

Publisher: Robert Sun-Quae Lai  
Editor-in-Chief: Chia-Yen Yang  
Published by APEC SME Crisis Management Center  
Website: <http://www.apecscmc.org>  
Email: [apecscmc@tier.org.tw](mailto:apecscmc@tier.org.tw)  
Supervised by Small and Medium Enterprise  
Administration, Ministry of Economic Affairs,  
Chinese Taipei



**APEC SME**  
**Crisis Management Center**



# APEC SME Monitor

ISSUE **2**

JUNE 2012

## Contents

Foreword	01
SME Development	02
SME Challenges	03
SME Policy	10
Expert Perspectives	14
Global Trend	18



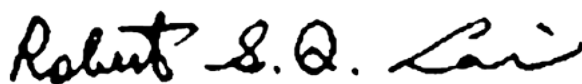
# Foreword

This issue of APEC SME Monitor provides insightful articles for the SMEs in different aspects. In the first section, "SME Development", our experts report on the platforms and the development of SMEs in East Asia. In the "SME Challenges" section, after the brief introduction of Canterbury earthquake in New Zealand in last monitor, our expert from New Zealand focuses on the challenges and opportunities for Central Business District organisations. Another article to be noted is from our expert from the Philippines talking about the perils of typhoons in the Philippines.

In the "SME Policy" section, the public private partnerships at local levels in Viet Nam and the details of the 2012 white paper on SMEs in Japan are discussed. In the "Expert Perspective" section, our expert from East West Center draws our readers' attention to risk management and the US industry supply chain. In addition, the primary and secondary physical impacts of climate change and consequences for SMEs are examined in this section. In the "Global Trend" section, as the price of New York crude oil has experienced fluctuation at the high price level in the short term, our expert analyzes the severe business environment SMEs face.

To enhance SMEs' capacities in transporting their goods cost-efficiently and SMEs' participation in global production chains, we will hold two APEC SME events on 11 and 12 July. Registration is now open at <http://www.apecsmc.org>. We are looking forward to your participation.

Since the global risks and uncertainties still remain considerable, it is necessary for all APEC SMEs to keep an eye on the latest global trend. I hope the articles of the monitor can provide our readers useful knowledge and information about crisis preparedness and management.



Robert Sun-Quae Lai, Ph.D.  
Executive Director  
APEC SME Crisis Management Center



## ►► Platforms and the Development of SMEs

East Asia economies place much importance on the development of SMEs and therefore have established institutions which are especially responsible for the SMEs. These institutions, when pushing forward the SME development, have adopted a long-term way of policy formulation: i.e., in the first place analyzing the problems or bottlenecks facing the SMEs as opposed to large enterprises, including such issues as human resource, market access, and financing, and then planning and promoting policies aiming at these problems. The advantage of this strategy is that the policy can be designed in a way that is directly aimed at, or can directly meet, what the SMEs need. However, there is also a potential problem: it makes people easily neglect what status and interactive relations the SMEs have within the systems of certain industries' developments, and consequently the policy makers may very likely overlook the overall picture.

When it comes to the relations between SMEs and the systems of certain industries' developments, an important idea is that platforms- including industrial platforms or technological platforms- can drive the development of SMEs. The flourishing of Taiwan's IC design industry, for example, is due to the industrial platform of semiconductor foundry: the investment by Taiwan Semiconductor Manufacturing Company (TSMC) and United Microelectronics Corporation (UMC) in terms of wafer fabrication's technology and production capacity, plus their service support to IC design, all lowered the market barrier of the IC design industry. The integrated chip of MediaTek, on the other hand, can be seen as a technological platform. With the help of local support of design service, this platform facilitated the rise of "copycat" mobile phone companies in China, which later on sought to transform into a regular industry, following the adjustment of market regulation. Although the iTunes and APP Store belong exclusively to Apple, they are also a sort of industrial platform, giving birth to a large variety of small and medium App design companies and bringing forth the "App economy." How Angry Bird came back to life serves as a typical example. Having determined to make good use of App economy's industrial platform, Korea Federation of Small and Medium Business (KFSMB) plans to cultivate ten thousand "one-person innovative student mobile enterprises" by the end of 2012. Like the App, Cloud Computing, now considered important by many economies, has potent characteristics of industrial platform and can be an important basis for SME development.

Be them industrial platforms or technological platforms, some leading companies possess incentives for self-interest development, facilitating the external SMEs to participate or to utilize, and therefore exerting the network externality of the platforms themselves. Other platforms, however, will need the government's active assistance to strengthen the platforms' effective connection to the development of SMEs. [SCMC](#)



**Chen Shin-Horng**

Division Director

Chung-Hua Institution for  
Economic Research

Research Focus

- Industrial economics
- High-tech Industry
- Information technology economics



## The Canterbury Earthquakes: Challenges and Opportunities for Central Business District Organisations

### Why Consider Central Business Districts?

Organisations locate strategically within Central Business Districts (CBDs) in order to cultivate their image, increase their profile, and improve access to customers, suppliers, and services. While CBDs offer an economic benefit to organisations, they also present a unique set of hazard vulnerabilities and planning challenges for businesses.

As of May 2012, the Christchurch CBD has been partially cordoned off for over 14 months. Economic activity within the cordoned CBD, which previously contained 6,000 businesses and over 51,000 workers, has been significantly diminished and organisations have been forced to find new ways of operating.

The vulnerabilities and resilience of CBDs not only influences outcomes for CBD organisations, but also the broader interconnected (urban/regional) system. A CBD is a hub of economic, social, and built infrastructure within a network of links and nodes. When the hub is disrupted all of the people, objects, and transactions that usually flow into and out of the hub must be redirected elsewhere. In an urban situation this means traffic jams in peripheries of the city, increased prices of commercial property, and capital flight; all of which are currently being faced in Canterbury.

This report presents the lessons learned from organisations in CBDs affected by the Canterbury earthquakes. Here we focus on the Christchurch CBD; however, several urban town centres were extensively disrupted by the earthquakes. The statistics and discussion presented in this report are based on the results of an ongoing study conducted by Resilient Organisations ([www.resorgs.org.nz](http://www.resorgs.org.nz)). The data was captured using two questionnaire surveys of Canterbury organisations (issued November 2010 and May 2011), interviews with key informants, and in-depth case studies of organisations.



**Erica Seville**

Co-leader

Resilient Organisations Research Programme, New Zealand

Research Focus

- Ways to evaluating an organisation's resilience
- Recovery of organisations following disaster
- Post-disaster reconstruction



**John Vargo**

Co-leader

Resilient Organisations Research Programme, New Zealand

Research Focus

- organisational resilience,
- information security



**Joanne R Stevenson**

PhD Student

Geography Department, University of Canterbury, New Zealand

Research Focus

- spatial patterns of organisational recovery
- organisational networks in recovery

Several industry sectors were sampled, and geographic samples of organisations in the Christchurch CBD, Lyttelton, and the Kaiapoi town centre were also collected. Results in this report describing "non-CBD organisations" refer to all organisations outside of the Christchurch CBD, Lyttelton, and Kaiapoi town centres.

## 1. CBD Vulnerabilities

### 1.1 Building types

CBDs by their nature have high building density. As a result, in the earthquakes pounding damage between buildings (where buildings hit each other, Figure 1) was far more frequent in the Christchurch CBD than other areas of Christchurch. CBDs also tend to have higher concentrations of historic buildings and buildings constructed of unreinforced brick masonry. These structures, often built before seismic building codes, tend to be more earthquake prone and far more expensive to retrofit and repair. In an early assessment following the February earthquake over 50% of unreinforced buildings visually surveyed were severely damaged and it is probable that many more were damaged beyond economic repair. The loss of historic buildings, including the iconic Christchurch Cathedral, alters the urban aesthetic and tourism landscape as Canterbury rebuilds.



Figure 1: Damage to wall caused by adjacent facade from Cole et al. (2010)

### 1.2 Neighbourhood effects

CBD organisations, being in close proximity, are more vulnerable to neighbour effects. Following both the September 2010 and February 2011 earthquakes, organisations in the Christchurch CBD were more likely to be disrupted by damage to neighbours and cordons put in place around damaged buildings, than by damage to their own buildings. In a Resilient Organisations questionnaire issued after the February 2011 earthquake 94% of organisations located within the Christchurch CBD indicated that their organisation was "located within a cordoned-off area" compared to only 9% of organisations outside of the CBD areas surveyed.

Businesses in the Christchurch CBD were more likely to experience reductions in revenue following the earthquakes than those outside of the urban centres (Table 1).

**Table 1: Organisation revenue changes following the February 2011 earthquake**

Organisation Location	Revenue Decreased	Revenue Increased	No Change	Did not report
<i>Christchurch CBD</i>	58%	19%	17%	6%
<i>Non-CBD</i>	37%	29%	23%	11%

These organisations were also more likely to close temporarily following the earthquakes (Table 2) and tended to stay closed for slightly longer. CBD organisations that closed temporarily, closed for an average of 8 days following the September 2010 event and 22 days following the February event, compared to 7 days and 19 days respectively for non-CBD organisations. In many cases these losses were a result of building inaccessibility due to damage or cordons.

**Table 2: Organisational closure following September 2010 & February 2011 earthquakes**

<i>Organisation Location</i>	September 2010		February 2011	
	Close Temporarily	Close Permanently	Close Temporarily	Close Permanently
<i>Christchurch CBD</i>	80%	6%	54%	31%
<i>Non-CBD</i>	46%	0%	49%	4%

Longer term revenue losses are more likely to be caused by indirect losses. Following the September earthquake (which resulted in relatively minor CBD damage compared to the February earthquake) several businesses reported that people were avoiding dense urban areas or areas with buildings they perceived as unsafe. Some popular CBD hospitality areas were acutely affected by these perception shifts, as they were in relatively enclosed areas surrounded by brick masonry buildings. Similarly, following the February earthquake, organisations that were open but operating near the CBD cordon lost business because clients assumed they were closed or would rather travel to areas where more businesses were open.

Changing perceptions about safety has also affected the staff of organisations. Over 70% of organisations in the Christchurch CBD reported that staff did not feel comfortable returning to their building as a result of the earthquakes, compared to 36% of organisations outside of the urban centres.

### 1.3 Organisational vulnerability

CBD organisations in Christchurch, as in many other urban areas, are far more likely to lease rather than own their premises. Approximately 47% of non-CBD organisations compared to 9% of CBD organisations surveyed in 2011 owned the building from which they operated. Organisations that leased their premises reported difficulties getting information and access to their buildings following the earthquakes as Civil Defence organisations dealt primarily with only building owners. Also for various reasons, including greatly increased insurance premiums and higher demand for commercial property in the city, many organisations are now facing inflated lease prices for the same or similar properties occupied prior to the earthquakes.

CBDs are especially attractive for organisations in hospitality and retail. Following a disaster people often decrease spending on 'non-essentials' which affects these organisation types more than others. Hospitality and retail organisations can also find it more difficult to reopen elsewhere. Hospitality organisations have equipment and health and safety restrictions, while retailers (especially fashion retailers) tend to be more successful in agglomerations (clusters of like-

businesses). As a result, the large numbers of CBD businesses that rely on consumers' discretionary spending are more vulnerable to disasters.

## **2. Recovery and Adaptation**

### **2.1 Relocation**

The high degree of building damage and cordoning within the Christchurch CBD has led to a higher prevalence of relocation for CBD organisations. Relocating organisations following a disaster face a compromised rental market. Several organisations have reported accepting locations that do not fully suit their needs and have had to cease aspects of their business until suitable facilities can be acquired. Other relocated organisations have reported finding that their new premises suit their needs better than their old premises. They realise that the premiums they were paying for a central property were not yielding financial benefits prior to the earthquake, and they have more locational flexibility than they previously believed.

### **2.2 Planning and new urban configurations**

Relocating organisations are signing long term leases in new locations throughout the Christchurch area. Shopping malls, suburban office complexes, and peripheral light industrial areas are currently providing most of the services that the CBD was previously providing. This may result in the emergence of new hubs or the development of pockets of specific industries as opposed to the re-creation of a centralised business core.

The Christchurch City Council has instituted a rigorous planning process for the CBD, including extensive consultation with the public and ongoing communication with businesses, following the February earthquake. However, businesses cannot wait years for the implementation of a plan, and therefore permanent reconfigurations will emerge outside of the CBD for some organisations.

### **2.3 Cooperation and collaboration**

The Canterbury earthquakes have presented organisations throughout Canterbury with an opportunity to reinvent themselves, capture new markets, and form new partnerships. There are indications that many businesses, during the initial period following the earthquake, moved away from "survival-of-the-fittest" business models to one that emphasised collaboration and mutual benefit.

Within a CBD environment, organisations can work together forming economic clusters for co-promotion and support or to share resources. Several businesses from the information, communications, and hi-tech industry, with support from the Canterbury Business Recovery Trust, have developed the Enterprise Precinct and Innovation Campus (EPIC). EPIC is a development for 17 earthquake affected Information and Communications Technology (ICT) companies to rebuild on the same campus within the CBD to promote collaboration and innovation.

Several organisations have questioned when the CBD will gain the "critical mass" of businesses necessary for the area to again become a vibrant functioning city. Such coordinated collaborations

may be the best way to repopulate the CBD. These clusters of reconstruction reduce the risk of isolation for pioneer organisations who want to reopen in the CBD.

### 3. Reconstruction and Long-term Recovery

With the massive demolition and reconstruction process that will occur in Christchurch over the next decade, urban organisations are aware that there will be ongoing disruptions to their operations, but many are unsure of how to plan for the anticipated impacts of reconstruction.

Where possible the City Council and others have tried to alert the public and businesses of ongoing and future construction projects. For example the Stronger Christchurch Infrastructure Rebuild Team sends weekly emails to anyone who signs up, detailing ongoing progress, where and when future projects will commence, and what kinds of disruptions to expect. However, awareness of potential issues is not enough to mitigate their effects and the prospect of operating within a construction site may be a disincentive for organisations considering relocated to the CBD.

The reconstruction of the Christchurch CBD is predicted to drive the economic recovery of New Zealand from the recession. As occurred with New Orleans following Hurricane Katrina and Fukushima following the Great East Japan earthquake, a small minority have called for the abandonment of the Christchurch CBD. Despite ongoing uncertainties about what will emerge, there is however a general commitment for the CBD to be rebuilt and reabsorb its function as a hub of economic activity for the South Island. How vibrant this future hub will be is contingent on several key variables including the civic and private management of the rebuild, business confidence, insurance availability, and cost. [SCM](#)



## The Perils of Typhoons in the Philippines: Cases of Ondoy, Pepeng and Sendong

In the Philippines, the month of June embodies important events. Aside from being the month of commemorating the Philippines independence, June is also the period when classes at all levels in the economy commence. It is likewise popular for wedding events. But what makes it disconcerting is the fact that June signals the start of storms and typhoons across the economy. Around 20 typhoons hit the economy each year, most frequently from July to November. These typhoons, which usually bring strong winds and heavy floods, represent 50% of the natural disasters in the economy (Figure 1)



**Salvador P. Catelo**

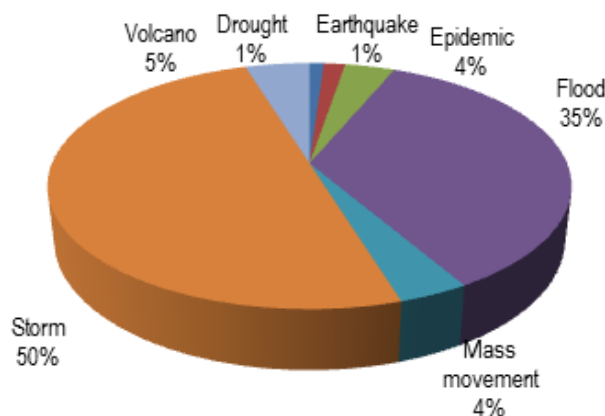
Professor

College of Economics and  
Business University of the  
Philippines Los Banos

Research Focus

- Production economics
- Farm management, policy and development
- Global food systems and safety

**Figure 1. Natural disaster incidence, the Philippines, 2000-2011.**



Source of basic data: EM-DAT: The OFDA/CRED International Disaster Database

Of the five main track patterns that typhoons typically trail in the Philippines, the ones that are usually more devastating are the tracks that traverse to the north and south of Metro Manila. Although typhoons occur in all major regions, Central and Northern Luzon are usually affected. It should be noted that Metro Manila and its neighboring provinces are major seats of micro, small and medium scale enterprises (MSMEs). When strong typhoons occur, economic activities in these areas are usually disrupted due to the associated impassable roads and power interruptions. It is unfortunate, however, that the available information on the over-all extent of damages by typhoons particularly on MSMEs is scarce. Investment on modern facilities and equipment that would allow exhaustive characterization of incoming storms and typhoons and mapping of typhoon-prone areas would therefore supply comprehensive database and, in turn, a better picture of the situation and swifter formulation of cost-effective action plan toward disaster risk reduction.

During the onslaught of typhoons Ondoy (International name: Ketsana) and Pepeng (International name: Parma) in September and October 2009, damages to physical assets and associated losses in production, trade and services were estimated at about 2% to 3% of Gross Domestic Product (GDP).

Like in the past, these typhoons came at a time when crops were about to be harvested. Not only did they result to production losses but also damages to existing irrigation systems, post-harvest facilities, road, bridges and telecommunication networks (Figure 2). In more ways than one, these had negative impacts on the succeeding cycles in farm production, processing, manufacturing, storage and trading operations. The MSMEs that play either key or support roles in the value chain were consequently affected.



Figure 2. Aftermath of typhoon Ondoy



Figure 3. Aftermath of typhoon Sendong

On 15 December 2011, tropical depression Sendong (International name: Washi) entered the eastern part of Mindanao (Region X) and shattered Cagayan de Oro (CDO), a province that is seldom hit by typhoons. CDO is one of the most promising business centers in the economy due to its access to cheap power, rich agricultural base and stable climate. Unfortunately, Sendong triggered flashfloods that submerged 3 cities and 26 municipalities in 4 provinces in Region X (Figure 3). It destroyed infrastructures and agricultural fields, led to loss of livelihood and economic activities, decimated communities and ecosystems, and left 1,495 lifeless victims and 1,965 persons injured. Many areas were inaccessible for extended periods due to collapsed bridges and washed-out farm-to-market roads. The MSMEs also suffered from property damages and losses in productivity and income. Some MSMEs had to cut their operations, thus, inevitably displacing workers. Based on government estimates, the damages caused by typhoon Sendong were worth USD 114.3 million. The economic sector, particularly agriculture, fishery, trade and industry, accounted for about 20% of the total while the infrastructure sector, that include national and local roads, bridges and other facilities, represented one-third of the total.

Notwithstanding, there is a host of other factors aside from typhoon Sendong that was recognized by the Regional Development Council of Region X to have largely contributed to the impact of the flashfloods in the affected areas. These included: (1) deforestation of watersheds; (2) rapid urbanization where structures along riverbanks have affected the river systems; (3) dense settlements in flood-prone area such as in floodplains, former mangrove areas, old waterways and in geologically unstable areas; (4) clogging of drainage and presence of debris or barrier which interfere with the flow of the rivers; (5) absence of flood warning system even in frequently flooded communities; and, (6) complacency due to the false sense of security that a major flood disaster will not happen in Region X. In response, the said council endorsed a Strategic Action Plan (SAP) that aims to mobilize resources and direct post-disaster actions of the government, the private sector and the ODA community toward immediate and medium to long-term programs and projects that will not only restore the local economy but likewise reduce disaster risk factors in the region. [SCMO](#)

## Promoting Public Private Partnerships at Local Levels in Viet Nam

Viet Nam has experienced significant transformation in the recent years in political, economic and social aspects. While it marches towards economic prosperity, it also reminds us with the fact that Viet Nam is one of the most disaster-affected economy in South East Asia region facing increasing frequency and magnitude of flooding, typhoons, sea water intrusion with high tide, contaminated soil, sea level rise, and seasonal tropical storms every year. The Mekong Delta situated in the southern part of the economy is among the most flood prone area due to its proximity to the Mekong River. In addition, the Mekong Delta has been highlighted as an area of concern due to the potential effect of climate change and other environmental risks.

Businesses have a key role in society; they are employers, producers of goods and services, consumers of resources, and in many cases operators of critical infrastructure. In Viet Nam, the business community, in particular the SMEs play an important role in assisting the government in responding to natural disasters. Since 2001, the private companies have provided moral support as well as resources to many of the innovative initiatives in the Mekong Delta. Some of the good example can be traced in Tien Giang province where small companies have contributed to construct Emergency Kindergartens for small children. Local companies in the province have sponsored public awareness events and distribution of search and rescue equipment in other provinces. Growing number of Vietnamese businesses now realize that whilst their first priority is to be profitable, they must also contribute to the wellbeing of wider society, and for business to prosper they must be part of a strong healthy social climate.

The An Giang Business Association (ABA) is a provincial association of SMES in An Giang province in the Mekong Delta, which has played a pioneering role in promoting public private partnership in natural disaster preparedness and response activities. Comprising of more than 16 most potential enterprises based in the province, the ABA has played crucial role with provincial government in raising awareness on the increasing risk due to natural disasters as well as how SMEs can be part of the disaster risk management system in the province. Based on the mutual interest, the members of the business association and the provincial government has organised many capacity building and public awareness activities for the general public as well as training for the SMEs in preparing themselves for future disasters.

The partnership with local authorities yielded good response from the community. A provincial action plan has now been prepared identifying key roles of the private sector. It has been



**Aslam Perwaiz**

Head

Disaster Risk Management System  
Department, Asian Disaster  
Preparedness Center


Research Focus

- Water resource management
- Environment management
- Climate change adaptation  
issue and its linkages with  
disaster risk reduction

emphasised that the strong support and cooperation from private sectors will help the government in implementing its National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020. This initiative has been widely appreciated by the government and created an environment for private companies and business enterprises in Viet Nam to participate in disaster risk management activities. Recently, the Viet Nam Chamber of Commerce and Industry (VCCI) has signed an memorandum of understanding with the government formalising this partnership.

The long-term sustainability of disaster risk management interventions depends, to a large extent, on its ability to achieve and maintain a meaningful association with variety of stakeholders. Promoting partnership with local entrepreneurs is a new but innovative initiative in Viet Nam drawing attention of many international development partners. Through the partnership with government authorities, business enterprises can create an image of leadership in community building efforts. Some of the lessons learnt through this small initiative are:

- SMEs are closer to community members and create a good image for their products/services when they participate in such initiatives.
- While it has an impact on the profitability, such initiatives are seen as complement to local government's initiatives for disaster risk management. It also provides a platform for SMEs to contribute to a safer and healthier society.
- The government should take the lead role in creating an environment that allows for space in the regulatory and planning systems for the private sector to participate and contribute.
- Create national level groups or platforms that advocate multi-stakeholder participation in disaster risk management with private sector groups involved in the decision-making process. Such platforms can be subcomponents of rural development or environmental ministries, or independently established by joint actions from national governments, non-government organizations and private sector groups.
- The contribution by the private sector should be monitored in terms of its impact, and most importantly the sustainability of the investment by external evaluators.
- Community participation should be a priority in the development and implementation of any project jointly initiated by the public and private sector.
- Develop innovative pilot projects with joint collaboration between the public sector and private sector in a range of different areas i.e. risk insurance schemes, building disaster resilient infrastructure, sponsorship of life saving products such as life vests and evacuation signs.

The future of such partnerships with the private sector and any other stakeholder must be based on trust and mutual cooperation, with the regulations and bureaucratic systems being developed slowly over time depending on the needs of the stakeholders. Regular dialogues should take place to bring together public and private sector decision makers for open discussions on how to jointly reduce disaster. Local disaster management and government authorities should be encouraged to engage with businesses in their locality through incentivizing of such initiatives from the national level. 



## Key Points of the 2012 White Paper on SMEs in Japan

The Government of Japan published Annual Report Based on Article 11 of the Small and Medium-sized Enterprise Basic Act (Statutory White Paper) in April 2012.

"Japan's SMEs will play a significant role toward the recovery from the great earthquake and display their potential to do this through overseas business expansion and the utilization of women, thus help Japan to step forward to overcome difficulties such as the appreciation of the yen and the decrease in population."



**Takahiro Ono**

Senior Researcher  
Asian Disaster Reduction  
Center (ADRC)

Research Focus

- Risk management
- Business continuity management

### Trends among SMEs in FY2011

Business conditions in SMEs have been improving since the Great East Japan Earthquake, but have been flat recently due to concerns about the influence of the strong yen, an increase in imported material and fuel prices and electricity charges, and electricity supply-demand constraints.

### Recovery from the Great Earthquake and SMEs' Role

In the process of the recovery and restoration from the earthquake and affected areas' further development, SMEs are expected to play a significant role by displaying their potential to respond to orders for small lots and requests for a short delivery period and to ascertain local needs.

#### 1. Impact on supply chains and development utilizing industrial clusters

Industrial production of the Tohoku region dropped sharply due to the impact of the earthquake, but has been recovering gradually mainly in the automobile industry, etc. With efforts by local governments, industrial clusters have been built up in the automobile and medical equipment industries. SMEs are expected to display their potential to lead the development of regional economy as a traction.

#### 2. Conditions of the tsunami-inundated areas and expected roles of SMEs

The ratio of the enterprises that have resumed their business accounted for less than 70% in tsunami inundated areas. Especially, regarding marine products processing industry that cluster on the coastal areas, resumption of their business seem to be delayed and the number of employees had decreased largely.

### **SMEs Incorporating Overseas Demand by Utilizing Their Strength in Domestic Business**

While domestic demand stagnates and emerging Asian economies have been expanding their markets, there are many cases which Japanese SMEs have successfully explored overseas markets and revitalized domestic business by making the most of their technological capabilities and marketing capacity, as well as their strength in backup services and ability to flexibly respond to local needs. However, overseas business expansion involves various problems and risks, and it is necessary to scrutinize them and utilize available support measures when planning to expand business overseas.

### **Business Activities by Women in Response to Changes in the Social Environment**

While consumption of personal services has tended to increase, services provided by female entrepreneurs have been creating new demand. Such services not only fulfill help better personal lives but also work to solve problems faced by women who mainly bear the responsibility for housework and parenting when they enter employment, which may provide a more positive circle to promote further participation of women in society and further expand services for resolving their problems.

### **Fostering Human Resources for Monozukuri (Manufacturing) in SMEs**

In order to maintain and enhance monozukuri technology, which is the source of Japan's competitive strength, it is important to foster human resources and smoothly pass along the techniques and skills. Some enterprises have been trying to overcome difficulties in collaboration with local communities and through industry-academia cooperation. Comprehensive measures need to be taken, while using individual enterprises' imaginative and original ideas.

### **Actions that Support SMEs' Management**

In order to survive the severe and vulnerable domestic and overseas environments, SMEs need to enhance their business capabilities more resilient by exploring new sales channels and strengthen business continuity management strategies. **SCMC**

Source: Small and Medium Enterprise Agency Website

<http://www.chusho.meti.go.jp/pamflet/hakusyo/index.html>

## Risk Management and the US Industry Supply Chain

Both the disaster management community and the private sector are increasingly recognizing, at the individual, corporate, national and international levels, two major and inter-related trends. Firstly, the world is becoming more complex, more interconnected and more interdependent. Secondly, largely as a result of the first and driven by externalities such as climate change, terrorist attacks, and global financial crises, the risk and vulnerability profiles for both government and industry are rapidly changing. In responding to this rapid and diverse global change, existing "business as usual" models are proving to be increasingly inadequate to meet either the traditional or the emerging new challenges to global commerce overall and to supply chains specifically. In particular major disruptions caused by natural and technological disasters in the last decade –such as the Indian Ocean Tsunami, Hurricane Katrina, the Sichuan earthquake and most recently the Tohoku Disaster and the Thailand floods, have dramatically altered the risk profiles for both government and industry.

The critical importance of these two intersecting issues was highlighted in a recent 2011 World Economic Forum survey that showed that more than 90% of those surveyed indicated that supply chain and associated transport risk management had become "significantly higher" or "higher" priorities to their organization during the last 5 years. Further, an assessment by Accenture of over 400 executives (primarily from large companies across 10 major industries (many from the US)), showed that more than 80% had an enterprise risk management program in place or would implement one within the next two years. However, it should be noted that similar surveys of firms with less than USD 500 million in annual revenue, many of these smaller firms are critical "first tier" suppliers to larger firms; only 25% said that they take a proactive approach to risk management. Even more critical is that the interconnected nature of the global supply chain network is such that individual corporations, whether large or small, are dependent on a even larger and more complex mix of hundreds to thousands of independent suppliers and partners located throughout the world. Overall industries are affected by risks from the sourcing of their raw materials to their ultimate destination and use – a chain of activities over which an industry may or may not have complete control.

In response to the dynamic global environment and the increasing complexity of supply chains, the US industry, both domestically and internationally, are actively putting in place various risk management plans and programs to more completely ensure the integrity of their supply chains. This process however, is made more difficult by the reality of business. As an example, although



**Allen L. Clark**


Senior Fellow  
East West Center

**Research Focus**

- Disaster management and risk and vulnerability assessment
- Disaster economics
- Management of national and international resource programs
- Social-cultural-environmental impact assessment

risk assessments and risk exposure from supply chain disruptions can be defined, they must be assessed in the context of competing business demands, e.g., the economic benefits of "just in time (JIT)" supply versus the costs of increasing and maintaining backup stocks as a cushion against supply disruption, which may dramatically decrease the corporate bottom line, may well result in the company taking the lower cost but far more risky JIT approach. This would be particularly true during a global financial crises, such as at the present, than during periods of rapid economic growth. This issue is best summarized by the finance chief of Ford Motor Company, Mr. Lewis Booth who noted "I don't see us moving away from much disciplined supply chain management... but there will be targeted changes." Such target changes may be reflected in the activities of St. Petersburg, Florida-based Jabil Circuit Inc. who, after the Tohoku disaster met with its suppliers to encourage them to (a) develop more than a single source for parts and raw materials and (b) to stop clustering of factories around their headquarters – clustering can cut costs but it puts multiple facilities at risk in case of a disaster.

The above targeted changes represent a major movement within the US companies to review and update known supply chain issues such as the risks and vulnerabilities of supply chain sources and supply; production and distribution facilities (and alternatives); transportation systems and infrastructure; and increasingly important, utilities. Identifying and addressing these concerns have resulting in an emphasis by the US companies on:

- Single point failure analyses to identify critical dependencies, such as dependency on a single provider of a critical component, which could result in a supply disruption and significant "knock on" effects within the company.
- Scenario-based business continuity plans that allow an organization both to (a) evaluate the risks and vulnerabilities of various supply chain disruptions and (b) put in place and test procedures and programs to either eliminate and/or develop alternative response scenarios.
- Increased auditing of first, second and in some cases third tier suppliers to ensure that they are in compliance with their individual business compliance plans and that they are integrated across suppliers in the supply chain.
- Increasing and refining the role of insurance to offset losses associated with supply chain disruption, e.g., clarifying whether insurance covers both the "shut-down and/or the "slow down" of production – normally the former is covered and the latter not covered.
- All of the above are critical components of a rapidly increasing effort by the US industry to better define, understand and mitigate the risks and vulnerabilities of their local to global supply chains. To a large extent these activities focus on internal risks and vulnerabilities of individual suppliers within the supply chain with respect to specific (largely expected) events. However, more and more US industries are beginning to view supply chain risk and vulnerability in terms of the need "Manage proactively, not reactively, and expect the expected and the unexpected." 



## ►► Enhancing the Adaptive capacity of SMEs to Climate Change and Vulnerability

As a part of wide ranging initiatives to build capacity in responding to climate change, the Australian Government has recently allocated funds to a research project specifically focusing on enhancing the adaptive capacity of SMEs. The research will be managed by the National Climate Change Adaptation Research Facility (NCCARF), which leads the research community in setting Australia's adaptation research priorities (see [www.nccarf.edu.au](http://www.nccarf.edu.au)).

The specific research project, 'Enhancing the Adaptive Capacity of Small and Medium Enterprises (SMEs) to Climate Change and Vulnerability' is currently being undertaken by the Institute for Sustainable Futures of the University of Technology in Sydney. The overall aim of this research project is to identify the underlying processes and factors influencing the adaptive capacity of SMEs in Australia to climate change. In particular, the research project aims to shed light on the following questions:

- To what extent have SMEs considered and integrated adaptation in business planning?
- What are the key challenges and opportunities to adaptation in various SME sectors?
- What types of adaptation strategies can business adopt in anticipation of climate change?

According to the research project team, there are numerous direct (primary) and indirect (secondary) impacts of climate change on SMEs (see tables 1 and 2).

It is expected that the findings of the proposed research will provide a baseline understanding of the level of adaptive capacity within the SME sector in Australia. Furthermore, the research will contribute to validating the extent to which measures need to be implemented to improve the adaptive capacity of the SME sector in Australia (see <http://www.isf.uts.edu.au/pdfs/Murta2012SMEbackground.pdf>).



**Don Gunasekera**

Economist

World Meteorological Organization (WMO) Expert Advisory Group on Climate Services for Disaster Risk Financing

Research Focus

- Food security and distribution gaps
- Economic impacts of pandemics and spread of infectious diseases
- Socio-economic and health impacts of air pollution, prospects for renewable energy use, climate change mitigation adaptation analysis
- Economic value of climate and weather information

**Table 1: Primary physical impacts of climate change and consequences for SMEs**

Primary climate change impact	Consequences for SMEs
<i>Higher temperatures</i>	<ul style="list-style-type: none"> <li>• More hot days with corresponding health issues e.g. outdoor workers and heatstroke; increased illnesses</li> <li>• More expensive cooling systems needed for both people and potentially for food (cafes, restaurants)</li> <li>• Implications for natural resource assets and biodiversity (impacts on agriculture and tourism)</li> </ul>
<i>Less rainfall</i>	<ul style="list-style-type: none"> <li>• Direct agricultural impacts (crop viability, livestock needs)</li> <li>• Higher water prices, water restrictions</li> <li>• Lower water quantity and quality (tourism impacts)</li> </ul>
<i>Sea level rise</i>	<ul style="list-style-type: none"> <li>• Affects business location operations, access to raw materials or human/natural resources</li> <li>• Potential need for relocation</li> </ul>
<i>More frequent/intense storms (tropical cyclones, hail, thunderstorms, windstorms) and flooding</i>	<ul style="list-style-type: none"> <li>• Infrastructure damage</li> <li>• Damage to products</li> <li>• Impacts on industrial processes, transportation, energy supply</li> <li>• Enhanced risk of injury/death</li> <li>• Implications for natural resource assets and biodiversity (impacts on agriculture and tourism)</li> </ul>
<i>More frequent/intense bushfires</i>	<ul style="list-style-type: none"> <li>• Infrastructure damage</li> <li>• Damage to products</li> <li>• Enhanced risk of injury/ death</li> </ul>

**Table 2: Some secondary physical impacts of climate change and consequences for SMEs**

Secondary climate change impact	Consequences for SMEs
<i>Changes in consumer behaviour</i>	<ul style="list-style-type: none"> <li>• Consumers may prefer products from companies taking a proactive approach to climate change</li> <li>• Disruptions due to climatic impacts hinder customer access to business</li> </ul>
<i>Changes in government policies, regulations</i>	<ul style="list-style-type: none"> <li>• Emerging/changing tools include financial incentives, codes and standards, tax incentives, legislation. These may change the ways in which SMEs conduct their business.</li> </ul>
<i>Declining financial measures</i>	<ul style="list-style-type: none"> <li>• Value, return, growth</li> </ul>
<i>Changes in industry codes of practice</i>	<ul style="list-style-type: none"> <li>• Chambers of commerce, trade associations and business clubs can be influential in the attitudes of SMEs, including their response to climate change impacts</li> </ul>

Source: Murta et al. (2012) (see <http://www.isf.uts.edu.au/pdfs/Murta2012SMEbackground.pdf> )

## Severe Business Environment SMEs Face

### Bo-Chin Chang

With potential risk of interruption of oil supply due to the political risk in the Middle East, the price of New York crude oil hit a recent record high of USD 110.52 per barrel in March. The price has experienced fluctuation at the high price level in the short term. Under the expectation of price rise in the future, Ministry of Economic Affairs, Chinese Taipei, declared an increase in oil price, where 95 unleaded gasoline rose by NTD 3.1. Subsequently, it was confirmed on April 13 that the electricity price will rise in May. Price rise in both of oil and electricity has been a certain fact. In addition to an increase in corporate operating cost, subsequent reduction and standstill in consumption is unfavorable to industry. Gross Domestic Product (GDP) growth of Chinese Taipei is under the pressure of downward revision. In fact, on April 30, the Directorate-General of Budget, Accounting and Statistics, Executive Yuan announced that National Income (NI) of the first quarter was estimated at only 0.36%, decreasing by 0.83% compared to the estimate of 1.19% in February. The first quarter delivered nearly zero economic growth, which was ranked the last position among the four East Asian Tigers. Nowadays, the sudden pressure of price rise will further challenge the economic constitution. Without carefulness, it will derive more problems in the future.

From the view of the basic economic theory, it is known that the oil and electricity businesses are monopolies with low external market competition and highly complex internal relationship. In addition, with arrangement of the corporate system, wages and bonuses grow too fast and people pursue selfish interests, which further erodes corporate profit and makes it difficult to achieve the goal of minimization of corporate expenditure and maximization of profitability. This leads to low efficiency of corporate internal resource allocation, which results in x-efficiency. It means that where there is "incomplete competition", there is "inefficient resource allocation". However, this inefficiency can not be eliminated in the short term or even can not be totally eliminated. The government can only lead the product price to "return to the market mechanism" for making up the deficit generated from state-owned corporations.

This measure is to reduce fiscal deficit and governmental subsidy and to increase tax revenue, which is only to reduce fiscal deficit by reducing private consumption. On the other hand, this is a way to get rid of vicious cycle of stagflation. Continuing supplying money to the market to stimulate consumption can only maintain pseudo economic recovery and GDP growth but lead to unlimited inflation and deterioration of fiscal deficit in return. Therefore, these upside-down economic behaviors should be re-led to the market mechanism first. In the meanwhile, if the market can not breathe itself, "medicine should be prescribed" to adjust economic constitution. At present, the worry is whether the market can breathe itself or will be incurable when the respirator is taken off.

Numerous SMEs mainly engaging in downstream production are likely to face unfavorable difficulty of fund procurement after relevant prices raise, such as material cost, most of which rise faster relatively compared to product prices. After the consumer price goes up, for families whose consumer staples account for higher percentage of household spending, their purchasing power

will be significantly constricted, which is unfavorable to domestic demand. During the course of inflation, large corporations and high income individuals apparently have more value protected instruments and opportunities, which results in negative effect of wealth reallocation.

A rise in oil price means an increase in cost for the petrochemical industry and all prices related to the petrochemical industry will accordingly rise eventually. A rise in price of commercial electricity will make small-size businesses, such as small diners and beauty shops, raise their prices if they can not endure these cost increases. However, if they consequently go bankrupt due to their raises in price, the unemployment tide caused will be the most important issue for related government authorities.

Finally, due to enormous inflows of international hot money, New Taiwan Dollars are going to strongly appreciate. Although the currency appreciation will offset the pressure of rise in import prices, international competitiveness of export industries will be impaired. Especially, domestic SMEs with weak hedge ability should adopt appropriate hedge measures as early as possible in order to mitigate the impact of appreciation of New Taiwan Dollars on export industries. [SCMC](#)

※This Monitor is a publication of APEC SME Crisis Management Center and is edited by Taiwan Institute of Economic Research.

Copyright © 2012 by APEC SME Crisis Management Center