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The New Institutional Economics: Its Relevance

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Abstract:

Corruption is a major political and economic issue in India. The stakes, value, frequency, and costs of corruption have become exceptionally high in the history of modern India. This is partly because some of the tenets of free market mechanism are implemented in the absence of underlying necessary institutional conditions for efficient and fair functioning of the market mechanism. The objective of this paper is to bring forth the relevance of the insights of the new institutional economics to the functioning of the Indian economy.

I

INTRODUCTION

The new institutional economics (NIE) pioneered by Ronald Coase, Oliver Williamson and Douglas North takes the approach that capitalism functions effectively only if it is supported by underlying institutions such as the rule of the law, property and contractual rights, social and economic norms and transaction and information costs of enforcement; and there is nothing called optimality of markets and institutions. A simple empirical verification of this argument is the text book case of free market reforms implemented by the World Bank and IMF, which resulted in disastrous outcomes in Russia and the Eastern European countries in the 1980's (Patibandla, 2006).

I briefly discuss the old institutional thought. Max Weber argued that the Western European countries developed because of "protestant work ethic", while countries in Africa and countries such as China and India remained poor because of lack of it. Many social scientists rejected the argument. However, in the very recent, the historian Niall Fergusson (2011) revoked this idea to argue that "protestant work ethic" has been one of the main reasons for the West to dominate the Rest. Historical examples of countries such as Japan, South Korea, and recently China and to some extent India refute this idea. Japan is a small country; a bunch of islands with limited natural resources. At the end of the Second World War, it was devastated by two nuclear bombs. Within twenty five years after the war, it became the second largest economy in the world.

Similar is the case of South Korea since the 1960's. On the lighter side, some of the white protestant folks in the U.S complain about the Chinese and Indians that they do better economically because they work too hard, work on the weekends, and do not take long holidays. The NIE can be introduced by challenging the basic assumptions of the neo-classical economics. People are perfectly rational, maximize self-interest as anonymous and autonomous agents (*a la* Robinson Crusoe), the markets (price mechanism) are frictionless and there is perfect information. In reality, all these assumptions are limitedly applicable. The models based on these assumptions often fail to predict economic outcomes. A recent example is the financial crisis in the U.S. The financial markets were deregulated under the assumption that they function efficiently and self-regulate. The investment and merchant bankers made plenty of money at the cost of the savings of the public by generating asymmetric and imperfect information about the complex mortgage derivatives to the low income groups. People thought they were buying houses while the reality was that they were made to buy complex derivatives.

The NIE had its origins in Coase's paper (1937) 'The Nature of the Firm' in which he argued that market mechanism is subject to the friction of transaction costs of search, formulating and executing contracts. Owing to transaction costs, a firm as an organization comes into existence to economize on transaction costs of markets. The firm internalizes economic activity until marginal internal bureaucratic costs of hierarchy are equal to the marginal transaction costs of the market (boundaries of the firm). Once the economic activity is internalized it is hierarchy that governs resource allocation, but not strictly price mechanism. Coase rejected the neo-classical idea that a firm is just a production function (black box).

The neo-classical economists ignored Coase's idea and still ignore it largely although he was awarded the Nobel Prize because it does not fit into their elegant models, especially of the general equilibrium kind. Since the 1970s onwards, Williamson (1975; 1985) and North (1990) in a series of seminal papers and books applied the transaction cost logic to develop the concept of institutions of capitalism. Subsequently both were awarded the Nobel Prize in economics. North used the transaction cost logic to understand the evolution of institutional environment historically, especially in the U.S. Williamson formalized different elements of transaction costs and applied them to governance mechanism.

The NIE makes a distinction between institutional environment and institutions of governance. The institutional environment determines the extent and different dimensions of transaction costs which, in turn, determine the governance mechanisms. This determines how efficiently resources are utilized in a country; high transaction costs lead to a high degree of internalization which results in high costs of bureaucracy and black economy. The institutional environment deals with formal and informal institutions. Formal institutions are the constitution, the legal system, judiciary, polity, and property and contract rights. Informal institutions are the embedded conditions of customs, traditions and norms. North makes a distinction between forms and substance. Forms (organizations) can be engineered or copied from other countries, but the implementation of the rules depends on embedded norms which evolve over a period of time. For example, India has a large number of laws to protect the environment, but their effective implementation is poor. Another example is that the bribing of petty officials may become an accepted norm. Politicians who amass huge wealth through corruption may believe and convince the constituents that it is a normal practice. To illustrate this, when a political process becomes mainly distributional, corruption becomes a means of distributing income between different groups. Repeated interactions of this kind overtime make corruption an accepted norm (Patibandla and Sanyal, 2009). An example is the case of Jaganmohan Reddy of YSR-Congress party of Andhra Pradesh. A few agricultural labourers, and low income groups in a village in coastal Andhra, with whom I spoke, observed that they voted for Jaganmohan Reddy's party because although he and his father were corrupt they did something for them while other parties were corrupt too and did not do much for them.

The institutional environment determines the rules of the game. The play of the game is economic organization of contracts and governance structures; market, quasi-market, and hierarchical modes of contracting, more generally of managing transaction costs and seeing economic activity through to completion (Williamson). The inter-play of these aspects determines the economic institutions of capitalism and their evolution.

II

INSTITUTIONAL ENVIRONMENT

Formal Rules and Laws

In small societies where everybody knows everybody else, transaction costs are low as most economic exchange does not need formal contracting. Cheating is restrained by social stigma. Once economic activity becomes large scale and complex through division of labour, this leads to large group and anonymous interactions. This requires formal rules and contracts to enable large group interactions and restrain cheating in exchange. There are two dimensions to the formal rules; one is definition and the other is their enforcement. When laws are poorly defined, they give discretionary powers to government agents such that they could interpret them according to the context and extract bribes (rents). The vaguely defined rules work in favour of large agents who can incur the transaction costs of finding the gaps. Poorly defined rules also give signal of uncertainty to investors. Enforcement of the rules involves the costs of monitoring, information, delegation under agency relations and transaction costs of the courts and the accountability of agents.

Under centralized governance structures of government, there could be informational imperfections and consequently a high degree of discretionary powers to government agents at different layers of the governance structures. Centralization results in moral hazard behaviour on the part of government agents owing to distance between the governed and the government. Decentralization could increase repeated interactions between government agents and the public and thereby increase accountability provided the public are aware of their rights and obligations. Enforcement also depends on the autonomy of the judiciary and the transactions costs it imposes on the public.

Credible commitments of the government to the constitution and laws imply that it cannot change them in an arbitrary manner. This depends on how the legislature and executive branches are organized. In the parliamentarian system, the executive is simply the party that has a majority in the legislature. In the presidential system of the U.S., the executive (the president) is separate from the legislature (the congress and the senate) which makes the legislature to impose stronger

procedural burden on the executive. In the parliamentarian system, ability of the executive to enact new laws or change the laws or even the constitution is high.

In democracies, formal laws are supposed to reflect collective choice. Social choice theory (Arrow, 1951) shows that it is not possible for collective action based rules to reflect diverse individual preferences perfectly. In other words, democracy needs checks and balances on the laws based on majority preferences and should not degenerate into majority fascism. Decentralization of governance is one mechanism to reduce these extreme outcomes.

In India's case, the constitution of India is the supreme law, which guarantees the basic rights of individuals and rationalizes the powers and functions of the various bodies at the centre and state levels. Any law enacted by the government, both at the centre and state levels, that infringes on these rights, when challenged, is liable to be quashed by the courts. The constitution acts as a political as well as a financial document. The legislative powers are distributed between the centre and states with each assigned rights to enact laws based on the delineation. Commercial laws are mainly enacted by the central government. As government adopted a development role after the independence, it ceded enormous powers both in the legislation of acts and the administrative apparatus. The government enacted a plethora of rules, laws and bye-laws. Since the independence, the central and state governments brought in about 30,000 laws. A consequence of this is an inordinate number of cases pending with the courts with high transaction costs of the judiciary process. There are about twenty-five million cases pending with courts with 25,000 of them with the Supreme Court. A consequence of this is that if a corrupt politician comes out of jail on bail, he/she is more or less a free person.

Property and Contract Rights

In the Coasian theorem of property rights (1960), collective action is necessary when individual actions cause costs to a society at large owing to negative externalities. Collective action is socially more efficient than individuals acting in isolation in the presence of transaction costs. A negative externality resulting out of a single individual's action affects a group of individuals. The sum of costs of individual action in isolation could be higher than the costs of collective action in rectifying the negative externality. Collective action can take alternative forms; private

ordering of individuals getting together for bargaining or government enforcing the property rights. In the presence of high transaction costs, and incidence of free riding within a group, the government's definition and enforcement of property rights becomes the superior choice. However, in countries such as India, transaction costs of enforcement by government or courts are high. If these transaction costs are the same as the transaction costs of group formation and bargaining there will be a grid-lock, and one powerful external agent could get away by externalizing the negative externality.

If one group can get into effective collective action, it generates surplus for the group, the surplus could be purely owing to collective (team) production or on distributional grounds of redistributing wealth from other groups. If outside agents are diffused, their ability for countervailing action will be low. An example in the Indian context is the powerful mining companies confiscating the common property land rights of tribal groups. Another example is the leather, dye-stuff and garment industries polluting ground water and destroying the livelihood of thousands of small farmers in states such as Tamil Nadu

In the traditional literature, a well-defined private property system has the general features of being comprehensively assigned, exclusive, transferable, and secure. This should also have a fine definition of what is a private and what is common property. For example, a private agent can own a piece of land, but the ground water is public property. According to modern property rights approach (Grossman and Hart, 1986), establishing property rights means enforcing contracts through which economic agents try to arrive at efficient control structures or finding ways to improve the efficiency of control rights. Control or residual rights are those that are not specified in formal contracts between parties. Efficiency of control rights involves incentives of agents in a contract to undertake investments and efficient utilization of physical assets. The issue of control rights can be applied to a broad spectrum of activities such as public limited companies with agency relations, financial institutions and government policies. For example, if there is imperfect information, stock-investors lose control rights, which result in high moral hazard costs on the part of managers.

Governments can implement policies to increase their control rights over both publicly and privately owned resources. For example, government agents could transfer public land at concessional rates (below their opportunity costs); provide public goods such as water and energy below their right prices to private firms as a part of political patronage and extracting rents. If one takes the true spirit of free market mechanism, firms must be made to pay a market price (accounted for transaction costs) that reflects not only present demand but also future opportunity costs of the resources. Only reason they should be given the resources below their market prices is that the firms generate significant positive externalities in the present and the future, which is not the case in most cases and as a matter of fact they may generate negative externalities. The other argument that the firms should be subsidized because they generate employment is dubious because firms use workers to make profits and they are not doing any favour to the workers.

High control rights of governments also arise due to absence of regulatory predictability and procedural transparency. Examples from India are the 2-G spectrum scandal, and several land allotment scams under non-transparent procedures. Under these kinds of weak property right structure, private agents have to make investments by bribing and co-opting government agents and undertaking high costs of contractual safeguards. Under a weak property rights regime, people will shy away from investing in durable assets and invest in generic assets and non-productive activities such as gold and black money (wealth will be disguised, deflected and consumed) which was a common practice prior to the reforms in India.

In several parts of India, property rights of land remain tenuous and are subject to high transaction costs of enforcement. In states such as Tamil Nadu, legal land records can be traced back to a few hundred years. Consequently, land and real estate markets are efficient. In the northern states of Uttar Pradesh and Bihar, land records do not exist at large. This perpetuates the feudal system of ownership of land by large players who could employ private armies. Furthermore, different religions in India have different definitions of property rights.

Natural resources of a country, such as forests, coal mines, oil and gas, minerals, etc., are common property of its people. Governments granting rights and contracts to private agents for

exploiting these resources have to be monitored by autonomous bodies representing the interests of the public. Prices paid by the private agents to the government (the public) must reflect inter-generational demand for these resources and negative externalities if any. For example, multinational firms in African countries such as Ghana exploited its natural resources such as gold mines without benefits to the public and severely polluted water.

The Informal Rules: The Norms

Norms evolve through repeated interactions. Some norms could be a result of cooperation for avoiding "prisoner's dilemma" outcomes. Some norms could be such that they perpetuate "prisoner's dilemma" interactions. Several feudal norms belong to the latter category. Although norms are generally observed to be an outcome of small group interactions, some norms could be socially embedded in a country. For example, in some countries there is more trust in exchange than others. Countries with higher incidence of trust in exchange incur lower transaction costs of exchange.

When informal rules take root, one way they can be broken up is by exogenous shocks or agents. An external agent can facilitate fostering of institutions that reduce informational and transaction costs to the diffused private agents. An example in the Indian context is the role of Verghese Kurien in facilitating formation of the Amul cooperative (Patibandla and Sastry, 2004). On the other hand, good norms could be destroyed when outside agents or free-wheeling capital is introduced. For example, fishermen in Kerala and Tamil Nadu coasts managed the common property of fishing with highly evolved norms. The introduction of large fishing firms in the 1990's led to over fishing (Patibandla, 1997). It is possible that when producers become large, the historical experience is that conservation norms start disappearing even in the pre-capitalist formation. This is where government intervention becomes necessary in preserving the commonly owned resources by defining and enforcing individual rights and obligations in utilizing the common property.

A corrupt practice by the public agent may become an established norm through repeat interactions. This takes place because of imperfect or asymmetric information and high transaction costs of getting a service from a public servant. A poor and illiterate person may

believe bribing a petty official to be an accepted practice. A public servant may impose high transaction costs in a providing a service such that the transaction costs are equal to the bribe costs. If the transaction costs of the service are lower than the opportunity costs of time and resources of a private agent, he/she just pays the bribe.

III

GOVERNANCE

As mentioned earlier, the institutional environment determines the extent and dimensions of transaction costs which, in turn, determine the governance mechanism. Williamson conceptualizes differential transaction costs through the lens of contracts. They differ in three critical dimensions; frequency, uncertainty and asset specificity. All contracts are incomplete. It is not possible to incorporate all possible contingencies into a contract. The behavioural assumptions are bounded rationality and opportunism. Bounded rationality (Simon, 1957) refers to behaviour intendedly rational, but limitedly so owing to informational imperfections and cognitive abilities. Opportunistic behaviour is conceptualized in terms of self-interest with guile. In the *ex ante* stage of a contract, the market is competitive. Once two agents get into a contract, it becomes a bilateral monopoly. Guile implies that when contracts are incomplete, agents renege on their promises when the environment changes or when one realizes that the other party has invested in assets specific to the contract (locked-in).

Given the differential dimensions of transaction costs, agents choose different governance structures; markets, hierarchy (integration), hybrids (such as franchisees, to some extent joint ventures) and public bureaus. For investments with high degree of asset specificity, the preferable governance is integration. The alignment of property rights and their enforcement by government agencies or by private ordering (groups) is determined by transaction costs. As mentioned in the previous section, if transaction costs of private ordering are high, public bureaus are more efficient. However, public bureaus also impose transaction costs. If these transaction costs are high, it could result in perverse outcome of the emergence of mafia. In India’s case, there are several examples of mafia in the land and mining markets. In the case of land markets surrounding Bangalore, the private developers have been able to buy land owned

by small farmers at low prices and develop the land for real estate because farmers are unable to incur the transaction costs of dealing with government bodies (Patibandla, 2006).

The behavioural assumption of opportunism in contracts refers to incorporation of contractual safeguards at the *ex ante* stage when investments have high degree of asset-specific properties. For example, when a government gives a contract (or a license) to a private party for providing a service especially in those industries with natural monopoly properties such as power generation and distribution, telecommunication services and infrastructure development, it should be able to incorporate safeguards (hostage taking) of the private agents paying a price in case of reneging or re-bargaining in the post-contractual stage and vice versa. At the macro level, incidence of opportunism by agents requires government implementing formal rules for mitigating its costs; for example, stringent rules and monitoring of managers and board members of publicly listed companies for insider trading of stocks at the costs of stock investors.

As far as governance mechanism of India's private sector is concerned, most of the Indian industries are dominated by highly diversified family business groups because of the government policies both before and after the economic reforms. Excess integration and diversification mean inefficient utilization of resources, non-transparency of governances, and hiding of wealth. Contrary to the widely held view that licensing policies imposed all kinds of restrictions on the private sector before the reforms, Tripathi (2004, p. 304) observes " Barring a few exceptions, practically all the major houses that dominated Indian business before independence underwent substantial expansion and consolidation." Once a business group acquired a license by capturing politicians, it used to obtain full funding from the government public financial institutions such as IDBI, IFCI, and ICCI. By using the tax payers' money, they were able to build family empires. Even after the reforms, several of the groups increased their diversification because of capital market imperfections and securing licenses from government in areas such as telecommunications, oil exploration, minerals, etc. One positive side after the reforms is competition from multinationals drove the business groups to adopt more professional management practices as compared the feudal approach before the reforms.

Khanna and Palepu (2000) extend the logic of the NIE to rationalize that diversification into unrelated areas in developing countries takes place for economizing on transaction costs of capital and labour markets. One could argue the other way round that capital market imperfections of better access and low cost of capital to the family businesses compared to new entrants and smaller firms, and ability to procure contracts and licenses (with bribes) help family businesses to increase diversification (Patibandla, 2006a).

Support Institutions of Government

The role of the government in a capitalist economy is to establish and implement support and regulatory institutions. Support institutions are the legal framework as mentioned in the previous sections, social security, primary education, macro policy management and provision of public goods.

Generally, support institutions are of two kinds. One group defines the environment for the functioning of the economy; such as the legal framework, and the fiscal and monetary institutions. The other group is redistributive, and consists of social security of all kinds, e.g. unemployment benefits, old age, maternity and sickness benefits, credit and disaster insurance by governments.

Social Security

Germany under Bismarck was the first Western country which adopted welfare benefits to workers; accident insurance, holidays, and retirement benefits. One of the biggest lessons the Western capitalist societies learned from the Great Depression of the 1930s, when millions starved, was to establish and implement minimum social security to the people. The European countries, especially Scandinavia, adopted stronger social security system while the U.S adopted it at a lower degree. In India, only the government employees and the organised labour have social security while the unorganised labour never had any form of it. The effect of the reforms is that the problem of lack of social security has been actually worsening. The large firms are increasingly adopting the practice of contractual labour to avoid paying social security benefits (Annavajhula and Pratap, 2012).

The public distribution system which is supposed to provide some form of food security is beset with transaction costs for the poor and illiterate. The central government in the recent years implemented the rural employment guarantee scheme, old age pension benefits, and health insurance card system to the poor. There is qualitative information that money leaks to the middlemen in several of these schemes. The Unique Identification System, which digitalizes information of all the people of India and provides identification mechanism to the poor and the unorganised is expected to reduce informational and transaction costs to the poor to avail some of these social security schemes.

Primary and Secondary Education

The principle behind provision of free and compulsory primary and secondary education in capitalist countries is to create "equality of opportunity". In India, the provision of primary and secondary education is in the hands of state governments with varying degree of implementation. Tamil Nadu State, which was first state to implement mid-day meals scheme in the public schools, performed well in improving literacy and all other social indicators of development. In a major part of the country, the primary education provided by governments has been ineffective because most government schools have poor infrastructure, for example lack of toilets which discourages parents from sending their girl child to school, and poor teacher attendance. On an average, 25% of teachers in government schools are absent on a working day. One of the outcomes of the poor performance of the government is the private order solution of private schools coming into existence to cater to the poor. In the district capital of Hajipur of Bihar there are 17 private schools. In Andhra Pradesh, there are about 5,000 private schools (as of 2000) charging a monthly fee of about Rs.80 from the poor. About 40% of them are legally recognised by the government because the order stipulates that they deposit Rs.50, 000, a sum that most schools cannot afford. As Tooley (2000) observes, private schools have proved to be ingenious. Students from unrecognised schools sit for exams at another friendly recognised school as private candidates; "among some of the most disadvantaged people on this planet, the poor help subsidize the poorest, bound together in their shared status as refugees from a failing state system."

Regulatory Institutions

Regulatory institutions are efficiency improving by intention. If they are not autonomous and effective, they become redistributive. Some of the regulatory bodies are those concerning food and medicine, competition policy, public goods and natural monopolies, labour and capital markets and environment. Most of the regulatory bodies target the production side, except in the case of environment, where both production and consumption can result in negative externalities. The credibility and effectiveness of a regulatory framework vary with a country's political and social institutions. In a decentralized political system, where the number of players is large it is difficult for one player to capture the regulation.

Regulatory institutions, given their mandate, must be in a position to collect and process information by minimizing the transaction cost they impose on private agents to be able to regulate. For instance the Competition Policy Commission (the Anti-Trust in the U.S) has to define anti-competitive conduct and measure it to implement it. Let us take the case of restricting monopoly pricing, the Commission should be able to measure the long run marginal and average costs of a firm and observe whether the price charged by the firm has deviated positively from them. Similarly, in the case of awarding contracts to firms in industries with natural monopoly properties, it is generally thought that a transparent bidding process results in a price that reflects long-run average cost of the service throughout the contract duration. In most cases, it fails because of incomplete contracts of uncertainty, informational imperfections of measuring the attributes of the product or services and possible future changes in costs and prices which results in *ex post* renegotiations and haggling. This is the reason why the government and the regulatory bodies should be able to collect the necessary information and process it with scientific concepts at the *ex ante* stage and incorporate contractual safeguards to reduce *ex post* hazards. As far as society is concerned, it is not minimizing the transaction cost of the bidding process, but minimizing the cost of the final service that is important. Nevertheless, private agents incorporate the transaction costs of the bidding process in the price of the bidding.

I briefly discuss the evolution of the regulatory institutions in India's telecommunication sector. The reforms in the telecommunication sector are considered more successful compared to other infrastructure sectors. However, the reforms and the regulatory process were subject to *ad hoc*

interventions from the government. Since the independence, the telecommunication sector was monopolized by the government's Department of Telecommunications (DOT), both as a policy-maker and as a service provider. The reforms of allowing private players were initiated in 1994. The Telecom Regulatory Authority of India (TRAI) was set up in 1997 as an independent regulatory authority (IRA). However, its autonomy was eroded by frequent interventions from the government, the ministry, and the DOT. When private sector firms bid for licenses, the DOT changed the rules of bidding after the bids were received. At around the same time, the TRAI came out with its first telecom tariff order in an effort to rebalance tariffs, which placed it in confrontation with the DOT. The government took the side of the DOT and diluted the powers of the TRAI as a regulatory body. The government set up a new body for arbitrating disputes, the Telecom Disputes and Settlement Appellate Tribunal (TDSAT). Rao and Gupta (2004) observe that the telecommunications sector recovered after the introduction of revenue-sharing between government and private firms. As a result, the mobile services expanded rapidly in the country. Nevertheless, the sector continued to witness running battles between the TRAI, the DOT and private operators, and in most cases the TRAI came out the second best.

IV

CORRUPTION

My objective in this section is to discuss how some forms or sources of corruption decreased and how other elements of corruption increased in the post-reform era of India using some of the concepts of institutions discussed in the previous sections. As well-known in the literature on India's reforms, the internal reforms of eliminating industrial licenses were initiated in the mid 1980s and the 1991s' major reforms were the crisis-driven which helped the government to break from the grid-locks of interest groups. India was able to augment its growth after the reforms because it had certain initial endowment of capitalist institutions and market endowments acquired from the British rule and the import substitution regime.

Although I have mentioned some of the reasons for corruption in the previous sections, in this section I define it and its possible sources. Corruption is generally defined as "misuse of public office" to extract an illegal rent. The sources can be traced to scarcity, property rights and their

enforcement, transaction costs and information asymmetries, and political position (Patibandla and Sanyal, 2009).

In my previous work (2006), the 1991 reforms are taken as (exogenous) parameter and qualitative shifts in certain elements of the institutional environment. Parameter shifts refer to quantitative changes such as licensing fees, taxes, tariffs, exchange and interest rates. These changes eliminate or reduce some sources of corruption. For example, reduction in income tax rates may increase compliance and reduce corruption, not necessarily the total amount as number of tax-paying agents increase through growth. Qualitative shifts refer to changes in the rules of the game. For example, removal of licensing policies and entry of multinationals increase competition and benefit the consumers by reducing scarcity-related corruption. They also decrease corruption of selling licenses. The reforms could be one-shot changes in piecemeal terms or with implementation of related set of changes.

Piecemeal approach to reforms without complementary institutions results in corruption. For example, the Bombay stock exchange bubble of 1992/93 was generated by Harshad Mehta with shady methods which destroyed billions of rupees of public savings. In response to this crisis, the government brought in institutional changes of setting up of the Security Exchange Board of India (SEBI) and the National Stock Exchange (NSE) for transparent stock trading (as compared to the insider trading methods of the Bombay Stock Exchange), which slowly improved the corporate governance standards. As Dossani (2008) observes this is one of the greatest success stories of institutional reforms by the government of India. One of the reasons is both SEBI and the government owned NSE have been autonomous.

The privatization of public monopolies without strong property rights with credible commitments of the government, and procedural transparency result in corrupt and perverse outcomes, as witnessed in Russia (emergence of the mafia). Khanna and Melito (1997) observe that in industries that were privatized, corrupt officials were able to extract “speed money” for delaying the project in question until the winning bidder paid a bribe. Avaricious officials could change the bidding requirements after the bidding was completed to extract bribes. Some

officials were able to extract monies from the losing bidders to declare all former bids were insufficient.

Corruption through scarcity is generally seen in terms of mismatch between demand and supply. In case of goods, market structure of an industry (monopoly versus competition), price regulation, quantity limits, zoning, and differential tax treatment in different states result in scarcity which creates opportunity for rent. In the case of a service, a supplier or a government body may refuse to provide a service unless a bribe is paid. Shleifer and Vishny (1993) distinguish between "complimentary" services (as when a builder needs all of several permits) and "substitute" services (as when one applies several passport windows) and argue that corruption will be excessive due to a kind of double marginalization in the former case.

Market reforms making markets more competitive (privatization) reduce or eliminate some rents arising out of scarcity, for example, getting telephone and cooking gas connections. However, when a service provision remains in the hands of government bodies, rent could be extracted from the interplay of scarcity and position (Patibandla and Sanyal). Services such as registration, passports, birth and death certificates, driving licenses, FIR at police stations and getting a date at a law court are a few examples. Those at the front office of these services can charge a bribe which arises out of their position of a monopoly provider. They can also impose transaction costs of speed of processing for extracting a bribe. To give an example, Vaidyanathan (2012) observes that parents have to pay a bribe upwards of Rs 1,000 in some states to get a birth certificate. For getting a death certificate, the payment can run into thousands of rupees if government officials realize that it is important for transferring large properties; a typical text-book case of perfect price discrimination.

In the post-reform era, some sources of scarcity-related corruption got magnified owing to weak property rights and high transaction costs of enforcement. Debroy and Bhandari (2011) observe "..the largest discretionary abuse now concerns land acquisition, conversion of agricultural land into non-agricultural usage and building regulations, and areas where unrealistic land and building laws, and tenancy laws, have created artificial shortages."

As mentioned in the Section I, under imperfect information, political constituents may vote for a corrupt politician under distributional grounds. Let us consider the case of a corrupt politician making money for himself by selling publicly owned land and uses tax payers' money to provide some distributional benefits to his constituents. Suppose the costs of the land and the tax payers' money are used to invest in education. The constituents could be far better off than receiving short-run distributional benefits. One way this type of corruption as a norm could break is through demonstration effects say between two states under India's federal democracy. If the government in Bihar invests in public goods and improves the quality of life of the majority, this could be a demonstration effect on the people of the neighbouring state of Uttar Pradesh. The media and movement of people between states can also reduce this form of corruption.

Economic reforms could be a source of huge one-shot rents to politicians in power; for example, privatization of public monopolies. This reduces their ability to use the public sector for political patronage in the future. However, in many industries which are characterized by natural monopoly properties the government has to play a role in issuing licenses and regulation. An example is the telecommunication sector as witnessed in the case of 2-G scam. Recursion of these types of corruption depends on the autonomy of the auditing agencies, the political system of competing parties, and the role of the judiciary in fostering institutional change.

Deterrence of corruption depends on discouraging and monitoring elements of government institutions. Discouraging incentives are that the marginal cost of taking a bribe is higher or equal to marginal price of the bribe. By documenting low incidence of corrupt officials being convicted, Debroy and Bhandari observe that the expected gain of corruption is extremely high and the expected cost is extremely low. This is because the investigating agencies such as the CBI are controlled by the government. They could distort the evidence presented to the courts selectively making the courts ineffective. In the case of the criminal law, even if the police present the evidence, the prosecutors, controlled by the government, have the powers to manipulate the evidence. The government controls institutions such as the police with outdated laws of the British rule, and does not allow them to become autonomous. Low incidence of punishment for corruption reduces the respect for the rule of the law.

The cost of monitoring is generally large which includes enact of laws, setting up regulatory institutions and the actual cost of information collection for auditing. Auditing cost depends on the transaction costs of the technology of information gathering and processing. This varies for different industries depending on the complexity of technology and emergence of new industries, markets and complex forms of contracting as economic activity becomes more complex and deepens through growth.

The Controller and Auditor General of India (CAG), established by the constitution, audits all receipts and expenditure of the central and stage governments and also government-owned companies. I briefly discuss the cases of auditing the allocation of 2-G spectrum and the coal blocks. The allocation of 2-G spectrum by the ministry (the DOT) was a clear case of rigging the bidding process by the ministry to collect huge bribes. The spectrum was allocated to preferred companies in 2008 on the basis of 2001 prices. The TRAI, as the autonomous body of monitoring the bidding process, was sidelined by the ministry. Later, the auditing by the CAG showed the extent of losses to the exchequer. Later, the Supreme Court cancelled all the allocations to redo the bidding again resulting in losses to those companies which followed the rules.

The coal blocks were awarded to private players in 2004 based on the assessment of inter-ministerial body. The institutional deficiency was that there was no bidding process and absence of an autonomous body for regulating the allocation. The CAG audited theses allocations with a time interval of six years in 2010/11 and produced the figures of loss to the exchequer based on its measurement of costs and prices. Here, the relevant issue is the missing of necessary underlying institutions of bidding and contracts. The companies which secured these allocations could make huge windfall gains owing to rapid increase in the commodities prices in general. This is where Williamson's theory of incomplete contracts is relevant. It is not possible to write a comprehensive contract at the *ex ante* stage because of contingencies and changes in economic environment such as technology and prices in the future. The competitive bidding process does not eliminate these uncertainties. The parties involved should be in a position to incorporate contractual safeguards at the *ex ante* stage. One possible solution, especially in the case of natural resources, is that the awarding of contracts should incorporate a clause that "windfall

gains owing to increase in prices and reduction in costs through technological changes should be shared with the government".

One of the reasons for these controversies and loss of revenue to the public is the lack of procedural transparency and regulatory predictability owing to missing institutions. This gives a signal of non-credible commitments by the government which discourages private agents to undertake investments with high sunk-costs properties. Let us hope that these costs of big stake corruption force the government to bring in the necessary institutions.

If one observes the history of the U.S. economy, there was wide-spread corruption and financial crises with intervals in the 19th century and the early part of the 20th century, which induced the state to introduce institutional reforms to avoid similar crises in the future (for example the New Deal of Franklin Roosevelt). Unfortunately, the recent financial crisis in the U.S shows that the institutions that came through hard lessons may wane away in the long-run, repeating the history again. One could conjecture that this could be because theories of the (ideological) supply side economics that propagate that free markets function efficiently and self-regulate becoming dominant intellectual basis for economic policy. On the other hand, not to give too much credit to economists, this could be simply because of emergence of powerful interest groups such as the de-regulated financial institutions.

The implementation of formal rules and regulation by government implies that pursuit of individual self-interest (high powered incentive) is constrained for the reasons of collective good. Societies which are able to find a fine balance between individual incentives and the constraints of collective rules are the ones that are able to maintain stability and realize higher value out of given resources than those that tilt the balance either by imposing too many controls or where lawlessness reigns. We do not have a theory of this fine balance and at best we can operate with comparative economic organization of learning from other societies and learning overtime as change occurs. Borrowing from Coase, both markets and governments are social arrangements.

V

CONCLUSION

There was wide-spread corruption at the top, the middle and the bottom of governance in India during the import substitution regime. The literature on rent-seeking (Krueger, 1974) attributed this to numerous government controls on economic activity. The economic reforms of India eliminated several government controls on economic activity. Although some sources of corruption especially those related to certain forms of scarcity declined, the stakes, value, frequency, and costs of corruption increased significantly after the reforms. This paper argues that this is partly because that some of the tenets of free market reforms have been implemented without the underlying necessary institutions and has brought forth the insights of the new institutional economics to understand the functioning of the Indian economy of the present.

In the Coasian theorem of property rights, private ordering of group formation and bargaining is more efficient than the government in establishing and enforcing property rights in the absence of transaction costs. Presence of transaction costs makes the government's (public ordering) role a preferable governance choice. However, in India transaction costs of enforcement by government or courts are high. If these transaction costs are the same as the transaction costs of group formation and bargaining there will be grid-lock, and one powerful external agent could get away by externalizing the negative externality. This also leads to the perverse outcome of the emergence of mafia, and there is thin line between the mafia and the government when institutions fail.

There are several instances in India, of people getting into private order solutions, to overcome the high transaction costs of the government and the courts. Although some of these private institutions are welcome solutions (for example, private schools for the poor), but not all of them represent the best arrangement. Some of them simply reflect the desperation of the public at the lack of a corresponding public institution and though they bring some relief, the social resource cost is far greater than that of a well-managed public institution. The Jan Lokpal Bill is basically a private order institutional arrangement which aims to create an independent body to monitor the government agents and initiate legal actions for corruption. Here, two pertinent issues are

important. Who monitors the monitor? Further, a highly centralized body will suffer from transaction costs, informational asymmetries and the associated moral hazard outcomes.

The quality of civil society (private order institutions) in terms of the capability a country's citizens to voluntarily create associations for public good (Dossani, 2008) can play a role in fostering the accountability of government agents. They play an important role in the functioning of the U.S.'s federal democracy. They can be positive (efficiency improving) and distributional (Olson, 1965); for example the bus-riders' association in San Francisco and the gun lobby in the U.S. One way the positive civic society institutions can be effective in countering corruption is if they emerge from the bottom-up in a decentralized manner.

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