

Economic Cost of “War on Terror”

By

Dr. Hafiz A. Pasha

Table of Contents

	Page No.
1. Economic Cost of The 'War On Terror'	1
2. Benefits of Participation in the 'War on Terror'	1
3. The Incidence of Terrorism	2
4. Government Estimates of Costs of Terrorism	4
5. Typology of Costs	6
5.1. Costs to Local Economies	6
5.2. Costs of Greater Uncertainty and Risk Perceptions	6
5.3. Higher Transaction Costs	7
5.4. Psychological Costs	7
6. Direct Costs	7
7. Indirect Costs	10
7.1. Costs to Local Economies	10
8. Policy Recommendations	14

List of Tables and Boxes

Table 2.1 US Funding to Pakistan since 2001	2
Table 3.1 Nature and Incidence of Attacks in 2008	3
Table 3.2 Major Acts of Terrorism in 2008	4
Table 3.3 Terrorist and Other Attacks from 2005 to 2008	4
Table 4.1 Costs of 'War On Terror' to Pakistan	5
Table 6.1 Defence Expenditure and Expenditure on Law and Order	8
Table 7.1 GDP and Sectoral Growth Trends in NWFP and Pakistan	10
Table 7.2 Employment Trends in NWFP and Pakistan	11
Box 1 Direct Costs of Terrorism	9
Box 2 Indirect Costs of Terrorism	14

This paper answers what has been the economic cost to the country of participating in the global 'War on Terror' since 2001 which has led to the rise of insurgency and terrorism inside Pakistan?

1. Economic Cost of The 'War On Terror'

Until recently, the focus on the "War on Terror" was largely on highlighting the benefits in terms of increased support from the international community, especially the USA. But increasingly there is concern that the costs of participation are rising exponentially and leading to severe dislocation of economic activity and unacceptably high losses of life and property. In this section we attempt to quantify the net costs of terrorism. Conceptually, these costs can be classified into a number of categories, largely depending on their nature (direct and indirect) and on the time period examined (immediate, medium-term or long-term). Those costs that are short run are more clearly identifiable and potentially less difficult to measure. Estimates covering longer periods of time and focused mainly on indirect costs require numerous assumptions concerning counter factials and hence are on less firm ground.

2. Benefits of Participation in the 'War on Terror'

The decision to participate in the 'War on Terror' did lead to a major outpouring of international support to Pakistan. In 2001 Pakistan was emerging from a tough stabilization program with the IMF which in the process of reducing macroeconomic imbalances had, more or less, 'suffocated' the process of growth. Per capita income was stagnant and there been a substantial increase in unemployment and poverty. Foreign exchange resources were scarce and at the beginning of FY 2001-02, foreign reserves stood at \$ 3,231 million, enough only to finance three months of imports of good and services.

Participation in the war effort led to a substantial increase in the inflow of concessional assistance, especially in the form of grants from the USA. As shown in Table 2.1, since 2001-02 Pakistan has cumulatively received \$ 12.2 billion funding from the USA. This has consisted primarily (almost 70 percent), of reimbursement for the costs incurred by the military in counter-terrorism operations in the North of the country. Development and economic assistance has aggregated to \$ 3.2 billion during the period. Therefore, the direct contribution to the growth process in the country has been limited. However, the overall assistance, including the funding of military operations (mostly incurred in local currency), contributed to a rapid buildup in the foreign exchange reserves of the country. These reserves increased to \$ 12,389 million by the end of 2003-04.

**TABLE 2.1
US FUNDING TO PAKISTAN SINCE 2001**

Purpose								[\$ million]
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Cumulative
Military	1465	1473	782	1273	1218	1095	1387	8694
Law Enforcement	100	32	36	40	46	31	31	318
Development & Economic	665	258	304	405	677	442	445	3194
Diplomacy	3	4	7	6	9	9	1	39
Total	2232	1767	1129	1724	1951	1578	1866	12245

Source: US Government Accountability Office, Securing, Stabilizing and Developing Pakistan's Border with Afghanistan, February 2009.

The consequence was not only the alleviation of the foreign exchange constraint to growth but also the associated rapid expansion in money supply this led to a precipitous fall in interest rates and stimulated aggregate demand in the economy. The economy went back, after a long time, on to the path of rapid growth from 2003-04 onwards, averaging a GDP growth rate almost of 7 percent.

But the large inflows of aid, alongwith higher remittances and, more recently, foreign direct investment, led to symptoms of 'Dutch Disease' in the Pakistani economy. The currency appreciated in real terms which promoted import-based consumption-led growth. By 2006-07, the process of rapid growth was beginning to look increasingly unsustainable, with the current account deficit in the balance of payments reaching 5 percent of the GDP. Following the sharp increase in oil prices, Pakistan found itself confronted with a full-blown financial crisis in 2007-08. This will lead to the plummeting of the growth rate to less than 3 percent in 2008-09. Increasingly, the benefits of participation in the 'War on Terror' appear to have been declining and temporary in character. These benefits have largely been frittered away in rising consumption levels, especially of the richer sections of Pakistani society.

3. The Incidence of Terrorism

We turn to the costs, which hinge on the level of incidence of the acts of terrorism in the country. The trend in the number and incidence of these acts is also a basic indicator of the success of the counter-terrorism strategy.

The Pakistan Security Report prepared by the Pakistan Institute of Peace Studies (PIPS) quantifies carefully the incidence of terrorism in the country on the basis of day-to-day monitoring of the national and local print and electronic media. The estimated number of attacks in 2008 alongwith the numbers killed and injured is given in Table 3.1. Bulk of the incidents were

in the nature of terrorist attacks in 2008. An estimated 2267 people were killed in these attacks and 4,558 were injured. In addition, 'operational attacks' (security force's operations against terrorists) have led to 3182 deaths and 2267 injured (mostly 'collateral' damage). According to some estimates, missile attacks by US drones have killed almost 1,000 innocent civilians in 2008.

TABLE 3.1			
NATURE AND INCIDENCE OF ATTACKS IN 2008			
Attacks/Clashes	Number of Incidents	Killed	Injured
Terrorist attacks	2148	2267	4558
Operational attacks	-	3182	2267
Clashes between security forces and militants	95	655	557
Political violence	88	162	419
Inter-tribe sectarian clashes	55	395	207
Total		6661	8008
Source: PIPS (2008)			

The highest number of attacks were reported in NWFP at 1009, followed by Balochistan at 682 and the Tribal Areas at 385. As many as 35 attacks took place in Punjab, 25 in Sindh, 7 in Islamabad and 4 in Azad Kashmir. The major attacks in 2008 in which more than 25 people lost their lives are listed in Table 3.2. The striking conclusion is that these 'mega-attacks' have occurred throughout the country including in high-security locations like the capital city, Islamabad. Such major acts of terrorism disproportionately magnify general perceptions of risk throughout the country and demonstrate the lack of success of counter-terrorism efforts to date.

One of the most devastating incidents, widely publicized in both the national and international media, was the bombing of the Marriott Hotel in Islamabad on the 20th September 2008, which claimed 80 lives and injured 230 people, alongwith extensive damage to property and vehicles. Other events which have left an indelible mark on peoples minds include the attack on FIA headquarters in Lahore on 11 March, on Pakistan Ordnance Factory in WahCantt on 21 August, on a Tribal Jirga in FATA on 10th October and on a PPP Rally in ParachinarKhurram Agency, on the Sri Lankan cricket team in Lahore on March 3, 2009, and on a police academy on March 31, 2009. The people of Pakistan were earlier shocked by the assassination of Mohtarma Benazir Bhutto in Rawalpindi by a terrorist, which shook the foundations of the country and led to a carnage of violence and destruction. Ms. Bhutto was assassinated on

December 27.

TABLE 3.2 MAJOR ACTS OF TERRORISM IN 2008				
Date	Place	Target	Casualties	Injured
N W F P				
9 February	Shabqadar, Charsada	ANP's Rally	31	51
29 February	Swat	Funeral	50	80
2 March	Dara Adamkhel	Peace Jirga	53	56
19 August	D.J. Khan	Shia Gathering	33	54
6 September	Budh Beer, Peshawar	Police Station	39	80
28 December	Shalbandai, Buner	Girls School	44	19
P U N J A B				
10 January	GPO, Lahore	Police	27	70
11 March	Lahore	FIA HQ	31	217
21 August	Wah Cantt	POF	85	109
6 October	Bhakkar	MNA meeting	26	62
F A T A				
16 February	Parachinar, Khurram Agency	PPP Rally	51	93
10 October	Khadeezai, Orakzai Agency	Tribal Jirga	120	200
6 November	Bajaur Agency	Tribal Jirga	25	50
I S L A M A B A D				
6 July	Islamabad	Police	25	54
20 September	Islamabad	Marriott Hotel	80	230

Source: PIPS (2008).

The inescapable conclusion from Table 3.3 is that the incidence of terrorism is increasingly exponentially in Pakistan. These estimates indicate that the costs of terrorism are rising very rapidly in the country due not only to the increasing number but also because of the rising intensity and widespread nature of this activity.

TABLE 3.3 TERRORIST AND OTHER ATTACKS FROM 2005 TO 2008						
Years	Total Attacks	% Increase	Number Killed	% Increase	Number Injured	% Increase
2005	254		216		571	
2006	675	159	907	320	1543	170
2007	1503	129	3448	280	5353	247
2008	2386	59	6661	93	8008	50

Source: PIPS (2008).

4. Government Estimates of Costs of Terrorism

The Ministry of Finance of the GOP has prepared estimates of the cost of the 'War on Terror' to

Pakistan in the PRSP-II document. The following indirect costs have been identified in addition to the direct costs:

- I. Delay in implementation of development projects in affected areas, like NWFP and FATA, leading to cost overruns. (Increasing uncertainty leading to capital flight and affecting FDI.
- II. Slowing down of domestic economic activity.
- III. Excessive increase in the country's credit risk, making borrowing very expensive.
- IV. Increased unemployment in affected regions.
- V. Costs of displacement of local population.

According to Table 4.1 above, costs of the 'War on Terror' are expected to approach Rs 678 billion (approximately \$8.4 billion) in 2008-09, equivalent to over 5 percent of the projected GDP. Indirect costs on account of loss of exports, foreign investment, industrial output, etc, represent bulk of the costs, with a share of over 83 percent. Cumulatively, according to government the cumulative cost of the 'War on Terror' since 2004-05 is \$ 31.4 billion, substantially in excess of the flow of concessional assistance estimated at about \$ 1.7 billion annually, but this will still remain substantially less than the costs of the 'War on Terror'.

	2004-05	2005-06	2006-07	2007-08	2008-09^a	[Rs billion] Growth Rate (%)
Direct Cost (Rs Billion)	67.1	78.1	82.5	108.5	114.0	14.1
Indirect Cost* (Rs Billion)	192.0	222.7	278.4	375.8	563.8	30.9
Total (Rs Billion)	259.1	300.8	360.9	484.4	677.8	27.2
Total (\$ Billion)	4365	5025	5752	7744	8368	17.7
% of GDP	4.0	3.9	4.1	4.6	5.1	

^a Assumed exchange rate 1\$ = 81.00 Rs.
* On account of loss of exports, foreign investment, privatization, industrial output, tax collection, etc.

Source: Finance Division, Government of Pakistan, September, 2008, PRSP II.

The government estimates reveal very rapid growth in costs of over 27 percent per annum since 2004-05. This is consistent with the sharply rising incidence of attacks highlighted in the previous section. But in the absence of a detailed technical statement it is difficult to judge the reliability of the government estimate of the magnitude of the costs.

The literature is replete with attempts at quantification of the costs of the 9/11 terrorist attacks on the US economy. [See Chan (2002), The Milken Institute (2004), J. Brauer (2002), Warshawsky (2001)] According to the Institute for Analysis of Global Security [2003] the total cost was \$244 billion, with the share of direct and indirect costs being 44 percent and 56 percent respectively. This is equivalent to about 2.5 percent of the US GDP in 2001. If the loss in stock market wealth is included, then the costs rise substantially. A recent book by Bruce Reidel puts the cost of 9/11 for the US economy at over 1 trillion. According to the Milken Institute if losses to the global stock markets are included, the costs approach \$2 trillion.

5. Typology of Costs

Costs of terrorism, as highlighted above, are both direct and indirect as well as of a short-term and more long-term nature. [See Saxton Report of US Congress (2002), Looney (2002), Frey, Luchinger and Stutzer (2007), Paul Krugman (2004)]

Direct costs include the following:

- (i) Value of human lives lost or of injuries
- (ii) Value of property or infrastructure destroyed or damaged
- (iii) Costs of enhanced spending on security.

Here, the major conceptual issue relates to the valuation of the human cost, either in terms of loss of life or of injuries. In order to avoid controversy over any assumed value, we simply compute the cost as the (potential or actual) compensation due to affected families as per a prescribed government formula (if available).

Indirect costs are diverse in nature and include the following:

5.1 Costs to Local Economies: Areas which are severely impacted by terrorism, like NWFP and FATA, are likely to experience dislocation of economic activity resulting in loss of output and employment. In addition, due to the heightened sense of insecurity, loss of livelihood, and damage to shelter, terrorism may lead to internally displaced persons (IDPs) on whom costs will need to be incurred in the form of relief and rehabilitation.

5.2 Costs of Greater Uncertainty and Risk Perceptions: The first cost incurred is in terms of lost investment, both foreign and domestic, due to heightened risk perceptions, especially arising from 'mega-attacks' like the assassination of Mohtarma Benazir Bhutto and the bombing of Marriott Hotel, both of which have happened within the last eighteen months. The enhanced uncertainty may also be reflected in decline in share market capitalization. In addition, travel and

tourism to the country is likely to be adversely affected leading to decline in associated services by hotels, restaurants, tourist guides, transport operators, etc. Finally, an important category of costs relates to the higher costs of insurance premia for coverage against acts of terrorism.

5.3 Higher Transaction Costs: These costs are associated with delays in the movement of goods and consignments. Firms may also incur costs of higher inventories to avoid the possibility of disruption in supplies. In addition there are enhanced time costs, arising, for example, at airports due to greater security checks, immigration restrictions, etc.

5.4 Psychological Costs: These are relatively hard to measure costs of terrorism like added anxiety, stress and even mental disorders.

In attempting a quantification of the costs, deliberate effort has been made to keep the estimates on the conservative side for the latest year, 2007-08. For this year, the counter-factual in the case of direct costs is the projection of the trend observed up to 2000-01 while in the case of indirect costs the counter-factual assumed is the projection of trend estimated up to 2006-07.

6. Direct Costs

Starting with the damage to human lives and property, as mentioned above, we focus only on the cost of compensation for loss of life or injury. The Prime Minister has announced a compensation formula to affected families following the WaliBagh suicide attack on October 3, 2008 of Rs 300,000 per deceased and Rs 100,000 per injured person. Given the number killed and injured in 2008, as shown in Table 2, the total potential compensation cost is estimated at about Rs 3 billion. This is, of course, a low estimate compared to the present value of the lifetime income stream lost either due to death or injury.

As far as the damage to property and infrastructure is concerned, no systematic data is available except for 'mega attacks' like the bombing of the Marriott Hotel, in which case the renovation cost is estimated at over Rs 500 million. Also, an inventory has been made of the damage caused by the riots following the assassination of Mohtarma Benazir Bhutto. A notional estimate of loss of property due to terrorist attacks can be made as about Rs 1 million per person killed. This is equivalent to about one sixth of the damage per person killed in a high value property bombing like Marriott hotel. Accordingly the loss of property and infrastructure due to attacks in 2008 is approximately Rs 8 billion.

Turning next to expenditure on security, defence expenditure has been higher because of the need to place the armed forces at the Western borders and for undertaking counter-terrorism

operations especially in the North. This is demonstrated by the numbers in Table 6.1. Between 1993-94 and 1999-2000 there was a gradual drop in real current defence expenditure (at 1999-2000 prices) of about 2 percent per annum. From 2001-02 onwards, at the time of the onset of the 'War on Terror', the trend in real defence expenditure is one of positive growth of over 5.5 percent per annum. It appears that defence expenditure is about 62 percent higher than what it would have been in the absence of the 'War on Terror'. This implies that at current prices the cost of engaging in the war in 2007-08 is Rs 109 billion. This, of course, does not include the cost of acquisition of specialized military equipment for the war, on which no information is available. As such, the overall cost is understated. The upward pressure on defence expenditure is highlighted by the fact that in recent years actual expenditure has consistently exceeded budget estimates.

TABLE 6.1
DEFENCE EXPENDITURE* AND EXPENDITURE ON LAW AND ORDER**

[Rs billion]

Years	Defence Expenditure			Expenditure on Law and Order		
	at current prices	at constant prices ^a	Growth Rate (%)	at current prices	at constant prices ^a	Growth Rate (%)
1993-94	91.8	171.3		5.6	10.4	
1994-95	104.5	161.8	-5.5	7.4	11.5	10.0
1995-96	119.7	156.9	-3.0	9.5	12.5	8.8
1996-97	127.4	158.7	1.1	11.0	13.7	9.5
1997-98	136.2	161.4	1.7	11.9	14.1	3.1
1998-99	143.5	159.8	-1.0	13.2	14.7	4.2
1999-2000	150.4	150.4	-5.9	15.6	15.6	6.1
2000-01	131.2	125.7	-16.4	17.5	16.8	7.7
2001-02	149.3	138.1	9.9	19.5	18.0	7.1
2002-03	159.7	144.8	4.9	23.7	21.5	19.4
2003-04	184.9	158.3	9.3	32.1	27.5	27.9
2004-05	211.7	165.8	4.7	35.5	27.8	1.1
2005-06	241.1	176.4	6.4	46.7	34.2	23.0
2006-07	277.3	188.3	6.7	57.1	38.8	13.4
2007-08	297.0	184.1	-2.2	65.0 ^b	40.3	3.9

* by federal government.
** by provincial governments.
^a of 1999-2000.
^b budget estimate.
Source: MoF, Pakistan Economic Survey.
FBS, Statistical Year Book.

Turning to expenditure on law and order and public safety by provincial governments, primarily on police, we also observe a distinct change in the trend after 2001-02, as shown in Table 6.1. Prior to 2001-02, the trend growth rate in real law and order expenditure was 7 percent, which doubled to 14 percent after 2001-02. It thus appears that law and order expenditure is higher by

about 48 percent in the presence of the 'War on Terror' than it would have been without the war. This implies a higher cost of Rs 21 billion in 2007-08. Here again, no provision is made for higher expenditure on special equipment for police. However, the faster increase in police expenditure in recent years may also be due to a general deterioration in the law and order situation not necessarily linked to rising levels of terrorism in the country. Given the deteriorating situation, the government of NWFP has increased the police budget by 28 percent in the current financial year. Actual expenditure may be even higher, Higher costs of operations of para-military forces, intelligence agencies like ISI and FIA have not been estimated due to lack of data.

Another aspect of enhanced security is the development of private security arrangements in the country. There has, in fact, been a mushroom growth in this service in recent years. According to an informal survey carried out by the newspaper, Daily Times, the number of men employed by private security companies in

Lahore is about 50 percent more than the number of policemen stationed in the city. The enactment of the Private Security Companies Regulation and Control Ordinance by the Punjab government in 2002 has facilitated the establishment of such companies, of which there are over 200 alone in Lahore.

Currently it is estimated that there are over 30,000 security guards in Lahore and probably over 200,000 in the country. With the total cost (wages plus overheads) per guard of about Rs 7,000 per month, the total cost of private security services is estimated at Rs

BOX 1	
DIRECT COSTS OF TERRORISM	
	[Rs in Billion]
● (Potential) costs of compensation to victims	3
● Costs of damage to property and infrastructure	8
● Higher costs of defence	109
● Higher costs of police	21
● Higher cost of private security	8
Total Direct Cost	149
SAY	Rs 150 Billion

16.8 billion. We assume that about half, or Rs 8 billion, is attributable to the 'War on Terror'.

Overall, a summary of the direct costs of terrorism is presented in Box 1.

Despite the conservative and incomplete nature of these estimates, they work out to be significantly greater than government's estimate of direct costs in 2007-08 of about Rs 109 billion.

7. Indirect Costs

We first take up the impact of the war on terror on local economies.

7.1 Costs to Local Economies

The local economies in the Pakistani context are NWFP and FATA, where bulk of the terrorist attacks have occurred and where military operations (including the drone attacks) are concentrated. The shares of the two regions in the national population, according to the 1998 Census, are 13.4 percent and 2.4 percent respectively.

Estimates of the Gross Regional Product of NWFP have been made by the World Bank [2006] upto 2004-05. No such estimates are available for FATA. Table 7.1 gives a comparison of the

growth trends in the regional and national economies. Some interesting conclusions emerge from the table. It appears that in immediate aftermath of the war, there was actually greater buoyancy in the NWFP economy due to the 'war multiplier' of an enlarged military presence and the stimulus provided to services like transport in the process of supplies to the NATO

	1995-96 to 2000-01	2001-02 to 2003-04	2004-05
GDP			
NWFP ^a	2.8	6.8	6.2
Pakistan	3.5	4.8	8.6
NWFP Sectoral Growth			
Agriculture	3.5	3.4	2.9
Industry	1.8	7.5	10.2
Services	3.0	7.9*	5.7
*fast growth in transport and communications, public administration, wholesale and retail trade.			
^a share of NWFP in national GDP is 9.6% in 2004-05.			
Source: World Bank (2006).			

forces in Afghanistan. Consequently, between 2001-02 and 2003-04, the regional growth rate approached 7 percent. However, as the incidence of acts of terrorism increased, especially in Peshawar, and military operations became more intense and widespread, there has been much greater dislocation of economic activity. In 2004-05, the differential in the growth rates of Pakistan as a whole and NWFP in particular was almost 2½ percentage points. By now, it has probably exceeded 3 percentage points.

Employment trends can be extracted from the Labor Force Surveys and are presented in Table 7.2 These trends confirm the initial impetus to the NWFP followed more recently by falling employment, with over 100,000 persons losing jobs in 2006-07. Even though data is not

available on FATA it is likely that there has been a massive displacement of economic activity from the region.

We estimate that the growth rate of the NWFP economy has been about 3 percentage points less than the national economy in recent years. This implies that in 2007-08, the growth rate of NWFP was less than 3 percent and, in 2008-09, the regional economy is likely to exhibit little or no growth. Given that NWFP accounts for about 10 percent of the national GDP, the implication is that the cost of lower growth in the local economy due to the 'War on Terror' is about 0.3 percent of Pakistan's GDP,

equivalent to Rs 31 billion in 2007-08. We notionally add about 30 percent to this cost to incorporate the impact on the economy of FATA. Therefore, the indirect cost on local economies of the 'War on Terror' is estimated at about Rs 40 billion.

	NWFP		PAKISTAN	
	Employment (000s)	Annual Growth Rate (%)	Employment (000s)	Annual Growth Rate (%)
2001-02	3851	-	51262	-
2003-04	4193	4.3	42859	-8.6
2005-06	4743	6.3	48005	5.8
2006-07	4635	-2.3	48812	1.7

Source: LFS, FBS

There is need also for inclusion of costs of internally displaced persons (IDPs) in terms of the potential relief and rehabilitation costs. The National Disaster Management Authority (NDMA) has already registered 337,772 people who have left their homes because of the security situation in parts of NWFP and FATA, of which about 70 percent belong to FATA. The estimate of Amnesty International of IDPs is higher at 500,000.

We assume that the level of relief and rehabilitation required is about Rs 1000 per month per adult corresponding to the level of transfer proposed in the Benazir Income Support Program. The annual cost is estimated at about Rs 2 billion for about one-thirds of the IDP population.

Cost of Greater Uncertainty and Risk Perceptions

These costs are reflected primarily in falling investment by both domestic and foreign investors. Between 2003-04 and 2006-07 as the economy exhibited high growth, private investment was, in fact, quite dynamic. It increased from 10.9 percent of the GDP in 2003-04 to reach a peak of 15.7 percent in 2005-06. Since then, however, there has been a declining trend and it stood at 14.2 percent in 2007-08. A similar decline is observed in foreign private investment in 2007-08 of 25.7 percent.

A number of factors explain the sharp decline in private investment in 2007-08. These are as follows:

- (i) Deterioration in the investment 'climate' due to the emergence of large macroeconomic imbalances and a sharp rise in the rate of inflation following the oil price shock, coupled with enhanced political instability in the lead up to the elections and formation of government thereafter.
- (ii) High incidence of power loadshedding and other supply bottlenecks which have substantially raised the cost of doing business in Pakistan.
- (iii) As highlighted earlier, a sharp increase in the number and intensity of acts of terrorism and risk perceptions being heightened following particularly the assassination of Mohtarma Benazir Bhutto.

Therefore, there are essentially three sets of factors responsible for the plummeting of private investment. We assume that the contribution of the factors is, more or less, the same to the fall of private investment of about 1.5 percent of the GDP from the peak level attained in 2005-06. As such, the enhanced perception of risk and uncertainty due to terrorism in Pakistan is responsible for a fall in private investment of 0.5 percent of the GDP in 2007-08, equivalent to Rs 52 billion.

Beyond this, the enhanced level of risk has affected the stock market capitalization. In fact, the Karachi Stock Exchange had shown remarkable buoyancy since 2003 and had emerged as one of the best performers in emerging markets. But in 2007-08 a process of decline set in, not only due to local factors but also because of the incipient global financial crisis which led to a fall in most markets in share values. Between the 1st of July 2007 to 30th June 2008 the share price index in KSE fell by 10.8 percent.

The extreme sensitivity of stock prices to mega-terrorist attacks is demonstrated by the consequences of the assassination of Mohtarma Benazir Bhutto. Prior to the 27th of December 2007, the day she was killed by a terrorist, the stock market had been showing an upward trend. The first day after the event the market collapsed by 696 points or almost 5 percent. Market capitalization of Rs 213 billion was wiped out overnight.

Given the fact that global factors are responsible for the fall in stock values in most markets, we estimate the differential between the fall of the market in Pakistan and elsewhere in Asia. It is assumed that local factors are responsible for this differential. Within the local factors, terrorism is assumed once again to have contributed one-third to the incremental fall. The composite

regional index (S&P ASIA 50 INDEX) fell by 1.8 percent between end-June 2007 and end-June 2008. Therefore, the differential in rate of decline of KSE was 9 percent. With a market capitalization at the beginning of 2007-08 of Rs 4019 billion, this implies that the loss of value was about Rs 362 billion, of which one-third can be attributed as the cost of terrorism, amounting to about Rs 120 billion.

The next cost of higher risk and uncertainty arising from acts of terrorism is the negative impact on tourism and associated services performed by hotels, restaurants, etc. This is particularly relevant as some of the most attractive tourist locations are in the North of the country. There had, in fact, been buoyancy in travel expenditures to Pakistan as indicated by the balance of payments statistics maintained by the SBP. Between 2000-01 and 2006-07 income from travel to Pakistan had increased at the annual rate of almost 22 percent. But there was a significant drop in 2007-08. We estimate that in relation to the level projected on the basis of the past trend of growth, there was a fall of \$71 million. This is primarily attributable to the greater reluctance to travel to Pakistan because of higher risk associated with acts of terrorism. Therefore, the indirect cost of less travel to Pakistan is Rs 4 billion. This, of course, does not factor in the decline in domestic tourism. It is not surprising that losses of the national carrier, PIA, have been rising from Rs 4.4 billion in 2005 to Rs 13.4 billion in 2007, due to loss of market and higher fuel prices.

Combined with the fall in tourism is the negative impact on the hotel industry and other linked service activities. During 2008, the Pakistan Hotels Association indicates a sharp drop in hotel occupancy rates, especially after the bombing of Marriott Hotel. In addition, there are less hotel events like conventions, marriages, etc., due to excessive security arrangements. A conservative estimate is that occupancy rates in 2007-08 have declined from about 60 percent earlier to close to 40 percent.

The Tourism Division of the GoP estimates that there are about 38,000 lettable rooms in hotels in Pakistan. The average tariff per room is estimated at Rs 2000 per day. A fall in occupancy of 20 percentage points implies a loss in income of over Rs 5 billion. We double this estimate to allow for the loss in other hotel income and in the income of associated services like restaurants, tour operators, transport, etc. Therefore, the indirect cost of loss of travel and tourism and downstream activities due to terrorism is about Rs 10 billion.

Finally, in the area of indirect costs we have to factor in the higher costs of insurance. With the rise in terror related acts, premia for providing insurance cover on such acts has skyrocketed. Following the destruction of property in the riots in the aftermath of assassination of Mohtarma

Benazir Bhutto, general insurance companies had to honor claims of over Rs 3 billion, which wiped out the

premium income for more than a year. There has, in fact, been a big increase in demand for terrorism insurance following the Marriott bombing. However, domestic insurance companies are limited by the reluctance of foreign companies to provide reinsurance to Pakistani companies.

Some companies have started to provide cover of upto Rs 100 million against acts of terror but the premium rate has gone up to a high of 4 percent, as compared to the past rate of about 1 percent. We estimate that the cost of higher insurance premia is about Rs 3 billion on an annualized basis.

Overall, the indirect costs of terrorism can be aggregated to Rs. 230 billion (See Box 4.9).

The implications of higher transaction costs due to terrorism in the form of delays in the movement of consignments, costs of maintaining higher inventories and larger time costs at airports, etc., have not been quantified due to lack of data. These represent areas for further research.

8. Policy Recommendations

The total costs of terrorism in Pakistan are high, estimated at Rs 380 billion, at the 2007-08 base. The distributional consequences of these costs on the 'War on Terror' need to be highlighted. Higher security expenditures run the risk of 'crowding out' other expenditures related to the provision of basic social and economic services and thereby having an adverse impact especially on the lower income groups. This is mitigated partly by the reimbursement

BOX 2	
INDIRECT COSTS OF TERRORISM	
[Rs in Billion]	
<i>Costs to Local Economies</i>	
Loss of economic growth in NWFP and FATA	40
Cost of IDPs	2
<i>Costs of Higher Risk Perception and Uncertainty</i>	
Fall in Private Investment	52
Fall in Stock Market Capitalization	120
Decline in Travel and Tourism	4
Fall in Hotel Occupancy and Income from Associated services	10
Rise in Insurance Costs	3
Total Indirect Costs	231
SAY	Rs 230 Billion

from the USA of the additional military expenses but remains a real threat in the context of higher expenditures on law and order (especially police) by the provincial governments.

Beyond this, the negative implications for the relatively poor include the loss of property and livelihoods in the affected areas which are among the most backward regions of the country, primarily as a consequence of dislocation of economic activity, including in the labor-intensive sector of tourism. The human dimension is manifested most acutely not only in the loss of life but also in the emergence of large numbers of IDPs.

For the relatively well-off, the costs consist of foregone investment opportunities and decline in wealth associated with the fall in share values, due to heightened levels of risk and uncertainty. There are also higher costs to the corporate sector in the form of larger premia for insurance coverage and increased transaction costs.

A number of important conclusions emerge from the analysis of the costs of terrorism. First, as the incidence of terrorist acts and counter-terrorism operations has increased rapidly, the benefits of participation in the 'War on Terror' are falling while the costs are rising sharply. In 2007-08, the inflow of concessional assistance from the USA was about \$ 1.9 billion, whereas the cost is over three times higher at \$ 6 billion. There has, therefore, been substantial undercompensation for Pakistan's participation in the 'War on Terror', which has been limited largely to reimbursement only for the costs of military operations. This, at least, partly explains the lack of some ownership of the war effort. The recent commitment by President Barak Obama that the USA will pass a bill in Congress to authorize economic aid to Pakistan of \$ 1.5 billion per year for the next five years, will raise the quantum of concessional assistance from USA to Pakistan but the level of support will still remain at less than half the costs of the 'War on Terror'. It is important that the full costs of the 'War on Terror' are highlighted to donors in the subsequent meetings of the Friends of Democratic Pakistan.

Second, the past experience with utilization of the concessional support is not very positive. From the viewpoint of achieving sustainable higher growth and promoting employment, especially for alleviating poverty, it is perhaps better if Pakistan is also given preferential access to markets, especially for textiles, in the USA, EU and Japan. While the proposal for Reconstruction Opportunity Zones (ROZs) in the affected areas, enjoying preferential access, is worthy of consideration, it is unlikely that in the short run much investment will be diverted to these areas despite the incentive given the prevailing situation. It is important that as an alternative fast-track concessional assistance is provided for public investments in

infrastructure and basic services and employment-intensive public works in affected areas which are cleared up either through military operations or peace agreements in order to provide an early 'peace dividend'. At the national as well as local level, the problem of militancy can be tackled effectively by fast implementation of a Youth Skill Development and Employment Program, which aims to absorb the over 1.5 million unemployed youth in the country.

Finally, the higher direct costs being incurred on the military and police operations against counter-terrorism of almost Rs 130 billion per annum and the concomitant increase in acts of terrorism, highlight the ineffectiveness of the current strategy being followed in the 'War on Terror'. There is need for a comprehensive review of the strategy, preceded by the development of a stronger political consensus and broad-based public commitment to participation in this war.

To conclude, the analysis in this section amply demonstrates that the country is paying a heavy price for the delay in the effective resolution of these enormous challenges facing it. Potentially, GDP could have been higher by almost Rs. 590 billion if the problems of security and power shortage alone were not adversely impacting on the economy. The concomitant repercussions for exports, employment and poverty are also sizable. Any further inaction or inadequate/inappropriate policy action can further frustrate the country's growth potential, which it can ill afford in these times of increasingly unfavorable global developments.