The grey areas of firm behaviour: an economic perspective

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Firms do some things that are profitable, and some things that contribute to the greater good. Adam Smith's Invisible Hand is the idea that profitable activities and socially desirable activities are frequently one and the same.[1] It is popular to scoff at the Invisible Hand (e.g. see Hardin, 1968), but Smith's articulation of it remains one of the most important discoveries in the history of social science. It explains not just how we get our daily bread (which was one of Smith's examples) and the iPhone (which might be his example today), but more fundamentally, how wealth is created and how humankind has escaped the penury of autarky.

Not everything that is profitable for businesses, however, is good for the rest of us. Firms can profit by polluting, defrauding customers or investors, bribing government officials, reneging on contracts with employees or holding up payments to suppliers. Moreover, there are many socially beneficial things that firms do not do because they are not profitable, such as investing in basic research, giving more to charity or adhering to stricter environmental guidelines than required. Stated differently, profitability and social desirability are not perfectly correlated. Activities in which profitability and social desirability do not coincide are the grey areas of business behaviour. These are the activities that can, and indeed *must*, be guided by forces other than their apparent profitability to firms.

This paper examines these grey areas and the inducements firms have to exploit or avoid them. Recent research offers reasons for both hope and concern. On the hopeful side, it turns out that the Invisible Hand has a longer reach than we might first anticipate, as firms and managers face powerful private inducements to avoid many socially harmful activities such as fraud and misrepresentation. This implies that many 'grey activities' are really not so grey, in the sense that firms that act badly end up hurting their bottom lines as well. Of concern, however, is the finding that such private market inducements are weak for some types of activities, including environmental harms and bribery. There remain

[1] See Smith ([1776] 1963), Book IV, chapter II, paragraph IX. The context in which Smith uses the term 'invisible hand' has yielded debate over his exact meaning, but here I refer to its most popular definition, which is what Friedman called 'the possibility of cooperation without coercion' (see http://www.econlib.org/library/Essays/rdPncl0.html#Introduction,%20by%20Milton%20Friedman).

strong financial incentives to pollute or bribe, implying that these harmful activities can be controlled only through moral suasion or legal enforcement. A further concern is the widespread use of the political process to shift costs onto others. This encourages firms to invest resources to make profitable some types of socially harmful activities that they otherwise would not pursue.

Figure 1 provides a picture of the grey areas of business activity. The first quadrant ('Quadrant I') in the figure reflects productive activities that are both socially desirable and profitable for firms to pursue. These are activities for which Smith's Invisible Hand works well. These productive activities explain how we each get our morning coffee, the tablet on which you might be reading this essay and the running shoes lying by my front door. In each case, someone—or a lot of someones—diverted their energy and resources into making something that the rest of us find valuable. Mostly, these producers do not provide their services because they know about our specific needs for coffee, computers or exercise. Rather, they provide these services because they want to make a buck and further their own needs and desires. The fact that they benefit a lot of other people along the way is the magic of the Invisible Hand.

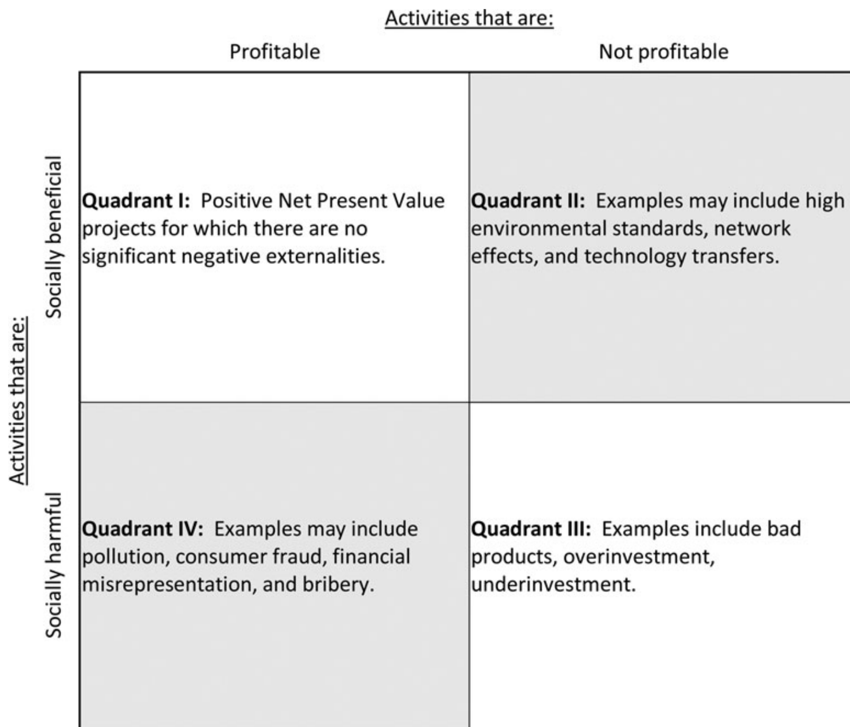

Figure 1 The grey areas of business decision-making.

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Quadrant III represents activities that are neither individually profitable nor socially desirable. Just like the Invisible Hand encourages activities in Quadrant I, it discourages activities in Quadrant III. This is because many undesirable activities are also not profitable. Examples include diverting valuable resources into low-valued products, abandoning a research project on the verge of a commercially valuable breakthrough or overworking employees to the point that the firm's product quality suffers. To be sure, many activities that should be in Quadrant III persist, but only because the people who benefit from the activities can shift the costs onto others and effectively move the activities into Quadrant IV. As an example, some managers consume perquisites on the job that are only modestly valuable to them compared with the costs imposed on shareholders (e.g. see Demsetz, 1983).[2] As another example, firms can use the political process to capture benefits from activities that are socially wasteful and that would be unprofitable except for governmental intervention. Examples include most ethanol production in the USA, steel production spurred by tariffs and sugar production in Florida.[3]

The activities represented in Quadrants I and III are the focus of more than 200 years of research by economists, political scientists and other social scientists. They have given rise to general equilibrium models of production, the theory of firm organization and corporate governance and public choice theory. The foci of this essay, however, are activities that fall in the grey areas—Quadrants II and IV. Quadrant II captures socially beneficial activities for which private incentive is insufficient to bring them about. This is the case of positive externalities, which may include some research activities, network effects and technology transfers. Quadrant IV captures activities for which the Invisible Hand does not work well, including negative externalities and monopoly pricing.

1. What forces are at work in the grey areas?

To repeat, Quadrants II and IV are grey areas of business conduct. These are the activities that firms do too little of (Quadrant II) or too much (Quadrant IV). Figure 2 illustrates one way to characterize the goal of our collective research and policy efforts: we seek to push the activities that currently reside in Quadrant II into Quadrant I, so that firms voluntarily will undertake them. And we want to push the activities that currently reside in Quadrant IV into Quadrant III, so that firms voluntarily will refrain from them.

[2] As one of many examples, Yermack (2012) shows that many corporate managers employ corporate jets, leisure time and other perquisites that do not serve shareholders' interests.

[3] There are, of course, defenders of ethanol, steel and sugar subsidies and mandates. But most independent analyses conclude that the economic and environmental costs of these policies outweigh their benefits (e.g. see Hahn and Cecot, 2009).

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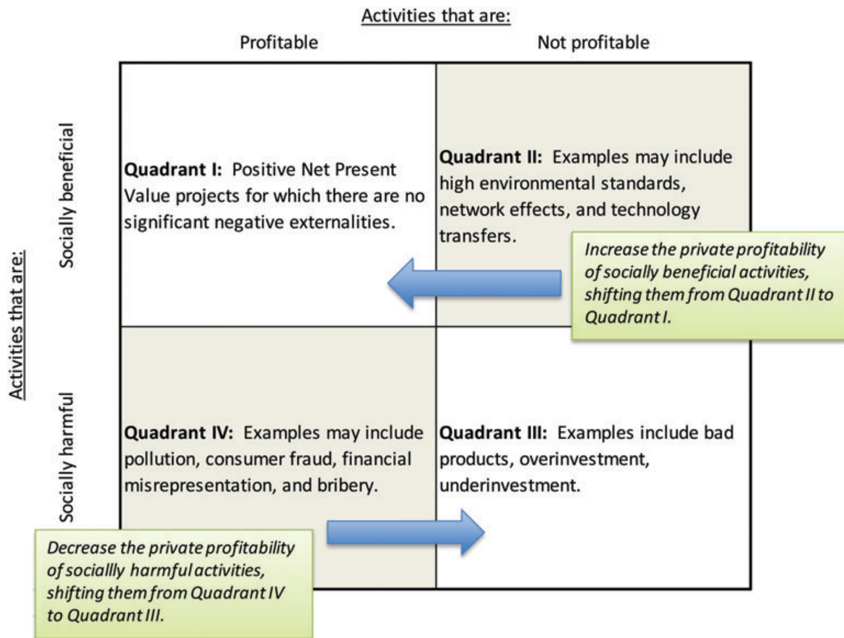

Figure 2 Representation of research and public policy goals.

There are three broad forces that encourage managers and their firms to do more Quadrant II activities and fewer Quadrant IV activities. The first is a community's laws and regulations. Most of the legal system is designed to increase the private penalties for activities in Quadrant IV, to decrease the incentive to engage in fraud, theft, misrepresentation, worker exploitation or other socially costly activities. Government influence also is used to increase the private incentives for Quadrant II activities, as when governments subsidize education or basic research.

A second inducement for firms to do more Quadrant II activities and fewer Quadrant IV activities is each manager's moral code, that is, his or her personal commitment to integrity and fair dealing. Such personal commitment may reflect the manager's personal philosophy or religious beliefs, as well as community norms and expectations. We all know businesspeople who put in extra effort even when it is not required or likely to be compensated, or who refrain from wasteful activities such as dumping effluent in the city's storm sewers, simply because it is the right thing to do. As J.C. Watts observed, 'Character is doing the right thing when nobody is looking', and character no doubt plays a large role in constraining such activities as pollution and fraud even when they appear to be privately lucrative.

The third primary inducement for firms to behave well is reputation. Reputation has many meanings and uses, but here I refer to the economic definition provided

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by Karpoff (2012, p. 363), in which reputation is 'the present value of the cash flows earned when an individual or firm eschews opportunism and performs as promised on explicit and implicit contracts. Stated differently, reputation is the value of the quasi-rent stream that accrues when counterparties offer favorable terms of contract because they believe the firm will not act opportunistically toward them'. In theory, reputational benefits may accrue to firms that pursue socially desirable activities, including those that are not profitable, and to firms that refrain from socially harmful activities even when they are profitable. The evidence indicates that such benefits are real and large for some types of activities, but not for others. The following sections discuss the empirical evidence regarding the role that reputation plays in disciplining bad behaviour and encouraging socially desirable behaviour.

2. When does reputation work to police the grey areas?

2.1 Reputation shifts some Quadrant IV activities into Quadrant III

Karpoff (2012) surveys more than 50 empirical research papers that examine the impacts on firms that are caught engaging in activities that appear to fall in Quadrant IV. These include financial misrepresentation, false advertising, product recalls, consumer fraud, air safety failures and defence procurement fraud. Firms that engage in misconduct that affects their counterparties—for example, lying on financial reports or defrauding consumers—experience large decreases in value. These firms' losses far exceed the direct costs of the misconduct, including the costs of lawsuits and legal penalties. Further evidence indicates that the losses correspond to subsequent decreases in future cash flows and/or increases in these firms' costs of capital.[4]

These results indicate that misconduct affecting a firm's counterparties tends to trigger large reputational losses. In the case of financial fraud, for example, the reputational loss averages 25% of the firm's market capitalization, an amount that is 7.5 times the losses imposed through regulatory penalties and lawsuits (Karpoff *et al.*, 2008). The losses are not temporary; rather, they reflect investors' expectations of these firms' higher costs and lower revenues as investors and customers shy from doing business with firms that have lax internal controls or a culture of opportunism (see Graham *et al.*, 2008; Murphy *et al.*, 2009). The large reputational losses imply that the *ex post* profitability of opportunistic behaviour tends to be negative for firms that are caught. The *ex ante* profitability depends on the probability that these firms are caught, but the overall effect of reputational penalties is to shift these

[4]Most of the surveyed papers use event study methods to measure the share price reactions to initial news of the misconduct, and to subsequent revelations about the severity and consequences of the misconduct. In general, the share price reactions do not reverse over longer event windows but rather, represent losses in present value that subsequently show up in lower revenues and higher costs.

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activities from Quadrant IV towards Quadrant III, making unprofitable many types of misconduct that are socially harmful.

While reputation plays a large role in disciplining some opportunistic behaviours, its importance can be overlooked by executives and policymakers. Ford Motor Company's infamous 'Pinto memo' is a case in point. In the early 1970s, Ford submitted a document to the National Highway Traffic Safety Administration—later dubbed the 'Pinto memo'—seeking exemption from proposed safety standards. The memo concludes that the cost of meeting the standards would be much higher than the value of the lives that possibly could be saved if the standards were met.[5]

At roughly the same time, Ford marketed its Pinto automobile as a fuel-efficient competitor to the Volkswagen Beetle and Toyota Corolla. The Pinto's design, however, made it vulnerable to gas tank ruptures in rear-end collisions, increasing the likelihood that even a small accident could lead to serious personal harm or death for the car's occupants. Ford delayed recalling the Pinto to fix this problem until 1978, after several highly publicized crashes that resulted in tragedies. The 'Pinto memo' was not directly related to the Pinto's gas tank problem, but it became a symbol of Ford's apparent willingness to sacrifice customer safety for profit. When news of Pinto-related deaths began to circulate, Ford received terrible publicity that contributed to a company-wide decrease in sales. In the ensuing years, Ford Motor Company nearly failed as an independent company.

The 'Pinto memo' reads like a competently executed benefit–cost analysis. But it had a major flaw—its authors did not consider Ford's reputational costs if consumers began to consider its vehicles as unsafe. In hindsight, we can see that Ford's decision to not recall and fix the flawed Pinto in a more timely manner was not in Quadrant IV, as its executives apparently thought. Rather, it was in Quadrant III. That is, the decision to not protect Ford's customers ended up hurting the company's bottom line. By not taking into account the value of a good reputation and the reputational loss that would accrue as customers fled to other automakers, Ford's executives perversely pursued a value-destroying strategy.

2.2 Reputation does not work to police all Quadrant IV activities

As summarized by Karpoff (2012), however, not all types of misconduct are shifted from Quadrant IV to Quadrant III by the force of reputation. This is because reputational losses are small to negligible for environmental violations and other misconduct that does not directly affect the firm's counterparties. Karpoff *et al.* (2005), for example, find that firms that violate environmental regulations suffer significant losses in share values that average 1% of market capitalization. These

[5]The memo is available at http://www.autosafety.org/ford-pinto-costbenefit-memo. For an analysis of Ford's and regulators' actions relating to the Pinto, see Lee (1998).

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losses, however, are completely attributable to the fines, penalties and remediation costs imposed on the polluting firms. A firm that dumps effluent into a river, for example, imposes costs on downstream users. If caught, the firm typically faces substantial fines, lawsuit settlements and cleanup costs. But in most cases the firm's dumping activities do not directly affect its customers, suppliers or investors. These counterparties do not face the prospect of direct harm from the firm's willingness to behave badly, so they do not have incentive to change their terms of contract with the firm. As a result, we do not observe a general tendency for environmental misconduct to harm firms' reputations with their counterparties. Using the framework proposed by Mitchell *et al.* (1997), reputational consequences that directly affect firm value and operations arise only when the affected stakeholders have salience. The firm is less likely to internalize any costs it imposes on the firm's 'dependent stakeholders' because these stakeholders do not have a business relationship with the firm.

Karpoff *et al.* (2013) find that the reputational loss for foreign bribery also is negligible. They infer that the revelation of bribery does not adversely affect the firm's counterparties, who therefore have no direct incentives to shy from doing business with the firm. To the extent that bribery is socially harmful—undermining the rule of law and the role of trust in market contracting, for example—bribery fits squarely into Quadrant IV. In fact, we can think of Quadrant IV as consisting of all such activities that impose net social harms that are not deterred by reputational penalties.

2.3 Quadrant II

The threat of penalties, via either the market or the legal system, helps to decrease the grey area of Quadrant IV. Are there commensurate rewards to firms that undertake activities in Quadrant II? One line of research that seeks to address this question examines whether firms that adopt environmentally sensitive policies enjoy abnormally high profits, values or other benefits. In contrast to the mounting evidence of reputational losses for certain types of misconduct; however, here the research findings are mixed. Some researchers find evidence consistent with green policies being rewarded with increased profitability (e.g. Amore and Bennedsen, 2013). Other studies, however, conclude that environmentally friendly policies are unrelated to profitability, are the result rather than the cause of firm profitability or are associated with poor performance (e.g. Hong and Kacperczyk, 2009; Climent and Soriano, 2011). Given such conflicting findings, this is a ripe area for further research.

While the research is mixed on whether there are private rewards for environmentally sensitive investment, a second line of research examines the extent to which private contracting allows firms to capture the external benefits of their actions. A widely cited textbook example of an activity that allegedly falls in Quadrant II is beekeeping. According to the theory, beekeepers provide uncompensated

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pollinating benefits to orchard owners—an example of an external benefit that could be resolved through public subsidies for beekeeping. Cheung (1973) examined this popular example by obtaining data on actual contracts between beekeepers and orchard owners. Contrary to the archetypal story, he finds that beekeepers do in fact capture the benefits of their bees' pollinating services. This implies that some types of activities that are suspected to reside in Quadrant II are, in fact, better characterized by Quadrant I.

A third approach has been to examine the role of public subsidies for Quadrant II activities. In theory, subsidies would better align firms' private benefits with the public benefits of such activities. Economics textbooks typically cite subsidies for education and basic research as examples of policies that encourage socially desirable investments when private incentives are insufficient. Current policy debates over subsidies for alternative energy sources reflect disagreements over whether investments in such sources are best characterized by Quadrant II or III. Advocates of such subsidies claim that they fall in Quadrant II and therefore should be encouraged, while critics claim that they fall in Quadrant III and should not be encouraged.

3. Lessons and takeaways

This paper suggests a framework for characterizing the grey areas of business behaviour. These are activities that are either socially desirable but not profitable or profitable but not socially desirable. This brief discussion leaves out many important details, including how to determine the social desirability of any particular activity, whether individual incentives align well with those of the organization, and the frictions that arise when it is costly to attribute blame for irresponsible acts. Existing research nonetheless sheds light on three important lessons.

3.1 Lesson 1

The number of activities that fall in the grey areas is smaller than it first appears, because private contracting and reputation work to encourage many beneficial activities and discipline many harmful activities. In particular, the costs of many harmful activities are internalized through the perpetrating firm's lost reputation. To be sure, the prospect of lost reputation does not deter all business misconduct. But for many types of misconduct, such as financial or consumer fraud, empirical measures of lost reputational capital are several times the value of all legal penalties imposed on the firm, implying that lost reputation is a primary source of deterrence.

3.2 Lesson 2

There remain grey areas in which the Invisible Hand does not work well. These persist in part because harms are imposed on parties that are outside the nexus

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of counterparties with whom the perpetrating firm does business, so no market-based mechanism exists to force the firm to internalize the costs of its bad behaviour. Available evidence indicates that environmental damage and foreign bribery fall in this category.

3.3 Lesson 3

The grey areas present important questions for further research. Here are four examples: (i) the fact that firms continue to be exposed for unethical or illegal activities indicates that laws, ethics and reputation are insufficient to deter all harmful activities. To what extent do managerial incentives, agency problems or executive mistakes cause firms to pursue these activities? (ii) How and to what extent do private contracting, public policy and private charity incentivize firms to engage in socially desirable activities that currently fall in Quadrant II? (iii) How can public policy take into account the role that reputation plays in disciplining some harmful activities, effectively shifting them from Quadrant IV to Quadrant III? (iv) How do agency costs and political cost shifting work to (perversely) move some Quadrant III activities into Quadrant IV?

Acknowledgements

I thank Gregory Jackson for helpful comments and suggestions, and the Foster School for research support.

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