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Quantifying Risk

Aftermath of Terrorism and Continuing Impact of SARS Provide Planners with Baseline Worst Case Scenario

Highlights

- Terrorist attacks delivered blow to inner workings of world's financial system; terrorists crippled entire industries, creating rippling effects throughout broader economy
- Other events of mass disruption such as SARS have created huge amount of economic upheaval
- Planners need to consider costs of such events as a basis for constructing comprehensive risk management programs
- Physical and economic damage to New York could never be anticipated; measuring these costs provides basis for future planning initiatives
- These events have prompted organizations to begin decentralizing their operations
- Primary lesson learned was the risk associated with concentrating operations, and failing to maintain adequate backup and operational and human resource redundancy
- Most reports of economic devastation imposed by SARS focuses on loss of tourism revenues, however, increased quarantine programs could adversely affect organizations
- From an organization's perspective, the preservation of brand, and maintaining ongoing operations could be mission critical; planners must consider all aspects of risk

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Introduction

The images of the damage and destruction to fifteen buildings in lower Manhattan have become symbolic of the world's susceptibility to terrorism. The attacks came without warning, striking at the heart of the world's financial community. Not only was the loss of life staggering, but the attacks also delivered a blow to the inner workings of the world's financial system, as it soon became apparent that many of the affected organizations operated as part of a wide network of interrelated markets and participants. By targeting an area where many critical activities related to the operation of the financial system, the terrorists effectively crippled entire industries. The physical ruins that remained in lower Manhattan vividly demonstrated how much real estate was at the forefront of the crisis that would not only affect New York, but also create a rippling effect throughout the broader *US economy*.

In the immediate aftermath of the attacks, real estate experts began speculating on the likely impact these events would have on the future of real estate. Whether this involved usage or investment patterns, the early period immediately following the tragedy spawned extreme reactions and predictions. For instance, from a usage perspective, many predicted the attacks signalled the end of the urban core, as corporations would evacuate en masse and flock to the suburbs. Migration from the core would in turn create rippling effects. The flight of tenants away from urban cores would increase vacancy rates to new levels of equilibrium, thus diminishing the value of central core real estate. Vacancy rates in suburban or outlying markets would decrease, thus increasing their value. Institutional real estate investors, who previously focused their investment activities on CBD portfolios, would switch to new geographic areas and different asset classes.

More recently, other events of mass disruption have occurred in other parts of the world that have had crippling effects on national economies. The most vivid example is the outbreak of SARS, which has forced many organizations (in places that previously believed that events that have crippling economic consequences such as terrorism in United States, could never happen in their own backyards) to begin addressing the issue of business continuity planning.

The main purpose of this brief is to quantify the impact of events of mass disruption, thereby demonstrating how important it is for an organization to not only consider the types of events that might create periods of operational downtime, but what the economic impact of those events might be. By examining the impact and economic hardship such events impose, planners can create worst case scenarios for the purposes of risk management, and perhaps even consider establishing back-up or dispersed sites, even if the probability of such an event is infinitesimally small. We will use the examples of New York, and to a lesser extent, Toronto as the basis for this discussion. Although it is still too early to gauge the organizational impact SARS has had on Toronto, we will provide anecdotes that will assist organizational planners in creating a framework for assessing risk. In the case of New York, we will examine of the physical and economic impact the attacks imposed, and review the financial impact of companies moving away from the city.

Physical Impact of the Terrorist Attacks

It would be useful to begin this discussion by quantifying the extent of physical loss and the economic impact the terrorist attacks imposed on New York. When the stark realization of what had occurred finally began to sink in, people across the world began realizing the extent of the devastation. The physical impact of the terrorist attacks is demonstrated here:

- Damaged or destroyed nearly 31.9 million square feet of space in lower Manhattan, a loss that affected 65% of downtown Manhattan's Class A office space (according to the Wall Street Journal, this figure represented the equivalent of 15 Empire State buildings)
- 13.4 million square feet of that space in six buildings in and around the former World Trade Center complex was completely destroyed
- The World Trade Center and the 15 buildings surrounding the complex housed 179 non-governmental tenants over 10,000 ft. in size
- Of the 31.9 million square feet damaged or destroyed, larger tenants occupied 21 million feet (66%), government tenants accounted for 1.8 million feet
- Of 1,300 businesses affected by attack, 31 displaced tenants occupied 100,000 square feet or more; 4 of them, American Express, Merrill Lynch, Morgan Stanley Dean Witter, Salomon Smith Barney occupied 1 million square feet or more
- Within a week of the attacks, over 4,200 displaced or affected businesses had requested relief assistance through the a New York State relief hotline

Immediate Real Estate Response

The immediate real estate responses after September 11 were predictable. Within a short time, companies in the affected areas began to regroup. The areas most sought after by displaced tenants were midtown Manhattan, northern New Jersey (Jersey City in particular), Midtown South and Tribeca, as well as Stamford, Connecticut. For many organizations, it was the first time in years they priced real estate rates in alternate locations. The average tenant in lower Manhattan was typically paying $49 per square foot. For those tenants intent on remaining in the city, they discovered that midtown rates could run as high a s $68 per square foot, however, many also realized the advantages of moving outside of the city. For instance New Jersey rates averaged $30, Stamford rates were $37 and Westchester County, New York was priced around $29. For organizations in excess of 100,000 feet, these rates offered savings of millions of dollars annually. Outside Manhattan, local governments, such as the State of Connecticut, and Westchester County anticipated the increased demand and launched large scale programs geared to assisting displaced firms in finding available space in their respective markets. These factors combined with organizations' needs to manage costs in a slowing economy were ignition points for changing patterns of real estate usage.

Economic Impacts

The economic impacts were even more dramatic. M. Myers Mermel, CEO of TenatWise, a New York-based real estate advisory firm told Newsweek that of the 13 million square feet of office space that was destroyed, only companies using 11% of those square feet decided to stay in the lower Manhattan area, despite the fact that space is much cheaper than other areas in the region. Tenant's aversion to return to the area was highlighted by the fact that many of the tenants who left lower Manhattan paid double to move to NJ or midtown. Mermel pointed out that although rent is usually the second largest expense after payroll and the economy's in recession (circumstances that would suggest companies should be cutting back), these tenants were willing to pay double to move.

To gauge the economic impact of the attack, the New York State Finance Committee commissioned a study by DRI-WEFA to quantify the effects on the State. Several interesting results emerged. The key findings demonstrated the effect of job loss to the local economy as well as how closely the financial sector was tied to the economic well being of lower Manhattan. The study estimated the following:

- In total 138,000 jobs were impacted (a figure that represents the employment base of small city)
- Financial and finance-related companies hardest hit by attack as these firms accounted for over 73% of direct job impact
- When insurance companies are factored in, the proportion rises to nearly 88%
- Only about 53% of the jobs that were affected by the attacks have returned to the area, despite lower rents and federal aid incentives
- Nearly 32,000 jobs formerly housed in the immediate area migrated out of New York State
- 90.2% of those were from the Financial Sector and 4.9% were from Insurance Industry

The study projected that the longer-term risk for New York City is that the loss of financial sector employment from lower Manhattan could accelerate as firms relocate elsewhere. The implications of New York's dependence on the financial sector are noteworthy. Finance, insurance, and real estate (the so-called FIRE sector) contribute almost 13% of metro area's jobs, compared with just under 6% nationally, and proportion is estimated at 46% for 8 zip codes that constitute Lower Manhattan; many of these jobs tend to be relatively high-paying positions, with very positive contributions to the State's personal income tax base; due to high wages FIRE accounted for estimated 33% of City's output in 2001.

Lessons Learned

Given the extent of them damage, it would be difficult even under the best of circumstances to restore the vibrant, mixed-use neighborhood that existed in lower Manhattan prior to the attacks. It should be noted that it took many years for the neighbourhood around the World Trade Center to develop. When complex was finally completed, the metropolitan real estate market was initially flooded area with excess commercial space; predictably, rents suffered as result. It took almost decade for The World Trade Center to be fully leased and much longer for Lower Manhattan's A-class vacancy rates to fall to level of those in midtown. When high-end residential projects in Battery Park recently opened in the direct area, area balance was finally achieved. In time, museums and hotels would follow. In all, it took thirty years to build this neighbourhood

The primary lesson that business took away from attack was the risk of concentrating operations, and failing to maintain adequate backup and operational and human resource redundancy. This suggest firms will employ more geographical dispersion of their facilities as they regroup for future. As dispersion strategies are implemented, managers will be forced to now address areas such as remote management and revised real estate portfolio strategies.

Although the scope of destruction is unprecedented, September 11 is not the first example of terrorism in a major industrialized city. The city of London has been the target of terrorism for years, and the experience of that city demonstrates that despite waves of serious terrorist incidents, downtown remains a preferred business location yet also paves the way for acceptance of alternate and equally acceptable locations outside of the city such as Canary Wharf. The example of London shows that viable location strategies can be formulated to counter the effects of such attacks in the future.

The Outbreak of SARS in Toronto

In recent months, especially in Canada, the event of likelihood that has replaced terrorism and taken center stage is biological. SARS, like terrorism, cannot only impose a severe threat to lives, but is can also result in significant downtime for organizations.

This downtime can potentially cripple the long-term viability of an organization. If key knowledge workers are unable to perform their work duties, because they cannot be at a primary worksite, the organization may suffer. The primary focus of the recent and ongoing outbreak of SARS in Toronto has been its impact on tourist revenues; however, it also has the potential to adversely affect organizations where employees work within close proximity of one another. Consider these factors:

- In early May, Hewlett-Packard Co. sent home nearly 200 workers at a technology services office near Toronto after two employees were suspected of having SARS
- The extent of a quarantine web was demonstrated in April, when Ontario's commissioner of public safety, Dr. James Young requested voluntary quarantine for 3,600 people associated with original case in a Toronto hospital; as the epidemic has widened, it is expected that more strict isolation directives will be issued
- About 100 city workers on the 19th floor of Toronto's Metro Hall were quarantined in April because two colleagues connected to a religious group were being monitored for SARS
- Premier Ernie Eaves promised that people in Ontario who lose wages due to SARS quarantine would be fully

compensated; this includes people who don't receive help from benefit plans or federal employment insurance; the costs of this promise could be prohibitively high if the quarantines become ongoing

If such quarantine directives were issued to employees of densly concentrated white-collar workers, and the organizations they represent need to remain in continuous operation, it could severely affect operations. Although IT-based business continuity solutions would likely be in place to maintain critical activities, on a going-forward basis, employees might question their entire motives for working in such an environment.

Conclusion

So what does this all mean? Prior to events such as terrorism or health epidemics, their costs were merely hypothetical. However, once these events occur, other circumstances arise that were previously never considered. For instance, all the efforts taken to develop the field of business continuity planning never before included the human dimension into the equation. Events such as terrorism and SARS not only can prevent a key knowledge worker from coming to the workplace, but question the very motive he or she has for coming to that office in the first place. If that workplace is located in a densely populated urban core, the workplace alternative might very well be in a decentralized location.

From the organization's perspective however, preservation of brand, and maintaining continuous operations can represent the difference between long-term sustainability and bankruptcy. Certainly, the likelihood of a crippling event such as a terrorist attack is extremely remote, especially in Canada, but the randomness of such an event makes it impossible to predict.

The implications of these events can now be documented and used by organizational planners to construct thorough risk assessments that not only identify all the areas of risk, and perhaps the probability of their occurrence, but the potential costs associated with these events. If the economic costs of such events to an organization can be predicted (even if the likelihood of that event occurring is small) and the consequences of that event might compromise the ongoing operations of the organization, it becomes the basis to exploring options such as decentralization.