

CHAPTER 6: CRIME AND ITS IMPACT ON BUSINESS IN JAMAICA

I. INTRODUCTION—CRIME AND DEVELOPMENT

Jamaica has the one of the highest rates of violent crime in the world, but a relatively low rate of property crime. In 2000, the recorded intentional homicide rate was 33 per 100,000 inhabitants, lower only than Colombia (63) and South Africa (52). In terms of recorded major assaults, Jamaica experienced 215 such incidents per 100,000 (665 in South Africa, 95 in Dominica). Recorded drug offences are also among the highest in the world, at 452 per 100,000 (370 in Dominica, and highest at 987 in Norway). In contrast, property crimes are relatively low in Jamaica: recorded burglaries occur at a rate of 92 per 100,000 (1777 in the Dominica, 922 in South Africa, 134 in Mauritius), and total robberies at 89 per 100,000 (78 in Dominica, 460 in South Africa, 98 in Mauritius). In the aggregate, Jamaica experienced a relatively lower 1488 total recorded crimes per 100,000 in 2000 (10763 in Dominica, 7997 in South Africa, 3030 in Mauritius, 1289 in Costa Rica), since non-violent crimes are fewer in Jamaica, but where there is also significant under-reporting owing to low clear-up rates.

A high rate of violent crime can have many adverse repercussions:

- 1 It has a **negative impact on the investment climate** and can deter or delay both domestic and foreign investment, and hence growth.
 - 2 It leads to higher cost of doing business, because of the need to employ different forms of security, and diverts investment away from business expansion and productivity improvement, and may lead to a less than optimal operating strategy.
 - 2 It leads to business losses, arising from looting, arson, theft, extortion and fraud.
 - 3 It leads to loss of output because of reduced hours of operation (including avoiding night shifts) or loss of workdays arising from outbreaks of violence, and avoidance of some types of economic activity.
 - 4 It also reduces output because of the temporary (from injury) or permanent (from murder) exit of individuals from the labor force. In the latter case, the loss is not just current output, but the output in the remaining years of the individual's working life.
 - 5 It can also cause a permanent shut-down of firms or relocation to less crime-prone countries.
- 2 It **erodes the development of human capital as well as social capital** and thus constrains the potential for growth. The crime situation in Jamaica seems to be an important reason for migration, since the fear of crime significantly reduces the quality of life. Crime and violence have also been blamed for slowing down the rate of return of migrants back to Jamaica. Also, crime forces otherwise productive individuals to occasionally exit the labor force because of violent injury to themselves or close associates, or because of social unrest in the community. Violence in some communities also causes schools to close periodically. Moreover, home and community instability is not conducive to learning and educational objectives.

- 3 It **diverts public resources excessively away from productive uses** that have a potentially much higher impact on social development and growth, to areas such as police, justice, the medical system (for treatment of violence-related injuries and trauma). For example, between 1988/89 and 2001/02, Jamaica's budgetary expenditure for health, in nominal terms, grew 23 percent annually, whereas the budget for national security and justice grew by 62 percent. Since 1999, the budget for Justice and Correctional Services plus the Police has exceeded the budget allocation for health (PIOJ, various issues). For private citizens, it also diverts resources away from potentially useful expenditures like education, to spending on treating injury and on private security.

This report estimates that the direct cost of crime in Jamaica is at least 3.7 percent of GDP (2001 data), and this does not include the impact on business. Of course, the causality also runs in reverse. Crime may result, for example, from the effect of broad socio-economic and political processes, and the outcome of distortions such as chronic unemployment and high levels of inequality.

How should the crime problem be tackled? A balanced approach is needed that addresses social factors, reduces inequality (especially inequality that is not derived from differential effort and performance), and improves educational achievement (not just enrolment), as well as ensuring effective and fair law enforcement. Many recommendations have been made in official reports in Jamaica (PERF 2001; Wolfe 1993), but these reports have not attempted to estimate costs of crime and crime control measures (these will be addressed in this chapter).

This chapter attempts to better understand the dimension and sources of the crime problem in Jamaica. A Business Victimization Survey of 400 firms was carried out for the first time in Jamaica for this report. Victimization surveys are useful because they include crimes not reported to the police, provide information on perceptions of risks from crime, and assessments of the institutional support available to cope with crime. The results of this survey, based on perceptions and experiences of crime by managers, are discussed in detail in the chapter. The recommendations in this chapter are based directly on results from the survey and econometric analysis (see Annex 6.1). The chapter does not attempt to cover all angles of the crime problem in depth (e.g. many aspects of youth violence, domestic violence, gang or drug related crimes), but aims to focus on the impact of crime on businesses and the economy and provide recommendations that emanate directly from this analysis and from cross-country experiences.

This chapter is organized as follows. Section II sets the context for analyzing crime by providing an overview of Jamaica's governance performance and its ranking in international governance indicators. Section III surveys the dimension of and trends in crime over the last three decades. The patterns of criminal victimization of business enterprises are discussed in Section IV to appraise the direct impact of crime on economic activity. In Section V, the economic cost of crime is estimated, using data from the survey as well as public records and budgets. In Section VI, the determinants of violent crime are briefly discussed based on the results of a time series econometric estimation. In Section VII, policy recommendations are presented.

II. GOVERNANCE IN JAMAICA - THE INTERNATIONAL CONTEXT

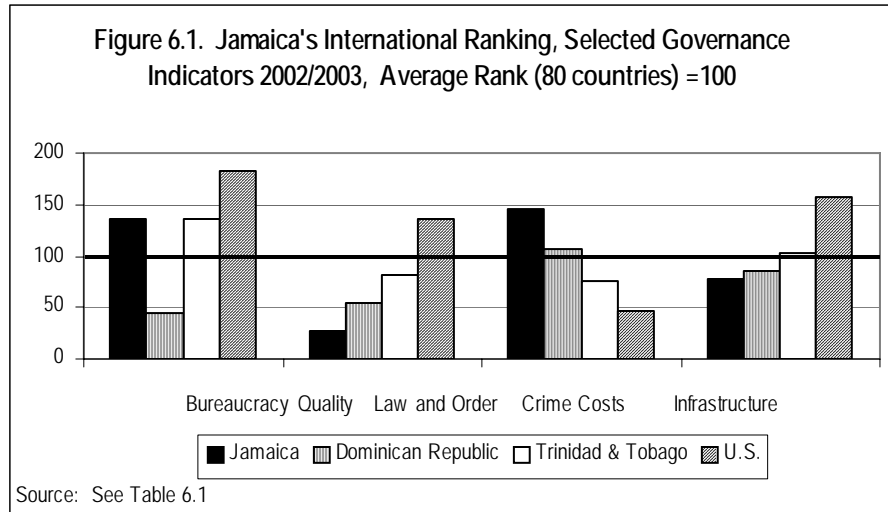
Jamaica has a strong democracy, high caliber bureaucracy and good regulatory framework. Since its independence in 1962, Jamaica has been a stable democracy, led alternatively by the People's National Party (PNP), currently in power since 1989, and the Jamaica Labor Party (JLP). The thirteen parishes of Jamaica are governed by local authorities called Parish Councils. Political participation is widely exercised with a voter turnout of about two-thirds at general elections. Jamaica's tradition of democratic participation, free media, civil liberties and political rights, are substantiated by international surveys based on perceptions, where it ranks high in terms of 'voice and accountability' and 'political stability and lack of political violence' (see Table 6.1). The quality of the bureaucracy is rated in cross-country comparisons as high, comparable to countries such as Chile, Hong Kong and France. The public sector accounted, in April 2002, for about 10% of the labor force (97285 employees, of which 32067 were civil servants) in Jamaica.

In addition, Jamaica has a positive enabling environment for business establishment and operation. It ranks high in international comparisons of its regulatory framework –it requires 37 days to start a firm in Jamaica, comparable to 34 days in Chile. Labor regulations are not perceived to be too onerous (the labor regulation index for Jamaica is 2 on an index from 0-6, where 6 is the highest level of regulation). Major steps have been taken by the Government to improve the framework for competition, such as the passage of the Fair Competition Act, the establishment of the Fair Trading Commission and the Securities Commission (to regulate the securities industry) in 1993. The financial crisis of 1996 prompted legislative initiatives, including a new Financial Institutions Act, Insurance Act, as well as amendments to the Banking Act, Securities and Unit Trust Acts and to building society regulations. Three Bills were passed by the Senate in 1999 to safeguard property right in the areas of trademark, copyright and layout designs.

However, strengths have not converted into comparable outcomes (see Figure 6.1). Public satisfaction with government policies and the government's ability to carry out its declared programs are below average in the cross-country comparisons. This public dissatisfaction could be partly explained by the perception that quality of public service provision (captured by government effectiveness) is relatively below average.

Also affecting the business environment is corruption, where Jamaica scores on average in cross-country surveys of perceptions of corruption (see Table 6.1). Yet bribery and lack of transparency in government contracts are considered by Jamaicans to be important problems. Jamaica ranks poorly in perceptions of favoritism shown by government officials towards well connected firms and individuals when deciding upon policies and contracts. This is closely linked with the pressure exerted on businesses by the protection racket, and reflected in the high perceived costs imposed on businesses by

organized crime (such as racketeering and extortion, see section V).



In addition, very poor rule of law and crime negates the positive elements in the business environment. Jamaica's most conspicuous and severe problem is the erosion in the rule of law. Comparisons of international ratings show that Jamaica is significantly under-performing in the area of law and order relative to countries with comparable incomes per capita (see Figure 6.2). The rule of law has been shown to have a strong statistical relationship to economic growth and poverty reduction. High rates of violent

Table 6.1 International Comparisons of Selected Governance Indicators, 2002, Scale 0 (worst) - 6 (best)

	Jamaica		Selected economies				Full Sample	
	% rank in sample 100 = best	Score	Dominican Republic	Trinidad & Tobago	Mauritius	U.S.	Sample Mean	Sample Size
i) Government Effectiveness and Stability								
Government Effectiveness (K. et al., 2001) ¹	43	2.6	2.7	3.7	3.9	4.9	3.0	159
Socioeconomic Conditions (ICRG, Feb 2003) ²	45	2.5	2.8	3.0	-	3.8	2.9	140
Costs of Institutional change (GCR, 2001) ³	52	3.9	3.3	-	4.4	5.1	3.9	75
Voice and Accountability (Kaufmann et al., 2001) ⁴	73	3.9	3.5	3.7	4.5	4.5	3.0	173
Government Stability (ICRG, 2003) ⁵	35	4.3	5.0	4.0	-	5.3	4.5	140
Political Stability and lack of Pol. Violence (K. et al., 2003) ⁶	61	3.4	3.6	3.3	4.3	4.4	3.0	161
Bureaucracy Quality (ICRG, 2003) ⁷	76	4.5	1.5	4.5	-	6.0	3.3	140
ii) Rule of Law and Business Environment								
Law and Order (ICRG, 2003)	4	1.0	2.0	3.0	-	5.0	3.7	140
Organized crime (GGR) ⁸	5	2.1	3.6	3.9	5.1	4.9	4.0	80
Reliability of Police Forces (GCR)	25	2.7	2.9	3.3	3.2	5.3	3.7	80
Business Costs of Crime and Violence (GCR)⁹	9	1.9	3.0	2.9	4.2	4.7	3.8	80
Regulatory Framework (K. et al., 2001) ¹⁰	68	3.5	3.7	4.0	3.5	4.4	3.0	168
Property Rights (GCR) ¹¹	51	4.2	3.2	4.2	4.6	5.4	4.0	80
Judicial Independence (GCR) ¹²	55	3.8	2.8	4.5	4.2	4.9	3.6	80
Favoritism in decisions of government officials (GCR) ¹³	34	2.4	2.1	2.4	2.8	3.7	2.8	80
Extent of bureaucratic red tape (GCR) ¹⁴	38	3.9	4.0	3.7	4.0	4.2	3.9	80
Administrative burden for startups (GCR)	19	2.7	3.3	3.9	3.9	5.0	3.5	80
Hiring and Firing practices (GCR) ¹⁵	45	2.7	3.3	3.3	2.1	4.5	3.0	80
Days to start a firm (GCR)	71	37.0	117.0	-	-	5.0	-	72
Flexibility of Wage Determination (GCR)	68	4.5	4.5	4.5	2.7	5.3	4.0	80
Infrastructure Quality (GCR)	34	2.8	3.1	3.7	3.8	5.7	3.6	80
Corruption and Irregular Payments (higher scale means less)								
Control of Corruption (K. et al., 2001)	54	2.9	2.8	3.6	3.6	4.7	3.0	160
Business costs of corruption (GCR)	48	3.9	3.2	3.9	4.1	5.1	4.1	80
Irregular Payments in Public Contracts (GCR)	25	3.0	3.6	3.1	3.1	4.8	3.6	80
Memo:								
GDP per capita, PPP \$ (2001)	-	3890	6198	10018	10400	34888	-	-

¹ quality of public service provision and bureaucracy, competence of civil servants, independence of civil service from political pressures and credibility of the government's commitment to policies.

² general public satisfaction with the government's economic policies; socioeconomic factors are identified with greatest political impact for the country.

³ effect of legal or political changes over past five years on firms planning capacity.

⁴ extent of civil participation in political process, extent of civil liberties and political rights, including independence of media.

⁵ government's ability to carry out its declared program(s) and its ability to stay in office.

⁶ likelihood that a government in power will be destabilized or overthrown by possible constitutional and/or violent means.

⁷ mechanism for recruitment and training and autonomy of bureaucracy from political pressure.

⁸ cost imposed on businesses by organized crime such as racketeering and extortion.

⁹ cost imposed on business by common crime and violence (e.g. street muggings, firms being looted).

¹⁰ incidence of market unfriendly policies such as price controls or inadequate banking supervision, perceptions of burdens imposed by excess regulation in foreign trade and business development.

¹¹ extent to which financial assets and wealth are delineated and protected by law.

¹² extent to which judiciary is independent and not subject to interference by the government.

¹³ favoritism towards well connected firms and individuals by government officials when deciding upon policies and contracts.

¹⁴ time spent by company's senior management working with government agencies/ regulations.

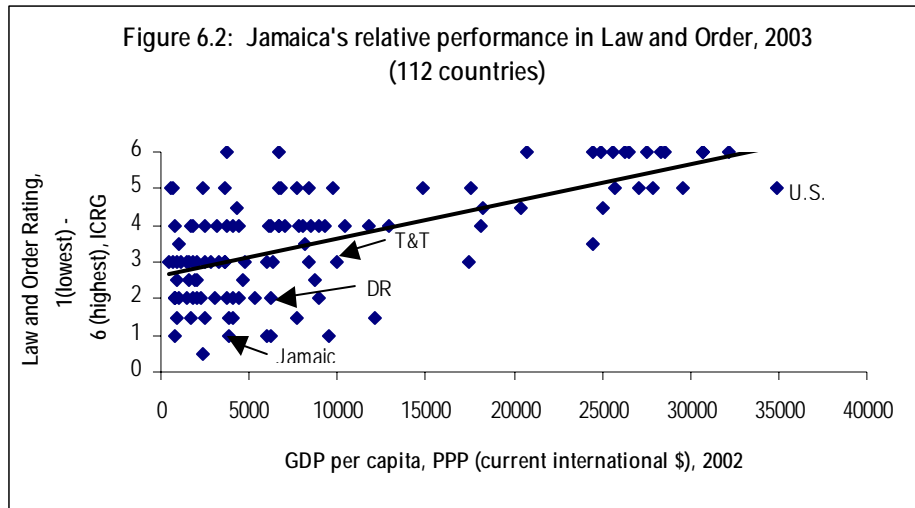
¹⁵ extent to which hiring and firing of workers is impeded/ flexibly determined by employers.

Sources: International Country Risk Guide (ICRG) database, February 2003; Global Competitiveness Report (GCR) 2002/03, 2001/02: Governance Matters II: Updated Governance Indicators for 2000/01, (Kaufman et al.), 2002.

crime impose relatively very high costs to businesses in Jamaica (see Table 6.1 and Section V). Violent crime is concentrated in the inner-cities among young males, giving Jamaica the third highest homicide rate in the world, and is sourced mainly through

illegal narcotics and arms trafficking.

The high level of crime and violence has overloaded the judiciary with a backlog of cases, pending in high courts for over four years, in spite of the establishment of night courts to deal with minor cases. Though there are delays in the administration of justice, and legal and administrative practices are outdated and inefficient, the judicial system in Jamaica is perceived to be relatively fair and independent from political pressures (see Table 6.1).



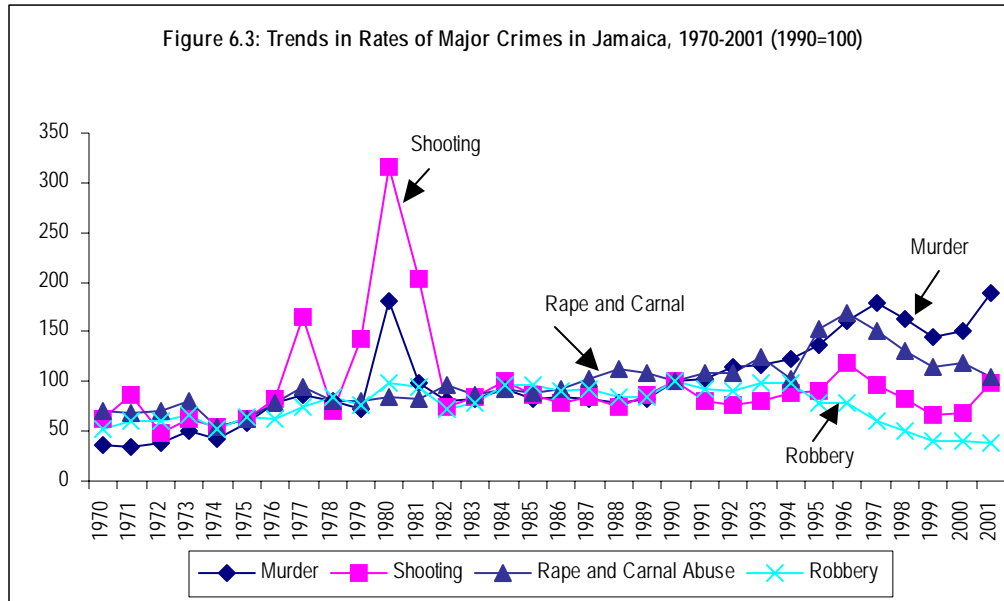
III. DIMENSION AND TRENDS IN CRIME IN JAMAICA

This section examines the basic patterns of reported crime over the last three decades (1970-2001) by analyzing the trends in crime and the geographic and economic distribution of crime in Jamaica.

Trends in Crime. The trends in violent crime over the last thirty years place Jamaica among the most violent countries in the world. The Crime Rate Indices (CRIs) for Jamaica attempt to track movements in the overall crime rate for the last 30 years. There has been a relatively steady increase in the CRI over the decades (see Figure 6.3 and Annex Table 6.1), though the highest rates of violent crime were experienced in 1980 (a period of partisan political violence), followed by 1996 and 1997. The level of violent crimes and fraud were highest during the 1990s. It should be noted that under-reporting is high for certain categories of violent crime partly because the clear up or arrest rates for these types of crime is fairly low.

Over the 1990s, the murder rate increased steadily and was largely driven by increasing levels of distribution and trans-shipment of drugs, leading to increased “gang wars”. Between 1998 and 2000, according to police reports, drug and gang related murders accounted on average for 22 percent of total murders. Domestic violence represented

about 30 percent of total murders. The increasing severity of the murder problem is highlighted by comparisons with New York, a high crime city – while both Jamaica and New York experienced similar rates of murder in 1970, Jamaica’s murder rate had increased to almost 7 times that of New York’s by 2000 (see Annex Table 6.2).



Some types of violent crime, notably shooting (i.e. assault with a gun) and robbery, have however seen a downward trend during the 1990s. Rape and carnal abuse levels increased up to the mid 1990s (possibly due to increased levels of reporting), declining slightly since then (may have resulted from establishment of a Rape Unit in the Jamaica Constabulary Force). The fraud index shows an upward trend during the 1990s, during which there was a significant increase in the number of financial crimes associated with the rapid growth and inadequate regulation of the financial sector.

Geographical distribution of Crime. Jamaica is divided into three counties and further into a total of thirteen parishes. Over 1984-2001, the county of Surrey (eastern Jamaica) had the highest murder rates, rising from 41 per 100,000 of population in 1984 (compared to the national average of 21 per 100,000) to 79 per 100,000 in 2001 (national average 44 per 100,000) (see Annex Table 6.3). The county of Surrey accounted on average for 61 percent of the total number of murders over 1984-2001 (while it represented an annual average of only 34 percent of Jamaica’s population).

At the parish level, Kingston and St. Andrew had the highest murder rates, increasing steadily from 48 per 100,000 in 1984 to 93 per 100,000 in 2001. Kingston and St. Andrew averaged 57 percent of total murders during 1984-2001, but represented only 27 percent of Jamaica’s total population. In 2001, about 51 percent of reported violent crimes occurred in the city of Kingston. The second highest murder rates occurred in St. Catherine, followed by St. James and St. Thomas. These parishes all have rapidly expanding urban centers. These trends reflect the serious social problems associated with growing urbanization, including high levels of unemployment, formation of gangs, creation of slums, and an escalation of drug trafficking. Other forms of violent crimes,

including shooting, robbery and rape, follow similar distribution patterns.

The Profile of those involved in Crime. While violence is an endemic feature of Jamaican society, it is often concentrated among the poorest in the society, and among young males (14-24 years old), who often tend to be the victims as well as the perpetrators of violent crimes. In 2001, males accounted for 98 percent of those arrested for major crimes. Amongst those arrested for major crimes, 53 percent were from the 16-25 age group. Youth from inner cities are also more likely to be recruited as drug sellers because of their relatively lower opportunity costs, given that they are more likely to be school-dropouts/unemployed. Since drug sellers/dealers carry guns for self-protection and dispute resolution, the increased penetration of guns has led to greater incidences of violence among the youth.

IV. PATTERNS OF CRIMINAL VICTIMIZATION OF FIRMS AND COPING STRATEGIES

The business environment is becoming more hostile and difficult. Some firms are in the grip of organized crime, but this is still an emerging problem. Crime itself and the responses to it tend to be very costly in social and economic terms and may reduce competitiveness in some sectors of the economy and retard investments or even stimulate disinvestments. International surveys rank Jamaica high in terms of the perceptions of the costs imposed on businesses by crime and violence (see Table 6.1).

In this section, the direct impact of crime on Jamaican businesses is explored. This analysis is based on the results of a detailed business victimization survey of 400 firms that was conducted in 2002 for this study, with a diverse sample in terms of size, location and sectoral origin. Survey results are used to describe basic patterns of criminal victimization of Jamaican businesses and perceptions of risk, and examine their coping strategies and the degree of institutional support given to them by the criminal justice system.

The Patterns of Victimization

The criminal victimization of Jamaican firms is high. About 65 percent of all firms in the sample reported that they had experienced one or more forms of criminal victimization during 2001. Thirty-three percent of all firms were violently victimized (robbery, extortion and protection), 52 percent suffered various forms of theft, 50 percent experienced fraud, and 7 percent other forms of criminal victimization. These are comparable to levels of business victimization in South Africa, which experienced similarly high levels of violent crime over an extended period. In 1999, about 68 percent of South African firms experienced theft of goods, 52 percent experienced employee theft and 56 percent burglary. Violent victimization, such as robbery, was only marginally lower than in Jamaica. For some categories of property crimes (not involving the use of violence) the victimization rates were higher in some Eastern European countries (including Hungary and the Czech Republic). Some of the developed countries of Western Europe (such as the United Kingdom and France) that have traditionally had

high levels of property crime also recorded greater prevalence of burglary and similar property crimes.

Some Jamaican firms experience crime on a regular basis and in multiple forms. About 27 percent of firms faced incidents of theft at least on a quarterly basis, of which 9 percent on a weekly basis. Twenty two percent experienced fraud at least on a quarterly basis. Nine percent suffered from violent victimization, and 7 percent were otherwise victimized, on a quarterly basis.

Violent victimization and Theft. Robbery, extortion, and protection are the main violent crimes that are directed at businesses. In 2001, 12 percent of firms were robbed at least once, of which 3 percent repeatedly.

Extortion and protection are probably the most serious violent crimes since, propagated by the emergence of powerful organized crime groups, they transform the environment in which businesses operate. In the case of extortion, the firm pays the extortionist in order to avoid other forms of victimization that the extortionist may threaten. In contrast, in the case of protection rackets, the person or group receiving the payment provides a real service in protecting the firm from all criminal activity, not just the potential criminality of the protector. The growth of the protection racket, especially in Kingston, is associated with police ineffectiveness and the growth of a market for protective services. Those with expertise in the use of violence and who have influence in the underworld, are well placed to provide these services. In these conditions, the criminal dons are presented with new opportunities to transform their operations into more sophisticated organized crime. Further expansion of the extortion-protection racket is likely to be accompanied by a further decline in the rate of robbery as the former is more sophisticated, less visible and less easily detectable. In 2001, about 5 percent of all surveyed firms were forced to pay extortionists, while 8 percent paid for protection.

Refusal to pay extortion-protection levies is usually punished by burning down the non-compliant firm and putting it out of business, or at least expelling it from the area that is dominated by the extortionist group. In 2001, only 2 percent of the sample reported that they were victims of this crime. The non-compliant victims and other firms that were completely ruined by this form of crime would not have been detected by the survey. The survival bias in the sample therefore means that the data is likely to understate the problem.

Extortion marks a break with the historical pattern of crime in Jamaica, which has been directed at victims from a similar class background as the victimizer, usually located in the poorer communities. Upwardly directed violent crimes, in which the poor violently victimize the rich, are still relatively few, but rising.

Theft and the various traditional forms of non-violent property crimes are less threatening, but nevertheless may severely burden weak firms. This is particularly true in cases of multiple victimization involving violent and non-violent crimes (see Case in Annex 6.4).

Theft is the most prevalent crime encountered by firms, in the form of theft of cash (20

percent of firms) and theft of goods (43 percent), and appears to be positively correlated with firm size. Fraud is also quite prevalent and takes the form of the use of counterfeit money (27 percent), presentation of forged checks (18 percent), use of forged credit cards (9 percent), sale of counterfeit products (7 percent), weight and measures fraud (13 percent), solicitation of funds for charitable organization (8 percent), and manipulation of payrolls and invoices (7 percent). The main perpetrators of some of these types of fraud are employees of these firms.

The costs of employee criminality are not restricted to the losses incurred from theft, corruption and the direct appropriation of the assets of the firm. They extend to the cost of policing the workers via more elaborate accounting systems, extensive surveillance systems, and the increased density of security guards. For societies that are well endowed with social capital, these costs to business are much lower (Figueroa, cited in Harriott et al., 2003).

Sectoral Patterns. The pattern of firm victimization may be linked to the degree and type of opportunities for crime in the sector. For example, firms operating in the financial sector are more vulnerable to employee and corporate fraud, and farms operating in the agricultural sector to theft of goods. The size of a firm may also structure opportunities for crime, as well as variation in the capability to protect assets and prevent crime.

Tourism is quite sensitive to crime, and the proportion of firms in this sector that are reportedly victimized is quite high. The main crime against hotels was theft (hotel inventories present considerable opportunities for theft), reported by about 72 percent of the firms in the sector in 2001 (see Table 6.2). About 41 percent of the firms in the sample reported that they were victims of violent fraudulent victimization (i.e. robbery, extortion, or some other method of illegally transferring their assets involving the use of direct or threatened violence). This is higher than the level reported to the police and may include the victimization of hotel guests (rather than strictly the victimization of the firm).

Crimes against visitors are relatively low. In 2000, only 0.1 percent (or 103 incidents) of all visitors to Jamaica reported being victimized. Despite the high rate of violent crime in Jamaica, the low rates and prevalence of tourist victimization are explained by the relative low crime rates in tourist areas (with few exceptions).

The pattern of victimization in **agriculture** is similar to that of tourism. Theft of goods (mainly predial larceny) was the most prevalent crime, experienced by 81 percent of agricultural farms in 2001. Farms are vulnerable to crime because their expansiveness and relative openness makes it difficult and very expensive to secure them. Official police records suggest that the incidence and rate of predial larceny has been steadily declining from 18.7 incidents per 100,000 citizens in 1990 to 10.9 per 100,000 in 2001. This reflects declining opportunities for crime that accompany the progressive decline of agricultural production and fewer farms operating. But for the remaining farms, the experience of victimization is even more prevalent, as reflected in the survey.

Consistent with the structure of criminal opportunities, fraud was the most prevalent

crime in the **financial services sector**. About 65 percent of the firms in the sample reported that they had been targets of fraud. Relative to the other sectors, they also reported the lowest incidence of theft (5 percent) and second lowest incidence of violent victimization.

The pattern of victimization in **manufacturing, distribution and construction** sectors is similar. Theft and fraud are equally prevalent in manufacturing (47 percent). In construction, 44 percent and 48 percent of the firms reported being victims of theft and fraud respectively in 2001. In the distributive trade, which is characterized by finished products distributed by relatively small and vulnerable firms, the prevalence of theft and fraud is greater, experienced by 53 percent and 63 percent of the firms in the sample respectively. The level of violent victimization is much lower in all three sectors.

Company size is also linked to a discernible pattern of victimization. Small firms seem to be more prone to victimization than large firms as they provide more opportunities for crime. Since most entrants start out small, this acts as a barrier to entry for potential entrants, and inhibits growth. Size-based vulnerabilities may be accentuated by the area in which firms are located. As discussed in Section III, there has been a general tendency for greater concentration of criminal activity in the urban areas and particularly in the Kingston Metropolitan Area.

Table 6.2: Victimization by Sector in which Firm is located and Type of Crime
(as % of firms in the sector that are victimized)

	Theft	Fraud	Violent Crime	Total number of firms
Finance	5	65	10	20
Tourism	72	43	41	32
Manufacturing	47	47	21	53
Agriculture	81	38	41	53
Construction	44	48	28	25
Transport & Storage	43	39	12	23
Entertainment	46	46	9	33
Distributive Trade	53	63	24	79
Mining and Quarrying	-	-	-	8
Other	33	47	12	51
Total	52	50	33	377

Perceptions of Risk

The perceptions of managers of the environment in which they operate and the risks of victimization to the firm are examined below. These perceptions are a measure of their levels of confidence and investment risk that are likely to influence business decisions.

About 29 percent of managers felt that the area in which their firm was located was either very unsafe (9 percent) or unsafe (20 percent). On the other hand, 49 percent felt that their firm was located in an area that was either “very safe” (9 percent) or “somewhat safe” (40 percent). Of those firms operating in the areas perceived to be unsafe, 43 percent of their managers felt that these firms were highly likely to be violently victimized. Interestingly, the perceived risk of violent victimization (by robbery) in such

firms was lower than the 66 percent risk perceived by firms in the whole sample. This finding is consistent with the pattern of fear of crime found in other studies of the general population whereby sub-populations that are most at risk are not necessarily the most fearful of victimization. Familiarity with one's environment and having a system of social support may obviate dangers and risk of victimization.

The decision making within firms may be influenced not just by the perceived risks to the firm, but also by the risks to its staff, including the managers. The fear of criminal victimization at the workplace may also be an important motivation for individual action such as the migration of skilled personnel to other firms. In the case of family firms, it may be decisive in shaping decisions about the firm itself.

Examining the perceived risks of different forms of crime shows that about 42 percent of all managers felt that they were either highly likely (11 percent) or likely (31 percent) to be murdered at the workplace. Even in the context of the high murder rate in Jamaica, this is an alarming figure. However, much of the fear may be derived from the more general crime problem in Jamaica rather than perceived dangers specifically at the place of work. In terms of other forms of violent crime, 49 percent felt that an assault on them was either highly likely (13 percent) or likely (37 percent). Moreover, about 66 percent felt that they were either highly likely (25 percent) or likely (41 percent) to be robbed. About 11 percent of respondents felt at risk of being a victim of extortion. About 62 percent and 33 percent felt that they were likely to be burglarized or victimized by fraud respectively. The concern with violent attacks is viewed as being closely linked to efforts to dispossess staff of their property or the property of their firms. It does not seem to be linked with work related conflicts, such as violence by aggrieved workers. Conflict resolution and mediation efforts within the workplace are therefore not likely to dissipate these fears, although such efforts may be useful in dealing with disputes between workers.

Institutional Support

Given high victimization of firms, and high levels of the fear of crime among managers, institutional support from the criminal justice system and in particular the police is vital.

Reporting is the first step in appealing for institutional support. The level of reporting may be related to the expectations of the victimized population. Reporting is high for robbery-burglary (85 percent) and fraud (60 percent) and low for extortion. Most of these reports are made to the police, since private security companies do not provide any investigative services and reporting does not seem to be motivated by attempts to recover losses from the insurance companies. For robbery-burglary, fraud, and arson, only 11 percent, 13 percent and 14 percent respectively of these cases were reported for insurance purposes (see Table 6.3). Reporting is thus based primarily on crime control expectations.

Police performance, when evaluated as the response to the last incident of crime experienced by the firm, was generally regarded as satisfactory. On this measure, 37 percent regarded the performance of the police as being good and a majority of managers

from these victimized firms regarded their performance as fair (32 percent) or poor (31 percent). When the evaluation of police performance is measured in relation to the different categories of crimes that were reported by the firms in the sample in 2001, it was regarded as good in relation to the investigation of fraud, fair to poor for robbery (the most prevalent violent crime affecting firms), and poor for burglaries (the main reported property crime). It may be that police responsiveness is related to its perception of the prospects for investigative success. In cases of fraud, the police are usually called after the suspect(s) is/are discovered. Robbers usually leave behind witnesses who may provide the police with leads. Burglaries, on the other hand, may be relatively difficult to deal with as there are usually fewer investigative leads. This evaluation of police performance in relation to a single specific incident of crime may be taken as a measure of their responsiveness, but cannot be equated with a general evaluation of the performance of the police.

Table 6.3: Reporting and Reporting Outcomes (% of total cases)

	Reporting	Reporting Authority*				Outcomes*		
		Police	Private Security	Insurance Company	Other	Recovery of items	Arrest	None
Extortion	35	80	0	0	0	0	0	50
Fraud	60	87	9	13	6	17	40	43
Robbery	85	96	10	11	2	19	22	66
Arson	-	85	0	14	14	-	-	100
Other	60	85	4	0	13	17	30	59

* These categories are not mutually exclusive.

As the assessment of police performance becomes more general, the impressions of the victims and the general public tend to become less favorable (see Box 6.1 and Annex 6.3 and 6.4). In contrast, the evaluations of the manager-respondents in this survey seem to be more favorable than other evaluations of the general public, and this could be partly due to the perceived increased police responsiveness to the needs of the economic elite and those of their firms. Nevertheless, an area of police work that attracts criticism is the quality of their investigations in cases that are put before the courts.

The courts are seen as not adequately giving the institutional support that is needed to deal effectively with both criminal and civil cases. The process is seen as being too long and time consuming. Many firms and individuals are therefore forced to find other ways of coping with some types of crime and business related conflicts.

Coping Strategies

In response to the crime problem and limited institutional support, most firms have adopted a variety of coping strategies. The main elements of these strategies are target hardening (making the firm less vulnerable to crime), adjusting the organization of business activity to reduce opportunities for crime, and in some cases striking an accommodation with criminal networks.

Target hardening measures include installing special fencing, grill works, alarm systems and other such protective measures designed to make illicit entry more difficult.

Criminal threats from within are countered by up-grading internal security and accounting systems. Security guards are used as part of the internal surveillance system as well as for dealing with external threats. In response to the demand for this service, over the last twenty years, the private security business has rapidly expanded. However, its role is a very limited one, and which does not diminish the dependence on the police force. There remains a hope that the police may still be able to effectively control the crime problem. Many managers and their representative organizations are quite willing to enter into new relationships and partnerships with the police that may involve sharing the cost of new crime control initiatives. As yet, however, there have been no practical outcomes.

In areas where crime networks are most powerful and institutional support weak, new adaptations have taken place and an accommodation has been struck with “dons” of organized crime who offer protection services. As indicated in the cases below, these processes may be significantly altering the business environment in some sectors, especially in construction, where in some areas of the country it is difficult to operate without striking an accommodation with the dons and/or cultivating protective political links. Extrapolating this trend, only companies in some relationship with criminals would survive in the construction sector or be able to undertake some types of projects. Organized crime has always exhibited very strong monopolizing tendencies. More generally, without more effective institutional support, more firms may resort to criminal adaptations and corruption such as defrauding their clients and tax evasion as a method of coping.

Other adjustments involve more directly changing the organization of business activity. A significant proportion of firms, have opted for closing before dark (36 percent). This practice could be particularly damaging in the manufacturing sector, where second shift production is abandoned and productive capacity remains idle for much of the day. The fear of criminal victimization may also be altering employment practices. Residents of stigmatized inner city communities constantly complain that they are excluded from employment opportunities because they are seen as high risk employees. It may be argued that there is a higher risk involved in employing someone from a high crime/violence prone area as such persons may be coerced into facilitating robberies or other crimes. This “rational” discrimination may in turn further compound the crime problem in two ways. First, by reinforcing the exclusion of sections of the urban poor who already live in crime prone areas, and in so doing facilitating the justification for crime as a “survival” strategy. Second, the excluded are likely to resort to the services of the crime dons in order to force firms to employ them, further compounding the crime problem (see Box 6.1).

Firm response in Jamaica

Table 6.4: Distribution of respondents by selected measures taken to protect firms against crime & nature of organization (% of firms)

	Banking/ Financial services	Tourism	Manufacturing & processing	Agriculture	Construction	Mining & quarrying	Transport & storage	Entertainment	Distributive Trade	Science & technology	Communications	Other
Closing before dark	60	9	34	32	40	38	15	18	57	25	62	35
Installing grill	50	47	72	38	52	38	39	58	80	75	54	71
Special fencing of premises	55	75	64	59	40	38	39	39	46	50	8	29
Installing electronic alarm system(s)	85	31	23	12	32	25	31	5	53	25	23	21
Hiring unarmed security guard(s)	60	91	45	44	48	25	39	42	46	25	39	50
Hiring armed security guard(s)	90	38	21	25	28	50	19	27	30	25	31	29
Hiring community protection	5	3	11	7	16	13	4	12	11	-	8	3
Internal security system	85	38	32	27	24	50	42	24	47	-	54	21
Upgrading accounting/record	85	69	55	41	48	38	39	18	58	3	62	35

Protective measures. To deal with the threat of crime, most firms undertake protective measures (see Table 6.4). (See also Table 6.7 and sub-section below on business practices and prospects, where firms cite the increased cost of security as the most frequent impact of high crime). These include the installation of metal grills on buildings (58 percent of firms), special fencing, and hiring unarmed security guards (49 percent). Just over 30 percent of companies either hire armed security guards or install electronic alarm systems. Many companies (between 33 and 40 percent, depending on the industry) also close before dark and/or have taken steps to improve/upgrade their accounting and record-keeping systems to reduce employee crime and fraud. Again, the method of security employed depends on company size. Whereas small firms tend to install metal grills and fence the premises, large firms use fences and security guards. Seventy-five percent of very large companies (those with annual revenue of J\$100 million or more) hire unarmed guards, while 63 percent hire armed guards. Almost 60 percent of large companies use armed guards. For small companies, the costs of hiring security are relatively high, and the need for this type of protection is also lower. Only 30 percent of micro-enterprises (those with annual revenue of less than J\$5 million) hire guards. Sectorally, it is firms in banking/finance that most tend to use multiple preventive measures to combat crime, with 90 percent hiring armed guards, 85 percent installing alarm systems, internal security, and upgrading accounting.

Reduced working hours. One of the effects of crime on business is that it forces reduced hours of operation. As noted above, about 36 percent of the firms listed closing before dark as one of the measures to protect themselves against crime. One in five firms reported that they would increase their hours of operation if their location experienced reduced levels of crime over an extended period. Many firms demonstrated willingness to operate longer hours if their place of operation was perceived as safer—43 percent of firms in distributive trades, 30 percent in banking/financial services and 24 percent in entertainment. Firms reported that, on average, they would be willing to remain open an additional 3.6 hours per day if they were located in a safer area. The potential loss of output and efficiency arising from the very significant curtailment of working hours could be large.

Box 6.1: Construction firm in Kingston Metropolitan Area

Background

This is the case of a family owned construction firm, which is located in the Kingston Metropolitan Area. It was established in 1970 and is mainly involved in the development of infrastructure and civil engineering works, including the construction of roads and housing. Its clients are usually government and private developers. It is a medium size company that employs 30 permanent workers and, on average, 400 temporary workers. Its revenue is approximately J\$200 million annually.

Crime problem

The firm is challenged by a wide variety of crime problems such as the theft of construction materials, robbery of its payroll, fraud, and protection racketeering.

More complicated is the problem of extortion which the company has experienced in a variety of forms. One form is that of so-called area leaders (usually the local party leader and/or criminal “don”) and community residents demanding to be put on the company’s payroll as a condition for permitting the construction project to proceed. This is simply a levy or tax that is imposed on the firm for doing work in *their* area. In some instances, this problem is resolved by insisting that those making the demand at least appear to do some work. On the settlement of this problem, the negotiations then move to another stage. Most of these persons are usually unskilled with little or no experience of work. Yet they then demand, often with success, that they be employed as skilled workers at a salary that is commensurate with this category of work. The result is usually poor quality work, which in the case of roads and other infrastructure works is usually counterproductive as these edifices tend to collapse under conditions of intensive use or flooding. The cycle is completed with reconstruction taking place in a manner similar to the initial project. At times, these defective works have to be destroyed and reconstructed thereby further escalating the cost of construction. Refusal to comply with these corrupt practices may lead to the disruption of the project. These practices are not restricted to Kingston. May Pen, Montego Bay and other parts of Jamaica are also known for this type of activity. The company may, at times, reject these demands, and in some instances may accommodate them.

Accommodation may also involve allowing area leaders and criminal dons to determine who (from their communities) will be employed on these projects. The local don may then extort payments from persons that he has advised or instructed the firm to employ. These payments are usually a percentage of the weekly salary of the workers. By settling the matter in this way, the firm avoids disruptions to their project either as work stoppages or as constant demands for employment by community members. Where powerful organized crime networks are involved, even regular employees of the firm and other skilled workers who reside outside of the jurisdiction of the don, may also be required to pay a percentage of their salaries in return for permission to work in the area.

On some work sites, party political competitiveness may result in violence. For example, on a recent project in a relatively safe section of Kingston, politically induced gang warfare erupted on the work site. The Company was contracted to construct several buildings on the campus of a tertiary institution. The temporary employees were drawn from the surrounding communities which have different party affiliations. At one time point, these workers were drawn from seven different communities. Workers from one area could not work on sites where residents from an opposing area were working. These employment monopolizing tendencies resulted in gang warfare. In this context, a work related dispute between workers and a subcontractor employed by the firm resulted in the death of the latter.

The firm has also had to contend with other kinds of crimes. Payroll fraud is not uncommon. At times, supervisors attempt to extract overpayment for work done, or there may be fictitious names on the payroll. This is less detectable in construction where there is a large temporary staff that may change frequently over the life of the project.

In order to reduce its vulnerability to robbery, the firm would pay its employees by checks. Recently however, the banks have refused to offer this service to the company as they claim that the construction workers tend to disrupt business activity at the banks and are disorderly, refuse to conform to simple procedures such as joining the lines in the bank, and are rude to other customers and to the staff. In some cases, conflicts between workers on the work sites are renewed in the banks. The result of this is that the company is forced to handle the payroll as cash and to bear the additional costs of contracting a security company to provide protection for the cash.

Impact of Crime

These conditions affect the operations of the firms in various ways:

- Control of the workforce by criminal “dons” leads to poor quality work, an unreliable workforce and the inability to meet deadlines.

- Intensive criminal activity has at times led to the company discontinuing some contracts and consequently losing income. For example, in the case of a government contract to build/repair two schools, despite the security “provisions”, there were significant losses due to theft and no reliable estimate of what the cost or time needed for completion would be. The military had to be used to complete the project. Even then, the army took 2 years and 9 months to complete a project that would normally take 9 months, and the fixtures had to be installed 6 times due to theft.

- Increased cost of projects. On average, about 10 percent of the budget for each project is the anticipated cost of theft of materials. These costs are borne by clients, but are usually hidden from them.

- Increased security costs. Private security at its main office costs approximately 0.5% of its annual revenue and this is a relative minor part of the security costs of the company. Much greater costs are incurred on the work sites.

- The working hours of some employees are restricted by crime and violence in the areas where projects are located as well as in those areas where they reside. This impairs the work of the company, as some projects require an extended workday. Some skilled workers may even refuse to work in violence prone areas.

Institutional Support

The firm regards the police as being fairly responsive to calls for assistance in cases of employer–employee and employee–employee violence. More generally, however, they are not able to meet the policing needs of the firm. The experience of the firm is that police units have a poor record in recovering stolen items and are unable to give preventive support.

The company has no experience with the criminal court as problems are usually dealt with informally. The proprietor believes that it is pointless taking formal independent action against offenders who criminally victimize the firm as lawyer fees are usually higher than the cost of the materials or cash that are stolen. The firm however relies on the courts to settle civil/business disputes and these are often quite lengthy.

Survival Techniques

Some innovative adaptations to the social environment seem to be occurring. In the case of this firm, they have attempted the following:

- As noted above, the budgets of projects are inflated to compensate for theft and may also be inflated as theft under the pretext of compensation for theft. This has the effect of passing on the costs of crime to the client.

- The company employs formal and informal security services and relies heavily on private security.

- It has found a way to strike an accommodation with area leaders and dons and uses them to control the labor force. This is a tension filled relationship that involves elements of extortion directed at the firm, as well as partnerships, with criminal coercion directed at the labor force.

Despite the problems discussed above, the company has no intention of closing its operations. This is a company that will find innovative ways of adapting to its environment and surviving.

Source: Harriott et al. 2003

V. THE ECONOMIC COSTS OF CRIME

The approach

Section I outlined the different ways in which crime can negatively affect society and the economy. This section attempts to estimate some of these costs to the Jamaican economy, for both the public and the private sector. The focus is on the impact on business, since it is key for competitiveness and long-term growth prospects.

The estimate of the cost of crime presented in this chapter is a lower bound one, partly

due to the longer-term impact that violent crimes such as extortion have in structuring the business environment in some sub-sectors. Box 6.1 above narrates how a construction company was forced to place incompetent workers as skilled staff on its payroll, resulting in poor construction, the need to re-build within a short period of time, and in highly inflated costs.

Another general issue relates to the value of stolen goods. It can be argued that stolen goods are not lost to society as a whole, and so should not be counted as a cost. Only the difference between the value for the original owner and the value for the criminals (which will be smaller, since goods and assets have specificity of use) should be counted as the cost to society. On the other hand, criminals spend so much time on illegal activity, which is a social loss, and in equilibrium the value of goods should be equal to the opportunity cost of the criminals' time, so all property losses should be considered social losses (see Fajnzylber et al 2000). It is this approach that is followed here.

While not analyzed in detail in this Chapter, the increasing influence of the drug trade and its linkage with violence needs to be mentioned. Drug related activities have been shown to induce crime and lead to increased homicides (for Latin America, see Fajnzylber et al. 2000), arising from turf-wars between different networks of producers and distributors. Some of the money from the drug trade is spent in Jamaica on home construction, the establishment of legitimate businesses, importation of goods for distribution, and various services, leading to higher levels of employment and income for other people in apparently legitimate businesses. However, such illegitimate economic activities can hardly form the basis for long-term growth. While these activities contribute to the economy, they are also giving greater impetus to violent crime, which, as will be seen below, imposes a major cost on society. The police estimates that drug-related killings now account for more than 20 percent of murders annually. Some of the killings labeled as 'reprisal' are probably also rooted in the drug trade. As the importance of illegal activities in overall economic activity expands, there will likely be more conflicts as the large sums of money and the lack of formal contracts encourage defection from verbal agreements.

The illegal economic activities of transnational networks rooted in some Latin American countries have generated considerable problems for legitimate business. For example, drug trafficking may contaminate legitimate exports leading to security measures that slow down the processing time of perishable products. The consequent delays in delivery and other problems will tend to increase the cost of conducting business internationally. The increases in costs imposed on legitimate traders might over time drive some out of business (see also Chapter 7).

Measuring the impact of crime on economic activity

The economic impact of crime is estimated by aggregating the following: (a) medical expenses incurred on crime-related injuries, by both Government and individuals; (b) loss of output arising from death and injury; (c) cost of security provision by public and private entities based on the premise that even though such output is part of the

economy's productive activity, it does not produce directly beneficial goods, and involves high opportunity costs; (d) direct business losses of firms arising from crime, such as extortion, fraud, theft and looting; and (e) other costs, such as likely shut-down of firms, and impact on investment and expansion intentions. The data sources for this exercise include government budgets and public records, and various official reports (SLC, ESSJ). Private costs are more difficult to measure, especially those incurred by business. The business victimization survey, discussed earlier, was conducted to assess these private costs. Table 6.5 provides an indicative summary of the quantitative impact of crime, which will be amplified in the following sections.

The costs of crime on the public sector, individuals and business

(a) Health-care costs

Injury costs—health care. Given limited resources, violence strains the public health system and diverts medical services away from children and the aged. Intentional injuries in Accident and Emergency (A&E) departments of public hospitals accounted for 43 percent (34037 cases) of the total caseload in 2001, with 98 percent due to deliberate injury to another person. This yields a total public health cost of interpersonal violence of J\$996 million in 2001, and amounts to nearly 14 percent of the net recurrent expenditure of the Ministry of Health for 2000/01.

Table 6.5: Annual Impact of Crime, Summary

Expenditure	Cost
I. Healthcare costs + Lost Production	3.7% of GDP
II. Private Expenditure on Security	
Average	2% of revenue
Micro firms (<J\$5 million annual revenue)	17% of revenue
Medium firm (J\$10-20 million annual revenue)	7.6 % of revenue
Very large firms (>J\$100 million annual revenue)	0.7% of revenue
III. Direct Costs	
Extortion, Fraud, Robbery/Burglary, Arson	
Micro firms (<J\$5 mn) and firms with revenue J\$20-50 mn.	9% of revenue
Firms with revenue J\$10-20 mn. and >J\$50mn.	2% of revenue
Losses from Looting (experienced by 70 out of 400 firms in sample)	
57% of firms	< J\$100,000
19% of firms	J\$100,000-500,000
4% of firms	J\$1 mn. - 5 mn.
Average losses from work days lost from temporary closures	
2001	1 million
2000	J\$400,000 (range: J\$44,000- 2 mn)
IV. Other costs	
Closure of firms	2.5% of GDP

In addition, the cost of treatment to private citizens is estimated at about J\$255 million in 2001: (i) annual costs of hospital stay for 15,884 victims of violence in 2001, at an average cost of stay of J\$5068 per year, estimated at J\$81 million; (ii) costs of hospital

stay for patients at the University Hospital of West Indies, assuming it costs 7.5 as much as the Kingston Public Hospital, estimated at J\$159 million in 2001; (iii) annual costs of hospital visits and medication borne by the private citizen estimated at J\$17 million. This is estimated on the basis that patients visit the hospital twice each year (SLC), at an average cost of J\$199 per visit, and purchase medicine at an average cost of J\$454 (an underestimate since we assume that each patient purchases medication only once).

(b) Loss of output from Injury and Mortality

Injury. In addition to treatment, hospital stay and medication, victims of violence exit the workforce for the period of their recovery. The average length of hospital stay for accident and injury patients is 8.3 days. Also, the average victim of injury is out of the workforce for an additional two weeks for recovery. Using the average weekly wage of J\$8423 (calculated as the average wage of a murder victim, weighted by the distribution of victims in different occupation groups), the average lost output due to injury is estimated to be J\$337 million.

Mortality. Mortality costs are measured by the loss of output that individuals would have contributed to the economy in that year. Wages are used to proxy the contribution of labor to output. Using the occupational distribution of murder victims from a random sample of murder cases over the past three years, and estimates of the average wages of various occupation groups, an average weekly wage is estimated at J\$8423. Assuming a monthly murder rate of 81 per month, the estimated annual output loss of murder victims is about J\$194 million in 2001.

Table 6.6 shows that the mortality and injury costs together yield an estimate of annual loss of about J\$0.5 billion or 0.2 percent of GDP.

(c) Cost of provision of security in the government and business sectors

Public Expenditure on Security Services. Total expenditure on security services (defense, justice and correctional services, and police) was J\$10.5 billion in 2000/01. About 56 percent of this expenditure was allocated for police services. To put it in context, the total expenditure on security amounted to 57 percent of the budget for education and 146 percent of the budget for health. Unlike the case of health expenditure, it is not possible to ascribe the portion of security expenditure that is a direct response to crime and violence, but note that most of government expenditure on the police and courts serves to deal with criminal cases (of all the cases filed in Resident Magistrate courts in 2001, only 10 percent were civil cases).

Private expenditure on security. The business victimization survey finds that in 2001, private security expenditure by firms was on average J\$1 million, or about 2 percent of annual revenue of the average firm, but with wide variations by size of establishment. For micro enterprises (annual revenue less than J\$5 million), average annual private security expenditure was J\$281,820, or an average of 17 percent of annual revenue. Medium-sized firms (J\$10-20 million in annual revenue) spent an average 7.6 percent of annual revenue on private security, while very large firms (annual revenue above J\$100 million), spent an average of J\$1.8 million or 0.7 percent of revenue. There are also

“informal security” costs in the form of protection-extortion, which were on average \$791,159 for the 5 percent of firms in the survey who admitted to paying.

In addition to the above, the cost of installing new security devices such as grills or other physical changes to the premises was on average J\$137,871 annually, and was undertaken by 95 (24 percent of sample) firms in 2001. Fifty-eight firms installed electronic alarm systems in 2001 at an average cost of J\$214,806. Seven percent of the firms surveyed also installed other protective devices at an average cost of J\$329,276. Installation expenses range from 0.3–0.7 percent of average revenue.

(d) Direct business losses from crime—extortion, fraud, theft, arson, looting

The annual cost of crime in four specific categories (extortion, fraud, robbery/burglary, and arson) and any ‘other’ cost due to crime were surveyed. All categories of crime combined caused 116 firms of the 400 surveyed firms to suffer losses amounting on average to J\$665,011 in 2001. In most cases (81), losses were due to robbery and/or burglary, at an average cost of \$538,522. Seventy-one firms suffered losses as a result of ‘other’ types of crime, at an average cost of J\$258,477. Nearly 10 percent of firms reported losses as a result of fraud. Though there were only a few cases, the most expensive crime was arson, for which the average firm lost over J\$1 million. Combined direct costs of crime as a percentage of revenue are highest, at about 9 percent, among micro firms and firms in the 20-50 million dollar annual revenue group. In all other categories, average losses are no more than 2 percent of average revenue. Average losses due to crime, as a proportion of revenue, are highest in manufacturing and processing (5.7 percent) and distribution (2.5 percent), ‘other sectors not specified’ (2 percent), and lowest in the banking/financial services sector (0.06 percent).

In addition to the above is the cost of looting. Twenty-four percent of the firms reported being looted over 1997-2001, with 70 (18 percent) experiencing the last incident of looting in 2001. Agricultural firms are most affected, accounting for about 30 percent of firms looted over 1997-2001, the majority being micro firms. More generally, more than 40 percent of firms that have suffered from looting are micro enterprises. Incidences of looting are concentrated in the KMA, Montego Bay and St. Ann, which together account for 63 percent of the looting over 1997-2001. Of the 70 firms looted in 2001, 57 percent had losses of less than J\$100,000, 19 percent between J\$100,000 and J\$500,000 and 4 percent between J\$1 million and J\$5 million.

(e) Costs of lost work days arising from firm closure

Violence resulted in an average loss of three work days per firm in 2000 and 2001, affecting 19 percent (13 percent) of sampled firms in 2001 (2000). More than 75 percent of affected firms were located in the Kingston Metropolitan Area (KMA), across all sectors of the economy. Firms in banking/financial services and entertainment experienced the highest rate of closure (4 days) in 2000. In 2001, manufacturing (4 days), distributive trade (3.6 days) and entertainment (3.5 days) were the most severely affected. Companies in distributive trade were particularly affected—in both 2000 and 2001, they accounted for 30 percent of closures due to violence, while representing only 20 percent of the sample (this may partly be due to violent outbreaks often involving

roadblocks in Jamaica). The closures in manufacturing, distributive trade and entertainment reduced the annual operational time of the companies by 1-2 percent.

In the KMA, average losses of firms **that were forced to close** in 2000 were J\$400,000, ranging from an average loss of J\$44,000 in the entertainment industry to losses of \$2 million in mining and quarrying. In 2001, average losses in the KMA rose to over \$1 million, coinciding with the large increase in murders and shootings in 2001. About 85 percent of firms claimed that losses arise not just from foregone output, but also because workers are paid even for lost hours of work.

(f) The overall Costs of Crime

The total cost of violent crime is estimated at J\$12.4 billion or 3.7 percent of GDP in 2001 (see Table 6.6). Per capita, this represents a loss of J\$4725. This is a lower-bound estimate of the cost to society—not only does it not include the costs suffered by business, which have been detailed above, but it also does not include an estimate of the more dynamic and long-term effects, such as the impact on investment and productivity. For example, an IADB study (IADB 1999) found that the social costs of crime, including the value of stolen properties, in the Latin American region were over 14 percent of the region’s GDP. Excluding the value of stolen goods, social costs were 4.9 percent of Latin America’s GDP. Of this, 1.9 percent of Latin America’s GDP accounted for potential lives lost and other health-related costs, 1.6 percent for expenditures on police and judiciary, and 1.4 percent for the cost of private security.

Table 6.6: The Annual Economic Cost of Crime, 2001 (J\$ million)

I. Health Costs	1.3 bn (0.4% of GDP)
Public Health System	995.7
Private Citizens	254.5
II. Lost Production	0.5 bn (0.2% of GDP)
Mortality	194.1
Injury due to Crime	337.2
III. Public Expenditure on Security	10.5bn (3.1% of GDP)
Total I + II +III	12.4 bn (3.7% of GDP)
IV. Private Expenditure on Security	2% of revenue

Impact of crime on business practice and prospects—survey results

Jamaica is a highly open economy, with firms in exporting and import-competing sectors subject to intense competition, especially given the appreciation of the exchange rate in the 1990s. In such sectors, domestic firms are unlikely to be able to pass on the costs of crime in the form of higher prices. Here, it is more likely that crime cuts into profits, reducing opportunities for investment and expansion. In the tourism industry, for example, revenue that could be used for expansion has to be diverted to promotion in order to keep visitors interested in Jamaica. In other cases, crime could threaten firm survival.

While firms in non-tradable sectors such as construction may be able to pass on some of their crime-related costs to their clients, they sometimes have to abandon projects when crime costs become excessive. In the worst-case scenario, they might have to shut down or, where possible, relocate outside of Jamaica.

Higher security costs. In answering the question about the impact of crime on business practice, 51 percent of the respondents said that increased costs of security were at least somewhat significant (see Table 6.7). Larger firms are more likely to report that crimes lead to higher costs of security, with 53 percent with 50 or more employees citing significant or highly significant increases in security costs. The corresponding figure for firms with 20-49 employees was 38 percent.

Crime has a less significant impact on firms that are less than 5 years old, with only 21 percent reporting at least a significant increase in security costs. Younger firms are likely to be in service industries such as computers and communications, and entertainment. The corresponding figure for firms in existence for 15-24 years was 43 percent, and 39 percent for those in existence for more than 25 years. These firms are mostly in the traditional sectors, such as manufacturing and processing and agriculture, which are more prone to crime. These are also the sectors that are more likely to face tougher international competition and therefore less able to pass on security costs in prices.

The effect of crime on security cost is felt most severely in tourism, distribution, manufacturing and processing, and entertainment. Crime has had a significant or highly significant effect on security cost on 52 percent of firms in tourism, 53 percent in distribution, and 37 percent in manufacturing & processing and mining. Firms in the tourism industry have been able to counteract some of the more severe effects of crime on visitor arrival by aggressive advertising in the tourism market, but have also had to spend more on security provision. The distributive trade has been severely affected by crime owing to its vulnerability to theft, arising from storing and transporting large inventories of stocks. Manufacturing and distribution together contribute 35 percent of GDP, and tourism contributes about 10 percent of GDP and has strong sectoral linkages. Crime, by significantly increasing the cost of production, must be seen as an important factor in reducing profits and constraining expansion in these key sectors, hence an important constraint to the growth of the economy.

Table 6.7: Impact of Crime on Business Practice (%)

	Highly Significant (1)	Significant (2)	Somewhat Significant (3)	Significant (1+2+3)	Insignificant	No Impact	Total Number of Respondents
Increased cost of security	18	17	16	51	11	38	300
Increased cost of services purchased	4	4	10	18	17	64	291
Negative impact on worker productivity	4	4	14	22	23	55	290
Negative impact on plans for business expansion	14	10	15	39	17	44	304
Negative impact on investments to improve productivity	10	10	17	37	16	47	301
Other	5	3	5	13	14	73	79

Investment plans. In analyzing the relationship between crime and investment, 39 percent of firms indicated that crime has affected their plans for business expansion, with 24 percent reporting the effect as being either significant or highly significant. At the same time, 37 percent of firms stated that crime has had a negative impact on their plans to invest in productivity improvement (Table 6.7). One-third of the firms in the distributive trade noted that crime has had a highly negative impact on their plans for expansion, and one-quarter of such firms reported that crime has negatively affected their plans for investment in worker productivity. Overall, the industries most likely to delay expansion plans because of crime are distribution (50 percent), agriculture (48 percent), and transportation and storage (47 percent). These same three industries, along with tourism, are those in which crime has most significantly reduced plans for improvement in worker productivity. Larger firms, measured by employment, are more likely to blame crime for lack of investment in expansion and worker productivity.

Firms' view of prospects. Most firms (75 percent) felt that even with the current high crime environment, they would remain in operation in the next three years. Six percent of firms said that if the current level of crime continues, they did not expect to remain in business in the next three years, while 19 percent were uncertain about their prospects. The largest proportion of firms that expect to close operations in Jamaica (either relocate outside of Jamaica or close operations permanently) if the crime situation did not improve in the next three years were in the distributive trade (18 percent of firms). This was followed by tourism (15 percent), entertainment (14 percent), agriculture (11 percent) and manufacturing and processing (10 percent). In all cases (except tourism), firms were more likely to close permanently than to relocate outside of Jamaica.

If all the firms that foresee a closure of operations do actually shut down, GDP could decline by about 7.5 percent over the next three years, or about 2.5 percent per year.

VI. POLICY OPTIONS

Measures to control crime, regardless of how modest, require additional resources from a country already suffering from a fiscal crisis. Based on the results of the business victimization survey, while managers wish to see an improvement in public safety and a sharp reduction in crime, they are unwilling to support increased taxes. Data from the survey indicates that only 12 percent of managers were supportive of increased corporate taxes to fund crime control and 67 percent were opposed (21 percent were undecided). This may be explained in part by a low level of trust in government (see Table 6.1, government effectiveness) and the problem of corruption. However, managers are willing to provide financial support for specific collective solutions that directly affect them and over which there is some direct accountability.

The econometric analysis (Annex 6.1) shows that the determinants of violent crimes in Jamaica are similar to those encountered in other countries (for Latin America see Fajnzylber et al., 2000): (i) negative incentives, or deterrence i.e. more imprisonment, more crimes cleared up, and tougher sentencing are all significantly and negatively associated with some of the violent crimes considered, and (ii) positive incentives i.e. higher per capita income, higher share of labor income in GDP, and lower youth

unemployment (for rape, marginally) are also associated with lower crime rates (except murder). Policies to reduce crime should consider both dimensions of the problem – to increase both the direct costs of committing crime (the expected punishment) and its opportunity cost (the loss of income in the labor market).

An effective crime strategy would need to address the reform of the police and judiciary to make them more effective, and other measures to generally promote pro-poor growth (which is the subject of this report), including improving education outcomes, creating job programs for urban unemployment, and promoting investment in rural areas. The strategy could focus on police accountability and police/community relations, and investment in the police (increase probability of capture), in the judicial system (probability of conviction), and in prisons (probability of punishment), while not compromising on human rights. A good example of a multi-pronged strategy in a high crime urban center is Cali, Colombia, where a program targeted six strategic areas: improvements in monitoring of crime, improvements in the police and judiciary, community enhancements, promotion of equity (education, public services and housing), youth programs and other special policies (for example, prohibition of bearing arms on certain days, ‘semi-dry law’). As a result, homicides were reduced by 600 per year between 1994 and 1998 (see Annex 6.5).

The policy options can be grouped under four themes:

Identify and measure the crime problem.

- 1 **Strengthen official data collection on crime** so that data availability is both frequent and reliable in order to detect crime trends and identify groups most at risk. The official data on the incidence of major crimes is inadequate, as evidenced by under-reporting of certain crimes by the public. Furthermore, while regional crime data is available, comparable regional economic data is not available, making a geographical understanding of crime-causes difficult.
- 2 **Conduct frequent general and specialized victimization surveys** on the dimensions and impact of crime, and use these to inform policy, improve policing methods, inform public discussions on crime control, and as instruments for holding the criminal justice system and government accountable.

Improve law enforcement for crime deterrence.

- 3 **Upgrade investigative capacity of the police** to improve cleared-up rates for violent crimes, and thereby deter crime (in 2001, only 42% of reported murders were cleared). Some effort is already being made to improve the training of police investigators and to extend and improve the application of the forensic sciences and criminalistic techniques to the investigative process (under Jamaica Constabulary Force’s Crime Management Project). As the main concern of the population is with the murder rate, special measures are needed to improve the investigation and adjudication of these cases. A special fast tracking mechanism could be considered to allow for speedy disposal of these cases without depriving accused persons of rights associated with due process.
- 4 **Accelerate the introduction of special commercial courts** to deal with dissatisfaction with the adjudication of commercial disputes and cases brought before the civil courts. This would accelerate the processing of cases and facilitate greater

specialization in this field among lawyers and judges. In turn, this may result in greater confidence in the judicial system and its ability to ensure speedy and fair outcomes. A slight variation of this model works effectively in Colombia, where there are special judges dedicated to handling debt collection cases.

Improve social prevention to address the root causes of crime.

- 5 **Improve the quality of the school experience**, especially for poor students. A significant fraction of the poor, and more so males, tend to drop out of school, end up poorly educated and unemployed, and become susceptible to delinquent behavior. To address this, the disparities between different school types need to be reduced, and special efforts directed to schools that have large numbers of students reading below grade level (see Chapter 5). Also, school programs should be enhanced to include teaching of social and conflict resolution skills to students (also see National Committee on Crime and Violence 2002).
- 6 **Form effective partnerships between the police, business and local communities**, particularly given scarce police resources. This would involve setting of common goals and sharing information. In Sao Paulo, Brazil, a project was carried out to reduce violence through community policing and community cooperation with the police, as a result of which homicide rates fell by 12 percent (see Annex 6.6). Recommendations have also been made to use reformed gang leaders to help combat crime and violence (Government of Jamaica 2002).
- 7 **Build social capital** such as greater trust and lower tolerance to crime and violence, especially through interventions in the home, school and the workplace. An example of the development of citizen culture is in Bogota, Colombia, where a multiple action plan focused on improving law, culture and morale (amongst other outcomes, homicide rates declined by 30 percent)(see Annex 6.7).

Apply focused interventions.

- 8 **Target high crime urban areas**, especially the Kingston Metropolitan Area, to reduce the impact of crime on the business community. The Report of the West Kingston Commission of Enquiry (2002) highlights the need for a ‘national development program’ for the inner-city communities specifically aimed at housing, social amenities and business facilitation. A positive urban regeneration initiative is the Business Improvement District (BID) program following the December 2002 recommendations of the Kingston Redevelopment Committee. The BID aims to provide incentives (investment, growth, improved housing) and deterrents (using modern crime prevention technology such as close-circuit television).
- 9 **Target youth at risk** with specific youth development programs in addition to the schooling focus mentioned above. To control youth violence, the Jamaica Constabulary Force has set up almost 340 Youth Clubs (with membership of over 12,000), and a program to target inner city youth for skills training. An example of a focused intervention to reduce youth violence is in Boston, USA, where the total crime rate declined by 29 percent (violent crimes by 16 percent) through preventive and controlling measures involving local authority and the local community (see Annex 6.8).