Kauṭilya on Moral, Market, and Government Failures

Balbir S. Sihag

> In the interests of the prosperity of the country, a king should be diligent in foreseeing the possibility of calamities, try to avert them before they arise, overcome those which happen, remove all obstructions to economic activity and prevent loss of revenue to the state (Kauṭilya 1992: 116).

Theologians, moral philosophers, sociologists, political scientists, and economists have been debating, surmising, evaluating, and commenting for over two thousand years on the performance of the market as a harbinger of miracles or menaces. A considerable amount of intellectual energy has been devoted to finding answers to many fundamental questions, such as: Is the market moral (Blank 2004; McGurn 2004)? Has it been a civilizing force or a destructive influence on the moral foundations of a society?[1] Each discipline offers its unique perspective, and scholars are spread all over the spectrum from pro-market to anti-market. Theologians and moral philosophers usually discuss the fairness aspect of the market. Pro-market scholars argue that the market allows freedom of choice and encourages creativity and entrepreneurship. Anti-market scholars, on the other hand, deplore the fact that those who do not have any purchasing power are excluded from the market. However, they often ignore Paretian efficiency considerations.[2]

Generally speaking, economists concentrate on the Paretian efficiency conditions when evaluating the performance of markets. The traditional view in the West, at least since Adam Smith, has been that unless monopolies, public goods, and externalities, and other contributors to market failures, were present, markets would remain efficient. Again, since the Sherman Act of 1890, the traditional response to these market failures has been government regulation. Jonathan B. Baker discusses the "necessity and successes of antitrust enforcement" (2003: 27). However, the beneficial effects of antitrust laws have been challenged, particularly since the last quarter of the last century. Clifford Winston (2006) collects and synthesizes many empirical studies on market and government failures and concludes that the cure for market failure has often been worse than the disease. He lists shortsightedness, inflexibility, and contradictory policies as the causes of government failure to cure the market failure. The assumption underlying such an analysis has been that the

International Journal of Hindu Studies 13, 1: 83–102

DOI 10.1007/s11407-009-9070-7

political stability was unaffected even if the system became blatantly unfair over time.

The usual question asked has been: Does economic progress through the institution of market destroy the social fabric, core virtues, or culture of a society? However, in the case of India, the question has been: Has Hindu civilization been inimical to economic progress? Raj Krishna in 1977, jokingly or otherwise, labeled India's slow economic growth rate during the fifties and sixties as "Hindu rate of growth," implying that India was not capable of generating a higher growth rate. Similarly, Joel Mokyr remarks, "In the eternal trade-off between progress and growth on the one hand, and stability and order on the other, Hindu civilization chose a position biased in the extreme toward the latter." He continues, "India, where daily life was conducted for millennia at the very margins of subsistence, is a reductio ad absurdum of the notion of an equilibrium, so beloved by economists. Yet this equilibrium was regarded as an arrangement established by the Gods, a perfect world in which everything and everyone had its place, a society in which poverty was holy and action was vanity" (1990: 172–73).

Kauṭilya's *Arthaśāstra* proves beyond any doubt that the above remarks are based either on total ignorance of the Hindu culture or vanity. Kauṭilya believed poverty was a living death and argued that anyone who looked to the stars for a favorable outcome was doomed to fail. He wrote, "A king who trusts in fate and does not believe in human effort will fail because such a king never begins a work and never achieves anything" (p.621). He added, "Man, without wealth, does not get it even after a hundred attempts. Just as elephants are needed to catch elephants, so does wealth capture more wealth….Wealth will slip away from that childish man who constantly consults the stars. The only (guiding) star of wealth is itself; what can the stars of the sky do?" (p.637). According to Kauṭilya, a nation grew at a faster rate if its people were anchored to Vedic values, since he believed that Vedic values promoted economic prosperity, which in turn helped in the preservation of these core values.[3]

Kauṭilya believed that market failure was bad, government failure was worse, but moral failure was the worst of all. He argued that moral failure and poor organizational design were the often root causes of both market and government failures. He believed that prevention was always better than cure and proposed an ethics-intensive education for building good moral character and well thought out organizational design with the intended goal of preventing both market and government failures and having legal measures at hand to correct them if they occurred. Kauṭilya followed a very pragmatic approach and recommended a mixed economy in which both the private and the public sector played complementary roles.[4] He proposed establishment of law and order, provision of public infrastructure, and tax incentives to encourage investment in the private sector. Additionally, government played an active role in providing national security, stabilizing the economy, regulating monopoly and pollution, banning child labor and sexual harassment, and protecting the consumers against fraud.[5] According to Kauṭilya, the state (king) had three basic responsibilities: *rakṣaṇa* (protection), *pālanā* (nurturing, administration), and *yoga-kṣema* (welfare) of its citizens. He recommended that the government not only should help the old, sick, children, and helpless, but should also provide insurance against natural disasters to every one. Thus the usual distinction between a residual and a universal welfare state may not be a very useful one in visualizing the functioning of the Kauṭilīyan state (see Barr 1992 for such a distinction).

Kauṭilya recognized the potential of the human tendency to self-centeredness and believed that while it could be a positive force in bringing prosperity, if unchecked it could also become a negative force by indulging in rent-seeking activities, shirking duties, or pursuing corrupt practices (due to excessive greed). Various possibilities under which moral, market, and government failures could occur are discernible from his observations. Section one of this paper explicitly presents his implied taxonomy of these failures. Kauṭilya was quite concerned about the disastrous consequences resulting from possible failures of both the market and government. He identified the traditional market failures and, surprisingly, some postmodern information-based market failures, too. He believed that if a country did not have sovereignty, it would have nothing but misery and squalor. He emphasized national security and assigned its provision to the government. Sihag (2005) presented Kauṭilya's ideas on various measures required for maintaining independence. According to Kauṭilya, the second important role of government was to maintain law and order, which he considered a prerequisite to prosperity. This is discussed in Sihag (2007a).

Kauṭilya believed that monopolies and monopsonies were a serious threat, not only to the functioning of the market, but also to political stability. Consequently, the disruption costs to the economy might be much larger than the distortion costs. Additionally, Kauṭilya essentially equated monopoly rents with theft and considered their existence not only a market failure but also a moral one. Kauṭilya proposed regulation of monopolies and other externalities to correct the market failure. He suggested measures for combating the moral hazard problem, too. The sanctity of labor contracts and other laws to protect workers are presented in Sihag (2007b). These ideas are contained in section two, which also includes laws to protect consumers. Kauṭilya was equally concerned about the government failure resulting from corruption, inefficiency, and indifference. These ideas are contained in section three.

Kauṭilya considered moral decadence as the worst failure, with dire consequences. He believed that the very existence of social order and society depended on ethical conduct. He proposed that ethical values should be instilled into young minds so they behaved ethically later in their lives. Section four contains his ideas on the disastrous consequences of a moral failure. He believed that whether self-centeredness was checked and harnessed for public good or for private gain depended on the prevailing ethical climate and organizational design. Along with encouragement of moral behavior, he proposed an organizational design that could reduce the scope for conflict of interest situations and enhance accountability. These ideas are presented in section five. The interpretations are based on L. N. Rangarajan's translation of *The*

Arthaśāstra.[6] Kauṭilya (popularly known as Cāṇakya) also completed two other works: *Cāṇakya Sūtra*s (Rules of Science) and *Cāṇakya Rājanītisāśtra* (Science of Government Policies). It may be noted that Euclid had no clue about algebraic expressions, but these are routinely used to express and appreciate his heritage. Similarly Adam Smith used neither graph nor equation, but such tools are used to present his ideas. Charts and graphs are used to bring clarity to Kauṭilya's ideas, too.

Kauṭilya on the Identification of Moral, Market, and Government Failures

Kauṭilya's goal was to establish a prosperous and secure nation. The prevailing conditions at the time were not conducive to the attainment of prosperity or national security. B. N. Ray puts it very succinctly, "We must also not forget the context in which the *Arthashastra* was written. Kautilya was trying to create, almost single-handedly, 'order out of chaos, peace out of war, a public state out of a corrupt one.' That is why his ideas were extremely complex. On the one hand he had suggested the use of all evil, cruel and wicked methods, on the other hand he was obsessed by the idea of creation of clean administrative system" (1999: 107). Kauṭilya was aware of the powerful force of self-interest in bringing riches but was concerned about its potential for pursuing socially unproductive or harmful activities.

Kauṭilya classified individuals into three categories: moral, amoral (utility maximizing agent), and immoral. According to him, there would be no government failure if the king and the bureaucrats were ethical, and similarly there would be no market failure if the private sector were ethical. On the other hand, if the government administration and the private sector were immoral, the whole system would collapse. Kauṭilya was aware of permutations and combinations, and, therefore, many scenarios are implicit in his statements. However, the presentation here is confined to the amoral case only since it has drawn a lot of attention and is also more relevant to describing today's situation in most countries.

E. H. Johnston believed that Kauṭilya paid only lip service to a king's moral duty and relentlessly advanced a king's self-interest:

> According to the (Dharamśāstra), the institution of kingship exists for the maintenance of order and the preservation of the structure of society. The *Arthaśāstra*, no doubt, pays lip service to this ideal, but the essential doctrine underlying the entire work is that a king's sole pre-occupation is with his own self-aggrandizement and that in its pursuit he should be restrained by no considerations except those of enlightened self-interest. The originality of the *Arthaśāstra* lies, in my view, not in the conception of this principle which was probably already in the air, but in the relentless logic with which all its implications are worked out (1929: 79, cited in Kangle 2000, 3: 92).

This observation is only partially correct since Kauṭilya took a two-track approach to constrain the king's behavior. First, he argued that it was a king's moral duty to take care of his people. Second, it was also in his self-interest to do so, otherwise people would revolt against him (Sihag 2005 discusses this in more detail). The following table presents his general understanding of the various failures for the amoral case.

Table 1: Taxonomy of Various Failures

	King (President, Congress, or any public official)			
	Personal Interest		Not in Personal Interest	
	Public Interest	Not in Public Interest	Public Interest	Not in Public Interest
Private Interest	Best Case I	Conflict of Interest (rent-seeking activities) Case III	Conflict of Interest (classic red tape or undermining) Case V	Case VII
Not in Private Interest	Inducing the private sector to be benevolent Case II	Overzealous public official Case IV	Case VI	Rejected by everyone Case VIII

Case I: This is the ideal situation since there is no moral dilemma. Activities such as building public infrastructure, which enhance the productivity of the private investment, are in everyone's interest. In this case there is no moral, market, or government failure.

Case II: Kauṭilya emphasized compassion. The private sector was unlikely to care for the public interest—such as making charitable donations to help the needy—unless it was induced by moral and material incentives. In a broader sense, reduction of inequality was in the public interest. According to theologicians, the market fails to reduce it. They label it a moral failure. Kauṭilya recommended many programs to help the poor and the sick.

Kauṭilya was particularly concerned about cases III, IV, and V, and incidentally these are relevant even today. Case III is a real case of conflict of interest. It has drawn a lot of attention. In fact, the debate concerning market failure versus government failure is centered on this possibility. Many rent-seeking activities, such as lobbying, financial manipulation, and monopoly, exist due to moral, market, and government failures. It appears that the unethical public officials and private sector are like conjoined twins with a common stomach. A public official and the private sector could join hands against the public interest. Conflict of interest would have no adverse impact if the private sector and the king and his administration were ethical.

Case IV: Tax collectors were rewarded with promotions, for instance, if they brought in greater amounts of revenue. However, according to Kauṭilya, overzealous tax collectors could work against both the public and the private interests. He asserted (regarding the behavior of the tax collectors), "He who produces double the (anticipated) revenue eats up the *janapada* (the countryside and its people, by leaving them inadequate resources for survival and future production)" (p.284). He continued, "Just as one plucks fruits from a garden as they ripen, so shall a King have the revenue collected as it becomes due. Just as one does not collect unripe fruits, he shall avoid taking wealth that is not due because that will make the people angry and spoil the very sources of revenue" (p.253).

Case V: Kauṭilya specifically mentioned this possibility. A policy that served both the public and the private interests should not be discussed with an adviser who was likely to be adversely affected by it. Kauṭilya recommended, "No one who belongs to the side likely to be adversely affected by the project shall be consulted" (p.200). This case is quite relevant to today's situation in the United States. For example, it is in both the public and private interest to carry out stem-cell research, but still the president does not approve it since it is against his own political interest and belief.

Kauṭilya on the Consequences of Market Failure

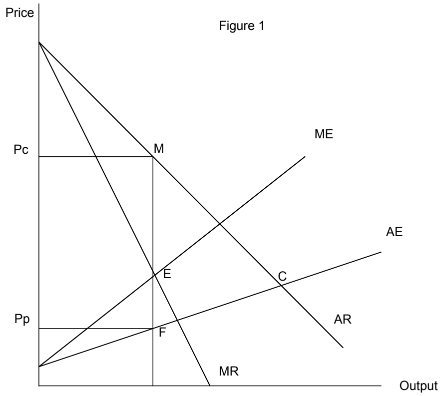
According to Kauṭilya, the very origin of government indicated market failure since the private sector could neither maintain law and order nor provide protection against foreign aggression. He wrote,

> When there was no order in society and only the law of the jungle prevailed, people (were unhappy and being desirous of order) made Manu, the son of *Vivasvat*, their king; and they assigned to the king one-sixth part of the grains grown by them, one-tenth of other commodities and money. The king then used these to safeguard the welfare of his subjects. Those who do not pay fines and taxes take on themselves the sins of kings, while kings who do not look after the welfare of the people take on themselves the sins of their subjects (p.820).

Traditional Market Failures

As we know today, unfettered private markets do not work efficiently in the presence of monopolies, public goods, and externalities. Just like the classicists, Kauṭilya did not label them market failures. However, he recognized these problems and recommended the provision of public goods and the regulation of monopoly, monopsony, and externalities by the government.

Regulation of Monopoly and Monopsony: Both monopoly and monopsony were perhaps serious problems during ancient times.[7] Kauṭilya stated, "Merchants…are all thieves, in effect, if not in name; they shall be prevented from oppressing the people" (p.236). He added, "It is the frontier officer who promotes trade, whereas traders form cartels in order to raise prices (for the goods they sell) or lower them (for the goods they buy); they are profiteers making one hundred panas on one pana or one hundred measures on one measure of (grain)" (p.134). Figure 1 presents his ideas.



AE = average expenditure, ME = marginal expenditure, AR = average revenue, MR = marginal revenue, P_P = price paid to the producers, P_c = price charged from the consumers. Posner's (1975) monopoly-monopsony rents = rectangle FMP_cP_P, and Harberger's (1971) deadweight loss = triangle FCM.

According to Kauṭilya, traders behaved like a monopsonost in buying goods, particularly foodgrains from farmers, and selling them like a monopolist to the consumers. That is, paying producers (farmers) a low price P_P and charging consumers a price P_c. Although Kauṭilya was aware of the monopoly-monopsony rents (Posner's rectangle FMP_cP_P), since he explicitly mentioned profits, he did not mention the use of any resources for capturing those monopoly rents. Similarly, he was not concerned with Harberger's triangle FCM, although it might have been quite large. He was primarily concerned with political unrest arising from producers who were paid a very low price and from consumers who were charged a very high price. It may be noted that this was not a case of bilateral monopoly since it involved the same cartel of traders behaving both as monopsonist and monopolist. Recently, Yoon-Ho Alex Lee and Donald J. Brown (2005) proposed Gérard Debreu's coefficient of resource utilization, ρ, to measure the efficiency loss in real terms caused by monopoly.

Kauṭilya was concerned not only with handling the man-made problems of monopoly and monopsony; he was equally concerned with devising preventive and remedial measures against natural disasters. For example, he suggested several measures to prevent famines, such as building infrastructure, developing irrigation sources, promoting economic development, and "removing all obstructions to economic activity." Similarly, he proposed many remedial measures to minimize the suffering caused by famines. He recommended the following measures to provide relief from famine:

> distribute to the public, on concessional terms, seeds and food from the royal stores; undertake food-for-work programs such as building forts or irrigation works; (share out the royal food stocks; commandeer for public distribution private stocks of food; seek the help of friendly kings; shift the affected population to a different region; encourage (temporary) migration to another country; move the entire population (with the King and the Court) to a region or country with abundant harvest or near the sea, lakes or rivers; [and] supplement the harvest with additional cultivation of grain, vegetables, roots and fruits, by fishing and by hunting deer, cattle, birds and animals (p.130).

From time immemorial, both ordinary consumers and kings have expected fair and honest dealings from suppliers of products and services. It was during the third century BCE that Archimedes faced the challenge of discovering the purity of the king's gold crown. Similarly, Kauṭilya discussed consumer protection at length.[8] He recommended, "Cartelisation by artisans and craftsmen with the aim of lowering quality, increasing the profits or obstructing the sale or purchase [and] by merchants conspiring to hoard with the aim of selling at a higher price" (p.250), would be dealt with stiff punishments (1,000 panas, pana was a rectangular shaped silver coin) for such offenses. Such a high penalty indicates the seriousness of the offense. He recommended punishment for "adulteration," "fraud," "false description in selling," "showing one product and selling another," "stealing precious metal in making new objects," and so on (pp. 249–50). According to Kauṭilya, all such practices were unethical and he equated charging high prices through the formation of cartels to theft.

In the absence of fully developed competitive markets, and product warranties, consumers could use all the protection afforded by the government. Two points are worth noting. First, Kauṭilya's recommendations were almost as specific as the Clayton Antitrust Act (1914) in defining the illegal behavior of the monopolies. Second, Adam Smith (1776) had similar concerns when he wrote, "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise price" (1986: 232).

Externalities: Kauṭilya's suggestion to regulate an externality was not based on the Pigovian distinction between social marginal cost (or benefit) and private marginal cost (or benefit) and the imposition of corrective taxes (or subsidies). He did correctly identify an externality, though, and suggested a fine to prevent it. An externality is defined as: when the actions of a decision maker have a positive or negative effect on the availability of possible consumption or production choices to others. At that time the major source of pollution was cow dung or dirt. Kauṭilya suggested a fine of one-eighth of a pana for "throwing dirt on the road" and one-fourth of a pana for "blocking it with mud or water" (p.373). And he recommended a fine for "Having a dung hill, a sewage channel or a well too near a neighbour's house as to cause nuisance" and also for "Causing obstruction and preventing the enjoyment of others" (p.375).

Kauṭilya was the first thinker to worry about privacy. He stated, "Any window made for lighting shall be high up (so that it does not overlook a room of another house)" (p.371). He suggested a fine of 100 panas for "interfering in a neighbor's affairs without reason" (p.376).[9] His goal was to ensure full enjoyment of their homes with no intrusions from the neighbors. This contribution is presented in Sihag (2008).

Nowadays, businesses and governments are concerned with the harmful effects of smoking on health and worker productivity. Kauṭilya too showed concern about the consumption of liquor. He recommended, "Liquor shall only be drunk in the drinking house, and no one shall move about while drunk. Liquor shall not be stored (in large quantities) nor taken out of a village. The dangers in allowing large stocks or unrestricted movement are that workers may spoil the work allotted to them, [even a dignified person]…may behave immodestly and assassins may be encouraged to behave rashly" (p.349).

Modern Market Failures

The problem of shirking (called a moral hazard problem) and the sellers not providing full information to the buyer (called the asymmetric information problem) are labeled information-based market failures. Although Kauṭilya could not imagine that today such things would be called information-based market failures and certainly did not develop any theoretical models, he went much further than the classicists.[10] He not only understood many of them, but also applied them appropriately to specific situations. Similarly, he did not make any formal distinction between "hidden actions" and "hidden information," but showed his awareness of such distinctions and suggested postmodern solutions to deal with them.

Hidden Actions: Kauṭilya recognized the problem of "shirking." He remarked, "The King shall have the work of Heads of Departments inspected daily, for men are, by nature, fickle and, like horses, change after being put to work" (p.283). He suggested "efficiency wages" to mitigate this problem. Similarly he recommended, "They [a herdsman, a milker, a churner, and a hunter-guard] shall be paid in cash, because if they are paid in milk or ghee [butter oil], they will starve the calves to death (by milking the cows dry, leaving nothing for the calves)" (p.317).

Hidden Information: Kauṭilya showed awareness of the concept of what is nowadays called "asymmetric information" and how to benefit from the possession of such private information. For example, according to Kauṭilya, a king knew the quality of his land, which was poor, but the buyer of the land did not know anything about its quality. He stated, "If a settlement of a tract is likely to entail heavy losses or expenditure, a king shall first sell the land, with the intention of reacquiring it, to one who will fail in the attempt at settlement. Such agreements shall remain verbal" (p.621). Current Lemon Laws are based on this type of market failure.

Handling Missing Markets: At the time, there existed no market for offering insurance policies against fire, floods, diseases and epidemics, and famines. Benefits were provided out of general revenue. Kauṭilya believed, “It is the duty of the king to protect the people from all calamities” (p.128).

Solving Another Problem of Moral Hazard: In order to guard against any possible moral hazard problem, Kauṭilya recommended a fine for “not providing fire fighting equipment,” such as water pots, a big jar, a trough, a ladder, an axe, a hook, a hooked rake, a skin bag, and so on and for “not hastening to save his own house on fire” (p.373).

Kauṭilya on the Consequences of Government Failure

According to Kauṭilya, in the beginning government had a very limited role to play as it was confined exclusively to the maintenance of law and order and protection from foreign aggression. However, Kauṭilya greatly expanded its role to meet the challenge created by the new realties of his time. Charles Drekmeier writes:

> By the fifth and fourth centuries B.C. the ancient tribal institutions had lost their ability to regulate society effectively. New modes of production, new types of social relationships, new salvation theologies were changing the old ways. Kautilya was the theorist who most clearly saw the need for expanded state activity to fill the ever-widening gaps left by the declining authority of tradition. The king needed greater freedom of movement if he was to provide security and the conditions of prosperity. The state was forced to take measures that frequently ran counter to the accepted moral standards of the community. But Kautilya well knew that such policies were all that could save society from collapse. He was led inevitably to a theory approximating the reason of state arguments of sixteenth-century Europe. But he sought to emphasize the fact that such actions were not irresponsible. Indeed it is the duty of the ruler to his subjects that compels him to take drastic steps to ensure their welfare. Survival and progress are recognized as bestowing authority (1962: 260).

Kauṭilya on Good Governance

Kauṭilya described both good and bad governance. He stated, “A *rajarishi* (a king, wise like a sage) is one who: has self-control, having conquered the (inimical temptations) of the senses, cultivates the intellect by association with elders,…is ever active in promoting the security and welfare of the people,…endears himself to his people by enriching them and doing good to them[, and] avoid[s] daydreaming, capriciousness, falsehood and extravagance” (p.145). He added, “A *rajarishi* shall always respect those councilors and *purohita*s who warn him of the dangers of transgressing the limits of good conduct, reminding him sharply (as with a goad) of the times prescribed for various duties and caution him even when he errs in private” (p.145). He asserted, “(Government by) Rule of Law, which alone can guarantee security of life and welfare of the people, is, in turn, dependent on (the) self-discipline (of the king)” (p.142). He added, “In the happiness of his subjects lies his happiness; in their welfare his welfare. He shall not consider as good only that which pleases him but treat as beneficial to him whatever pleases his subjects" (p.149). According to him, anything less would be a government failure.

Avoiding Failure at the Bureaucratic Level

According to Kauṭilya, good governance also meant not allowing corruption at the bureaucratic level. He was quite aware of the possibility of and the difficulty of detecting corruption at the bureaucratic level. He stated, "Just as it is impossible to know when a fish moving in water is drinking it, so it is impossible to find out when government servants in charge of undertakings misappropriate money" (p.281). He continued, "It is possible to know even the path of birds flying in the sky but not the ways of government servants who hide their (dishonest) income" (p.283). He pointed out,

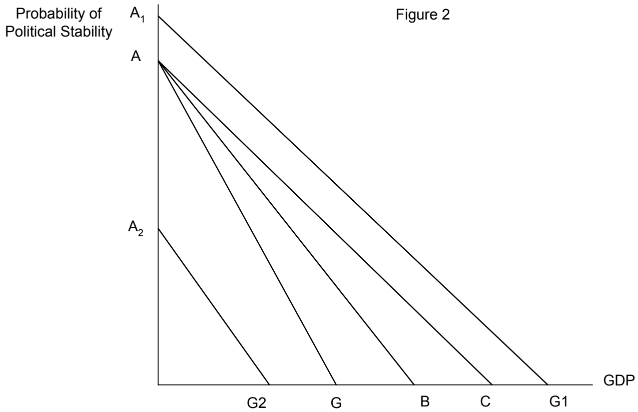
> There are thirteen types of undesirable persons who amass wealth secretly by causing injury to the population. (These are: corrupt judges and magistrates, heads of villages or departments who extort money from the public, perjurers and procurers of perjury, those who practice witchcraft, black magic or sorcery, poisoners, narcotic dealers, counterfeiters and adulterators of precious metals). When they are exposed by secret agents, they shall either be exiled or made to pay adequate compensation proportionate to the gravity of the offense (p.221).

He asserted, "Thus, the king shall first reform (the administration), by punishing appropriately those officers who deal in wealth; they, duly corrected, shall use the right punishments to ensure the good conduct of the people of the towns and the countryside" (pp. 493–94).

Poor Governance or Government Failure at the Highest Level

According to Kauṭilya, government failure could occur at the highest level as well as at the bureaucratic one. He wrote, "A decadent king…oppresses the people by demanding gifts, seizing what he wants and grabbing for himself and his favourites the produce of the country (i.e. the king and his coterie consume more than their due share thus considerably impoverishing the treasury and the people)" (p.133). He added that such a king "fails to give what ought to be given and exacts what he cannot rightly take"; "indulges in wasteful expenditure and destroys profitable undertakings"; "fails to protect the people from thieves and robs them himself"; "does not recompense service done to him"; "does not carry out his part of what had been agreed upon"; and "by his indolence and negligence destroys the welfare of his people" (pp. 159).

Kauṭilya's statement that a decadent king "fails to protect the people from thieves and robs them himself" indicates that government failure could occur both due to inaction and inappropriate action, that is, due to poor governance. Additionally, according to Kauṭilya, if the king were corrupt, the bureaucracy would also be corrupt. Figure 2 may be used to express his ideas.



AB = possibility frontier between GDP and the probability of political stability under monopoly, A_1G_1 = possibility frontier under good governance, A_2G_2 = possibility frontier under poor governance, AC = possibility frontier if perfect competition is restored through antitrust laws, AG = possibility frontier under government failure in trying to correct market failure.

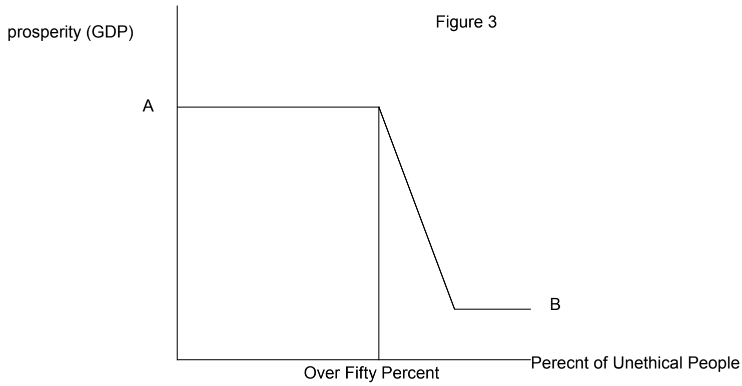
Kauṭilya believed that good governance, which included regulation of monopoly, improved political stability and brought prosperity, implying that the possibility frontier, AB under monopoly, shifted to possibility frontier A_1G_1. On the other hand, according to Kauṭilya, government failure (due to corruption, indifference, and inefficiency) was a lot more serious,[11] since he believed that the AB possibility frontier most likely would shift to the left to A_2G_2, implying political unrest and a much lower income.

The current debate on market versus government failure is one-dimensional and is limited to distortionary effects only (that is, to marginal changes in GDP). Presumably, the antitrust laws were passed with the intended goal of rotating the possibility frontier from AB to AC, the possibility frontier under competition.[12] However, those who oppose government regulation of monopolies argue that instead of rotating the AB curve to AC, it most likely has been rotated to the possibility frontier AG, which they label a government failure. Both the proponents and opponents of government regulation—of monopolies, for example—take it for granted that political stability would not be affected.

Kauṭilya on the Consequences of Moral failure

The Sanskrit word *dharma* means ethics. It also stands for duty, uprightness, and good deeds. Its literal meaning is that which holds the society together. Ancient thinkers in India prescribed *artha*, *kāma*, *dharma*, and *mokṣa* as the four goals of an ethical and productive life and put heavy emphasis on the attainment of a proper balance between spiritual health and material health. However, almost all the intellectual energy of pre-Kauṭilyan thinkers was directed towards the attainment of *mokṣa*: salvation from birth-death-rebirth cycle. Certainly the Arthaśāstra literature was initiated between 650–600 BCE, but it was Kauṭilya who developed many new concepts and provided coherent interpretations. He believed that poverty was a living death and devoted all his energy to the formulation of sound economic policies and their effective implementation to achieve salvation from poverty without compromising ethical values. He believed that ethical values paved the way to eternal bliss as well as prosperity here on earth; that is, they had an intrinsic value as well as an instrumental one.

He asserted, "For the world, when maintained in accordance with the Vedas, will ever prosper and not perish. Therefore, the king shall never allow the people to swerve from their *dharma*" (pp. 107–108). He added: "For, when *adharma* overwhelms *dharma*, the King himself will be destroyed" (p.180). He also wrote, "(The observance of) one's own *dharma* leads to heaven and eternal bliss. When *dharma* is transgressed, the resulting chaos leads to the extermination of this world" (p.107). Figure 3 captures his ideas.



Curve AB = indicates the relationship between prosperity (GDP) and the percentage of unethical people. GDP falls rapidly as the percentage of unethical people exceeds 50 percent of the population.

According to Kauṭilya, there would be total anarchy if the unethical people acquired a majority. Political instability would ruin prosperity, and people would merely survive. He summarized his advice to a king as: "Ever victorious and never conquered shall be that *kshatriya*, who is nurtured by Brahmins, made prosperous by the counsels of able ministers and has, as his weapons, the precepts of the *shastras*" (p.177). He added, "A king who flouts the teachings of the *Dharamshastra*s and the *Arthashastra*, ruins the kingdom by his own injustice" (p.141).

Kauṭilya on the Complementarity of Ethics and Organizational Design

Kauṭilya linked economic growth, among other factors, to capital formation in the private sector, the provision of public infrastructure and human exertion. According to him, moral individuals would behave ethically even if they had the opportunity to be otherwise. However, given the opportunity, some amoral officials might divert scarce tax revenue away from building public infrastructure to private uses, and adversely affect economic growth. Ancient sages and seers in India emphasized the ethical values of nonviolence, compassion, truthfulness and tolerance. Kauṭilya wholeheartedly embraced these Vedic values, but he proposed that they be complemented with material incentives, sound organizational structure, and legal measures to prevent various failures and, if they still occurred, to deal with them effectively.

Ethical Education

Kauṭilya advocated teaching the Vedas and philosophy for learning ethical values and self-discipline, and economics and political science for acquiring practical skills to lead a good, productive, and moral life. He wrote, "There can be no greater crime or sin…than making wicked impressions on an innocent mind. Just as a clean object is stained with whatever is smeared on it, so a prince, with a fresh mind, understands as the truth whatever is taught to him. Therefore, a prince should be taught what is *dharma* and *artha*, not what is unrighteous and materially harmful" (pp. 155–56). He observed, "The sole aim of all branches of knowledge is to inculcate restraint over senses….A king who has no self-control and gives himself up to excessive indulgence in pleasures will soon perish, even if he is the ruler of all four corners of the earth" (p.144). Kauṭilya believed in achieving a proper balance between spiritual and material well being. According to him, ethical values had an instrumental value as well as an intrinsic one.

Material Incentives

Joseph J. Spengler (1971) describes Kauṭilya's insights into human nature very succinctly. He observes,

> His analysis, of course, was implicit, not explicit; it rested upon the assumption that individual behavior could be controlled in large measure through economic rewards and penalties, particularly when these were commensurate with the action to be encouraged or discouraged. Accordingly, while Kauṭilya looked at economic issues through the eyes of an economic administrator, he was aware that rules must fit man's economic propensities and foster rather than repress useful economic activity (74).

Sihag (2007c) extends Spengler's observations regarding Kauṭilya's ideas on the roles of moral and material incentives to elicit maximum efforts.

Kauṭilya on the Role of an Organizational Design

According to Drekmeier (1962), there was a paradigm shift in thinking in terms of the realm of possibilities during Kauṭilya's time in India. He observes,

> But Kautilya's state, in its dependence on the hierarchical division of labor, must contribute to this feeling of alienation. New controls over the environment sharpened the distinction between physical necessity and necessity that is created by man. We may surmise that men began to conclude that remaking the world was within the realm of possibility. The ancient belief in the cyclical periodicity of time, the eternal return, was modified or displaced altogether by a sense of continuity and development approximating a historical attitude. Accumulated wealth and the military power and administrative efficiency it made possible could now be used for achieving ambitious, long-range political and social goals. The great man is, in fact, the great organizer. He creates the very conditions that make the hero obsolete, for he imposes an order that limits the unpredictable contingencies against which the hero struggles. The hero was made for his age; the organizer is the maker of his age. Man can now do things that earlier could be accomplished only by the gods (290).

Sihag (2004) presents Kauṭilya's suggestions for developing an organizational design to avoid "conflict of interest" situations. He states,

> He [Kauṭilya] suggests three measures to deal with the problem of fraud. First, people have to be informed of the existing laws. Since it is not possible to obey them in the absence of proper information. He codifies (along with modifications and extensions) all the rules and regulations. According to him, the laws must be very clear without any ambiguities or loopholes and should be as comprehensive as possible. Second, he proposes an organizational structure, which reduces the scope for conflict of interest. Third, he suggests long lists of punishments for cheating the government and rewards for commendable service (140).[13]

Conclusion

According to Kauṭilya, market failure and government failure were like conjoined twins with a common stomach. Market failure could not occur without government failure and government failure could not happen unless there were moral failure, and poor organizational design. According to Kauṭilya, the government should protect, nurture and enrich the people. He suggested helping the children, the sick, and the old, but did not want to create dependency on the government. He believed that government must be progressive and remove all obstacles to economic growth. It must be vigilant and if possible should try to prevent natural disasters and, if they occurred, should provide maximum possible relief to the affected. He believed that the creation of a prosperous and fair economy required not only the removal of all obstructions to economic growth, but also building infrastructure, establishing law and order, and private property rights, preventiing monopoly and fraud and providing services in areas where private markets did not exist. Thus Kauṭilya expanded the role of government to the regulation of monopoly and pollution and mitigation of the problem of moral hazard, thus correcting market failure. In this context he also demonstrated sufficient awareness with the problems of inefficiency, indifference, and corruption among public servants and suggested effective ways to deal with their sins of omission and commission.

Kauṭilya believed that encouraging ethical behavior and designing a sound organizational structure provided the best insurance against corruption, consequently lowering the probability of various failures. He proposed a very comprehensive approach for dealing effectively with various failures. Aradhana Parmar aptly quotes Beni Prasad as observing: "the Arthasastra is unsurpassed in the Hindu literature. It is complete in its perspective, detailed in its regulations, thorough in its treatment. It makes provisions for all contingencies and for all imaginable possibilities. As a statement of Hindu administrative theory, it hardly leaves anything to be desired" (1987: 14).

Notes

1. Hirschman concludes, "It is not just a question of *difficulty* of perception, but one of considerable psychological *resistance* and *reluctance*: to accept that the *doux-commerce* and the self-destruction theses (or the feudal-shackles and the feudal-blessing theses) might *both* be right would make it much more difficult for the social observer, critic, or 'scientist' to impress the general public by proclaiming some inevitable outcome of current processes" (1982: 1483; emphasis added). See also Fourcade and Healy (2007).

2. McGurn suggests, "In short, my position is that theologians and economists need each other. Theologians and religiously-informed activists need to have some grasp of how the economy really works if their critiques are to be taken seriously. Conversely, market economists, if they are not to succumb to the same self-destructive hubris as the socialists, need a religiously informed culture to remind them that economics is made for human beings and not vice versa" (2004).

3. Basham notes that "The great achievements of ancient India and Ceylon—their immense irrigation works and splendid temples, and the long campaigns of their armies—do not suggest a devitalized people" (1959: 4). He adds, "Indian character is neither lethargic nor unhappy. This conclusion is borne out by a general acquaintance with the remains of India's past. Our second general impression of India is that her people enjoyed life, passionately delighting both in the things of the senses and the things of the spirit" (9). Drekmeier notes the vital role of economic prosperity to "culture-creating" intellectuals. He observes, "With the coming of an agricultural economy, there came also the promise of economic surplus- the production of goods and services in excess of what was needed for survival. This is the condition of

civilization: the possibility of supporting a culture-creating class of professionals" (1962: 105). See also Sihag (2007a) for a more detailed analysis.

4. Kauṭilya advocated private property rights. He stated, "Waterworks such as reservoirs, embankments and tanks can be privately owned and the owner shall be free to sell or mortgage them" (p.231). He promoted investment in the private sector. He recommended tax holidays, for instance, and concessionary loans: "Anyone who brings new land under cultivation shall be granted exemption from payment of agricultural taxes…for a period of two years….[Similarly], for building or improving irrigation facilities…exemption from water rates shall be granted" (p.231). "(On new settlements) the cultivators shall be granted grains, cattle and money which they can repay at their convenience" (p.179). He wrote, "The wealth of the state shall be one acquired lawfully either by inheritance or by the king's efforts" (p.121). For more details refer to Sihag (2004).

5. Kauṭilya was aware of the existence of segmented nature of markets. That allowed a local merchant (with his hereditary skills and availability of capital) to behave like a monopolist in a local market. Moreover, Kauṭilya's genius lay in identifying almost all actual and potential problems and providing practical solutions. It is a well-established fact that Kauṭilya's *Arthaśāstra* is a theoretical treatise. For example, Drekmeier observes, "The administrative organization and regulations of Kauṭilya are generally taken to be a description of the Mauryan system. However, Kauṭilya never purports to give an account of a specific polity. It is a theoretical work, and any attempt to deduce more than the broad outlines of the Mauryan administrative system from it must bear this in mind" (1962: 167). Kumar also notes, "Thus he stands out as the foremost theorist of ancient India and the first to prepare a scientific treatise on state-craft with economics as the basic factor" (1989: xxv).

6. The generosity of Rangarajan and Penguin Books is greatly appreciated for giving me permission to use the translation for interpretations.

7. Friedman remarks, "To a modern economist familiar with the difficulties of maintaining a successful monopoly their concern seems if anything excessive, but that may be a reflection of improvements in the market, not in economic wisdom, over the intervening centuries" (1980: 239). The problem of monopoly, in all likelyhood, must have been quite severe during ancient times, and Kauṭilya considered remedying what Sen calls "pull failure" and "response failure" (1987: 27n29).

8. Post, Lawrence, and Weber argue, "This consumer movement exists because consumers want to be treated fairly and honestly in the marketplace. Some business practices do not meet this standard. Consumers may be harmed by abuses such as unfairly high prices, unreliable and unsafe products, excessive or deceptive advertising claims, and the promotion of some products known to be harmful to human health, such as cigarettes or farm products contaminated with pesticides" (1999: 312). It is further argued that consumers demand protection since products have become more complex, services have become more specialized, there is a prevalence of deceptive advertising and inadequate attention is paid to product safety.

9. Sihag writes, "Book II of Kautilya's *Arthashastra* has two chapters detailing the

construction-design of a fortified city (some writers claim this is the first datable book on civil architecture). According to Majumdar (1980, p 77), 'Kautilya divides the city into sixteen sectors with twelve gates by means of three royal highways running east to west and three running north to south. The city was to be well provided with water, drainage, and underground passages.' Kautilya recommended building codes to protect the privacy, civic codes to keep hygiene and cleanliness and setting up industrial zones to minimize fire hazards by limiting the craftsmen to the specified industrial areas" (2007a: 9).

10. Stiglitz analyzes market failures, which are "based on imperfect and costly information and incomplete markets" (1994: 42). Some of these are labeled as problems of "moral hazard" and "adverse selection." For example, Kotowitz notes that the problem of moral hazard is widespread and even Adam Smith was aware of it. He remarks, "However, theoretical developments and their applications to specific problems have only proceeded over the past 25 years and are still the subject of vigorous research. While we have a considerable understanding of the problem, we do not as yet understand fully market and social responses to it" (Kotowitz 1987: 549).

11. Stiglitz (2000: 9–10) lists four main reasons for government failure when attempting to correct a market failure: limited information, limited control over market responses, limited control over bureaucracy, and limitations imposed by political processes.

12. Bradley provides an alternative explanation. He argues that Senator John Sherman's intent in getting the Sherman Act passed was not to enhance consumer welfare, but to settle a score with General Russell Alger, who had blocked Sherman's Republican presidential nomination. He writes, "Upon signing the Sherman Act into law, Harrison stated: 'John Sherman has fixed General Alger' " (1990: 741, citing Gresham 1919: 574, 632).

13. Ponnuru observes, "Too much analysis assumes that the answer to market failure is government and the answer to government failure is better government. One thing we should surely have learned from public choice theory is that government policies don't fail only because governmental actors are insufficiently wise or insufficiently good. There are structural reasons why certain perverse public policies get and stay on the books. Take, for example, the familiar story in which the costs of a policy outweigh the benefits, but the benefits are concentrated and the costs diffused. Take also the long running scandal of the government's relative overinvestment in the elderly over children" (2004: 13).

References Cited

Baker, Jonathan B. 2003. "The Case for Antitrust Enforcement." *Journal of Economic Perspectives* 17, 4: 27–50.

Barr, Nicholas. 1992. "Economic Theory and the Welfare State: A Survey and Interpretation." *Journal of Economic Literature* 30, 2: 741–803.

Basham, A. L. 1959 [1954]. *The Wonder that was India: A Survey of the Indian Sub-Continent Before the Coming of the Muslims*. New York: Grove Press.

Blank, Rebecca M., panelist. 2004. "Is the Market Moral? A Dialogue on Religion, Economics & Justice." http://pewforum.org/events/?EventID=57

Bradley, Jr., Robert L. 1990. "On the Origins of the Sherman Antitrust Act." *Cato Journal* 9, 3: 737–42.

Drekmeier, Charles. 1962. *Kingship and Community in Early India*. Stanford: Stanford University Press.

Fourcade, Marion and Kieran Healy. 2007. "Moral Views of Market Society." *Annual Review of Sociology* 33: 285–311.

Friedman, David D. 1980. "In Defense of Thomas Aquinas and the Just Price." *History of Political Economy* 12, 2: 234–42.

Gresham, Matilda. 1919. *Life of Walter Quintin Gresham*. 2 volumes. Chicago: Rand McNally.

Harberger, Arnold C. 1971. "Three Postulates for Applied Welfare Economics: An Interpretative Essay." *Journal of Economic Literature* 9, 3: 785–97.

Hirschman, Albert O. 1982. "Rival Interpretations of Market Society: Civilizing, Destructive, or Feeble?" *Journal of Economic Literature* 20, 4: 1463–84.

Johnston, E. H. 1929. "Two Studies in the Arthasastra of Kautilya." *The Journal of the Royal Asiatic Society of Great Britain and Ireland*, 77–89.

Kangle, R. P. 2000 [1965]. *The Kauṭilīya Arthaśāstra*. Part III of III: *A Study*. New Delhi: Motilal Banarsidass.

Kauṭilya. 1992 [1987]. *The Arthashastra* (ed. and trans. L. N. Rangarajan). New Delhi: Penguin Books.

Kotowitz, Y. 1987. "Moral Hazard." *In* John Eatwell, Murray Milgate, Peter Newman, eds., *The New Palgrave: A Dictionary of Economics*, 3 of 4: 549–51. London: Macmillan.

Kumar, Pushpendra. 1989. "Introduction." *In* Pushpendra Kumar, ed., *Kautilya's Arthashastra: An Appraisal*, xvii–xxxii. New Delhi: Nag Publishers.

Lee, Yoon-Ho Alex and Donald J. Brown. 2005. "Competition, Consumer Welfare, and the Social Cost of Monopoly." *Cowles Foundation Discussion Paper No. 1528*. New Haven: Cowles Foundation for Research in Ecnomics Yale University. http://cowles.econ.yale.edu/P/cd/d15a/d1528.pdf

Majumdar, A. K. 1980. *Concise History of Ancient India*. Volume 2 of 3: *Political Theory, Administration, and Economic Life*. New Delhi: Munshiram Manoharlal.

McGurn, William, panelist. 2004. "Is the Market Moral? A Dialogue on Religion, Economics & Justice." http://pewforum.org/events/?EventID=57

Mokyr, Joel. 1990. *The Lever of Riches: Technological Creativity and Economic Progress*. New York: Oxford University Press.

Parmar, Aradhana. 1987. *Techniques of Statecraft: A Study of Kautilya's Arthasastra. New Delhi*: Atma Ram & Sons.

Ponnuru, Ramesh, panelist. 2004. "Is the Market Moral? A Dialogue on Religion, Economics & Justice." http://pewforum.org/events/?EventID=57

Posner, Richard A. 1975. “The Social Costs of Monopoly and Regulation.” *Journal of Political Economy* 83, 4: 807–827.

Post, J. E., Anne T. Lawrence, and J. Weber. 1999 [1975]. *Business and Society: Corporate Strategy, Public Policy, Ethics*. New York: Irwin/McGraw-Hill.

Prasad, Beni. 1928. *The State in Ancient India*. Allahabad: Central Book Depot.

Ray, B. N. 1999. *Tradition and Innovation in Indian Political Thought*. New Delhi: Ajanta Books International.

Sen, Amartya. 1987. *On Ethics and Economics.* Oxford: Basil Blackwell.

Sihag, Balbir S. 2004. “Kautilya on the Scope and Methodology of Accounting, Organizational Design and the Role of Ethics in Ancient India.” *Accounting Historians Journal* 31, 2: 125–48.

Sihag, Balbir S. 2005. “Kautilya on Public Goods and Taxation.” *History of Political Economy* 37, 4: 723–53.

Sihag, Balbir S. 2007a. “Kautilya on Institutions, Governance, Knowledge, Ethics and Prosperity.” *Humanomics* 23, 1: 5–28.

Sihag, Balbir S. 2007b. “Kautilya on Time Inconsistency and Asymmetric Information.” *Indian Economic Review* 42, 1: 41–55.

Sihag, Balbir S. 2007c. “Kautilya on Moral and Material Incentives, and Effort.” *History of Political Economy* 39, 2: 263–92.

Sihag, Balbir S. 2008. “Kautilya on Tort Law during the Fourth Century BCE.” Unpublished manuscript.

Smith, Adam. 1986 [1970]. *The Wealth of Nations: Books I–III.* (ed. Andrew S. Skinner). New York: Penguin.

Spengler, Joseph J. 1971. *Indian Economic Thought.* Durham: Duke University Press.

Stiglitz, Joseph E. 1994. *Whither Socialism*. Cambridge: The M.I.T. Press.

Stiglitz, Joseph E. 2000 [1986]. *Economics of the Public Sector*. New York: W.W. Norton.

Winston, Clifford. 2006. *Government Failure versus Market Failure: Microeconomics Policy Research and Government Performance*. Washington, D.C.: Brookings Institution Press and American Enterprise Institute.

BALBIR S. SIHAG is Professor of Economics at the University of Massachusetts, Lowell. <Balbir_Sihag@uml.edu>