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# The opportunity cost of the upkeep of the criminal justice system in South Africa from 1980 to 2006

PIERRE DE VILLIERS AND SOON NEL<sup>1</sup>

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## ABSTRACT

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South African crime rates rose to unacceptably high levels between 1980 and 2006. As a result, vast amounts of funds were devoted to the upkeep of the criminal justice system – correctional services, justice and the police. Although it is necessary to spend a certain amount on the criminal justice system, in South Africa this expenditure was excessive by most measures. The excess funds that were spent on the upkeep of the criminal justice system could have covered the cost of financing the entire backlog in schooling facilities and a large part of the current housing shortage.

Keywords: Crime, opportunity costs, criminal justice system, social services  
JEL codes: D00, E62, H10, H40

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## **1. INTRODUCTION**

One of the most agonising problems that South Africa currently faces is the high incidence of crime and an accompanying general sense of lawlessness. The aim of this paper is to show that the magnitude of the impact that crime on the South African economy has been substantial.

The first part of this paper will be devoted to establishing what crime entails and how standard economic theory encapsulates the determinants of crime. The South African crime situation will be compared to those of other countries. It will be shown that the crime rate in South Africa is high by global standards. In the second section, the direct economic implications of crime will be discussed. For the purpose of this paper the direct economic implications of crime will be defined as government expenditure on the criminal justice system. It will be shown that for the period 1980-2006 government expenditure on the upkeep of the criminal justice system was excessive. The excessiveness of these costs will be quantified and an opportunity cost figure will be calculated in terms of forgone expenditure on social services such as housing and education.

## **2. THEORY AND GLOBAL PERSPECTIVE ON CRIME**

### **2.1 Introduction**

What constitutes criminal behaviour? In this section it will be shown that there is no universal definition of crime. The extent of the crime situation in South Africa, as well as the level of domestic crime compared to other countries, will be investigated in order to determine how South Africa squares off with its international counterparts.

### **2.2 Defining crime**

Criminologists disagree about the exact definition of crime. One of the main reasons appears to be their attempt to derive a definition of crime that is applicable to all societies. The word crime is derived from the Latin word *crimen* which means “reproach” or “accusation” (Harries, 2007: 5). But what exactly does crime entail and where does it originate? Anthropologists have been struggling for years to pinpoint the exact nature of

crime. This is partly due to the fact that the nature of crime is largely determined by culture. In other words, while certain actions may be regarded as criminal within one culture, they will not necessarily be viewed as criminal within another. While the consumption of wine is regarded as a crime in Saudi Arabia this is not the case in South Africa. Crime does not remain constant within a given culture either. In South Africa, for example, same sex marriages were regarded as a crime until they were legalised in 2006. Despite these variations, criminal behaviour can only be regarded as such if this behaviour is comparable with a crime yardstick, i.e. if the nature of crime is precisely defined.

The most commonly applied definition of crime is in legal terms. An act is only considered a crime when it is prohibited by criminal law and violates the prevailing legal code of the jurisdiction in which it occurs (Muncie, 2001: 10). According to Williams (2001: 12) an act constitutes a crime if it involves any harm incurred to society, breaches a legal rule and is subject to legal punishment, i.e. if it violates the criminal law. Hence the yardstick for determining whether an act is a crime or not is the criminal law of a specific country. Since criminal law includes informal norms of a given society it follows that the nature of criminal law differs from one society to another. While in Holland dealing in marijuana is dealt with rather leniently, it is punishable by death in Malaysia. As these informal norms in a society change, so does the criminal law.

Where does criminal law originate? Criminal law can be viewed as the social consensus of a given society on what behaviour is generally accepted and what behaviour is punishable by the state. However, as was the case in South Africa, criminal law can also serve the select interests of certain groups. For decades, industrial, mining and agricultural institutions aligned themselves with the apartheid government in South Africa to exploit black labour (Lowenberg and Kaempfer, 2001: 1). Laws such as the Native Labour Act and the Group Areas Act were passed to safeguard the interests of the ruling capitalist class.

For the purpose of this paper crime will be regarded as the result of the interplay of political, economic, and social factors in society. Regardless of the exact nature of the problem, criminal policy makers have to carefully consider the key factors that drive South Africa's high crime rates. To this end it is crucially important to understand the underlying economic theory of crime in South Africa.

### **2.3 Economic theory of crime**

Research has indicated that criminal behaviour is a result of rational choice (Blackmore, 2003: 444). An individual will consider various employment opportunities and will generally opt for the occupation that yields the highest return. Brown (2001: 273) refers to a cost benefit exercise that would-be criminals go through when considering criminal activities vis-à-vis legitimate forms of employment. Therefore criminal patterns of thought are more rational than is generally expected. Potential criminals will compare payoffs between criminal and legitimate activities and if there is a substantial differential, i.e. if the return from committing the crime exceeds the return from more legitimate pursuits, the propensity to commit the crime will increase.

The conventional approach to this problem is to raise the costs associated with committing crime, i.e. increase expenditure on the criminal justice system in order to increase the possibility that criminals will be apprehended, convicted and punished for crime (Blackmore, 2003: 444). But there is a growing body of evidence that this is not the most effective policy vehicle for combating crime. The international perspective on the interaction between crime, criminal justice, and poverty reduction is changing. The World Bank and the United Nations Development Programme are reconsidering their funding policies for criminal justice reform. Empirical evidence in Blackmore (2003) and Brown (2001) supports this approach in its conclusion that expenditure on the South African criminal justice system is not the most important variable in deterring crime. Some authors even exclude government expenditure on the criminal justice system, which is probably the most visible policy tool, as an explanatory variable in their empirical work (Demombynes and Ozler, 2002).

Blackmore (2003) analysed 10 independent variables in relation to 15 types of crime, including expenditure on the criminal justice system, which he found to be the least significant explanatory variable. This was confirmed in a study by Stone (2006) in which he concluded that expenditure on the criminal justice system contributes very little to combat crime and in some cases may even worsen the problem. In his analysis, Blackmore found a positive correlation between expenditure on the criminal justice

system and crime, for which he offered various explanations. Among these was the possibility of a non-linear relation or the result of causality extending from crime to expenditure on the criminal justice system, i.e. higher crime rates necessitated increased expenditure on the criminal justice system.

In many countries government expenditure on the criminal justice system is the main direct cost that is associated with crime. In South Africa, however, businesses seem to bear the brunt of the direct costs associated with crime. According to the South African Institute of Race Relations (2006: 507) the number of people who are employees in private security rose by 150% between 1997 and 2005. In 2005 there were no less than 2.7 private security officers for every sworn police official. The World Bank's Investment Climate Survey (Clark *et. al.*, 2005: 95-98) estimates the costs of crime in South Africa at approximately 1.1% of businesses' sales. How do these cost implications for businesses in the private sector impact on economic growth?

The general perception is that crime hampers growth because it diverts resources away from productive activity to protection efforts (Demombynes and Ozler, 2002). Crime is a major contributing factor to the emigration of professional skills and discourages investment, which inhibits long term growth. According to Stone (2006), there are seven crime related factors that may restrain economic growth.

Firstly, businesses suffer direct losses and have to incur costs to enhance security measures. The diversion of funds from more productive operational activities reduces profits. The cost of motor claims in the insurance industry, for example, accounts for approximately 30% of all insurance claims paid out (SA's short-term insurance industry contributes to fight against crime, 2006). Secondly, governments have to spend more on law enforcement, curtailing funds for other, more productive, uses. Thirdly, households tend to spend more on security measures and health care rather than on school fees and other investments of a more productive nature. Fourthly, crime injures or destroys human capital or erodes human capital through the emigration of highly sought after professional skills. Fifthly, crime prevents people from entering the labour market when this entails working after hours or far from home. Sixthly, crime discourages foreign investment and lastly, crime disrupts efforts in support of economic growth such as schooling and public transport.

Stone (2006) presented these seven factors in two main hypotheses: The first states that crime imposes direct and indirect costs on businesses, eroding their profits and hampering investment. According to the second hypothesis economic growth is hampered by limiting investment, work and leisure activities and discouraging tourism.

In South Africa crime also constrains growth indirectly by creating the perception of instability, especially in the light of the prevalence of violent crime. The World Bank's Investment Crime Survey (Clark *et. al.*, 2005: 88) suggests that 30% of South African businesses regard crime as a major constraint to investment. Businesses lose production time and profits by incurring losses from robbery and excessive expenditure on crime prevention. This discourages economic growth, since businesses may limit their investment due to the perceived risk associated with crimes such as robberies. Households are forced to increase expenditure on security measures, which inhibits schooling outcomes, since households consequently spend less on schooling. Others choose to emigrate, resulting in the loss of human capital, which quite often also results in physical capital outflow. Alternatively, workers may be kept away from their work place as a result of injury or murder.

Although economic growth is important, criminal policy should be aimed at reducing crime rather than pursuing economic growth. A clear grasp of the determinants of crime is crucially important to ensure that the South African government achieves this goal.

Economic theory suggests that crime prevention should be driven by the criminal justice system, which is why reforming the criminal justice system is at the core of the debate concerning crime prevention. But is this the most efficient way of combating crime? It was shown earlier that many authors have refuted this theory, and given South Africa's history over the past 28 years, it would be difficult to label the criminal justice system an efficient and effective deterrent to crime.

Various other factors such as inadequate police training and a corrupt police force have been highlighted as determinants of crime. Brown (2001) contended that economic and socio-economic variables should also be considered as important determinants of crime. She concluded that economic variables are the strongest determinants of crime, with education being the most significant of these variables. In a similar study in South Africa Blackmore (2003) found that income per capita was the most significant economic factors associated with high crime levels, followed by the number of drug- and alcohol-

induced offences (social factor). The most important demographic factors were the degree of urbanisation and the ratio of women to men. Both Blackmore and Brown concluded that the solution to crime lies in an interdisciplinary approach, including various social, economical, political and law enforcement factors.

But just how serious is the crime problem in South Africa and how does the crime situation compare internationally? In the next section South Africa's crime statistics will be analysed and compared with that of other countries.

#### **2.4 The magnitude of crime in South Africa compared to the rest of the world**

Does South Africa really have a major crime problem? And is the situation becoming worse or are matters actually improving? The answer may be illusive. An increase in the number of crimes reported is not necessarily an indication that the situation is worsening. The efficiency of the criminal justice system could have improved to the extent that certain crimes are reported and combated more efficiently. By the same token, a drop in the number of crimes reported could be the result of the deteriorating efficiency of the criminal justice system. According to a Nedcor crime survey (in Brown, 2001: 270) official crime statistics may underestimate actual incidences of crime by as much as 50%. Crime statistics do, however, indicate the broad patterns of crime.

On average, South Africans were subjected to the following crime rates over the period 1 April 2002 to end-March 2007: Someone was raped every 10 minutes, a murder or attempted murder occurred approximately every 9 minutes, a robbery occurred approximately every 2.5 minutes. Somewhere in South Africa someone was assaulted in almost every minute of every day. Every 90 seconds someone's premises (home or work) was burgled. Every 36 seconds something was stolen. In total, a serious crime occurred every 12 seconds during the period 1 April 2002 to 31 March 2007 (Institute for Security Studies, 2007). As was indicated in Section 2.3 there were 2.7 private officers for every sworn police official in 2005. Without the existence of the private security industry the crime statistics would probably have been worse.



Table 1

## Crime ratios per 100 000 of the population for selected countries: 2002

Country	Murder	Rape	Assault	Theft (All kinds)	Fraud	Drug Offences
<b>High Income – non-OECD</b>						
Cyprus	1.44	0.26	74.64	95.04	0.39	17.25
Kuwait	5.02	-	116.03	364.87	7.39	-
Saudi Arabia	0.77	1.38	5.46	-	-	5.74
Slovenia	2.49	7.84	95.21	211.46	69.86	30.96
<b>High Income – OECD</b>						
Australia	2.35	8.06	15.92	25.56	5.62	10.25
Austria	3.76	7.77	434.62	3 743.46	428.07	278.6
Belgium	27.58	51.5	839.23	923.73	170.65	452.35
Canada	3.32	19.75	406.26	256.83	68.88	133.07
Czech Republic	2.24	4.21	67.65	310.41	206.83	20.53
Denmark	0.61	1.25	102.94	280.92	-	9.88
Finland	4.25	1.52	217.49	599.66	98.83	145.01
Germany	1.43	3.17	42.88	236.4	164.47	64.04
Iceland	2.46	2.82	81.69	185.21	48.24	103.52
Ireland	1.29	1.77	145.29	204.58	54.46	31.71
Italy	12.63	6.46	65.49	127.85	39.02	84.73
Japan	-	1.97	16.76	4.56	9.29	18.48
Korea, Rep.	1.64	3.86	359.09	33.22	147.3	12.42
Luxembourg	2.71	1.8	62.61	125.68	11.26	24.77
Netherlands	0.06	5.82	-	35.49	58.9	88.84
New Zealand	3.07	11.22	390.84	417.26	83.89	209.6
Portugal	11.22	0.89	143.4	161.71	30.55	37.21
Sweden	4.02	2.82	131	307.12	56.46	194.12
Switzerland	2.5	1.4	29.68	155.79	42.52	103.2
United Kingdom	2.22	5.02	255.97	373.38	37.48	97.32
United States	8.87	32.99	310.14	4 739.15	-	-

Table 1 (continued)

Country	Murder	Rape	Assault	Theft (All kinds)	Fraud	Drug Offences
<b>Upper Middle Income</b>						
Argentina	22.16	8.32	853.18	2 348.18	-	42.51
Chile	7.91	5.4	222.55	493.07	46.19	10.91
Costa Rica	26.68	16.06	57.94	1 320.67	54.06	27.88
Croatia	5.11	1.52	-	159.19	66.22	112.72
Hungary	4.15	5.89	192.77	2 188.54	306.16	47.11
Latvia	7.48	2.31	82.68	837.39	162.01	21.39
Lithuania	10.44	4.9	42.29	429.75	13.29	16.58
Mexico	2.23	1.77	-	30.77	7.81	9.77
Oman	1.3	4.37	36.84	56.74	7.84	16.04
Panama	9.56	7.21	200.99	466.22	8.88	50.48
Romania	7.15	4.23	20.7	266.62	22.2	1.57
Slovak Republic	121.73	3.25	179.21	425.64	109.59	16.94
<b>South Africa</b>	<b>151.31</b>	<b>115.61</b>	<b>1797.7</b>	<b>3 632.94</b>	<b>124.01</b>	<b>118.67</b>
Turkey	6.31	2.42	2.78	9.78	1.5	4.17
Uruguay	13.78	9.02	451	3 007.58	95.03	25.5
Venezuela	2.31	0.61	0.43	6.96	0.43	3.88
<b>Lower Middle Income</b>						
Albania	17.21	3.87	13.65	63.05	6.22	9.94
Azerbaijan	2.98	0.32	-	15.84	8.12	24.17
Belarus	12.3	4.29	-	227.44	22.16	28.57
El Salvador	21.59	38.38	245.04	224.92	51.94	22.92
Maldives	8.36	-	98.61	149.47	16.73	-
Moldova	11.1	5.52	3.1	4.53	2.94	0.19
Morocco	7.53	4.12	661.57	21.64	101.79	8.08
Namibia	8.26	14.41	-	3.02	-	-
Peru	39.46	22.84	33.74	66.78	5.78	-
Philippines	26.49	-	2.65	-	-	-
Tunisia	2.91	3.13	517.45	367.97	25.65	8.33
<b>Low Income</b>						
Afghanistan	1.69	0.94	0.6	4.37	0.83	0.47
Ethiopia	20.04	5.98	114.15	55.68	13.7	0.43
Myanmar	3.68	1.17	21.48	10.97	4.78	4.72
Nepal	5.98	1.24	0.54	9.13	1.56	1.24

Source: United Nations Office on Drugs and Crime, 2004.

How does South Africa's crime situation compare with that of its international counterparts? Although local crime statistics for 2007 are available, comparable international crime statistics are not readily available. The most recent international crime statistics available for comparison are 2002 figures. After comparing South Africa to the 55 other countries in Table 1, a top three list was compiled for each of the six categories of crime in Table 2. When compared to countries in the middle and lower income

brackets, which is where South Africa is categorised economically, South Africa tops the list in every one of these six categories except fraud, where South Africa is placed third.

**Table 2**  
**Countries with highest crime ratios: 2002 (High income countries excluded)**

	Murder	Rape	Assault	Theft (All kinds)	Fraud	Drug Offences
1	<b>South Africa</b>	<b>South Africa</b>	<b>South Africa</b>	<b>South Africa</b>	Hungary	<b>South Africa</b>
2	Slovak Republic	El Salvador	Argentina	Uruguay	Latvia	Croatia
3	Peru	Peru	Morocco	Argentina	<b>South Africa</b>	Panama

*Source:* United Nations Office on Drugs and Crime, 2004.

When the 2002 figures are compared to the situation in 1994 it is clear that there has been no improvement with the new democratic dispensation, apart from the fraud category, where South Africa dropped from second to third place. Since 1994 South Africa's position deteriorated for each of the other five categories. South Africa's crime problem has clearly not abated and the country's criminal justice system faces increasing pressure in terms of high crime rates and huge prison populations (Frost in Brown, 2001: 281).

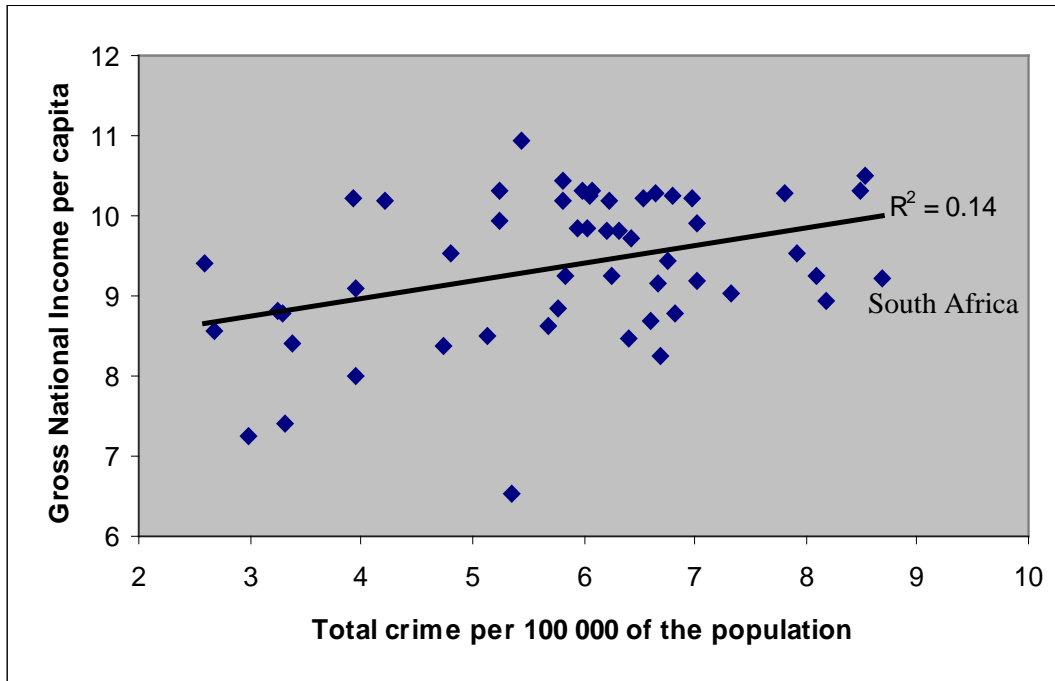
**Table 3**  
**Countries with highest crime ratios: 1994 (High income countries excluded)**

	Murder	Rape	Assault	Theft (All kinds)	Fraud	Drug Offences
1	Rwanda	Rwanda	<b>South Africa</b>	<b>South Africa</b>	Hungary	Mauritius
2	<b>South Africa</b>	<b>South Africa</b>	Botswana	Botswana	<b>South Africa</b>	<b>South Africa</b>
3	Honduras	Botswana	Zimbabwe	Poland	Mauritius	Zimbabwe

*Source:* Crime information management centre, 1994: 1-4.

South Africa's situation does not improve dramatically when a top three list is compiled for all 56 countries, including high income countries. Although South Africa drops to seventh and eighth place for fraud and drug offences, respectively, it still tops the list for murder, rape, assault and theft. Figure 1 provides a scatter graph of logged Gross National Income per capita and total crime rates per 100 000 of the population.

**Figure 1**  
**Total crime rates and logged Gross National Income per capita (2002)**



*Source:* Institute for Security Studies, 2007 and The World Bank, 2006.

Although South Africa falls below the trend line in Figure 1 the country emerges as the furthest point to the right of the graph, confirming its alarming crime statistics compared to other countries. Crime has clearly become a major problem in South Africa. In the next section it will be demonstrated that the current situation in South Africa is untenable and that combating crime is extremely costly.

### **3. DIRECT COSTS OF CRIME**

#### **3.1 Introduction**

The main emphasis in this section is on the excessiveness of government expenditure on the criminal justice system. It will be shown that the direct economic cost implications of crime for the period 1980-2006, i.e. government expenditure on the police services, correctional services and the justice system, were substantial. Two yardsticks will be used to determine the excessiveness of this expenditure: An inflation scenario and a social services scenario. These scenarios are discussed in more detail in sections 3.3.2 and 3.3.3. It will be demonstrated that there have been substantial opportunity costs involved on

both counts. A large share of South Africa's current dilemma with regard to the insufficient provision of social services could perhaps have been prevented had these funds been allocated differently.

### **3.2 Direct economic costs**

There can be little doubt that crime does impose costs on an economy but an attempt to accurately measure the direct cost implications of crime is perhaps too idealistic. Direct private costs could, for example, include the following: expenditure on fire arms, insurance, value of goods lost, loss of productivity through injury, the loss of revenue by the state as a result of illegal enterprises and security measures such as burglar proofing and alarm systems.<sup>2</sup> All these costs impact negatively on the economy, but an attempt to isolate that percentage of the private costs that can directly be attributed to crime is a taxing – if not impossible – exercise. There are, however, certain costs that can be clearly identified (although it must be conceded that our calculations are an underestimation of the direct cost of crime).

The most visible direct cost is incurred by state expenditure on the upkeep of the criminal justice system, i.e. police services, correctional services and the justice system. In an attempt to fully understand the economic implications of crime in South Africa reference must be made to the resources that have been allocated to these three departments. As indicated in Table 4, R409 million was spent on the upkeep of the criminal justice system in 1980. In the 1994/95 budget year (the first year of the democratic South Africa) about R6.7 billion was spent on police services, R1.8 billion on correctional services and R1 billion on the Department of Justice, amounting to a total expenditure of R9.5 billion (South African Report, 1980 and 1995). By 2006/07 these amounts further increased to approximately R29.4 billion, R9.6 billion and R6.2 billion respectively, totalling R45.2 billion (National Treasury, 2007). The question to be asked, however, is whether these costs are excessive and if so, to what extent.

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<sup>2</sup> It can be argued that the development of the security industry could be seen as a positive spillover effect of the high crime rate in South Africa. However, an industry whose existence depends on the high incidence of crime can hardly be seen as a positive development.

**Table 4**  
**Government expenditure on the criminal justice system: 1980-2006**  
**(R'000)**

<b>Year</b>	<b>Police</b>	<b>Correctional Services</b>	<b>Justice</b>	<b>Total</b>
1980	260 528	99 793	48 874	409 195
1981	321 265	122 618	53 609	497 492
1982	379 050	134 305	62 602	575 957
1983	510 632	200 575	91 580	802 787
1984	602 282	241 326	140 906	984 514
1985	863 659	338 762	146 021	1 348 442
1986	996 922	359 898	186 455	1 543 275
1987	1 237 952	408 190	211 642	1 857 784
1988	1 580 345	520 203	241 049	2 341 597
1989	1 979 926	636 930	280 989	2 897 845
1990	2 546 350	753 835	363 955	3 664 140
1991	3 371 740	934 727	492 733	4 799 200
1992	4 734 789	1 282 472	628 410	6 645 671
1993	5 931 043	1 540 931	862 697	8 334 671
1994	6 743 925	1 763 907	1 018 573	9 526 405
1995	7 346 313	2 160 822	1 281 808	10 788 943
1996	9 817 900	2 748 000	1 404 800	13 970 700
1997	11 634 700	3 424 500	1 772 400	16 831 600
1998	12 843 954	3 962 300	2 209 722	19 015 976
1999	13 934 698	5 036 096	2 325 302	21 296 096
2000	14 572 459	5 145 367	2 654 385	22 372 211
2001	15 597 445	5 474 924	2 737 651	23 810 020
2002	17 670 435	6 549 171	3 933 456	28 153 062
2003	19 713 543	7 068 475	4 484 857	31 266 875
2004	22 692 887	7 849 714	4 966 118	35 508 719
2005	25 414 522	8 828 792	5 499 366	39 742 680
2006	29 360 784	9 631 216	6 193 636	45 185 636
<b>Total</b>	<b>232 660 596</b>	<b>77 217 849</b>	<b>44 293 596</b>	<b>354 171 493</b>

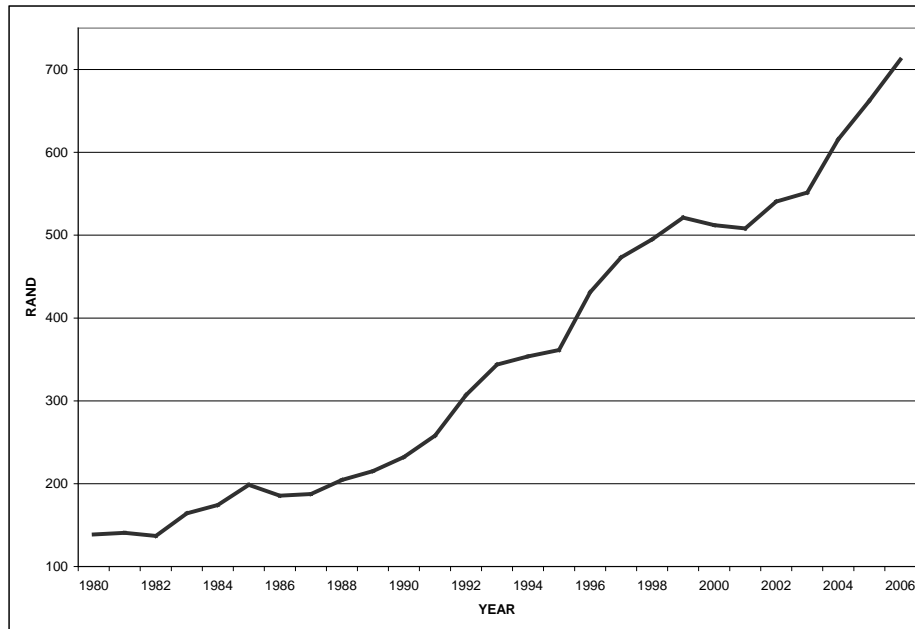
*Source:* South African Report, 1980-1997, Department of Finance, 1998-2000 and National Treasury, 2001-2007.

The South African Police Service (SAPS), the most expensive of the three components of the criminal justice system, on average absorbed approximately two-thirds of the total cost of the criminal justice system for the period 1980-2006 (South African Report: 1980-1997, Department of Finance, 1998-2000 and National Treasury, 2001-2007). Government expenditure on the SAPS increased substantially during the period 1980-1994 (e.g. by 43% in 1985 when the state of emergency was declared). On average it increased by 11.1% in real terms. From 1994-2006 the growth rate dropped to 6.7% per annum in real terms. Expenditure on the SAPS increased from R261 million in 1980 to R29.4 billion in 2006 (equal to an annual real growth rate of 8.9% in real terms).

Government expenditure on correctional services increased steadily during the entire period. For the period 1980-1994 expenditure increased annually at a growth rate of 7.8% in real terms and from 1994-2006 by 8.7% per annum. For the period 1980-2006 government expenditure on correctional services increased from R100 million to R9.6 billion – equal to an annual real growth rate of 8.2%.

During the period 1980-1994 government expenditure on the justice system increased at a moderate rate (except for 1983 and 1984 when it grew by 30.4% and 37.8% respectively in real terms), averaging a real growth rate of 9.1% per annum. During the period 1994-2006 the real growth rate increased moderately to 9.6% per annum. From 1980-2006 the average real growth rate was 9.4% per annum. Government funding of the justice system increased from R49 million in 1980 to R6.2 billion in 2006.

**Figure 2**  
**Real per capita expenditure (in 2000 prices) on the upkeep of the criminal justice system in South Africa: 1980-2006**



Real *per capita* expenditure (in constant 2000 prices) on the upkeep of the criminal justice system increased from only R138 in 1980 to R712 in 2006 – the equivalent of an increase of 413% for the entire period or an average growth rate of 6.5% per annum (Statistics South Africa and information in Table 4). The exponential growth in real *per*

*capita* expenditure is illustrated in Figure 2. Total expenditure on the upkeep of the criminal justice system in 2006 was 110 times greater than in 1980. Despite the drastic increase in expenditure on the criminal justice system since 1980, this has not had the desired effect of decreased crime rates.

Was too much spent on the upkeep of the criminal justice system and, if so, what exactly has been lost? Can it be said that these funds could have been spent more efficiently elsewhere? In the next section the opportunity cost of the funds allocated to the criminal justice system will be discussed.

### **3.3 Opportunity cost**

The criminal justice system occupies resources that could have been utilised more productively elsewhere in the economy. Was too much money spent on the criminal justice system in order to control crime during the period 1980-2006? This section will attempt to indicate what the opportunity cost was in terms of foregone expenditure on social services.

If the rate of increase in the government's expenditure on the South African criminal justice system is compared to the rate of increase in government expenditure on social services it is clear that for most of the period 1980-2006 the rate of increase in government expenditure on the criminal justice system has outpaced that of the expenditure on social services. The array of possibilities that could have been realised had the resources that were allocated to the criminal justice system, or part thereof, been allocated differently, e.g. allocated to social services, will be quantified. This may explain why the government has failed to meet the huge demand for basic needs of the majority of South Africa's people. The level of social expenditure on whites during the apartheid era was too high to be extended to other groups (Van der Berg, 1989: 200). As a result of limited financial resources it was impossible to maintain the expenditure level that whites enjoyed prior to 1994 and simply uplift other groups to the same level of expenditure. This has resulted in a social expenditure dilemma.

The magnitude of the figures presented in the previous section becomes far more apparent when consideration is given to what could have been done with the funds if they had been allocated elsewhere in the economy. In order to determine what impact the funds could have had if spent differently it is important to determine how much of the



expenditure on the criminal justice system can be regarded as excessive, i.e. assuming that a limited amount of expenditure is necessary.

There must be a norm beyond which government expenditure can be regarded as excessive. Two approaches have been adopted to determine this norm. Under the inflation approach it is assumed that expenditure on the criminal justice system increases with the inflation rate, whereas the social services scenario views the rate of growth of social expenditure by government for the period 1980-2006 as the yardstick. In sections 3.3.2 and 3.3.3 it will be shown that government expenditure on the South African criminal justice system has been excessive in terms of both these norms.

In terms of quantifying the opportunity costs involved in expenditure on the criminal justice system, two of South Africa's main social expenditure categories of need will be used: education and housing. Empirical research by Brown (2001) indicated that education is the most important economic explanatory variable for crime prevention and that urbanisation is the most important socio economic variable. The next section will outline the shortages in these two categories.

### **3.3.1 Shortage of schooling and housing facilities**

Although it is problematic to pinpoint a specific time when the shortages in schooling and housing facilities should be evaluated, the authors decided to use the backlogs that existed after the African National Congress took over political power in 1994. The core issue relating to opportunity cost in the field of education is the lack of educational facilities. According to the former Minister of Education Mr Sibusiso Bengu (in South African Institute of Race Relations, 1996: 116) there was a shortage of 85 200 classrooms at the beginning of 1995. It should be kept in mind that this shortage excluded facilities such as toilets, administration blocks and laboratories. The shortage in classrooms was then converted to a shortage in schools.

The number of enrolments at primary schools as a percentage of the total number of enrolments in 1995 was used as a pro rata estimate for the shortage in primary school classrooms (Research Institute for Education Planning, 1995: 4). The same procedure was followed to estimate the shortage in secondary school classrooms. Given a classroom learner ratio (CLR) of 1:40 for primary schools and 1:35 for secondary schools it was

calculated that there was a shortage of 2 054 primary schools and 914 secondary schools in 1995 (as indicated in Table 5).

In terms of the cost per primary school (R30 million) and per secondary school (R35 million) the shortage could have been eliminated at a total cost of approximately R93.6 billion. Crouch (in South African Institute for Race Relations, 1996: 144) estimated the cost of providing the toilets needed in all schools at a ratio of 20 learners per toilet at R8 billion in 1995. If this is adjusted using the building index of the Bureau for Economic Research (Building index electronically received from Mr Snyman, 2007) it converts to R22.8 billion in 2006 prices. Total costs of eliminating the shortage in schools would be approximately R116.4 billion.

**Table 5**  
**Number of schools needed in South Africa in 1995**

	Primary schools (1:40)	Secondary schools (1:35)
Classrooms needed	56 474	28 726
Learners in need	2 258 960	1 005 410
Schools needed (1 100 learners per school)	2 054	914

*Source:* South African Report, various issues, Research Institute for Educational Planning, 1995: 4 and South African Institute for Race Relations, 1996: 116.

In 1995 it was estimated that 2.18 million new houses would have to be built to alleviate the shortage of houses in South Africa (South African Institute for Race Relations, 1996: 335-361). Allowing for the present direct cost of building a house (excluding the cost of land) of R48 700 (Department of Housing, 2007) the total cost of alleviating the housing shortage amounts to R106.2 billion.

### **3.3.2 Inflation Scenario: Government expenditure on the criminal justice system increases with the inflation rate**

In this scenario the inflation rate is used as a yardstick in order to determine whether government expenditure on the criminal justice system has been excessive. Any increase in actual government expenditure from 1980 above the inflation threshold is then regarded as excessive.

If the annual inflation rates for the period 1980-2006 are taken as the appropriate rates of increase in government expenditure on the criminal justice system it indicates an excessive amount of approximately R288 billion (South African Reserve Bank, various issues). The extent of this excess becomes increasingly clear when the figure is translated in terms of houses or schools that could have been built. As explained in the previous section, the total cost to eliminate backlogs of classrooms and toilet facilities in the schooling system, amounts to R116.4 billion. To provide the backlog of 2.18 million houses would cost an additional R106.2 billion. This means that if the excessive spending on the criminal justice system was, instead, devoted to schools and housing there would have been no current shortage, and an additional amount of R65.4 billion would still have been available to be spent on other social services (See Table 6). This becomes even more apparent if the current backlog of 2.4 million houses in South Africa is taken into account (Naidoo, 2007: 72), an indication that the situation is deteriorating. Clearly, the opportunity cost of excess spending on the criminal justice system was substantial in terms of social services that could have been financed instead.

**Table 6**  
**Opportunity cost of overspending on the criminal justice system**

Opportunity cost	Shortage of schools and houses	Inflation Scenario		Social Services Scenario	
		(Number of schools/houses that could have been built)	Percentage of backlog eliminated	(Number of schools/houses that could have been built)	Percentage of backlog eliminated
Schools <sup>1</sup>					
Primary	2 054	2 054	100%	2 054	100%
Secondary	914	914	100%	914	100%
Housing units <sup>2</sup>	2 180 000	2 180 000	100%	445 638	20.5%
Amount available for social grants		R65.4 billion		-	

1. Schools:
  - Cost of primary school with 1 100 learners = R30 million
  - Cost of secondary school with 1 100 learners = R35 million (Personal communication with Mr Schreuder, Deputy Director-General at the Western Cape Education Department, 2007)
2. Housing units:
  - Current building cost of 30m<sup>2</sup> house converted to a 40m<sup>2</sup> house = R48 700 (Department of Housing, 2007)

### **3.3.3 Social Services Scenario: Government expenditure on the criminal justice system increases at a rate equal to the increase in government expenditure on social services**

The second yardstick used is the rate of increase in government expenditure on social services (education, health, housing, social security and welfare). Government expenditure on social services increased at an average annual rate of approximately 21% for the period 1980-1995. For the period 1995-2006 the growth rate was considerably lower at just under 13% per annum (South African Report, 1985-1997 and National Treasury, 1998-2006). These average growth rates are higher than the inflation rates for the respective periods. The average expenditure on social services was used because the motive for government expenditure on the containment of crime and violence is maintaining social peace. Social expenditure has at its core the same goal. The rationale that was followed is that there is no reason why government expenditure as an indirect attempt to maintain social peace should exceed a direct attempt at attaining the same goal. Therefore the rate of increase in the expenditure on social services should not differ greatly from that of the criminal justice system. Table 6 indicates that even if government expenditure on the criminal justice system had increased at the same rate as that of the expenditure on social services there would still be a substantial opportunity cost involved.

If government expenditure on the criminal justice system since 1980 had increased at the same rate as government social expenditure, R138.2 billion could have been saved. In other words the shortage in primary and secondary schools could have been eliminated. Simultaneously, 447 638 houses (20.5% of the shortage) could also have been financed.

Both these scenarios illustrate the significant opportunity costs involved. At the heart of the argument is the age-old dilemma: Too many guns, too little butter. In an attempt to combat crime the South African government allocated funds to the upkeep of the criminal justice system that could have been used to finance much needed social services.

## **4. CONCLUSION**

It is generally held that South Africa has a high crime rate by global standards. It has been demonstrated that this is indeed the case and that South Africa, when compared to other middle and lower income countries that are plagued by high crime rates, is worst afflicted. The South African government is responsible for the implementation of an

action plan against crime. If the government fails in this respect it will eventually be exposed as an incapable agent of the people it ought to govern.

The criminal justice system that has been tasked with dealing with the crime problem currently costs the South African government approximately R45.2 billion per annum. Funds allocated to the upkeep of the criminal justice system are non-productive in nature and desperately needed in other sectors of the economy.

Has the government spent too much on criminal justice? Government expenditure on the criminal justice system cannot be regarded as excessive per se. There has to be a specific level that the government is required to spend on the criminal justice system. Both yardsticks used in this paper, the inflation rate and the rate of increase in expenditure on social services, indicate that the government's expenditure on criminal justice has been excessive.

Both the inflation scenario and the social services scenario were compared to actual government expenditure on the South African criminal justice system. It was indicated that for the period 1980-2006 the South African government could have saved an amount of more than R288 billion, by the inflation scenario, and approximately R138 billion by the social services scenario. After considering the needs within the field of education both scenarios indicated that the current backlog could have been prevented had these opportunity cost funds been allocated differently. It was further shown that under the inflation scenario the housing shortage could also have been eliminated and an additional amount of R65 billion would still have been available for expenditure on other social services. In accordance with the social services scenario, the schooling shortage as well as 21% of the housing shortage could have been met.

In conclusion thus it was shown that South Africa's crime rate is high by global comparison. It was also shown that South Africans suffered considerable opportunity costs in terms of foregone social services expenditure as a result of the high crime rate. More specifically these opportunity costs involved two of the major social services need areas in South Africa: education and housing. Ironically, education and housing were also shown to be two of the main determinants of changes in the crime rate.

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