International Terrorism: 
Causes, Consequences and Cures

Graham Bird\textsuperscript{1}, S. Brock Blomberg\textsuperscript{2} and Gregory D. Hess\textsuperscript{2}

\textsuperscript{1}University of Surrey, UK, and \textsuperscript{2}Claremont McKenna College, USA

1. INTRODUCTION

There can be little doubt that a complete understanding of international terrorism requires a multidisciplinary approach. Individual disciplines such as psychology, sociology, political science, international relations and religious studies can all make important contributions. Having said this, international terrorism has also been receiving closer attention from economists, and it is from this perspective that we examine it in this paper. What are the trends in terrorism? What causes it? What are the consequences? And what may be done to abate it?

It may be helpful to organise our discussion of these questions around the views of the typical ‘person in the street’ (the PITS). Although not based on a scientific study, we characterise this view in the following way. The PITS view is that terrorism is on the increase; that it is undertaken by extremists who are often religiously motivated; that it has important adverse economic consequences; and that, to paraphrase Tony Blair’s statement about crime when he was the UK’s shadow Home Secretary, policy needs to be ‘tough on terrorism’ and ‘tough on the causes of terrorism’. The remainder of this paper assesses the accuracy of the PITS view.

The paper is structured as follows. Section 2 examines trends in terrorism and the general perception that it is increasing. Section 3 investigates the geographical distribution of terrorist incidents. Section 4 constructs a simple theory of terrorism building on the existing literature, and examines the extent to which the available evidence is consistent with this theory. Section 5 goes on to consider the economic consequences of international terrorism, both in principle and in practice. These are subdivided into micro, macro and global categories. Section 6 discusses the policies that may be adopted in an attempt to offset the effects of...
terrorism and the difficulties involved, while Section 7 looks at the measures that may be used to combat it. In conclusion, Section 8 returns to reassess the typical PITS view in the light of the foregoing analysis.

2. TRENDS IN TERRORISM

Making use of the ITERATE dataset (International Terrorism: Attributes of Terrorist Events; see Mickolus et al., 2005), Figure 1 records the number of international terrorist events for the period from the late 1960s to the early 2000s. An initial glance at the figure suggests that terrorism rose in the first part of the period up to the mid-1980s but that it has generally fallen in the subsequent period. On a per capita basis, the trend away from terrorism is even larger than that depicted in Figure 1.

Given the downward trend since the early 1990s, why might there be a wide perception that terrorism is increasing? First, it may be that people’s perceptions

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1 Blomberg and Hess (2008a) provide a detailed description and assessment of the various datasets on terrorism and explain the advantages of the ITERATE dataset as compared with the other contenders. Further discussion of trends in terrorism may be found in Anderton and Carter (2006) and in Enders and Sandler (2006a).

2 It is also worth noting that the decline in terrorism reported in the main text has occurred across all regions, governments, income classes and degrees of openness (Blomberg and Hess, 2008a).
are myopic and heavily influenced by recent events. In these circumstances, a sudden spate of terrorist incidents creates the impression of an increasing trend, when no such trend exists over a longer span of time. What is being observed is a deviation from the trend. Second, perceptions are likely to be affected by the impact of the events. If so, it is quite possible that a perception of increasing terrorism co-exists with a downward trend in the number of incidents. It is just that those events that occur have a bigger impact.

Figure 2 provides some evidence to support this second explanation. Since the early 1990s, it would appear that the number of deaths associated with terrorist incidents has increased. Clearly there was a sharp increase in 2001 in connection with 9/11. The attack on the World Trade Center was just one incident but thousands died. The implication is that terrorist attacks are becoming more violent, and it is the combination of the incidence of attacks and their violence that affects perceptions. These may be relatively immune to a series of low-impact events from which few, if any, perish, but will be significantly affected by just one or two events if these result in a large loss of life.

Third, it may be that attitudes pertaining to terrorism are affected by the perceived probability of it. In these circumstances, a perceived increase in the vulnerability to terrorist attack creates the impression that terrorism has increased. This may be in spite of the fact that the number of terrorist incidents has fallen.
3. THE LOCATION OF TERRORIST EVENTS: 
THE GEOGRAPHY OF TERRORISM

Based once more on the ITERATE dataset, Figure 3 shows the geographical location of terrorist events over the period from 1998 to 2003. Although many poorer countries are not exempt from civil unrest and conflict, the map indicates that terrorism is more common in rich democracies and in the Middle East. Having said this, there are clearly exceptions. Parts of the Nordic region, Canada and New Zealand, for example, have been relatively free from terrorism. Furthermore, the relatively low incidence of terrorism in the former Soviet Union has tended to disappear following its break-up in the early 1990s. Krueger and Maleckova (2003) and Mirza and Verdier (2006) provide additional analysis of the location of terrorism.

Observing the economic and political characteristics of countries where terrorism is at relatively high and relatively low levels provides an opportunity to offer an empirical examination of its incidence. It tells us the circumstances under which countries are more likely to be the victims of terrorist attacks. But it does not tell us anything about the perpetrators. If they are internationally mobile, is there any pattern to the net flow of terrorists? Where do they come from (which countries ‘export’ terrorism) and where do they go to commit attacks (which countries ‘import’ terrorism)?

FIGURE 3
Map of the World by Terrorist Incidents
4. EXPLAINING TERRORISM: WHAT ARE ITS CAUSES?

As noted earlier, a common view is that the perpetrators of terrorism are frequently religious fanatics targeting those with opposing beliefs. This view is not without support in the academic literature.

Political scientists have emphasised that terrorism has been an evolving phenomenon during much of the post-1945 period. Crenshaw (1981) identifies ‘modernisation’, ‘social facilitation’ and the ‘spread of revolutionary ideologies’ as important factors driving it. Modernisation may create winners and losers and also equip losers with the means of committing terrorist attacks in a cost-effective way. Social facilitation or ‘social habits and historical traditions that sanction the use of violence against the government’ (p. 382) implies that there is a vicious circle within which violence begets violence. With respect to the spreading of revolutionary ideologies, some authors have identified the 1979 takeover of the US embassy in Tehran as a watershed. Until then, terrorism had been primarily motivated by revolutionary and separatist ideologies (Wilkenson, 2001). Since then, religious-based fundamentalism may have become more important. Hoffman (1997) reports that, by 1995, over 50 per cent of terrorist organisations were based on religion. Crenshaw (2001) argues that ‘terrorism should be seen as a strategic reaction to American power in the context of a globalised civil war. Extremist religious beliefs play a role in motivating terrorism’. Other authors (for example, Bernholz, 2004, and Wintrobe, 2002) have also studied the role of increased fundamentalism and group solidarity in generating terrorist activity.

But can the pattern of terrorism be explained in other ways? It may help to have a simple theory. Building on Blomberg et al. (2004b), such a theory suggests that terrorism is bred by feelings of relative economic deprivation and the resulting unhappiness with the status quo. This creates a desire for change. But how can this desire be expressed, and what is the mechanism for bringing about change? In principle, one way would be through the ballot box. But under autocratic regimes this option will not exist, and terrorism may then be the chosen means of expressing dissatisfaction with the status quo and of galvanising the change that is sought.3

3 Blomberg et al. (2004c) analyse the circumstances in which dissidents opt for terrorism as opposed to other forms of expressing dissatisfaction, such as rebellion. In part, it may depend on whether dissidents want to take over the government or merely influence policy. It may also depend on the relative costs; terrorist events may be less expensive and easier to organise than rebellion, and the incumbent government may find it easier to suppress rebellion than to deal with terrorism. As one of our referees pointed out, there may be other causes of the import and export of terrorism shown in Figure 4. For example, import into world capitals may be associated with the greater media coverage they receive.
What would this simple theory lead us to expect with regard to the pattern of terrorism? From an economic point of view, it would suggest that the incidence of terrorist events will be associated with the degree of income inequality, or, if it is deprivation rather than relative deprivation that creates dissatisfaction, it will be associated with absolute poverty. The theory could be applied at the level of nation states or globally. In either case, the perpetrators would be expected to be relatively poor and the victims to be relatively rich. The perpetrators are those who believe that they have been disadvantaged by the status quo and the victims are those who they perceive as having benefited from it, and therefore need to be persuaded to accommodate change; they will otherwise be reluctant to alter a system from which they have benefited.

In an international context, the theory could be applied to globalisation. Many poor countries believe that globalisation has worked well for rich economies but not for them. Terrorist attacks could be an expression of the dissatisfaction felt by some people who reside in poor countries or who previously resided in them and have family connections, or who feel a national affinity with them.

But, as noted above, the next question is why the perpetrators resort to terrorism as a means of expressing dissatisfaction? Broadly speaking, they feel that there is no superior alternative. In extremis, this will be the case where the relevant political system is undemocratic. In a national setting, the government may be autocratic and may seek to suppress opposition views through banning free speech and rights of assembly and association. In a global setting, perpetrators of terrorism may feel that their own governments are not representing their views in global organisations, or it may be that they feel that the global organisations are themselves undemocratic, marginalising the views of poor countries, that nonetheless account for a large proportion of the world’s population. They may feel that they have little voice in global economic affairs that affect them.

The simple theory articulated above provides an explanation of terrorism based on economics and politics rather than religious fanaticism. But is the evidence consistent with it? Figure 4 provides information on terrorist imports and exports over the period 1968–2003. This figure is based on recorded terrorist incidents, the nationality of the perpetrators and the geographical location of the terrorist incident. The distance away from the origin in the figure reflects the number of events. A 45° line drawn through the origin would reflect a situation where countries’ exportation of terrorism is the same as their importation. The line of best fit (that deviates slightly from the 45° line as can be seen from Figure 4) shows that there has been net importation of terrorism in the period covered. Countries below this line exhibit a dominant pattern of importing terrorism, whereas those above the line are more inclined to show a less dominant pattern, or are even net exporters of terrorism (where the observation is above and to the left of the 45° line). Countries shown with a dot are those that are characterised...
as poor and with low growth, as exhibiting a low degree of globalisation, and as having undemocratic political regimes.

Figure 4 confirms what Figure 3 showed. Over the period 1968–2003, terrorism tended to occur in rich democracies. But beyond this, it also shows that these countries tended to be net importers of terrorism to a greater degree than the norm. The net exporters of terrorism, on the other hand, tended to be poor and undemocratic and not effectively engaged in globalisation. In other words, the evidence presented in Figure 4 is broadly consistent with the simple theory outlined earlier. Let it be clear that we are not claiming that economic and political factors are the sole or even the ‘root cause’ of international terrorism. We are merely observing that over the period covered by our data there is evidence consistent with an explanation that incorporates these factors. We are certainly not suggesting that religious extremism has no part to play. Notable importers of terrorism include Israel, the United States, France and Great Britain, while notable exporters of terrorism include Ireland, Iran and Cuba. There may be specific religious/political explanations for this pattern as well as the broader one offered above.

We should also note that there may be reasons to believe that a recent change has taken place in the terrorism landscape. In an important paper, Enders and

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4 Economic growth is defined as low if it is less than 1.5 per cent, globalisation is low if total trade is less than 30 per cent of GDP, and the political system is undemocratic if the polity score is less than 7.
Sandler (2006b) provide evidence of a significant transfer of transnational terrorism towards the Middle East since 9/11. Indeed, they argue that the ‘end of the Cold War brought a “terrorism peace dividend” that varies by income and geography among countries’.

Of course, it is challenging to detect changes in terrorism trends with only a few years of data. However, if we divide our sample into two parts – pre-1990 and post-1990 – we find that the annual number of terrorist incidents falls significantly in the United States, though, adjusted by the degree of violence, terrorism remains greater in the US than for the average country in the sample. Furthermore, other rich democracies continued to experience terrorism significantly above the world average of 1.8 incidents annually. For example, the United Kingdom (15 annual incidents pre-1990, and 17 annual incidents post-1990) and Germany (9 annual incidents pre-1990, and 12 annual incidents post-1990) remain targets for terrorism even in the later period. Moreover, many countries in the Middle East saw declines in terrorism similar to those found in the United States – for example, Lebanon went from 20 annual incidents pre-1990 to 6 annual incidents post-1990, and Israel went from 9 annual incidents pre-1990 to 5 annual incidents post-1990. Clearly, the association between income, governance and terrorism continues to evolve. As the actual and potential terrorist attacks in the United Kingdom in the summer of 2007 demonstrate, only time will tell if there has been a structural shift.

5. THE ECONOMIC CONSEQUENCES OF TERRORISM

There are various ways in which terrorism may have economic consequences. However, in large measure, these depend on how people respond to it, and there is considerable uncertainty surrounding both the size and the sign of the response. This brings us back to the point made at the beginning of the introduction. Understanding terrorism, its causes as well as the consequences, requires us to know something about psychology; not only the psychology of the terrorists, but also the psychological reaction to terrorism. Having said this, we can subdivide the economic effects of terrorism into its microeconomic effects, its macroeconomic effects and its global economic effects.

a. The Microeconomic Effects

Common sense suggests that some industries and sectors will be more affected by terrorism than others. Tourism, travel and entertainment events will probably experience reduced demand, or there will be a change in the composition of demand away from activities that are seen as likely terrorist targets towards others that are not. Air travel will be adversely affected because of the additional
risks involved in it. The insurance industry will also be affected. Not only will there be the claims resulting from terrorist attacks, but an increase in terrorism, or the perceived threat of terrorism, will increase actuarial risk and will increase the demand for insurance. An increase in the cost of insurance and, in relation to this, security, will increase production costs. As a result, firms will experience a leftward shift in their supply curves, particularly where security represents an important part of their costs. It is also possible that increased stockpiling of some primary products and raw materials will drive up their price shifting supply curves further to the left.

Within financial markets there may be two effects. First, there may be an overall fall in stock prices as people seek additional liquidity and as macro-economic prospects are adversely affected. But, second, the equity value in those sectors particularly damaged by terrorism will fall, while the equity value of sectors and firms that may be advantaged by increased terrorism – such as those producing security products – will rise.

Some forms of security meet the requirements of a ‘public good’ in terms of their non-rivalry and non-excludability and will be supplied by the State. For this reason, and other things being given, increased terrorism will be likely to lead to an increase in government expenditure and a redistribution of it towards domestic security. To offset the effects on the fiscal balance, there may then be knock-on consequences for taxation or for other forms of government expenditure. Governments may also exercise greater regulation and tighter controls over migration. This will reduce the mobility of labour, which may also decline because individuals are less keen to travel.

In addition, there will be implications for the local economy in areas where terrorist incidents occur. There will be a need for reconstruction from which local builders will benefit. But there will also be adverse implications for local retailers if a particular area has fewer people working in it.

With all of the above, it is important to distinguish between the short-run and long-run effects. For example, for how long are people put off travelling by air? Or again in terms of the local economy, the demolition of a place of significant employment will have an initial adverse effect on retailers in the neighbourhood. But the inflow of construction workers and tourists visiting the terrorist site may offset this effect. Eventually, when reconstruction has been completed, there will be the twin effects of the outflow of the construction workers and the return of office workers.

Attempts to estimate some of the microeconomic costs of 9/11 reported in the popular media identify a direct cost to New York City of around $33 billion (for further discussion of this, see Bram et al., 2002). Other reports suggest that airlines lost approximately 20 per cent of their equity value in the year after the attacks and that the hotel and leisure industry lost rather less. Approaching $40 billion was spent on border and homeland security, and the insurance cost was
in the region of between $30 billion and $50 billion (see Looney, 2002). These numbers are not trivial but nor are they large when compared to the costs of some meteorological events. The aggregate cost of Hurricane Katrina, for example, has been estimated to be about three times greater than that of 9/11.

b. The Macroeconomic Effects

In assessing the macroeconomic effects of terrorism, we need to consider the consequences for both aggregate demand and aggregate supply. In terms of aggregate demand, this in turn means considering the effects on consumption, investment, government expenditure and interest rates. In terms of aggregate supply, it means considering the effects on the growth of productive potential.

(i) Effects on aggregate demand

The effects of terrorism on consumption may usefully be subdivided into direct and indirect components. The direct effects depend on the psychological response of consumers. Do they go on a consumption binge, believing that there is less need to save for the future? Or do they go on a consumption strike in order to save more for what they perceive as a more uncertain future, or perhaps even because they see large shopping centres as possible terrorist targets.

The indirect effects will work through the other determinants of consumption. For example, a fall in wealth as a consequence of a decline in stock market values and a dip in the housing market, or a rise in interest rates, may all be expected to exert a negative effect on consumption.

An increase in the rate of interest may also be expected to have a negative effect on investment. Moreover, to the extent that firms anticipate a decline in the rate of economic growth and therefore a related decline in the future demand for their products by comparison with what they expected previously, they will have less incentive to expand capacity by accumulating capital. In any case, increased uncertainty about the future may lead them to postpone investment decisions.

While a fall in consumption and investment will reduce aggregate demand, an increase in terrorism, as noted earlier, is also likely to lead to an increase in government expenditure on domestic security. To some extent, the rise in this will compensate for the fall in aggregate demand from other sources. If, however, the increase in government expenditure results in a larger fiscal deficit – an effect that may be enhanced if tax receipts fall as a consequence of reduced economic growth – then there is also the possibility that this will drive up the rate of interest, resulting in a conventional crowding-out effect, with the rise in government expenditure causing investment and consumption to fall.

A rise in the rate of interest may also be the consequence of an increase in liquidity preference – in conditions of greater uncertainty people often prefer to
hold liquid assets. They may trade off lower return in exchange for reduced risk. A rise in the rate of interest, combined with a decline in wealth, will again have negative effects on consumption, investment and the government’s fiscal position.

In summary, and in principle, there is a reasonable presumption that aggregate demand will fall in the wake of significant terrorist events such as 9/11 and the 7/7 bombings in London in 2005. For the effects to be forthcoming, however, the events have to be sufficient to change the mood of society, leading to claims – as they did in the aftermath of 9/11 – that things will never again be the same. As with the microeconomic effects, however, there is an important temporal dimension since ‘never’ is a long time. Psychologists have coined the term ‘disaster myopia’ to suggest that people are short-sighted when it comes to disasters. If they have not happened for some time, people act as though they never will. If they have just happened, people act as if they always happen. In terms of the economic effects of terrorist incidents, the key questions are how large does a terrorist incident have to be to be regarded as a ‘disaster’, and what length of time constitutes ‘myopia’? Without being precise, it seems highly probable that the negative effects on consumption and investment discussed above will not persist in perpetuity following isolated incidents. They will be only relatively short-term effects. The economy will mimic life in general; given time, most people recover from shocks. Things may be different, of course, if there is a persistent sequence of incidents. Here the effects may be longer lasting.

(ii) Effects on aggregate supply

What will happen to an economy’s productive potential as a consequence of terrorist events? Growth theory suggests that productive potential depends essentially on productivity growth. While economists do not fully understand the determinants of productivity growth, it seems reasonable to assume that the trend growth in productivity will be largely independent of isolated terrorist events. While theory offers other ways in which aggregate supply may be adversely affected, these seem unlikely to be important. For example, in the previous section we saw that there could be an adverse short-run effect on investment or, in other words, on capital accumulation. The capital stock being passed on to future generations will then fall. But while investment in some sectors may fall, investment in others may rise. A significant lasting effect on capital accumulation overall seems improbable.

The theory of real business cycles could be used to suggest that terrorism will encourage people to shift out of work and into leisure. If this occurred on a large scale, it could, in principle, influence the size of the workforce and could therefore have a negative effect on aggregate supply. Again, however, it seems improbable that isolated terrorist incidents will lead people en masse to change their lifestyles this radically.
In summary, aggregate supply seems unlikely to be much affected by terrorism. There may be a minimal negative short-run effect but, with the underlying trend in the growth of productivity unaffected, the growth of productive potential will recover reasonably soon from any such deviation.

Where does our discussion of the macroeconomic effects of terrorist incidents leave us? Small/low-impact and erratic incidents will have little, if any, discernible effect. Large-scale high-impact incidents may have a discernible effect in the short run but not in the long run. The short-run effect on aggregate demand is likely to exceed that on aggregate supply. Therefore, in the short run, the growth rate as measured by the national income accounts will fall, and unemployment and spare productive capacity will increase. The pressure of demand will decline. If this is what the theoretical discussion suggests, is it backed up by the available evidence?

(iii) Evidence on the macroeconomic consequences of terrorism

Evidence on the macroeconomic consequences of terrorism is in relatively short supply. It is tempting to resort to casual empiricism. At this level, it may be observed that the otherwise sustained growth in the US economy over the period since the early 1990s slowed down somewhat in 2001 and 2002. This could be consistent with the theoretical discussion which suggests that a major terrorist event will have a short-term negative growth effect.

But it may be unsafe to read a causal connection into the apparently reasonably simultaneous occurrence of a terrorist attack and an economic slowdown. In the case of the US, for example, economic growth had slowed down prior to 9/11. Other factors may be at work, and these need to be taken into account. To overcome such problems, Blomberg et al. (2004a) undertook a cross-section and panel data analysis covering the period 1968–2000. Their data therefore do not include 9/11, or the Madrid and London bombings. On the basis of a fairly standard empirical growth model, they isolated and estimated the effect of terrorist events on economic growth. They found that terrorism did have a significant negative effect on the growth of output, as well as on the growth of consumption. However, they also found that the effect is smaller and insignificant in OECD countries.

Other estimations undertaken by them also confirm some of the theoretical priors that we discussed earlier. By using a VAR model they attempted to capture the dynamics of the responses to terrorism and found that ‘effects quickly dissipate even after one year’. In this respect, they found the effects of terrorism to be less persistent than those of internal conflict or external wars. They also found that terrorism has a significant effect on the government spending rate (that rises) and the investment rate (that falls). Terrorism does seem to redirect spending and alter the composition of aggregate demand. This may, indeed, be part of the mechanism through which economic growth slows down, since the productivity
of government expenditure may be less than that of private sector investment. The redistribution of aggregate demand may also have fiscal consequences, although Blomberg et al. (2004a) did not investigate these. Empirical analysis by Bloom (2006) further confirms the existence of a short-term negative effect of 9/11 on investment, employment and economic growth in the US, working through the uncertainty that it generated.

c. The Global Economic Effects

While it is difficult to say with any degree of precision what the microeconomic and macroeconomic effects of terrorist events will be in the countries in which they occur, it is even more difficult to predict their global consequences. We do not have a unique model of the world economy which allows us to make such predictions. Having said this, there are aspects of globalisation that are, in principle, likely to be affected by terrorism.

It may be expected that international trade will be adversely affected. The costs of transporting goods are likely to rise as the cost of fuel, insurance and security increase. In principle, terrorism will be a tax on trade. Of course, transport costs may rise in general, but the increase is likely to be more pronounced where traded goods are crossing national borders and where air and sea freight are involved.

But it is not only merchandise trade that will be affected. It also seems likely that international capital markets will take terrorism into account when calculating risk-adjusted returns, and deciding on an optimum portfolio of international assets. It is probable that multinational enterprises will be less likely to invest in countries where there is a heavy incidence of terrorism. In part, this will be because they anticipate negative effects on economic performance in these countries, but also perhaps because they see themselves as potential targets. Perpetrators of terrorism who carry it out as a statement of their opposition to globalisation may be expected to target the agents of globalisation; multinational enterprises fall into this category.

Will official capital flows also be affected by terrorism? The countries that are victims of it may be expected to use foreign aid as a response instrument. We discuss this more fully later in the paper but, in principle, it is not hard to understand why countries that are victims may use aid as a way of creating incentives, in the form of ‘carrots’ and ‘sticks’, to encourage other countries to crack down on terrorists. For example, they may attempt to reward foreign countries for adopting a tough stance against terror by increasing the flow of aid to them (a carrot). Similarly, aid may be strategically reduced to countries that are unwilling to adopt such a stance (a stick). It may also be, however, that reduced aid to some countries is only indirectly the result of a strategic decision. Donor countries may have a fixed aid budget. Increasing aid to ‘friendly’ countries that
are strategically important in ‘a war on terrorism’ may simply mean that a lower proportion of the fixed aid budget is available to be allocated to other countries.

Finally, open-economy macroeconomics identifies inter-relationships between countries via trade and capital movements. By these means, the macroeconomic effects of terrorist incidents in one country will spill over to others, depending on the strength of these inter-relationships. A spate of high-impact terrorist attacks in the United States, for example, would, in principle, be expected to have a short-run negative effect on the level of economic activity in the US. As a consequence, the US demand for imports will also tend to fall compared with what it otherwise would have been, and the countries supplying them will experience a decline in their exports. There will be a global externality.

The empirical evidence is consistent with international terrorism having some of the global effects that, in principle, seem likely. Blomberg and Hess (2006) show that terrorism, as well as other forms of conflict, discriminate against trade and may have effects that are equivalent to as much as a 30 per cent tariff. Blomberg and Mody (2005) show that domestic conflict and terrorism have a statistically significant adverse effect on international investment.

Furthermore, it may be instructive to examine the data on US aid. For many years development economists and political scientists have recognised that bilateral aid is influenced by the political and commercial interests of donors (see, for example, Alesina and Dollar, 2000). Reducing the incidence of terrorist attacks clearly falls into this category. It may not be purely coincidental, therefore, that aid flows from the relatively rich victim countries to relatively poor countries rose in the aftermath of 9/11, although it is difficult to say to what extent this resulted from the perceived increase in terrorism or from other factors that were, at the same time, pushing for an increase in aid to help achieve the Millennium Development Goals. Again, it is interesting to note that in 1993–94 neither Iraq, nor Afghanistan, nor Pakistan were amongst the top 15 recipients of US aid. By 2003–04 they were all amongst the top six recipients and between them accounted for about 18 per cent of US bilateral aid. It is difficult to imagine that this was unconnected from the perceived increase in international terrorism or the perceived threat of terrorism.

6. POLICIES TO OFFSET THE EFFECTS OF TERRORISM

The potential effects of terrorism, as explored in the previous section, may not actually happen since, in anticipation of them, there may be an offsetting policy response. For instance, governments may attempt to neutralise the effect on airline profitability by offering airlines some form of subsidy. The question then arises as to whether this is an appropriate response. Subsidising airlines raises contentious issues. If the social costs of airline operations exceed their private
costs, an argument can be made that flights are over-produced. In these circumstances, additional taxation may seem more appropriate than subsidisation. Moreover, what if one government grants a subsidy to its own national airlines but other governments do not? Subsidies may then restrict international competition. More generally, the argument can be made that private markets are able to generate instruments through which the additional risks associated with terrorism can be handled and that there is no compelling case for state intervention.

Is there a stronger case for governments to intervene to offset any additional macroeconomic instability that is associated with terrorism? If aggregate demand is likely to fall, do governments need to take it upon themselves to pursue fiscal and monetary policy designed to stimulate it? This would represent an essentially neo-Keynesian response. There are problems associated with it. Not least, there is the uncertainty surrounding the macroeconomic effects of terrorism. It will be insufficient for governments to know the right qualitative response. They will also need to respond in a quantitatively appropriate way. For example, if the contractionary economic effects of terrorism turn out to be less than anticipated, a macroeconomic strategy designed to stimulate aggregate demand and avoid stagnation or recession may end up accelerating inflation, particularly where terrorism has significant cost inflationary consequences.

Beyond this, there is the issue of timing. As noted earlier, the contractionary effects of terrorism may be relatively short-lived. To design an appropriate macroeconomic response, governments need to know the timescale of the effects. They also need to know the time lags involved in the policies they implement. Even without lags in the effects of their policies, governments will need to know when to remove any macroeconomic stimulant that they have engineered. This, in itself, is a severe policy challenge, but is made more difficult where uncertain lags in the effects of policies are also involved.

Of course, the effectiveness of macroeconomic policy tools is relevant not only in the context of responses to terrorist incidents, but there is also the question of whether the behavioural responses to traditional instruments of demand management will change in the aftermath of a major terrorist incident, or a series of them. For example, will expenditure be more or less responsive to a decline in interest rates in the midst of an economic downturn associated with increased terrorism than it would be in the context of a more conventional downturn? Since we do not know the answers to such questions, the design of policy becomes that much more difficult.

Governments will face other policy dilemmas. Fear of a terrorism-related recession will encourage them to make announcements that everything is normal. They will not want people to stop spending and firms to stop investing. They will exhort people to continue to travel and to visit shopping centres. In this regard, they will not want the psyche of society to alter. On the other hand, and at the same time, they will want people to be more aware of any increase in the threat
of terrorism that they perceive; not least because, after the event, they may be held responsible. Governments will therefore be transmitting mixed signals; the challenge is to find the right balance.

There is a further global dimension to the policy challenge. This may be illustrated by the following scenario. Imagine that there is a series of terrorist attacks across a number of advanced economies. But now also imagine that different governments respond differently to them, with some relaxing macroeconomic policy in anticipation of a terrorism-related recession while others do not. The result could be an increase in the size of global imbalances. The policy conundrum is to avoid this possibility. The answer would seem to be to have a coordinated response. But then through what mechanism might international macroeconomic policy be coordinated? The world’s track record on the international coordination of macroeconomic policy is not that strong (see Bird, 2002, for a fuller discussion of this point).

7. POLICIES TO COMBAT TERRORISM: THE CURES

In seeking to combat terrorism it is worth exploring the analogy with crime and the idea that policy needs to be ‘tough on terrorism’ and ‘tough on the causes of terrorism’.

a. Tough on Terrorism

Being tough on terrorism implies two things. First, it implies having a high rate of detection and tracking down effectively those who commit acts of terror. Second, it implies high penalties in terms of sentencing, ensuring that ‘the punishment fits the crime’. In terms of conventional crimes, these two elements can be combined to generate different levels of deterrence. For example, a high probability of being detected, combined with a relatively modest sentence, may give the same level of deterrence as a lower rate of detection combined with a heavier sentence. But will such an approach work in the case of terrorism? The problem here is that, while conventional criminals attach disutility to detection and a heavy sentence, terrorists may not. Indeed, a high rate of detection and harsh penalties may have perverse effects. Martyrs and suicide bombers may not worry about detection or sentencing. Suicide bombers have opted to die and martyrdom may be positively related to the size of the penalty imposed. Conventional policies may therefore not be as effective against terrorists as against conventional criminals, except inasmuch as it takes them ‘off the street’.

A preferable approach is one based on \textit{ex ante} prevention, rather than \textit{ex post} detection. This requires quiet, covert, intelligence-based operations which, given the internationalisation of terrorism, also necessitates a high degree of international
coordination amongst counter-terrorist agencies. It may also require additional expenditure on security. However, Enders et al. (1990) found little evidence that additional legislative activity to introduce terrorist-thwarting policies actually prevents terrorism in an effective way. They found that installing metal detectors at airports has helped to reduce the incidence of hijackings. But they also find that while greater security in embassies has helped increase the safety of US diplomats, it has had the knock-on effect of reducing the security enjoyed by non-diplomats.

b. Tough on the Causes of Terrorism

If the policy is to be tough on the causes of terrorism, we need to know what the causes are. The simple theory discussed in Section 4 suggests that there are two elements to it. The first means dealing with the feelings of economic deprivation that underlie terrorism. The second means providing political enfranchisement. Policies directed towards alleviating poverty, reducing global income inequality and ensuring that the benefits from globalisation are perceived as being more equally distributed should therefore help to reduce feelings of deprivation. Policies designed to encourage the spread of democracy and to give poor countries a stronger voice in global organisations should help to enfranchise those who currently feel disenfranchised.

Not inconsistent with these ideas, Blomberg and Mody (2005) discover that membership of the WTO tends to reduce the export of terrorism from source countries. Also, O’Brien (1996) finds that authoritarian regimes are more likely to sponsor terrorist attacks following setbacks in foreign policy.

Of course, from one point of view, trying to work on the causes of terrorism may be interpreted as ‘giving in to terrorists’. A distinction needs to be made between the underlying causes of terrorism and the near-term demands of terrorists. Within a bargaining framework it is by opting not to give in to the demands of terrorists that governments may reduce the benefits from terrorism as perceived by the perpetrators. Potential terrorists may then perceive terrorism as an ineffective way of securing the changes they seek. In this sense, not responding to the demands of terrorists is a more effective way of preventing terrorism than responding to them. Yet not responding also has its dangers. If the underlying causes of frustration are not dealt with, terrorism may continue. If, as a consequence, economic growth is adversely affected and the composition of government expenditure shifts away from social programmes to domestic security, the groups that initially felt disadvantaged may feel even worse off, and this may stimulate enhanced terrorist activity. There may be a vicious circle of terrorism.

Breaking the circle requires a more complete understanding of the causes of terrorism than that provided by our simple model. This is made more
complicated by the likelihood that there is no unique theory that explains all terrorist activity. For example, some terrorist events may be religiously motivated or may have short-term specific political objectives. They will be immune to policies based on reducing economic deprivation that would actually be effective at reducing other forms of terrorism in the longer term. Reducing international terrorism will require a portfolio of policies.

It may be rational for governments not to give in to near-term demands, such as freeing prisoners, but at the same time to introduce policies that seek to affect, in the longer term, economic deprivation and political voice. Evidence presented by Blomberg and Hess (2008b) shows that, in source countries, the export of terrorism is negatively related to development, openness and democratisation. However, observing this does not, in itself, define appropriate policies. What policies will encourage economic growth? Will national income inequality encourage or inhibit growth? Is aid an effective way of facilitating growth and development? The list of questions could easily go on, but the list of well-established answers would be much shorter.

Take foreign aid as an example of the complexities. There is increasing evidence that aid is effective in encouraging economic growth (see, for example, Hudson, 2004). If economic growth in source countries reduces the export of terrorism, then aid by potential victim countries to potential source countries should surely reduce the incidence of terrorism. This is in addition to the direct ‘carrot’ effect discussed earlier, with aid rewarding governments that adopt an active counter-terrorist strategy. However, limited as it is, there is some evidence to suggest that increased US aid has increased terrorist attacks against the US (Matuszeski and Stack, 2005). More research is needed to try and explain why. For example, the nature of the relationship may depend on the type of aid; whether it is military or not.5

Moreover, taking the view of Crenshaw (2001) summarised earlier, the US may be a special case from which it is unwise to generalise. Having said this, the findings counsel caution against simplistic solutions. When it comes to the design of policies to combat terrorism there is no magic bullet.

8. CONCLUDING REMARKS

We can now return to the views of the person in the street as we caricatured them in the introduction. Our analysis suggests that they are, in fact, far from

5 Matuszeski and Stack (2005), for example, find that economic aid does not lead to the degree of anti-US terrorism that is associated with military aid. They also show that US private investment does not create a terrorist backlash, suggesting that it is not the presence of US interests on its own that is generating hostility. Indeed FDI appears to result in a decrease in anti-US terrorism.
entirely accurate. Terrorism expressed in terms of the number of events is not on the increase, although individual incidents are becoming more violent in terms of associated deaths, and it is probably this that creates the impression of there being more terrorism. Similarly, while religious fanaticism has a part to play in explaining terrorism, explanations based on economics and politics appear to be consistent with the facts. The overall picture in the period covered by our data is one of terrorists coming from relatively poor and undemocratic countries and committing terrorist attacks in relatively rich and democratic ones.

While, in principle, there are various avenues through which terrorism could exert effects at the microeconomic, macroeconomic and global levels, the theory underpinning these effects is uncertain and the empirical evidence suggests that, up until now, the effects have been relatively small as compared with other phenomena such as wars and major meteorological events. Our analysis also identifies dangers emanating from policy overkill.

Policy designed to reduce terrorism has to be fit for purpose. Conventional measures designed to reduce crime may not work in the case of terrorism. It will be more difficult to deter terrorism through improved detection and heavier sentencing. The emphasis needs to be placed on prevention that in turn relies on intelligence-based operations. At the same time, if terrorism is caused by feelings of relative deprivation and a lack of political voice, reducing terrorism depends on reducing poverty and income inequality and creating greater democracy in formerly autocratic countries. However, while such a broad policy direction is easy to delineate, the precise mechanisms through which it may be achieved are much more difficult to define. Even once they have been defined, they are likely to take many years to become effective. In this regard, the consensus that international terrorism will continue to exist at a perceptible level for at least a generation seems to be well founded.

REFERENCES


