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**ECONOMIC EFFECTS OF CORRUPTION**

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“Corruption” is difficult to define in a way that facilitates measurement, but it can be viewed as private payments, whether pecuniary or in-kind, undermining either efficient or inefficient rules or substituting for the absence of such rules. Obvious examples are bribes for needed permits and the like; the range of potential forms that corruption might take is limited only by the human imagination. It may be the case that certain institutions—democratic choice of public officials, a free press, an independent judiciary itself somehow constrained by a rule of law, thus presenting a certain chicken-and-egg problem—reduce the potential opportunities for corrupt behavior, but that is a large issue beyond the scope of this project.

Instead, we ask a far narrower question: What is the likely economic effect for China, as a crude quantitative exercise, of a substantial increase in corruption as an economic quasi-institution? We assume for analytic purposes that the effect is negative, although even that is not entirely obvious; as noted above, corruption can undermine both good law and bad. But for a China with economic institutions evolving away from those characterizing state socialism, and with a growing economy and middle and upper classes interested in rules upon which they can rely and in a reduction in the prospective degree to which their (economic) interests can be threatened by extralegal behavior, it is reasonable to assume that corruption is a threat to the evolution of an enforced rule of law and thus would impose net economic costs.

Two surveys of parameters that crudely serve as proxies for “corruption” were reviewed. The first is the *Economic Freedom of the*

*World 2002 Annual Report*, a “survey of surveys” by James Gwartney et al. and published by the Fraser Institute (Vancouver, B.C.) in 2003.<sup>1</sup> Among the five classes of parameters yielding the economic freedom index, “Legal Structure and Security of Property Rights” and “Regulation of Credit, Labor, and Business” contain variables that in our judgment would enjoy broad agreement as components of a usable “corruption” index. The former comprises judicial independence, impartial courts, protection of intellectual property, military interference, and integrity of the legal system. The latter comprises administrative obstacles for new business, time spent with government bureaucracy, ease of starting a new business, and irregular payments to government officials. The indices are presented on a scale of 1 to 10, with 10 being the “most free.” Table 3.1 presents these data for China, derived from surveys used in Gwartney et al., 2002.

For comparison purposes, Table 3.2 presents similar data for 2000 for India, Indonesia, Russia, Turkey, and the United States.

What is interesting in the China case from Table 3.1 is that the indices underlying “legal structure and security of property rights” uniformly have declined (worsened) since 1985, while those underlying “regulation of business” have improved since 1995, although only two observations are available. Cross-sectional comparisons are

**Table 3.1**  
**“Corruption” Parameters for China**

Parameter	1980	1985	1990	1995	2000
Legal structure and security of property rights	n.a.	6.8	5.8	5.0	4.1
Regulation of business	n.a.	n.a.	n.a.	4.4	5.6
Economic freedom summary rating	3.7	4.9	4.6	5.1	5.3

SOURCE: Gwartney et al., 2002.

NOTES: Ratings are on a scale of 1 to 10, with 10 being the “most free.” n.a. = not available.

<sup>1</sup>The ranking data are derived from the *Global Competitiveness Report* and from the *International Country Risk Guide*. The Fraser Institute is an independent economic and social research and educational organization.

**Table 3.2**  
**Comparative Indices for Several Nations for 2000**

Nation	Legal Structure/Security of Property Rights	Business Regulation
China	4.1	5.6
India	6.0	5.9
Indonesia	3.4	4.8
Russia	4.4	5.1
Turkey	5.4	5.9
United States	9.2	8.3

SOURCE: Gwartney et al., 2002.

problematic for these subcomponents of the overall index for economic freedom because of differences in data availability over time. However, the indices place China roughly in the middle quintile among nations, and the five quintiles for the summary economic freedom index have average annual percentage economic growth rates that differ sharply; from the lowest to the highest, they are, respectively,  $-0.85$ ,  $1.13$ ,  $1.44$ ,  $1.57$ , and  $2.56$ .

For purposes of our “adversities” analysis, let us assume that corruption in China worsens so that the future relevant indices fall to levels represented in the lowest of the quintiles. Such deterioration might occur for many reasons and through many channels. For example, government contracts might increasingly be directed toward less-efficient, higher-cost SOEs, or formally “privatized” SOEs in which government entities hold controlling shares; or preferences might be accorded to those private firms whose lenders join the Chinese Communist Party (CCP), and/or are willing to share their profits with the CCP.

The economic freedom summary rating is the composite rating for each of the nations in the survey; it is that summary rating (by quintile) that is correlated with economic growth in the Gwartney et al., 2002, study. Like the “corruption” parameters discussed above, this summary rating places China roughly in the middle quintile among the nations, although the summary rating for China has been improving more-or-less steadily since 1980. Note also that the summary economic freedom index comprises five classes of parameters; “Legal Structure and Security of Property Rights” is one of the five, while “Regulation of Business” is one component (among three) of another

(“Regulation of Credit, Labor, and Business”). Under the crude assumption that each of the parameter classes contributes equally to the summary rating<sup>2</sup> and, in turn, to differences in economic growth rates, “corruption” would account for somewhat more than one-fifth of the observed differences in economic growth rates (“Legal Structure and Security of Property Rights” is one of the five economic freedom components and “Regulation of Business” is one-third of another component). Since that difference between the ratings in the third and last quintiles is about two percentage points of growth, a crude estimate is that Chinese economic growth would decline by about 0.5 percent per year were Chinese corruption to worsen so that its index fell into the lowest quintile. This may be an underestimate in that a sharp worsening of corruption would not occur in a vacuum; it would be more likely to be a coincident or ancillary effect of other adverse trends harming Chinese growth, a point to which we return below.

The second survey of interest is the “Corruption Perceptions Index” published by Transparency International.<sup>3</sup> This index is a summary of polls reflecting the views of country analysts, academics, and businessmen. Table 3.3 presents the index data for China for 1995 through 2001.

Table 3.4 contrasts the Gwartney et al., 2002, and Transparency International, 2001, ratings. Both the Gwartney et al., 2002, “Regulation” rating and the Transparency International, 2001, “Corruption Perceptions” rating show moderate improvement since the mid-1990s. The former ranks China in the middle quintile, while the latter ranks China in the fourth. The Gwartney et al., 2002, “Legal Structure” rating shows a steady decline since the mid-1980s; this may suggest that “corruption” stems more from required dealings with

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<sup>2</sup>In fact, in the Gwartney et al., 2002, methodology, the summary rating is the average of the five parameter classes.

<sup>3</sup>See Transparency International, *Global Corruption Report 2001*, Berlin, Germany, 2001, at [www.transparency.org](http://www.transparency.org). Transparency International is an international non-governmental organization devoted to combating corruption. The data underlying the index are reported by the World Economic Forum, the Institute for Management Development, PricewaterhouseCoopers, the World Bank, the Economist Intelligence Unit, Freedom House, and the Political and Economic Risk Consultancy (Hong Kong).

**Table 3.3**  
**Corruption Perceptions Index for China**

Year	Index	Rank Among Nations
1995	2.2	40 of 41
1996	2.4	45 of 47
1997	2.9	41 of 52
1998	3.5	52 of 85
1999	3.4	58 of 99
2000	3.1	63 of 90

SOURCE: Transparency International, 2001.

NOTE: Ratings are on a scale of 1 to 10. A higher index value indicates less corruption.

**Table 3.4**  
**Ratings Comparisons**

Year	Legal Structure	Regulation	Corruption Perceptions
1985	6.8	n.a.	n.a.
1990	5.8	n.a.	n.a.
1995	5.0	4.4	2.2
1996	n.a.	n.a.	2.4
1997	n.a.	n.a.	2.9
1998	n.a.	n.a.	3.5
1999	n.a.	n.a.	3.4
2000	4.1	5.6	3.1
2001	n.a.	n.a.	3.5

SOURCES: Tables 3.1 and 3.3 above.

NOTE: n.a. = not available.

government officials than from the nature of formal legal institutions per se, which may affect economic growth directly and corrupt practices only indirectly. In any event, there is no obvious inconsistency between the Gwartney et al., 2002, and Transparency International, 2001, findings for China; however, the latter does not correlate the Corruption Perceptions Index with economic growth.

Again, a dramatic increase in corrupt practices in China, as noted above, would be likely to reflect some deeper set of trends increasing private incentives to engage in corrupt behavior. An example might be a large increase in explicit taxation in the face of severe budget deficits, increasing incentives to operate businesses off the books, with side payments to various public officials. Such hidden economic

activity might entail higher costs of various kinds—for example, the higher taxation/side payment system might induce a substitution of labor for capital so as partially to avoid large fixed investments that could be taxed away, whether formally or by corrupt officials—so that corruption in this case would be correlated with lower economic output, although one could argue that it is the higher taxation that is the real source of the reduced economic product. More fundamentally, sectors with greater susceptibility to demands for extralegal payments will tend to decline relative to other sectors, other things equal, yielding less aggregate output for a given supply of inputs and available technology. Another example might be the use of inflation as an implicit tax instrument with which to acquire real resources for the public sector, combined with price controls intended to mask the inflationary pressures. Such price controls can be predicted to yield shortages, with a subsequent requirement for some nonprice mechanism with which to allocate resources and intermediate and final goods. It is not difficult to envision the widespread growth of bribery—corruption—as a substitute allocation tool. Again, we would expect economic growth to fall, primarily as a result of the inflation tax and the economic inefficiencies caused by the controls.

And so our crude estimate of 0.5 percent in terms of reduced GDP growth in the case of a sharp increase in Chinese corruption does not seem unreasonable; certainly, there appears to be no reason to believe it is unrealistically high. The adverse GDP effects of corruption, however, are likely to be correlated with the conceptually separate consequences yielded by other parameters and policies (e.g., tax policies, protection of property rights, etc.), which are likely to reduce growth directly and also indirectly by engendering an increase in the extent to which corrupt practices are observed. Separation of the marginal effects of corruption per se would not be a trivial exercise.

Note that the economic cost of corruption is not, crudely, the amount of money that changes hands. In pure economic terms, that is a wealth transfer that for the economy as a whole is neither a cost nor a benefit. Instead, the economic cost of corruption is the reduced economic output that results from it, as individuals and businesses make adjustments in the face of corruption among public officials and its attendant effects in reducing the efficiency of resource use, hence, reducing the aggregate size of the output basket that can be

produced from the resources available. Such inefficiency might take the form of resource use in less productive activities, resource use by less productive individuals and businesses, and the like.

It was noted above that a sharp increase in corruption, however defined or measured, would be likely to result from changes in other parameters or conditions yielding an increase in the incentives for corrupt behavior. At the same time, it is wholly plausible that corrupt practices might grow or decline even in the absence of an important shift in underlying parameters. Certainly it is unclear whether current conditions in China of uneven economic reform and (perhaps slowing) economic growth are likely to yield an increase, decrease, or no major change in corruption. On the one hand, the ongoing visible anticorruption efforts of the government might yield such a decline, although those efforts are not inconsistent with an increase in the same way that, say, police forces might exert greater efforts against burglary precisely because it is increasing. On the other hand, a growing economy generally might offer greater opportunities for corrupt behavior, in the same sense that a growing economy offers expanding opportunities for the use of straightforward tax instruments, and an expanding public-sector investment program in particular might be accompanied by an increase in corrupt practices in the context of contract awards and the like.

Professor Angang Hu offers an estimate of the economic cost of Chinese corruption for 1995–1998 of 13.2–16.8 percent of GDP.<sup>4</sup> Note that Hu attempts to measure the level of corruption, while we are focused upon the GDP effects of a large increase in corruption. Accordingly, our respective findings are not necessarily inconsistent. Hu includes several categories within the classification “corruption.” As discussed below, his calculations include both real inefficiency costs (or “deadweight losses”) and wealth transfers from the broad economy to those favored. His calculations thus are important but may suffer from an upward bias.

- *Dual price systems presumably protected by government officials.* Hu notes that this practice yields high prices for important in-

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<sup>4</sup>Angang Hu, “Corruption: The Largest Social Pollution in China,” unpublished manuscript; and Angang Hu, “China: Corruption and Anti-Corruption Strategies,” unpublished briefing, Tsinghua University, Beijing.

puts in some sectors; this is very likely to yield inefficiency, that is, a reduction in aggregate output, but the high prices (or the high profits earned by those favored) themselves are not an economic “cost.” Nor are any corrupt payments to officials in pursuit of high administered prices, strictly speaking, an economic cost of corruption; although, again, Hu is correct in that the high prices yield real costs in the form of GDP lower than otherwise would be the case.<sup>5</sup>

- *Awards of economic monopolies.* Again, the monopolistic pricing likely to result creates inefficiency in the form of resource misallocation and in the form of investments in efforts to obtain monopolies or to avoid the effects of monopolies; but the high prices and profits themselves are not a corruption “cost.”
- *Dual systems for various kinds of governmental favoritism, whether for trading rights or other favors.* Again, neither the payments to corrupt officials nor the high profits that result, strictly speaking, are economic costs, but the resulting resource misallocation is.
- *Underground economic activities engendered or facilitated by corrupt practices.* An example of such activity might be the drug trade. The economic cost—again—is the decline in the value of aggregate output, rather than, say, total spending on such underground activities.<sup>6</sup>
- *Tax evasion facilitated by corrupt practices.* The economic cost of such evasion is not the sum of tax payments avoided. Instead, it is the resulting reduction in the size of the public sector under the assumption that the tax evasion yields too little government spending; alternatively, it might be the additional economic costs created by the substitution of tax instruments less efficient than those being evaded.

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<sup>5</sup>At the same time, real resources consumed in efforts to influence public officials corruptly are a real cost of corruption; a trivial example might be construction of a palatial home as a bribe, to the extent that the home proves more costly than what the recipient official would have obtained otherwise.

<sup>6</sup>Note that the “value” of output is a highly normative concept. As a crude generalization, market economies value output baskets at market prices as determined in markets driven by individual preferences. Other value systems might yield sharply different valuations; the labor theory of value is an old (and tired) example.

- *Distortion of government investment and expenditures.* The cost of such an outcome is not, say, the reduction (or expansion) in government spending. It is instead the decline in the value of aggregate output including government output.

As noted above, one problem with the Hu estimate is the blending of real economic costs with pure wealth exchanges, reduced tax payments, and the like; but at the same time, some substantial inefficiency costs are likely to be captured by his estimates. Derivation of an estimate of the economic cost of a sharp increase in corruption less crude than that discussed above (0.5 percent of GDP) lies beyond the scope of this book. Note that the Hu estimate, whatever its problems, is given for the cost of corruption as a steady state exercise, rather than as an estimate of the cost of a sharp increase in corruption, the more relevant parameter in the context of an “adversities” inquiry. It does seem, however, that Hu’s “steady state” estimate of 13.2–16.8 percent of GDP is unreasonably higher than our “adversities” estimate of 0.5 percent of GDP; one might surmise, after all, that a sharp increase in corruption would yield a cost increase greater than one-thirtieth of that already prevailing. Our conjecture is that Hu’s blending of true economic costs with wealth transfers is a large source of this problem. At the same time, perhaps our “adversities” estimate is too low; if so, it is “conservative” in the appropriate direction for purposes of this analysis.