



**FOREIGN
AFFAIRS AND
TRADE**

**THE COSTS OF TERRORISM
and the Benefits of Cooperating to Combat Terrorism**

**Paper presented by Dr Geoff Raby, Deputy Secretary,
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Main Points

- The increased risk and prevalence of global terrorism looms as a major threat to regional development. Terrorist acts have already imposed significant increased costs on all economies.
- The immediate costs of terrorist acts including loss of life, destruction of property and depression of short term economic activity are compounded by the costs associated with the continuing threat of terrorism.
- Terrorism unchecked creates uncertainty, reduces confidence and increases risk perceptions and risk premiums leading to lower rates of investment and lower economic growth. Terrorist acts can severely disrupt international trade and the continuing threat of terrorism imposes costs on international trade.
- Given their greater reliance on trade and capital inflows, developing APEC economies may incur higher costs relative to GDP from unchecked terrorism.
- The costs of implementing counter-terrorism measures should be viewed as an investment that, by reducing the threat of terrorism, will reduce risk premiums and the bias against longer term, productivity raising activities that uncertainty and risk create.
- New technologies introduced to strengthen security can increase efficiencies in trade and reduce trade costs.
- Due to regional and international economic linkages, terrorist events in one economy can impose significant costs on other regional economies. All economies have an economic interest in cooperating to reduce the threat of terrorism. Economies which fail to combat terrorism and ensure the safety of trade and people movement could expect to incur significant costs in terms of lost investment and trade opportunities.
- The positive spill-overs from anti-terrorism activities, with all countries benefiting from a more secure trading and investment environment, as well as the negative spill-overs from inaction, make collective international action the most efficient response.

Unchecked Terrorism Undermines Trade

The threat of terrorism reduces trade flows.

- A study of over 200 countries from 1968 to 1979 found a doubling of the number of terrorist incidents decreased bilateral trade between targeted economies by about 6 per cent (Nitsch and Schumacher, 2002).

A shutdown of major ports or airports due to terrorist attacks could result in high costs, particularly for those economies more reliant on trade.

- The two week lockout at 29 US West Coast ports in late 2002 delayed the unloading at port of more than 200 ships, carrying 300,000 containers. Railcars and inter-modal shipments were parked all over the country as US and Asian exports filled warehouses, freezers and grain elevators. Costly diversions were made to other ports and many businesses laid-off workers or cut back production (Gooley and Cooke, 2002).
 - Analysts estimate the month long disruption at US West Coast ports cost Asian economies 0.4 per cent of nominal GDP. The negative impact in Hong Kong, Singapore and Malaysia was estimated to be as high as 1.1 per cent of nominal GDP (Saywell, 2002).

The continuing threat of terrorism raises the cost of undertaking trade through a range of mechanisms:

- It increases insurance costs for cargoes and passengers.
- It creates the need to carry higher levels of inventory (due to the potential for terrorism to cause bottlenecks in delivery systems) thus reducing the benefits of just-in-time manufacturing processes and undermining supply chain management. International information technology and automobile production chains, which have a major presence in APEC economies, are particularly vulnerable to supply chain disruption from security threats.
 - Recent estimates indicate that if the United States has to carry 10 per cent more in inventories and pay 20 per cent more for commercial insurance premiums as a result of the increased terrorism threat, it would cost 0.1 per cent and 0.3 per cent of GDP or US\$7.5 billion and US\$30 billion per year, respectively (UBS Warburg, 2001).
 - Developing APEC economies, particularly those with internationally integrated production chains, would face relatively higher costs as a result of the fact that trade is a more important component of GDP.

Piracy and Terrorism

The costs piracy imposed on international shipping and trade are analogous to those of terrorism. Between 1814 to 1860, mainly due to the European powers eliminating piracy, international shipping costs fell by over 80 per cent and the industry's total factor productivity rose by about 500 per cent. Improvement in management also contributed. By allowing ships to dispense with cannon and reduce their manpower, shippers could introduce faster, cargo-specific ships dramatically reducing costs and boosting productivity. This fall in shipping costs significantly expanded international trade flows in the nineteenth and twentieth centuries.

Source: North, 1968.

The Threat of Terrorism Reduces Investment and Economic Growth

Terrorism and the spectre of future terrorist acts creates uncertainty which increases perceived risk. This increases costs through several channels and dampens economic activity.

- Increased risk perceptions undermine investor confidence, reducing their willingness to commit to new projects. Over time, higher risk premiums increase required rates of returns on investments, reducing equity prices and biasing investment decisions against riskier, potentially higher return and long term investments towards lower risk, lower return and shorter term investments. The cumulative effect is to reduce overall investment and retard economic growth. Higher risk premiums impact mostly on economies with substantial external financing requirements, which must pay more for their capital, lowering investment and output growth.
 - Modelling the impact of security on private investment and growth in 53 developing countries from 1984 to 1995 shows economies can achieve significant benefits from reducing their security risks. In the short to medium term, this study found measures that increased economic security in relatively insecure developing countries to levels in best practice regions raised private investment by 0.5 to 1 percentage point of GDP. In the long term, these measures boosted economic growth by 0.5 to 1.25 percentage points per year. Political terrorism was found to be one of the most important security factors undermining economic growth in the short to medium term (Poirson, 1998).
 - One analysis estimates the fall in US investment due to ongoing terrorism threats is about 0.2 per cent of GDP (Becker and Murphy, 2001, cited in Joint Economic Committee, 2002). This drop in investment and hence income is transmitted to other economies through lower US demand for imports.
 - Investments in major long term energy and infrastructure projects that require large scale networks and coordination across several

countries are highly sensitive to increased perceptions of security risk. Terrorists attacks on pipelines in Pakistan have disrupted natural gas supplies to business, compounding fiscal problems and deterring investors in future pipelines (stratfor.biz, 2003).

- Airline, travel, tourism, accommodation, restaurant, postal services and insurance industries are particularly susceptible to increased terrorism risks. Regions and economies where these industries are concentrated are likely to suffer most from output and employment falls. Resulting discounting to attract travellers reduces the return on capital and undermines future investment.
 - In 2001, international tourist arrivals fell by 0.6 per cent, the first year of negative growth since 1982.
 - Partly reflecting the Bali tragedy, Indonesia's 2002 tourist arrivals fell by 2.2 per cent. As tourism accounts for 3.4 per cent of Indonesia's GDP, financial market analysts place the expected cost of lost tourist receipts at around 1 per cent of Indonesia's GDP (Euroweek, 2002).
 - Modelling of tourism activity in Greece, Israel and Turkey also shows sensitivity to terrorist incidents (Drakos and Kutan, 2001).
- Increased terrorism risks and associated uncertainty also reduce consumers' willingness to spend, particularly on discretionary items and major consumer durables, thereby reducing investment in consumer goods industries and depressing growth.
- Another major concern, particularly for developing economies, is that those economies which markets perceive as failing to deal effectively with terrorism will face higher risk premiums and the cost of protecting assets will rise, reducing foreign direct investment (FDI) inflows.
 - One study showed that from 1975 to 1991, heightened terrorism reduced average annual net FDI inflows to Spain by 13.5 per cent and to Greece by 11.9 per cent (Enders and Sandler, 1996).
- Currencies of economies seen as carrying higher risk premiums may experience exchange rate volatility and sudden depreciation in response to terrorist events, as investors switch to reserve currencies like the US dollar; this could impose significant costs on such economies.
 - After 11 September, the US dollar strengthened at the expense of many emerging market currencies. Exchange rate depreciation may make exports more competitive but it also increases domestic inflation and raises foreign currency debt obligations, while exchange rate volatility can discourage foreign investment and encourage capital flight.
 - The fear of depreciation and inflation also can adversely affect the process of financial deepening by undermining confidence in the domestic currency (Addison, et. al., 2002).
- Insurers are responding to the increased risk of terrorism by increasing premiums and reducing terrorism risk coverage; in the medium term this could significantly lower investment and output in affected sectors and

economies. While insurance markets may learn to price for large terrorist risk events, the unpredictability and potential size of terrorism events will make this difficult and premiums for risky activities are likely to be high.

The Overall Economic Costs of Terrorism Are High

- The IMF estimates that the loss of US output resulting from terrorism related costs could be as high as 0.75 per cent of GDP or US\$75 billion per year (International Monetary Fund, 2001). The cost to the regional and world economy would be significantly higher.
 - By comparison, US benefits from the Uruguay Round are estimated to be between 0.4 and 0.6 per cent of GDP per annum.
- A 2002 US Congressional Budget Office study estimated terrorism directly cost the United States about 0.3 per cent of non-farm GDP and also reduced total factor productivity by around 0.3 per cent (Congressional Budget Office, 2002).
- A study of the Spanish Basque country shows terrorism reduced the Basque region's per capita GDP by 10 per cent, with the gap between expected and actual per capita GDP appearing to increase in response to spikes in terrorist activity (Abadie and Gardeazabal, 2001).

The threat of terrorism may hurt developing economies more

While the costs of unchecked terrorism are significant for all economies, terrorism could impose a disproportionately high cost on developing APEC economies' trade and income growth because:

- Most developing APEC economies depend more heavily on trade flows, particularly with the United States and OPEC economies.
- Many regional developing economies rely on receiving strong FDI inflows. The recent increase in world and regional terrorism activity could raise risk premiums, reducing FDI inflows to economies considered at risk.
- Insurance premiums may be higher on cargoes and vessels travelling to and from developing economies because of insurers' uncertainty about the adequacy of local security procedures.

Counter-terrorism measures: an investment against future attacks

Implementation of new counter-terrorism measures will require one-time investments in new infrastructure and may, in some cases, lead to short-to-medium term increases in the costs of doing business internationally.

- Extra trade security measures taken in response to the 11 September attack cost from 1 to 3 per cent of North American trade flows, equivalent to increasing traders' annual costs from between US\$5.6 and US\$15.8 billion (Organisation for Economic Co-operation and Development,

2002). If such measures were applied to total 2001 world merchandise trade, they would cost between US\$60 billion and US\$180 billion.

- Another study estimates world welfare would decline by about US\$75 billion annually for a 1 per cent increase in the costs of trade. North America, Western Europe and North Asia face the highest losses, while agriculture and food products, textiles and leather, non-metallic minerals and machinery are the most affected sectors (Walkenhorst and Dihel, 2002).

These costs should, however, be viewed as an investment that will, by reducing the threat of terrorism, pay future dividends through reduced risk premiums and increased trade efficiency.

Security measures can facilitate trade

APEC's trade facilitation and improved security objectives are mutually reinforcing. Regardless of the benefits of reducing exposure to terrorism, technological advances to increase security are likely to increase the efficiency of cargo handling and people movement, lowering trade costs and making trade flows more efficient. For example:

- Advance passenger information systems and other electronic identification techniques at airports should speed up passenger movements and, over time, lower business costs, as well as providing increased security at the border.
- Standardising the electronic manifests system at all ports would save time and reduce costs through quicker processing of cargo, faster vessel turnaround, a more consistent approach to cargo and vessel data reporting, increased confidence in the reporting system and more timely responses for importers and exporters. All these benefits should lower freight and handling costs reducing final prices of traded goods; hence increasing demand.
 - Introducing compatible electronic systems to handle trade also will reduce businesses costs. For example, after introducing an electronic supply chain and logistics system, a US manufacturer with a turnover of US\$1.2 billion per year who buys US\$100 million in imports now takes only 20 minutes with half as many people to produce a manifest that formerly took two to three days to prepare (Chabrow, 2003).
- A presentation by the US delegation at the APEC Committee on Trade and Investment meeting in Chiang Rai, Thailand, on 17 February, showed how the US Customs' Automated Commercial Environment (ACE) project will increase security by enabling US Customs to more readily identify and intercept high risk cargo, while at the same time reducing costs to business and facilitating the faster processing of goods.
 - A related study estimates that the ACE system will save US importers US\$22.2 billion in costs over 20 years

- And will also save the US government US\$4.4 billion in administrative costs over 20 years.

With international trade expanding rapidly, global logistics systems already are becoming a necessity. Thus, expenditure on these new systems represents an investment which will deliver considerable efficiency returns in the future, regardless of their added benefits in countering terrorism.

APEC economies need to be creative in working together to find innovative ways, using new technologies, to both strengthen security and facilitate trade.

Cooperating to achieve trade security

The public good nature of anti-terrorist activities means all economies can benefit from a more secure international environment and have an interest in achieving it. Reducing terrorism creates increased international security benefits from which no economy can be excluded; also individual economies can benefit from this increase in security without diminishing other economies' ability to enjoy these benefits. On the other hand, any individual country's failure to take action will impact negatively on global, regional and domestic welfare. Economies which fail to cooperate in multilateral counter terrorist measures run the risk of marginalising themselves from many international transactions.

By taking coordinated joint action to counter terrorism, APEC economies will increase the effectiveness and reduce the costs of their efforts to ensure the security of their citizens, trade and investment. Without regional and multilateral cooperation, individual economies are likely to face higher public and private spending on security and trade requirements and regulations and measures to combat terrorism in individual economies may need to be more stringent.

Due to complex cross border linkages between financial institutions and new banking technologies, for instance, actions to counter money laundering and combat terrorism financing require all economies to work together. Those economies that do not take counter measures could face a loss of investor confidence and boycotts by other banks. Financial institutions involved in terrorist financing also will face criminal charges and reputation damage.

Summing Up

Effective action to combat terrorism will generate significant benefits for the global economy, preventing losses from reduced trade flows and investment undermining economic growth. Since international goods and financial markets transmit terrorism's costs well beyond the country where acts occur and terrorist groups operate across borders, any economy's actions to curb terrorist activities should produce global and regional benefits. Similarly, failure to counter terrorism will produce costs for all economies and populations. Given their active participation in international trade and high investment requirements to promote growth, developing APEC economies have at least as much to gain from countering terrorism as industrial economies.

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