v wealth.

et al, 1999, pp 189-202). The same method has been applied to the 10 applicant countries to the European Union for the period 1993-1999, with rather mixed results: the CIM did not distinguish entirely between the more and less successful applicants. On the contrary, Romania scored better than, say, Poland, casting some doubt on this approach (Meyer, 2002, pp 25-26). Nevertheless, contract-intensive money is one of the very few attempts to find an objective indicator for institutional quality.

Apart from measurement problems, causality poses a challenge. Are poor countries more corrupt, or are corrupt countries poorer? Institutions require resources and time to develop, hence, rich countries are more easily endowed with good institutions. One way to solve this dilemma is to find an exogenous difference in institutions and to see whether or not the predicted development of economies takes places. Such differences can be drawn from cross-country comparison, where the danger remains, that a more crucial variable has been omitted. Historical analyses reduce this danger somewhat because at least the object of research—ie, the country—remains the same.

Mauro (1995) uses an index of ethnolinguistic fractionalisation to control for endogeneity in his work on corruption and growth. The higher the

fragmentation, the more difficult it will be for principals to monitor agents, hence, the higher the corruption will be. Others question the robustness of his results, because ethnolinguistic fragmentation may directly affect economic performance by creating political instability (cf Acemoglu, 2003a, pp 36-37).

By the same token, Hall and Jones (1999) use the portion of people speaking English and the distance from the equator as instruments to control for endogeneity in institutions and geography. Speaking English shall proxy the influence of British institutions during the colonial times. However, the same caveat as with Mauro applies. Furthermore, colonialism may not have always promoted good governance (Acemoglu, 2003a, pp 36-37).

Acemoglu and others in turn argue that mortality rates of would-be settlers during colonisation are a good proxy of an exogenous difference in institutions (Acemoglu, Johnson, and Robinson, 2001; Acemoglu, 2003b,a). Europeans did not settle where they faced high mortality. Where they did not settle they imposed extractive institutions (eg, Latin America), whereas they created development institutions in places where they decided to stay themselves (eg, United States and Australia). Such development institutions replicated Europeans blueprints usually with high respect for private property and constraints on the power of the state and the elites. However, the practice of using settler mortality as instrumental variables in determining causality is not without challengers. One important caveat is the separation of institutions and other things settlers presumingly have brought to the new world. It might be that is not the institutions which determined economic success or failure, but rather the human capital, or "guns, germs, and steel" with which settlers were endowed (Glaeser, Porta, de Silanes, and Shleifer, 2004, pp 20-24). Such an interpretation of colonisation and settler mortality, though, may be deceptive. It implicitly assumes that settler mortality determines the extent rather than the way of colonisation. If settler mortality reduced the extent of colonisation, then the transfer of human capital and technology might have been lower, which in turn would be another channel to explain the currently low levels of incomes. Acemoglu et al (2001) argue that settler mortality primarily affects the style of colonisation with more extractive institutions where settler mortality was high. Hence, even those regions with high settler mortality experienced an inflow of human capital and technology, but these resources were eventually less efficiently employed due to extractive institutions.

These attempts to control for endogeneity are not perfect; they suggest that causality goes from good institutions to good economic development. Chong and Calderón (2000) take a more critical view. Using a different

econometric method, they test for bi-directionality in causality. They find support for the institutions-to-growth link, but also for the reverse. In particular they find that institutions have a strong effect over long periods of time and with very poor countries. Economic growth, on the other hand, seems to take less time to improve institutions (Chong and Calderón, 2000, p 80). Nevertheless, evidence for the institutions-to-growth causality remains strong. For instance, historical evidence shows a remarkable *reversal of fortune* in economic prosperity with the advent of European settlers: North America and Australia are now much richer than, say, India and the Aztecs empire which were more affluent prior to colonisation (Acemoglu, 2003b, p 28).

4.4.2   Review of evidence

The notion that institutions—ie, the way economies are organised—influence economic performance is neither new nor surprising. Comparative economics has long focused on the performance of economic systems, in particular the comparison between market and planned economies. Interest in these questions has admittedly ceased, and the present focus has shifted towards comparison of legal systems and, alas, institutions (Djankow, Glaeser, Porta, de Silanes, and Shleifer, 2003, p 1-7).

A quick illustration supports the alleged positive relation between good institutions and growth. Figure (4.3) shows a simple scatter plot of institutional quality and GDP per capita for a sample of 115 countries in 2002. The ICRG composite indicator is used a proxy for institutional quality, while data on GDP per capita is taken from the World Development Indicators database. Visual inspection of (4.3) conveys the strong correlation between the two measures: rich countries have good institutions, and vice versa. A clear outlier is Argentina which combines a GDP per capita of $10,594 with a value of ICRG of only 51 which is far below the average at that income level. However, Argentina abandoned its currency board with the US-dollar in 2001 and started to renegotiate on outstanding bonds and loans from international lenders which may be responsible for the low rating. In 2003, Argentina's rating had already returned to 64.

The World Bank's Doing Business Database assesses obstacles to private business in the form of costs and duration to enforce contracts, start-up businesses, and workout of orderly bankruptcy. The indicators are assembled in cooperation with Lex Mundi, a large international association of law firms, following the methodology by Djankow et al (2003). They compare,
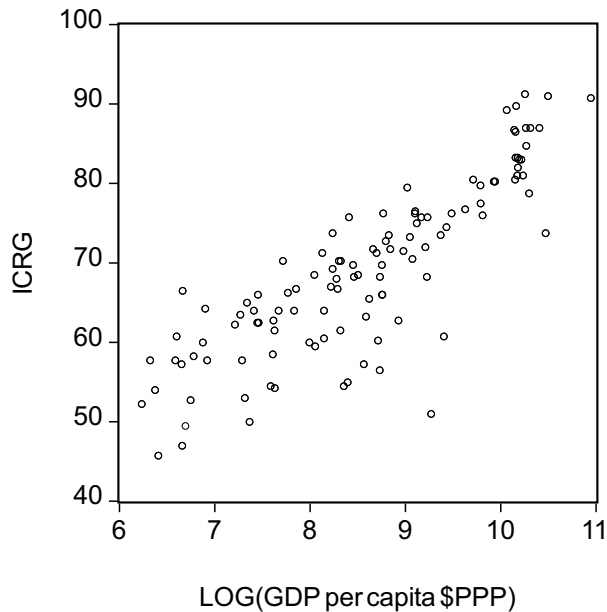
Figure 4.3: Smile! It's institutions.

for instance, the enforcement of two standard contracts—the eviction of a non-paying tenant and the collection of a bounced cheque—using detailed questionnaires. The costs include court and attorney fees, as well as payments to other professionals like accountants and bailiffs. The costs vary dramatically across countries: In Malawi, contract enforcement costs on average 520 percent of gross national income per capita, while it costs as little as 0.4 percent in the US, and 6 percent in Germany. Figure (4.4) relates the costs and duration of contract enforcement to the level of economic prosperity across countries in 2003. It shows a negative correlation between costs of enforcement and GDP per capita, but only a weak negative correlation between duration and GDP. Since costs are calculated as percentage of GNI, it may be unsurprising that richer countries enforce contracts more cheaply in relative terms. However, apart from lower fees and wages in poor countries, they should also be expected also apply simpler rules which are easier and cheaper to enforce. This would also explain the low correlation with regard to the time needed to enforce a contract: richer countries probably offer more possibilities to appeal against judical decisions which potentially delay proceedings. Not all countries seem to follow this impression. In fact, Djankow et al (2003, pp 26-27) find that high procedural formalism in

developing countries is associated with a variety of adverse consequences to enforcement, including a longer duration of judical proceedings, less fairness, and higher corruption.

Correlation does not prove causality. Moreover, these sketchy illustrations do not control for other variables, and therefore the remainder of this section reviews some of the standard publications in order to get a more elaborate picture.

It would be futile to reproduce the enormous and thriving empirical literature on institutions and growth that flourished during the last decade (for surveys please refer to Aron, 2000; World Bank, 1999). Nevertheless, this section aims to review a selection of key publications that established the link between strong institutions and high growth.

The work by La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998, 1997, 2000); La Porta, Lopez-de-Silanes, and Shleifer (2002) delivers insights how the legal system shapes investment conditions, and hence, influences economic performance. They argue that creditor and shareholder rights are strongest where Anglo-Saxon common law holds sway, while they are weakest when French civil law applies. The German and Scandinavian legal traditions, albeit variations of civil law, score somewhere in between. Using casual indicators such as stock-market capitalisation, debt-to-GDP, number of publicly traded companies, they find that capital markets in case-law countries are much more developed, bigger and deeper, than their civil-law counterparts (La Porta et al, 1998, 1997). Moreover, they find that strong investor protection conveys greater security of property rights (vis-à-vis political interference) and improves corporate governance (La Porta et al, 2000, p 24). Good corporate governance reduces expropriation risk faced by outside investors, because insiders—ie, managers and controlling shareholders—are less able to steal the profits.[10] A more developed financial market can accelerate economic growth through higher savings; real investment and capital accumulation; and improvements in the allocation of capital, provided that financiers have some control over investment decisions (Beck, Levine, and Loayza, 2000). King and Levine (1993) find that countries with larger initial capital markets experienced subsequently higher growth rates. Finally, La Porta et al (2002) show that government ownership of banks undermines growth: If government ownership of banks increases

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[10]This expropriation can be done more or less elegantly, for instance, by transfer pricing, asset stripping, investor dilution, perquisite consumption, empire building, and in many other ways. Outside investors face the basic agency problem à la Jensen and Meckling (1976) and Fama (1980).
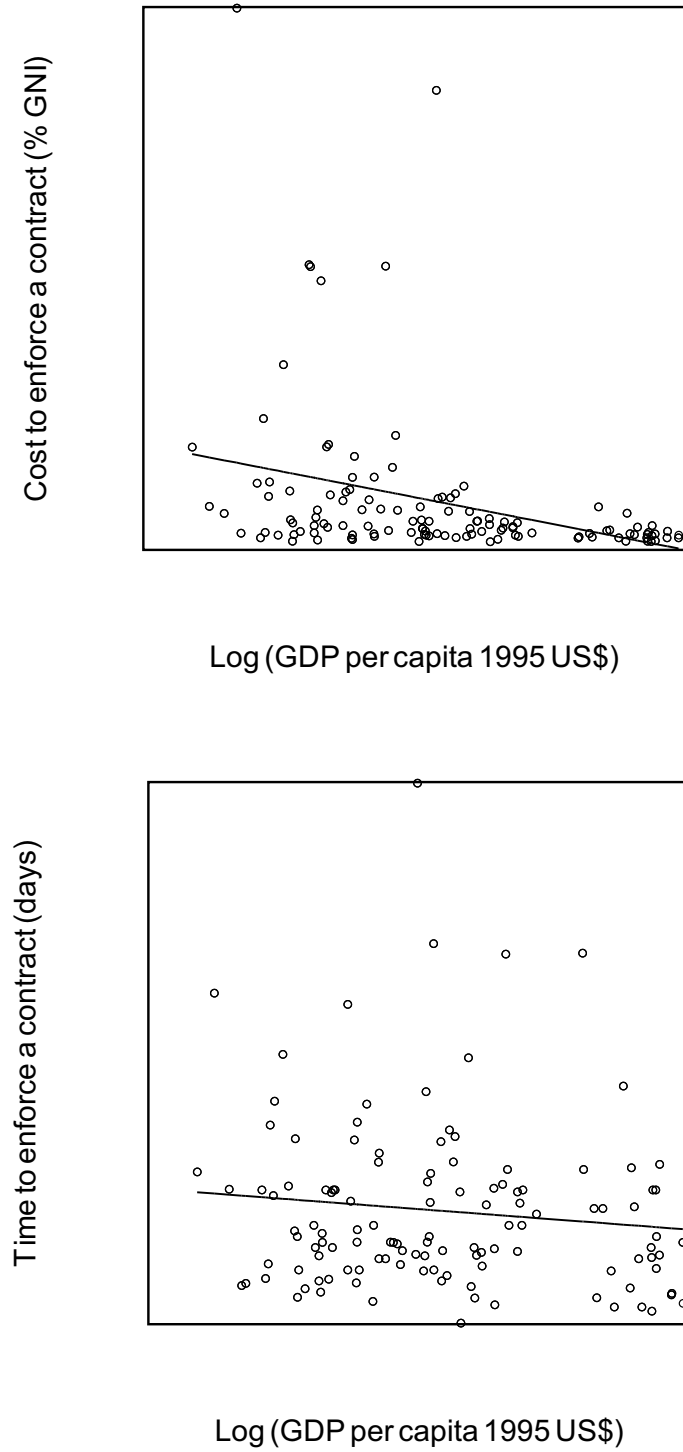
Figure 4.4: Cost and time to enforce a contract.

by 10 percentage-points, growth is reduced by 0.23 percentage-points. Government ownership is associated with less efficient control over investment decisions and has adverse effects on capital allocation.

The apparent strong differences in GDP per capita across countries have spawned interest in the "deep" determinants of income and growth. Three candidates stand out: Geography, integration, and institutions (Rodrik, Subramanian, and Trebbi, 2002; Rodrik and Subrahmanyam, 2003, p 32). Geography is the only component that does not suffer from reverse causality. Barring manmade climate change, geography hardly adjusts to economic conditions. Moreover, there is some overlap between integration and institutions. Most economists regard closed shop trade policies as detrimental to growth, hence, they may be a sign of bad institutions which allow politicians to do so. Although there is a well established link between trade and growth (see Frankel and Romer, 1999) it is not entirely clear whether this relation is sustainable once institutions are included. Rodrik et al. (2002) find a positive and strong relation between good institutions and GDP per capita. If Bolivia were to improve its institutions to the South Korean level (a standard-deviation increase), its GDP per capita would rise from $2,700 to $18,000, statistically speaking (Rodrik et al., 2003, p 32). Integration has a strong and positive effect, too, which vanishes once institutions are controlled for. However, trade appears to have an indirect effect by improving institutional quality. The reverse holds as well, good institutions improve integration (Rodrik et al., 2002, p 6).

A glance at the countries around the equator reveals the striking appeal geography has in explaining income differences. Proximity to the equator is highly associated with low incomes, which is illustrated by the miserable performance of sub-Saharan Africa. Again, correlation does not prove causality. Acemoglu (2003b, p 28) and Acemoglu et al (2001) show that some countries were much richer 500 years ago than today's wealthy countries were at that time, a fact already introduced as *reversal of fortune*. By the same token, Rodrik et al (2002) find that geography ceases to have a significant effect once institutions are controlled for. The results suggest that geography may have an indirect effect on growth and incomes by improving institutional quality, a relation also found by Easterly and Levine (2002). The findings are also consistent with Acemoglu et al (2001) because adverse geography—for instance isolation, diseases, resource endowment, and poor soil—may result in high mortality rates of would-be settlers who in turn decide not to settle and not to import development institutions. However, one should be careful not to underestimate the dire conditions imposed by

adverse geography. Diseases such as AIDS and Malaria, and more recently SARS, are a dramatic economic burden (Sachs, 2003b,a). Moreover, the adverse effects of bad geography may have a long lasting impact on incomes today. Douglas Hibbs and Ola Olsson (2004) are able to explain 53 percent of the variance in 1997 GDP per capita with the historical dates when societies mastered agricultural transition—ie, switched from hunter-gatherers to peasants. This transition happened thousands of years ago, but its effects are apparently still felt today. The strong correlation between incomes and institutions means that they are also able to explain 38 percent of the cross-country variance in today's institutional quality. Areemdam Chanda and Louis Putterman (2004) also find a strong legacy of historical events in modern growth and development patterns. They confirm the reversal of fortune finding by Acemoglu et al (2001), but argue that old agrarian societies, which were in decline between 1500 until the end of World War II, have been among the most successful developing countries since 1960. Examples are mainly Asian countries, such as China, Taiwan, or India. Apparently, early development of agricultural techniques also delivered other advantages, including labour specialisation but also the creation of cultural and institutional capabilities, which allowed them to catch-up faster after 1960 (Chanda and Putterman, 2004, pp 19-20). In this sense, the decline between 1500 and 1960 may be regarded as an aberration, which had probably more to do with European bullying and colonisation. The institutional capabilities developed in the wake of agricultural transition seem to be important today. Hence, the creation of good institutions may be "[...] a very long-term process" (Chanda and Putterman, 2004, p 20). This view casts some doubt on the ability of societies or policy-makers to improve institutions deliberately on short notice.

Apparently, there are contradictory results. On one hand, there is evidence of the very long-term process of institution building, pointing to a slow adjustment; on the other hand, there is the variance of the ICRG indicator across time (see figure 4.2) which suggests a more speedy change in institutional settings—in particular in poor countries. One way to reconcile these views is probably to acknowledge that institutional quality is indeed driven by various factors which operate at different speeds. Social capital embodied in tradition, norms, and values has an important effect and changes only slowly (see also table 4.1). This may give early starters in agriculture a competitive edge. However, institutions are also shaped by deliberate policies and private actions, including shocks such as the grip of communism over large parts of Eastern Europe until the 1990s. The interaction between both forces—traditional social capital and deliberate

action—gives a broader picture. Moreover, there may be development traps where countries are too poor to upgrade institutions, and institutions are too weak to escape poverty. Such development traps may also explain part of the stickiness of low institutional quality and poverty (see chapter 6).

The debate on growth and institutions received its arguably strongest boost from work by Knack and Keefer (1995, 1997). They introduce indicators constructed from the ICRG and BERI database (see section 4.4.1) as proxies for institutional quality. Previous work that included institutions into growth regressions applied rather indirect proxies, such as Gastil's measure of political freedom and civil liberties (Gastil, 1986), number of coups, revolutions, assassinations, and so forth. Turbulent times reduce the value of future earnings, and hence, expropriatory actions by leaders and others become more rewarding. However, a drawback of these indicators is that they capture the protection of property rights and the rule of law only incompletely. Moreover, reverse causality is a problem, because dire economic circumstances may trigger political instability. Finally, countries that score high in political stability might, nevertheless, show little respect for private property, because stability might be the consequence of repression and dictatorship rather than good governance (Knack and Keefer, 1995, pp 208-210).

Messrs Knack and Keefer sum up five ICRG components in simple addition: expropriation risk, rule of law, repudiation of contracts by government, corruption in government, and quality of bureaucracy; and four BERI components: respectively, contract enforceability, infrastructure quality, nationalisation potential, and bureaucratic delays. Pearson correlation coefficients between these constructed indicators and the measures of political instability are between 0.23 and 0.76 (Knack and Keefer, 1995, p 213, table 1), suggesting that the variables capture institutional quality to quite different extents. Next, they add these indicators into a growth regression following Barro (1991), which includes also frequency of coups, revolutions, and assassinations (to check with previous measures); GDP per capita in 1970 (poor countries are supposed to grow faster); primary and secondary school enrollment (as a proxy of human capital); government consumption (high consumption suggests inefficient public sector); and the absolute deviation of investment price level from the sample mean.

Their main findings are summarised in two tables. First, the explanatory power (R^2) rises slightly when the ICRG indicator replaces classical measures of political instability, but drops slightly when the BERI indicator is used. However, compared to the political measures, BERI and ICRG have both a substantially higher significance. Moreover, magnitude and signifi-

cance of initial GDP rises dramatically: the coefficient increases from -0.48 to -0.69 with the ICRG, and from -0.59 to -0.69 with the BERI indicator. This suggests that conditional convergence becomes more prominent once the institutional variables are included. The steady-state income might be better reflected. Messrs Knack and Keefer use the first available observations for each institutional indicator and country (1982 and 1972, respectively) in order to reduce the salience of reverse causality (Knack and Keefer, 1995, pp 217-218, table 2 & 3).

But how important are institutions for growth? On average, a standard-deviation increase in the constructed ICRG index raises annual growth rates of per capita income by 1.2 percentage points. A standard-deviation increase equals about 12 points on a 50-points scale (Knack and Keefer, 1995, pp 217-218, table 2 & 3). With more recent years (1980-1998 as opposed to 1974-1989), 7 points suffice to increase growth by more than one percentage point (Knack, 2002, p 10 & table 1). Strong institutions are, therefore a key determinant of growth, much more than previously thought when only measures of political instability have been taken into account.

Mauro (1995) uses corruption and institutional efficiency as a proxy for institutional quality. Corruption is sometimes seen with some ambiguity. It might even increase economic performance, because people can circumvent cumbersome bureaucracy ("speed money"), and also because bribes can pose an additional incentive to bureaucrats to work harder. Prior to the Asian crisis, Indonesia was regarded as one case where corruption actually improves growth. It was termed 'crony capitalism' only after the 1997 crisis. Mauro uses data from Business International (BI), a private firm now incorporated into the Economist Intelligence Unit. BI correspondents assign subjective grades to any of these variables. The indicator 'bureaucratic efficiency' is calculated using the simple averages of the components judiciary system, red tape, and corruption. Bureaucratic efficiency is regarded as a more precise indicator of corruption than corruption itself because of multicollinearity and measurement errors (Mauro, 1995, pp 685-686). The bureaucratic efficiency index shows a similar relation to GDP per capita as in figure (4.3). The two most notable outliers are Kuwait and Saudi-Arabia, which have very high incomes at mediocre efficiency (Mauro, 1995, p 688). But the reason for this is obvious. Moreover, a standard-deviation increase in bureaucratic efficiency is associated with a plus of 1.3 percentage points in GDP growth per capita and an increase in the investment rate by 4.8 percentage points of GDP. If Bangladesh were to improve its bureaucratic efficiency to the level of Uruguay (that does not sound too absurd), the

investment rate could increase by nearly 5 and growth by over one half percentage points (Mauro, 1995, pp 695-710). As discussed in section (4.4.1), Mauro uses an index of ethnolinguistic fractionalisation to test for endogeneity.

The previous section introduced the CIM indicator pioneered by Clague, Keefer, Knack, and Olson (1999). Again, the CIM is a measure of contract-intensive money and calculated as the ratio of non-currency money to total money supply—ie, $CIM = (M2 - C)/M2$. The argument for CIM follows three propositions: CIM measures the proportion of transactions that require third-party enforcement, and the CIM will rise the better contracts are enforced and property rights respected. This in turn shall convey high levels of productivity and economic growth. The CIM indicator has the intriguing advantage of being an objective measure that does not rely on experts' judgements. The variables are usually well reported by the national statistical offices. Clague et al illustrate the explanatory power of CIM with a number of case studies from Iran to Indonesia to show whether major political and economic events show up, which they do in the selected examples. Regression results, again based on Barro (1991), are reported for the period 1969 to 1990. First, a strong, positive and significant relation between CIM and investment is shown. A standard-deviation increase in CIM is associated with an increase in the investment rate of 3 percentage points of GDP and nearly one percentage point of growth. However, unlike the CIM-investment relation, the link between growth and CIM may suffer from reverse causality (Clague et al, 1999, pp 200-203). With regard to income per worker, CIM's explanatory power exceeds that of the ICRG slightly (Clague et al, 1999, p 199). In a later work, Knack (2002, pp 12-13 & table 1) tests CIM v ICRG with regard to growth and finds that the coefficient for ICRG is slightly higher than for CIM, while both are strongly significant. But he points again to the conceptual differences, in particular, that CIM may be more appropriately when measuring governance conditions for domestic investors, while ICRG better reflects the stance of foreigners.

The 2003 World Economic Outlook attends to the quest for growth by institutions. It uses the aggregate governance index assembled by Kaufman et al (1999). The results are all too familiar: An increase of one standard deviation in the governance index improves growth by 1.4 percentage points and reduces output volatility by 1.2 percentage points. Moreover, the IMF introduces an indicator for financial development, proxied by total private credit to GDP, and finds a positive, though somewhat less strong relation

to growth: A standard-deviation increase yields half a percentage point in growth (IMF, 2003, p 107). Financial development is arguably more influenced by current politics than are institutions, thus, the positive relation is taken as an argument that good policies do make a difference (Edison, 2003, p 37). Anyway, the overlap between institutions and politics is obvious. Good institutions today are the result of good policies in the past. And as La Porta et al (1997, 1998, 2000) point out, financial development depends on institutional variables such as common law v civil law.

Using a neoclassical growth model, Dawson (1998) finds that institutions affect economic performance through basically two different channels. First, indirectly by increasing investment, and second, directly by augmenting total factor productivity.[11] Dawson uses the economic freedom index published by Gwartney, Lawson, and Block (1996). A one standard-deviation increase is associated with a hike in GDP per worker of 4 percentage points cumulated over a period of five years (Dawson, 1998, p 614).

Hall and Jones (1999) argue that differences in output per worker are due to differences in social infrastructure, by which they mean institutions and government policies. They employ the same version of an ICRG indicator as introduced by Messrs Knack and Keefer (1995) plus the Sachs-Warner index on the openness of a country. A difference of 0.1 in social infrastructure is associated with an increase in output per worker of more than 5 percent (Hall and Jones, 1999, p 104, table II). Part of the test for endogeneity has been discussed in section (4.4.1).

Levine and Renelt (1992) use the number of revolutions and coups per year, variables that are certainly inversely related to good institutions, but do not capture the whole story. They find that an increasing number is directly associated with a decline in investment but not with growth. However, they find a robust link between growth and investment which suggests that good institutions, as proxied with few coups and revolutions, increase growth through investment.

The countries in Central and Eastern Europe have experienced very profound institutional change since 1989: from autocracy to (mostly) democracy; from planned economy to (mostly) market economy. Hence they present an excellent opportunity to study the impact of institutions on economic performance. The European Bank for Reconstruction and Development (EBRD) regularly assesses the progress of various aspects of gover-

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[11]As TFP is usually regarded as the residual in growth regression, it might be a little bit bold to call this effect "direct".

Table 4.2: **Legal transition indicators**

	Commercial Law		Financial Regulation	
	Extensiveness	Effectiveness	Extensiveness	Effectiveness
Bulgaria	4	4-	3	2+
Czech Republic	3+	3-	3+	2+
Estonia	3+	4-	4	3+
Hungary	4	4-	4	4
Latvia	4-	3	3	2
Lithuania	4	3	3-	2
Poland	4	3	4	4
Romania	3+	4-	3	3-
Slovakia	3+	3	4	3+
Slovenia	4	4	3+	3+

Source: European Bank for Reconstruction and Development (1999)

nance and institutions, such as privatisation, infrastructure, banking reform, legal environment, and competition policy. The indicators are created by subjective expert valuations. Table (4.2) summarises some of the findings. While table (4.2) only pictures applicants to the European Union (though Romania and Bulgaria may have to wait longer than the rest), non-accession countries have fared much worse in the respective indicators (IMF, 2003, pp 102-105). In particular the successor states of the Soviet Union showed a miserable performance. Black, Kraakman, and Tarassova (2000) excellently and sometimes amusingly survey the experience of Russia, and show that part of the economic distress can be attributed to mistakes in the allocation of control and governance. Mass privatisation and rapid liberalisation—though well intended—did not create a fertile environment for the respect of property rights and market institutions. Instead, managers and klepto-crats found it more profitable to loot the companies and steal assets. Good managers were driven out by bad (see also Hoff and Stiglitz, 2002).

Another point that can be drawn from the EBRD's transition indictors is the discrepancy between extensiveness and effectiveness, with extensiveness being ranked around two notches higher than effectiveness on average. This indicates that it might be easy to devise rules but that enforcement is another question.

Grogan and Moers (2001) use EBRD data plus information from Eu-romoney and the Wall Street Journal Europe's Central European Economy Review to construct an indicator of institutional quality in the CEEC. A general caveat is that due to the limited amount of time since transition started, the number of observations is rather low, and statistical results

should be treated with care. Anyway, they find a strong and robust relation between good institutions and growth as well as FDI, respectively. While the link to FDI goes in both directions, Grogan and Moers (2001, pp 341-342) argue that better institutions indeed cause growth.

Before closing this chapter, one may look to one of the most fundamental institutions: the degree of political freedom. While there is little dissent that economic freedom enhances growth, the verdict over democracy is still to be determined. Following a public choice approach, democracy should foster economic rights. Politicians that fail to deliver growth and prosperity may be replaced. Checks on governmental power should limit corruption and waste. On the other hand, democracies may be torn between diverging interest groups, and politicians might feel restricted to short-term policies that are popular with the electorate. Moreover, a tendency towards redistributions of incomes because of majority voting may deter growth. Authoritarian regimes may disregard the short-term needs of the people in order to pursue a long-term development strategy. Moreover, dictators may grant economic freedom without political representation. China is a case in point. Though the figures published by the Chinese statistical office should not be taken at face value, it seems that China did much better economically than its neighbour, India, the world's largest democracy.

More systematic approaches reveal that incomes and democracy are highly correlated. All developed countries are also democracies, barring those which made a fortune out of their resource endowment. However, causality seems to run from prosperity to democracy—ie, richer and better educated people demand more political and civil liberties (Helliwell, 1994, pp 242-246). Barro (1996) suggests a non-linear relation between growth and democracy—ie, at low levels of political freedom, more democracy increases growth, but it depresses growth once a medium level has been attained.

Democracy may have a very long-term effect on growth that does not show up in the medium-term regressions above. If democracy works towards a more equal distribution of incomes—for instance, because of majority voting—a positive effect on institutional quality may result. An emerging strong middle-class will have an interest in an efficient bureaucracy, the rule of law, and protection of private property. The demand for good institutions may urge the state (and others) to deliver them.

The notion that the primacy of institutions as an important explaining variable for economic development is not without its challengers. Besides Jeffrey Sachs, who warns not to underestimate the effect of geography on

development, Glaeser et al (2004) argue that the institutions-to-growth link, in particular the causality from institutions to growth, may be overblown. They point to the difficulties in measuring institutions as *permanent* or *durable constraints* on the behaviour of individuals. Moreover, they find that in a variety of specifications the initial quality of institutions does not predict economic growth (Glaeser et al, 2004, p 5). However, despite the title of their paper, "Do Institutions cause growth?", they concentrate on political institutions in the form of politically constrained governments (p 6). They subscribe to the importance of secure property rights in economic development, but argue that dictatorships[12], such as China, have been quite successful in providing property rights protection as well. With this view of institutions, they reject a causal relation of institutions on growth. On the contrary, the accumulation of wealth and education is seen as the cause of institutional improvements. Hence, they conclude that the current literature has failed to establish a convincing link between political institutions and growth (p 26). This is hardly surprising because a great deal of the existing literature does not even try to establish this link for it takes a broader view of institutions. In this view, good institutions are characterised by low corruption and high respect of property rights, irrespective of the political regime. In fact, a development dictatorship can be quite effective in delivering these institutions, as shown by the examples in Glaeser et al (2004). Glaeser et al (2004) also give the impression that "constraints on the executive" are the dominant measure of institutions in the literature (p 6), but later they say that some dictatorships, such as the USSR or Singapore, which would score low in the constraints-measure nevertheless received good marks for institutions in the literature because they respected private property (p 8). This is an inconsistent view of the literature. The findings of Glaeser et al (2004) seem in line with previous research on democracy and growth (see above). The focus on political institutions, and constraints on the executive in particular, deprives the analysis of an important feature of institutions: the governance of private transactions. Here, strong institution could increase output by reducing misallocations irrespective of the political regime.

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[12]Dictatorships certainly have a less constrained executive than democracies, and dictators may choose to respect private property or not. But even dictators face some pressure from the people, if only by taking to the streets. Hence, they may not be totally free in their choice. Already, Jean Bodin (1976) said that the sovereign who does not respect private property may be threatened by revolution.