

EVOLVING RISK CONCERNS IN ASIA-PACIFIC

BUILDING RESILIENCE IN AN INCREASINGLY UNCERTAIN GLOBAL
RISK ENVIRONMENT



EXECUTIVE SUMMARY

Now in its 11th edition, the Global Risks Report (GRR) is one of the flagship publications of the World Economic Forum (WEF) and has been supported by Marsh & McLennan Companies (MMC) since 2006. Each year the report brings together the viewpoints of thousands of business executives and risk experts and it is widely used by policymakers and the private sector to inform discussion about emerging risk trends.

In light of the emergence of Asia-Pacific¹ as the powerhouse of world growth, starting this year, MMC will be publishing the “Emerging Risk Concerns in Asia-Pacific”, drawing upon the insights from the GRR and elsewhere, and providing a continually updated view on the highest-priority risks for the region. Each annual publication will be followed by explorations of selected risks on a quarterly basis, with the aim of building a common understanding of key risks and potential solutions to build resiliency.

Risks are starting to materialise in new and unexpected forms, therefore their impact on businesses, societies and individuals is becoming more threatening. With rising indebtedness, looming asset bubbles, climate change concerns, volatile energy prices and the imminent threat of terrorism and cyberattacks, Asia-Pacific has had its own share of challenges.

In line with the GRR this report is divided into two parts, the risk expert view and the business executive view.

PART 1: THE RISK EXPERT VIEW

The Global Risks Perceptions Survey (GRPS), which underpins the views of risk experts globally within the GRR, brought to the fore three prominent risk concerns for Asia-Pacific.



RISK OF EXTREME WEATHER EVENTS AND NATURAL CATASTROPHES ON ACCOUNT OF CLIMATE CHANGE

The United Nations Economic and Social Commission for Asia and Pacific has estimated the economic cost of natural disasters for the region at US\$45.1 billion for 2015², reflecting the natural vulnerability of the region. The wide disparities in socio-economic status of individual countries have resulted in disproportionate consequences for the people. Thus the need for a shared understanding of the risk and for a collective response has never been more vital.

¹ We use a definition of Asia-Pacific that includes East Asia, South Asia, Southeast Asia and Oceania, but excluding central Asia and the countries of the Eastern Pacific (North and South America)

² See “Disasters in Asia and the Pacific: 2015 Year in Review” Available at <http://www.unescap.org>



RISK OF FAILURE OF NATIONAL GOVERNANCE, AND OF INTERSTATE CONFLICT AND TERRORISM

Failure of national governance is often closely linked to economic struggles, social unrest and terrorism. Most Asian countries rank low on the Marsh-BMI Political Stability Ratings. Recent terrorist attacks in Bangladesh and Jakarta are reminders of the growing influence of ISIS, with the existing security infrastructure struggling to counteract the threat.



RISK OF INFECTIOUS DISEASES AMONG HUMANS

The episode of the SARS pandemic of 2002, which resulted in over 700 deaths in Asia, and the more recent H1N1 flu are still fresh in the memories of many in the region. Indeed the SARS pandemic changed many societal behaviours in places like Hong Kong, Singapore and Japan where increased hygiene and disinfectant measures have been in place ever since. However, infectious diseases are the second most leading cause of mortalities in Southeast Asia, according to the World Health Organisation.

PART 2: THE BUSINESS VIEW

The Executive Opinion Survey, which underpins the views of business executives globally within the GRR, brought to the fore three prominent risk concerns for Asia-Pacific.



RISK OF A SEVERE ENERGY PRICE SHOCK

As a net importer of energy, the region has traditionally been vulnerable to spikes in energy prices. The recent fall in oil prices has mostly benefited the region, a lack of a concerted investment in building up sustainable energy infrastructure means that the region remains vulnerable.



RISK OF FISCAL CRISES, ASSET BUBBLES AND LARGE-SCALE UNEMPLOYMENT

The fears of a Chinese “hard-landing” and a sustained slump in the commodity markets has brought the risks of asset bubbles, fiscal crises and widespread unemployment in the region to the forefront once more. Already economies such as Australia and Indonesia are reeling under the aftermath of a sudden drop in demand from China. Others in the region have stock-piled alarmingly levels of foreign currency debt, strongly reminiscent of the Asian Financial Crises of 1998.



RISK OF LARGE-SCALE CYBERATTACKS

Macro-economic concerns aside, businesses in Asia-Pacific are increasingly at risk from the ubiquitous, and in many cases unchecked, digitisation of their business processes. MMC's Marsh Asia reported that companies in the Asia-Pacific Region have spent US\$230 billion in dealing with cybersecurity breaches in 2014, highlighting the high cost of counteracting the risk.

PART 1: THE RISK EXPERT VIEW

The Global Risks Perception Survey which unpins the GRR, draws on the viewpoints of more than 700 risk experts and decision makers from across the world and various walks of life, including business, academia, civil society and the public sector. These individuals also span across different areas of expertise, geographies and age groups.

The aggregated views of this global risk community are analysed to generate the main perceived risks globally, and then determine the chief risks per region.

FINDINGS FROM THE WORLD ECONOMIC FORUM'S GLOBAL RISK PERCEPTION SURVEY 2015

The survey of risk experts that underpins GRR 2016 revealed that the risk of large-scale involuntary migration was considered the risk which was most likely to materialise, while the risk of failure of mitigating and adapting to climate change was believed to have the highest potential impact. Exhibit 1 provides further details.

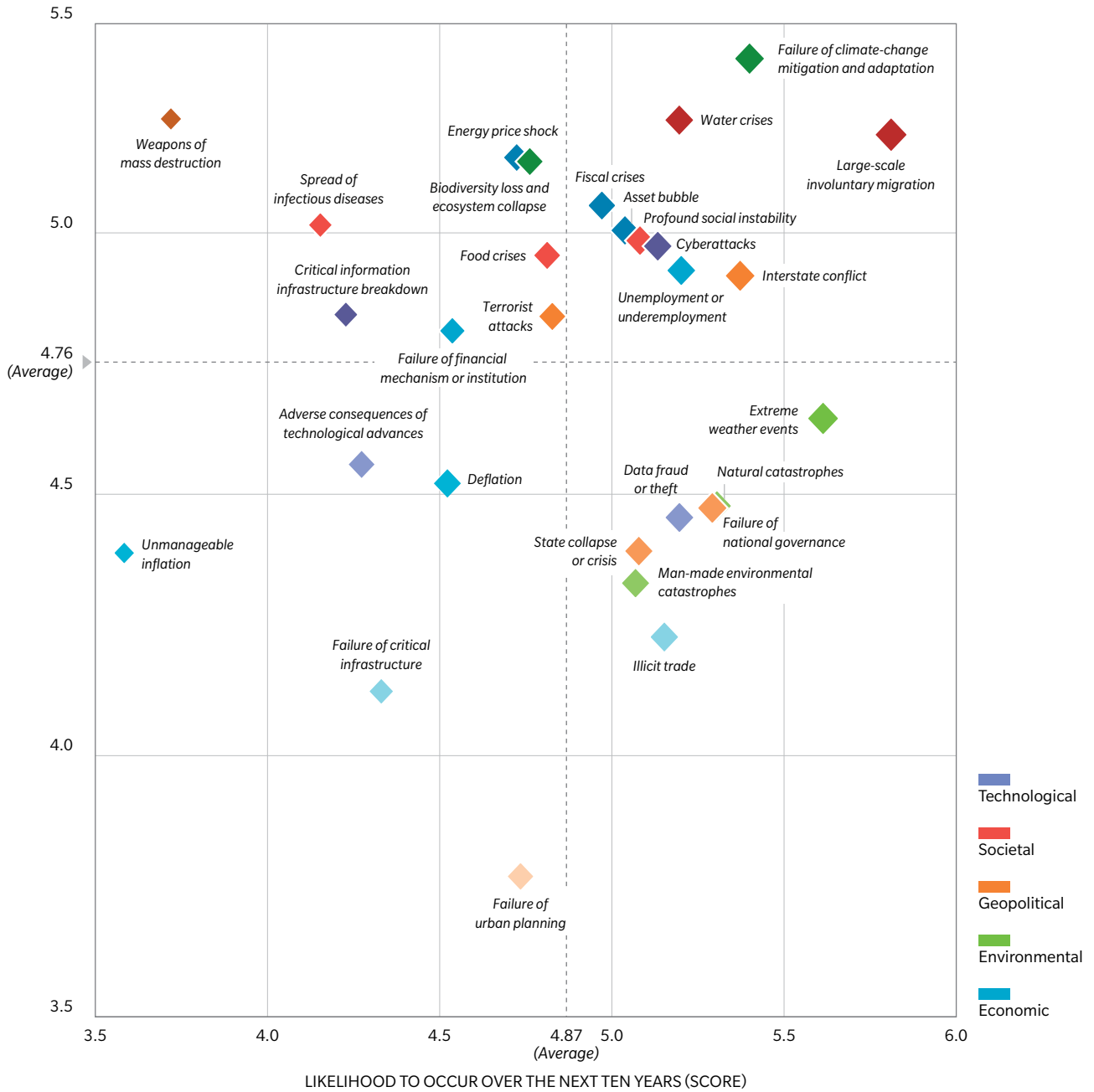
Economic risks, such as fiscal crises in key economies and the risk of high unemployment, are still deemed to be very serious due to their combined likelihood and impact. However, in general, the results of the survey confirmed the trend emerging over the last couple of years that societal, geopolitical and environment-related risks are taking precedence over the economic risks that have traditionally preoccupied risk experts and decision makers. The recent manifestations of these risks emphasize the need to build a shared understanding across multiple stakeholders about what the top risks are, and then put in place collaborative and effective resilience strategies.

While these results represent the aggregate view of risk experts across the world, respondents from the Asia-Pacific region were concerned about the vulnerability of their region to three main risk groups:

- Risk of extreme weather events and natural catastrophes on account of climate change
- Risk of failure of national governance, and of interstate conflict and terrorism
- Risk of infectious diseases among humans

EXHIBIT 1: GLOBAL RISKS LANDSCAPE 2016

IMPACT IF THE RISKS WERE TO OCCUR (SCORE)



Note Entire scale is from 1-7. Top 20 risks in terms of overall impact and likelihood are shown. For full list, please see *Global Risks Report 2016*
 Sources World Economic Forum, *Global Risks Report 2016*

RISK OF EXTREME WEATHER EVENTS AND NATURAL CATASTROPHES ON ACCOUNT OF CLIMATE CHANGE

Extreme weather and natural catastrophes feature prominently among the top risks perceived by experts in Asia-Pacific reflecting the vulnerability of the region to natural catastrophes and the fact that some of these will be exacerbated by climate change.

The United Nations Economic and Social Commission for Asia and Pacific (ESCAP)³, suggests that Asia-Pacific was one of the most natural disaster-prone regions in the world in 2015, accounting for almost half (47 percent) of the number of the world's disasters. The direct economic losses were estimated at US\$45.1 billion for 2015, with indirect costs likely to be much higher. Exhibit 2 highlights the economic damage and fatalities resulting from disasters in 2015 in Asia-Pacific. This state of affairs is only set to deteriorate, despite 2015 being the hottest year on record for Asia-Pacific, the first few months of 2016 saw new record temperatures – a testament to the rising threat of global warming.

EXHIBIT 2: ECONOMIC DAMAGE AND FATALITIES FROM DISASTERS IN ASIA-PACIFIC 2015

TOP 5 ECONOMIC DAMAGE RANKING			TOP 5 FATALITIES RANKING		
DISASTER TYPE	COUNTRY	ECONOMIC DAMAGE (US\$)	DISASTER TYPE	COUNTRY	FATALITIES
Wildfire	Indonesia	16.1 billion	Earthquake	Nepal	8,790
Earthquake	Nepal	5.2 billion (7.1 billion)*	Extreme temperature	India	2,248
Storm	China	4.2 billion	Extreme temperature	Pakistan	1,229
Flood	India	3 billion (7 billion)*	Flood	India	325
Flood	China	2 billion	Flood	India	293

* Numbers in parenthesis include losses
 Source EM-DAT (Accessed February 2016)

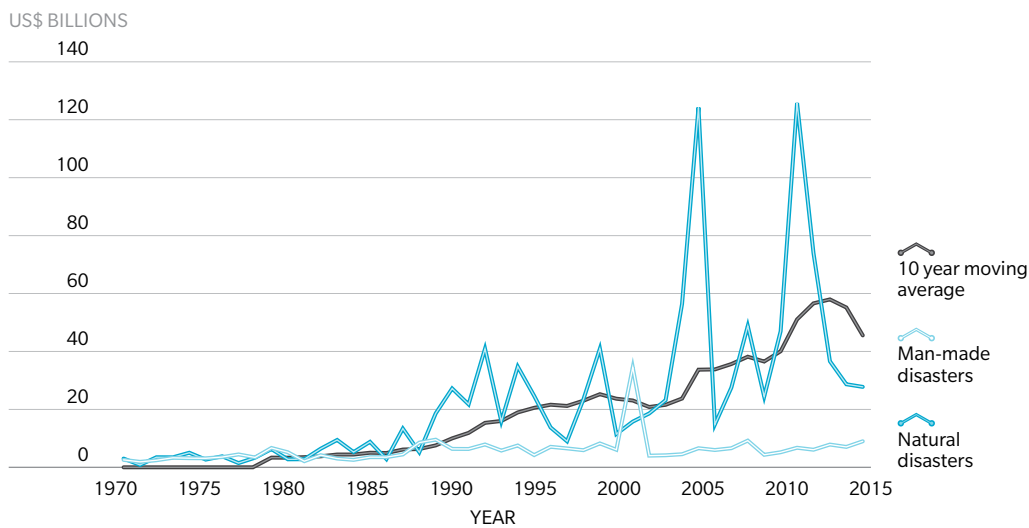
³ See "Disasters in Asia and the Pacific: 2015 Year in Review" Available at <http://www.unescap.org>

The “Global Catastrophe Review – 2015” by MMC’s Guy Carpenter⁴, a leading reinsurance intermediary, reports that the twin earthquakes in Nepal at the beginning of 2015, were one of the most destructive and deadliest events of the year, causing 9,000 fatalities and leaving 500,000 homeless. 2015 was also reported as the third most active tropical season on record for the Northwest-Pacific basin, leading to catastrophic typhoons across the region, such as the Typhoon Noul in Philippines, Typhoon Soudelor in Taiwan and Typhoon Goni in Japan which in their wake have left thousands homeless and billions in economic losses.

Heavy rainfall and flooding was another manifestation of the wide-spread climatic imbalances in the region. The heavy rainfall in the southern part of India in November last year, highest in the area since 1918, was estimated to cost the economy US\$1.5-2.25 billion in losses. A more recent example is the flooding in China in summer 2016, the worst the country has seen since 1998, affecting more than 32 million people in 28 provinces. The total economic losses are estimated to be a colossal US\$44.7 billion⁵. Exhibit 3 illustrates the significant insured losses on account of natural disasters for the region

In September 2016 typhoon Meranti (category five) reached China’s southern coast, causing significant damage at landfall: there were over 28 deaths in China and more than 50 people were injured in Taiwan. In addition to causing massive landslides and significant business interruptions, direct economic losses alone in China were initially estimated at US\$2.5 billion.

EXHIBIT 3: GLOBAL SIGNIFICANT INSURED LOSSES, 1970 TO 2015⁶



Sources Swiss Re, Guy Carpenter

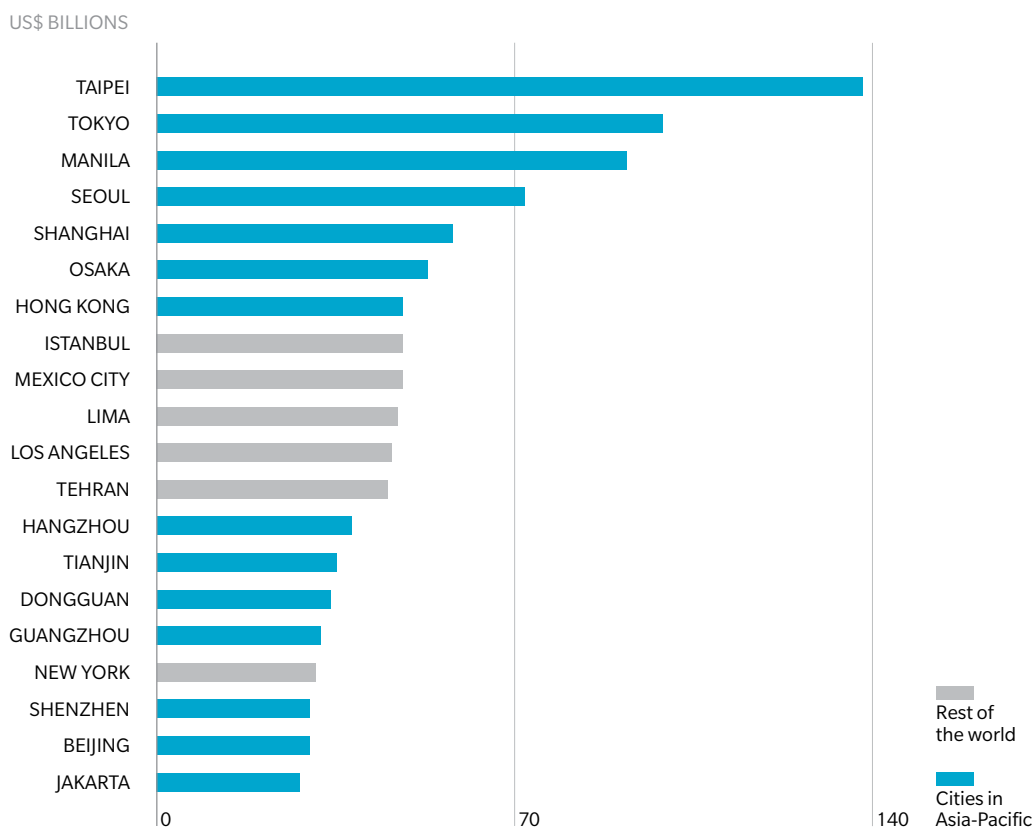
⁴ For more details visit: <http://www.gccapitalideas.com/category/top-stories/>

⁵ Announcement by the Ministry of Water Resources of China on July 27, 2016

While the susceptibility of individual countries to such natural disasters is merely a function of their geographical location, the impact of such events, in terms of loss of life and economic damage, stems principally from their level of socio-economic prosperity. The two Himalayan earthquakes in Nepal further highlighted how the economic vulnerability of a nation can result in catastrophic consequences for its people in the event of such disasters. Economic activity slowdown as a result of the earthquakes and powerful aftershocks have dragged Nepal's GDP growth down to 3.4 percent in fiscal year 2015 (World Bank 2016), 12 basis points lower than the 4.6 percent forecasted in the ADB's Asian Development Outlook 2015. Natural catastrophes leave lasting impressions on economies, much beyond the immediate impact and can almost cripple the growth of a nation. Studies undertaken by the University of Cambridge for Lloyd's suggests that natural threats put US\$2.43 trillion of the world's GDP at risk in the 10-year period until 2025.

Exhibit 4 illustrates that Asia-Pacific continues to be the most vulnerable with 14 of the top 20 cities at risk being in the region⁷.

EXHIBIT 4: TOP 20 CITIES BY GDP AT RISK ON ACCOUNT OF NATURAL THREATS



Sources Swiss Re, Guy Carpenter

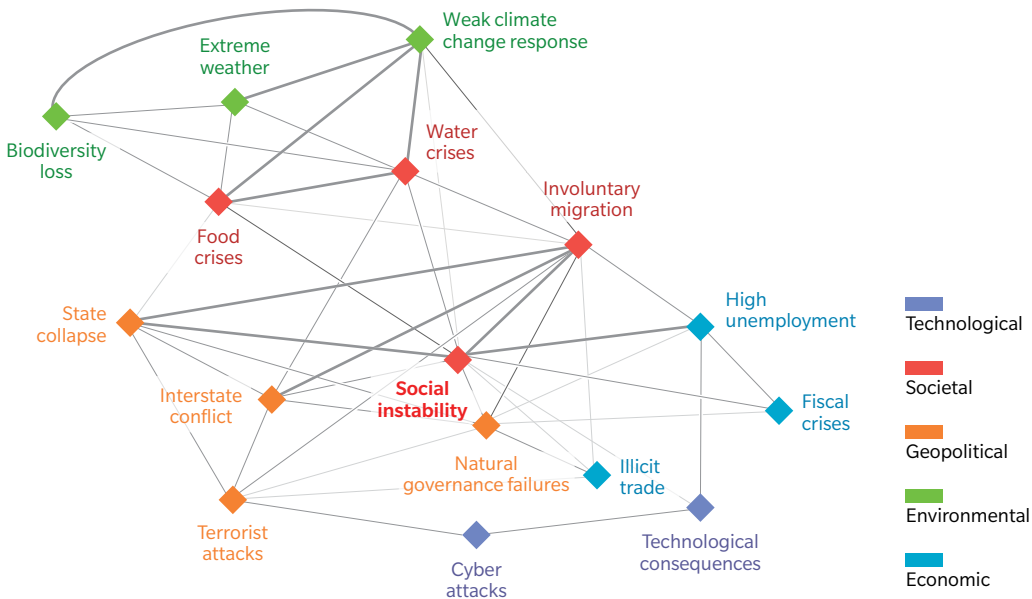
6 Guy Carpenter "Global Catastrophe Review – 2015"

7 For more details visit: <http://www.lloyds.com/cityriskindex/threats/natural>

RISK OF FAILURE OF NATIONAL GOVERNANCE, AND OF INTERSTATE CONFLICT AND TERRORISM

The GRPS findings suggest that national governance failure is closely connected with other geopolitical and societal risks, such as the risk of state collapse, interstate conflicts, terrorist attacks, involuntary migration of the population, and the risk of social instability leading to high unemployment, as shown in Exhibit 5.

EXHIBIT 5: RISK INTERCONNECTIONS MAP 2016



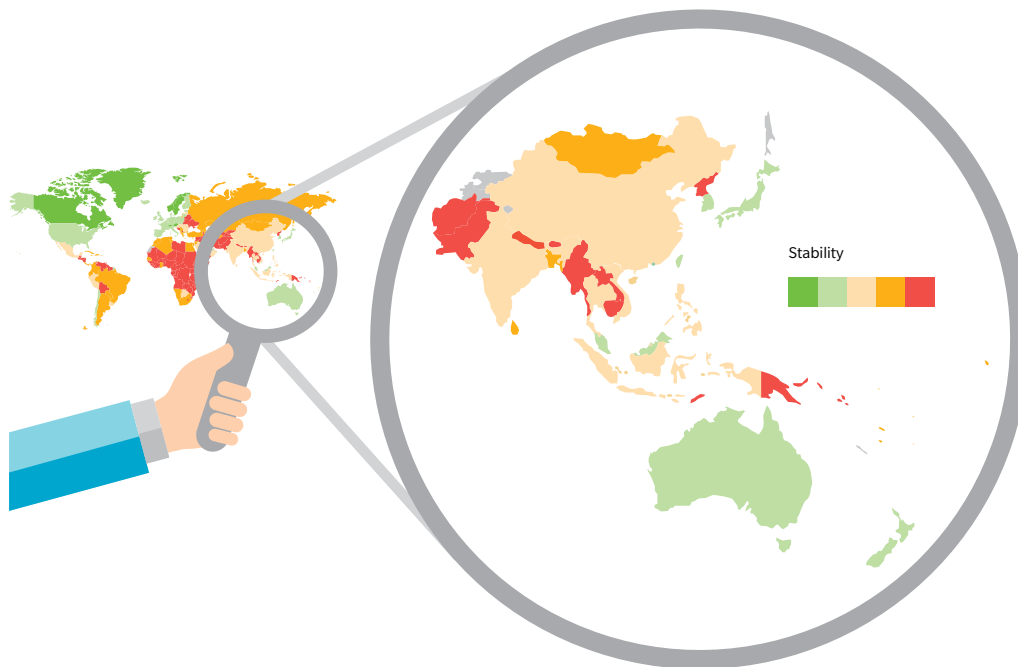
Note Only a subset of the total risks from the Global Risks Report 2016 are shown
 Sources World Economic Forum, Global Risks Report 2016

The natural geographic lay out of the Asia-Pacific region has led to a low level of cultural and linguistic cohesion between many countries. Examples of longstanding animosities between nation states, often related to territorial claims that remain unresolved, can be seen across the region. The lack of strong collaboration and sense of community constrains the region's ability to deal collectively with pockets of political and national instability. One example of this is the Association of Southeast Asian Nations (ASEAN), which represents ten Southeast Asia states and has the main aims of accelerating economic growth, social progress and ensuring regional stability. However, ASEAN does not have a military pact and as such has limited ability to influence the actions of member states.

The conflict concerning the South China Sea is the most visible flash-point of the intra-regional tensions with multiple countries laying competing territorial claims on natural resources and maritime access routes. The ascendance of China, with its formidable economic and military might, may further upset the delicate balance in the region, challenging traditional alignments and alliances.

As shown in Exhibit 6, many Asian countries rank much lower on the political stability ratings (which include short-term and long-term economic risk, as well as socio-political risks) than their American and European counterparts. Countries such as Myanmar, Laos, Cambodia, Papua New Guinea and Pakistan were rated as “unstable” in the 2016 Marsh-BMI political risk study, with developments since the start of year seeing a worsening outlook for some countries including Thailand”⁸.

EXHIBIT 6: MARSH POLITICAL RISK MAP 2016



Sources World Economic Forum, Global Risks Report 2016

8 For more details, visit: <https://www.marsh.com/us/insights/research/political-risk-map-2016.html>

Weak or failing national governance seriously undermines economic development, and creates a vacuum for the countries most susceptible to organised crime or terrorism.

It is hardly surprising, therefore, that respondents in Asia-Pacific were highly concerned about the level of preparedness for countering the substantial terrorist threat. Recent attacks, including the ISIS-inspired attacks in Jakarta in January 2016, the attack on security forces in Philippines in April 2016 and the multiple bombings in Thailand in August 2016, serves as a reminder of the rising influence of ISIS in the region. The threat is exacerbated by homegrown terrorism in states such as Pakistan, Bangladesh and Malaysia. Terror attacks have been taking an a greater share of the public consciousness, sharpening social unrest and stifling economies.

That said, fewer than 20 percent of the global deaths from terrorism occur in Asia-Pacific, with 90 percent of these deaths concentrated in Pakistan, India, Philippines and Thailand, based on compiled statistics by open-source Global Terrorism Database (GTD)⁹. Overall countries across the region need to continue to invest in creating credible security infrastructure that focuses on prevention (identifying and monitoring potential insurgents, terrorists and citizens who may be co-opted) and containment (embedding rapid response capabilities).

⁹ University of Maryland, Global Terrorism Database, 2016. Available at: <https://www.start.umd.edu/gtd/> (Accessed 5 October 2016)

RISK OF INFECTIOUS DISEASES AMONG HUMANS AND WIDESPREAD PLANT EPIDEMICS, THREATENING THE REGION'S FOOD SECURITY

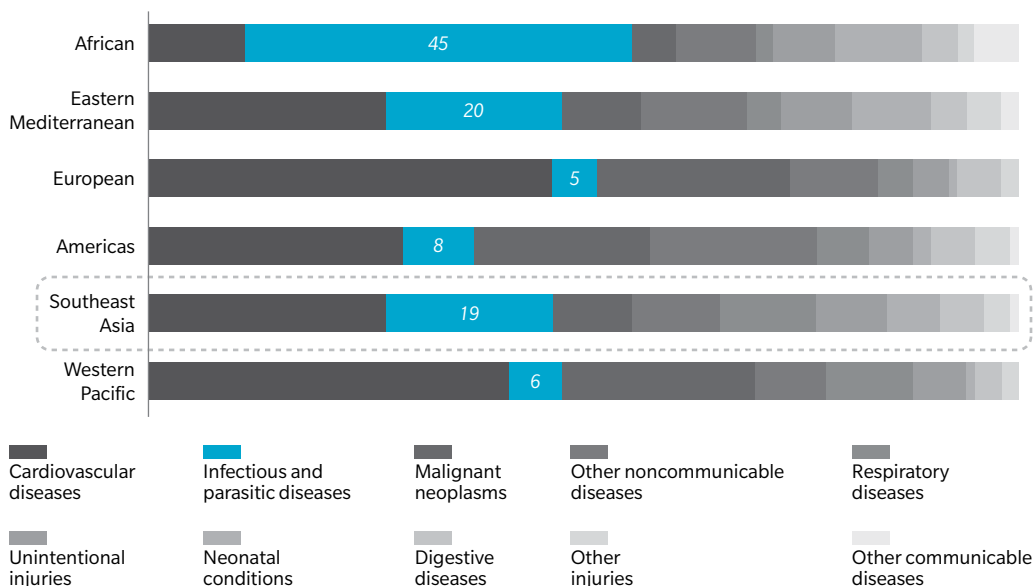
The risk of infectious diseases remains one of the top areas of concern for the region with widespread pandemics claiming thousands of lives, from the recent swine-flu epidemic in India to the H1N1 pandemic which claimed over a 1,000 lives in Asia-Pacific¹⁰.

Analysis of World Health Organisation data undertaken by the management consulting arm of MMC, Oliver Wyman, revealed that infectious diseases are the second leading cause of mortalities in Southeast Asia. Only the African continent has a higher proportion of deaths from the same cause (Exhibit 7). Low and middle-income households are the worst affected.

EXHIBIT 7: CAUSES OF DEATH ACROSS REGIONS

MILLIONS OF DEATHS IN 2012

PERCENT



Sources World Health Organisation database, Oliver Wyman analysis

¹⁰ World Health Organisation. For more details go to: http://www.who.int/csr/don/2009_11_06/en/

With the ever-increasing globalisation within the region, the risk of such pandemics is only going to intensify. Asia-Pacific is home to some of the busiest trading hubs in the world, such as Singapore and Hong Kong. The fact that so many people pass through these centres heightens the risk of infectious diseases substantially, with containment often not just difficult, but impossible.

Nonetheless, the overall preparedness of the region for such events remains very low. A threat of this nature and magnitude would require a two-pronged strategy, one of prevention and the other of control. Prevention infrastructure, such as best-in-class agricultural standards, public hygiene, early warning systems, is still in nascent stages in the developing countries among the region. The control aspects, including medical treatment, quarantine and vaccination would require significant investment, which many countries may not be able to afford given their current economic priorities.

According to the latest data available from the Statistical Yearbook for Asia and the Pacific 2015, by ESCAP, Asia-Pacific health care expenditure of 6.6 percent of GDP ranks as one of the lowest worldwide, considerably behind the world average of 10 percent. Within the region, South Asia has the lowest health care expenditure, at 4.6 percent of GDP, while Australia and New Zealand fare much better, at 9.4 percent and 9.7 percent respectively. Overall, the statistics indicate the poor state of preparedness with respect to health concerns in the majority of the region.

The Health Task Force established by the Asia-Pacific Economic Cooperation (APEC), a regional economic forum, has formulated a vision for a healthy Asia-Pacific by 2020. Among other things, it calls for “improving health emergency preparedness, surveillance, response and recovery systems for public health events and disasters in the APEC region”. This ambition is without doubt a step in the right direction towards combating one of the most important risks in the region. Though, the effectiveness of APEC itself as a forum to bring about lasting change in the region has been somewhat muted, limited by its insistence on consensus-based decisions that are not legally binding on member governments.

PART 2: THE BUSINESS VIEW

From the US\$100 billion loss caused by the Mumbai terror attack of 2008 to the US\$81 million stolen from the central bank of Bangladesh in 2016 in a sophisticated cyber heist, the business world is exposed to an increasingly diverse set of risks. Many of these risks are linked and these interconnections have significant scope to damage businesses. Moreover, the ever-increasing global nature of operations is making it more difficult to identify and manage these risks. This section therefore aims to provide perspectives for both businesses and policy-makers on the risks to doing business. It explores the risks most cited by Asia-Pacific executives in the Executive Opinion Survey (EOS), and then goes on to present our own perspective on those risks.

THE EXECUTIVE OPINION SURVEY

The World Economic Forum has conducted its Executive Opinion Survey (EOS) for more than 35 years. It examines executives' views on an array of socio-economic issues. The 2015 edition of the EOS, conducted between February and June 2015, surveyed more than 5,000 executives in over 20 Asia-Pacific economies. EOS respondents were asked to select the five global risks of most concern to them when it comes to doing business in their own country over the next 10 years.

FINDINGS FROM THE EXECUTIVE OPINION SURVEY 2015

The responses from business executives help build a sharper understanding of the risks of doing business around the world, as well as recognising the priorities and perceptions of the surveyed decision makers themselves.

Viewing the GRPS and EOS results side by side also exposes the different views expressed by the two groups of respondents. One striking finding is that, relatively speaking, business executives do not place risks related to climate change or other long-term issues among their primary concerns. The failure of mitigating and adapting to climate change was revealed to be surprisingly low on the risk agenda for doing business. This stands in contrast to the opinions of risk experts for the GRPS, who perceived such failure to be the greatest risk in terms of potential impact, and the third most likely to occur.

CASE STUDY

SOCIETAL AGEING IN ASIA-PACIFIC

The Global Risks Report 2016 also identified a number of risk trends. One of these is mismanagement of population ageing which is particularly relevant to the Asia-Pacific region. Identified as one of the top five global risks in 2013, societal ageing remains a key trend in APAC that has the potential to compound the impact of other risks, and shape regional development.

Asia-Pacific is the fastest ageing region in the world. As shown in Exhibit 8, by 2030, the number of elderly people (≥65 years) in Asia-Pacific will increase by 200 million, a 71 percent increase, compared to 31 percent in Europe and 55 percent in North America. By comparison, Singapore’s elderly population will rise from 11 to 20 percent in the next 15 years – it took France 49 years to do the same. By 2030, Japan will become the world’s first “ultra-aged” nation, while three other markets in APAC will be considered “super-aged”.

Critically, the speed of demographic ageing across Asia-Pacific compromises the ability of countries to achieve a high level of economic development to contend with the demands of an ageing population. Societal ageing will exert pressure on the sustainability of social security systems. In addition, business models will need to adapt to changing demands of an ageing population by creating new revenue streams, while contracting workforce and reallocation of resources to the elderly population could impact a country’s economy and fiscal position.

The impact on healthcare is a prime example of the broad implications societal ageing has on multiple sectors and stakeholders. The Asia Pacific Risk Center (APRC) estimates that elderly healthcare in Asia-Pacific will cost US\$20 trillion between 2015 and 2030, with annual costs increasing five-fold to US\$2.5 trillion.

Societal ageing and the increase in elderly healthcare expenditure poses three critical risks:

Unsustainable healthcare funding sources

For governments, escalating elderly healthcare costs (and reduced income tax revenue from a shrinking workforce) may force a reduction in non-healthcare expenditure, increased taxation and borrowing, or shifting the burden to the private sector and individuals. For insurers, increasing life expectancies leads to longevity

risks for insurance products with long-term coverage. High medical cost inflation in Asia-Pacific which has been outstripping returns on financial assets, leads to a negative discount rate for medical insurance products. For individuals, the inadequacy of pension systems together with significant out-of-pocket payments for healthcare, will strain personal retirement savings and exacerbate the effects of the growing wealth inequality gap in Asia.

Inadequacy of long-term care (LTC) capacity

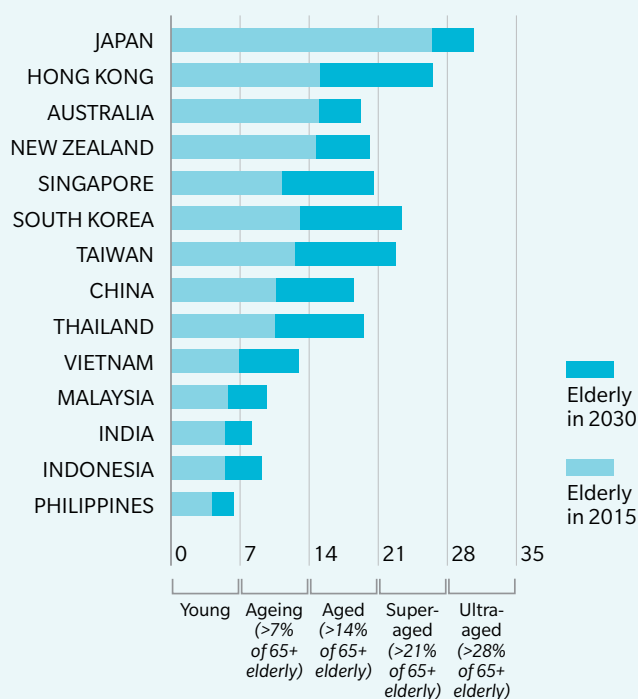
APRC projections show that Asia-Pacific will face a deficit of 18.2 million LTC workers by 2030, with China alone requiring 9.3 million more professional caregivers. This is mirrored by a shortage of LTC facilities. For example, Japan and South Korea are estimated to each require 100,000 or more LTC beds by 2030.

Impact on economic growth and fiscal health

Excess healthcare expenditure risks diverting resources away from areas that can fuel economic growth. Increased borrowing may lead to an increase in taxes and interest rates, placing further pressure on economic growth.

EXHIBIT 8: AGEING PROFILE

% OF ELDERLY TO TOTAL POPULATION



Source APRC

In the Asia-Pacific region too, the contrast between the views of the risk experts and business executives is very apparent. When asked to identify the chief risks likely to occur over the next ten years, risk experts identified risks that were primarily environmental and geopolitical in nature. For their part, business executives gave higher priority to economic risks. At a country level, as well as the aggregate view across Asia-Pacific as a whole, it is clear that business executives throughout the region identified an economic risk as the chief risk for doing business in their respective countries.

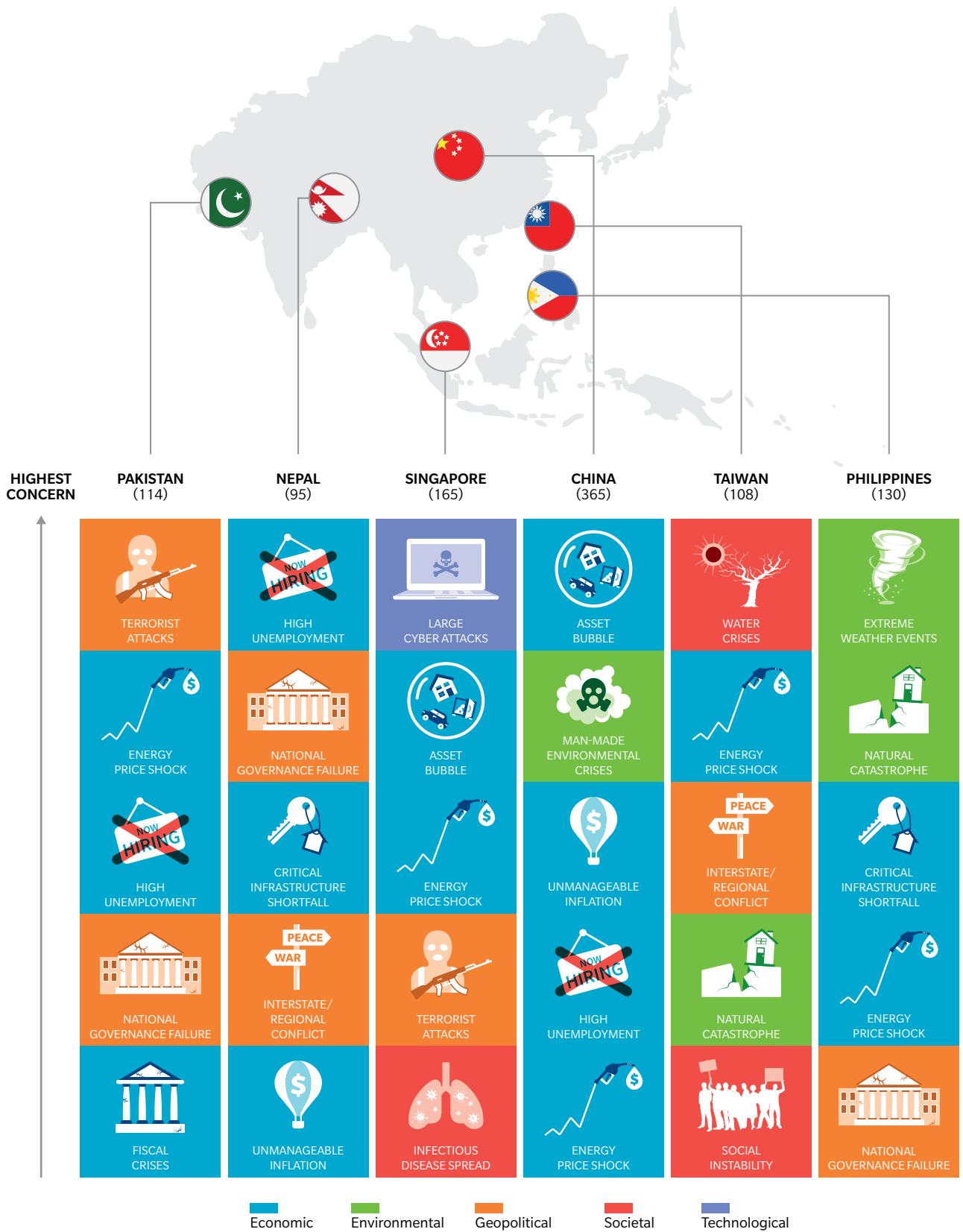
Specific risk concerns of business executives do vary significantly across the region however, reflecting socio-economic diversity, varied national interests and recent events in each country. Exhibit 9 highlights the top five risk concerns of executives in certain countries within the region.

According to the Global Terrorism Index there were 1,760 deaths from terrorism in Pakistan in 2014. In fact Pakistan, along with Nigeria, Afghanistan, Iraq and Syria, accounted for 78 percent of global deaths from terrorism in 2014. The selection of terrorist attacks as the top risk for Pakistan was therefore no surprise and has been proved correct with ongoing attacks in 2016, including an attack on a hospital in Quetta in August which resulted in 70 fatalities. The aftermath of the Nepal earthquake in 2015, when aid was delayed by poor airport and road infrastructure no doubt influenced the selection of critical infrastructure shortfalls as a top five risk. Similarly unmanageable inflation is no doubt linked to the fact that Nepal had the highest inflation rate (10.5 percent) in South Asia in the fiscal year 2015/2016 according to the Asian Development Bank.

Memories of the outbreaks of hand foot and mouth disease in 2000, severe acute respiratory syndrome (SARS) in 2003 and dengue in 2005 will have influenced the selection of infectious disease spread as a top five risk in Singapore. Indeed, a Zika outbreak in the summer of 2016 will likely keep such a risk high on the radar of executives for some time to come. Air quality concerns have been widely discussed in China for some time and have impacted executive opinion with man-made environmental crises being the number two risk for China, however it was only in 2015 that the first red pollution alert was issued for Beijing by the government. This resulted in restrictions on the number of cars on the roads and the closure of schools and some industrial sites, at a point when the air pollution reached levels that were ten times higher than World Health Organisation recommendations. This short term response has done little to impact long term damage from industrial coal burning, though there is some hope for future improvement as in October 2016 the National Energy Administration announced that the construction of 30 coal fired power plants had been halted.

Water crises is the number one risk concern of executives in Taiwan, reflecting the drought in 2015 after the lowest autumn and winter rainfall in almost 70 years. The government responded by rationing water supplies in northern cities, affecting one million households. Unsurprisingly, executives in the Philippines selected extreme weather events and natural catastrophes as the number one and two risks facing the country. Sitting on the Ring of Fire, a 40,000 km horseshoe-shaped area of intense volcanic and seismic activity, the country has over 20 active volcanoes and on an annual basis multiple tropical cyclones make landfall. In late 2013 Typhoon Haiyan devastated much of the central Philippines resulting in over 6,000 deaths. The UN reported that in total more than 11.5 million inhabitants were affected, around 10 percent of the population.

EXHIBIT 9: TOP 5 RISK CONCERNS OF EXECUTIVES ACROSS THE REGION – SELECTED COUNTRIES



Note Global Risk Perceptions Survey 2016 (742 responses worldwide). Respondents were asked to provide the five risks of highest concern globally
 Source World Economic Forum, Global Risks Report 2016

On an aggregate basis however, there are five prominent risk themes which emerge as the risks of greatest concerns across the region. Exhibit 10 summarises the five themes.

EXHIBIT 10: TOP FIVE BUSINESS RISK THEMES FOR ASIA-PACIFIC

RANK AND RISK	DESCRIPTION
1 Severe energy price shock	Energy price increases or decreases significantly and places further economic pressure on highly energy dependent industries and consumers
2 Asset bubbles	Unsustainably overpriced assets such as commodities, housing, shares etc. in a major economy or region
3 Fiscal crises	Excessive debt burdens generate sovereign debt crises and/or liquidity crises
4 High unemployment	A sustained high level of unemployment or under-utilisation of the productive capacity of the employed population prevents the economy from attaining high levels of employment
5 Large-scale cyberattacks	Large scale cyberattacks or malware causing large economic damages, geopolitical tensions or widespread loss of trust in the Internet

Sources World Economic Forum, Global Risks Report 2016

SEVERE ENERGY PRICE SHOCK

As a net energy importer, Asia-Pacific often finds itself exposed to sharp price increases. Conversely, at times of falling prices, the region is presented with opportunities that it must capitalise upon. For example, a sustained period of lower oil prices has allowed countries such as India, Malaysia and Indonesia to remove or reduce the fossil-fuel subsidies that had previously consumed a sizeable proportion of annual government budgets.

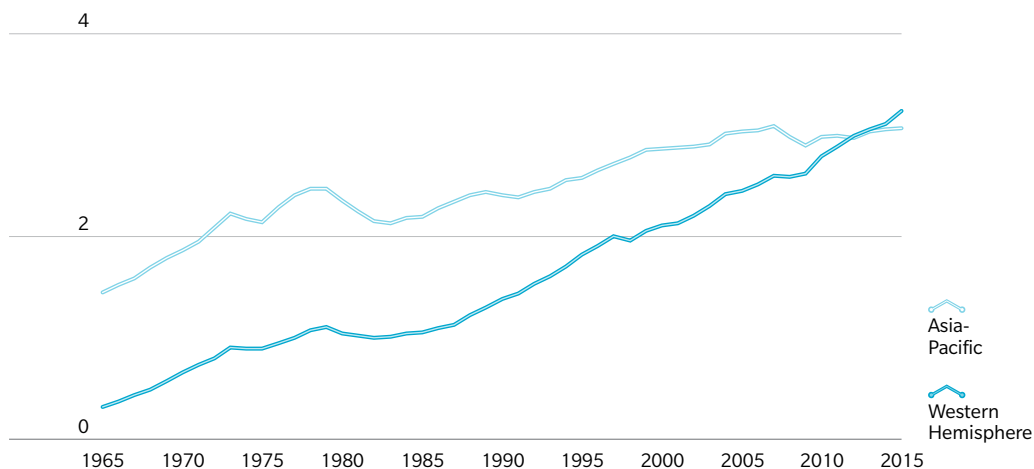
While many predict that the current low energy prices will continue for a considerable time, few experts foresaw the two coincidental main surprises of the last decade – the production increases from shale gas in the United States and the slow down in growth of Chinese demand. We can therefore assume that more surprises are in store with global oil inventories predicted to rise into 2017¹¹.

Global oil demand is growing, though at a slower pace than some expected recently. The International Energy Agency (IEA) has downgraded global oil demand to growth expectations by 100,000 to 1.3 million barrels of oil per day in 2016 (falling to growth of only 1.2 million barrels per day in 2017), with Asia-Pacific alone comprising 900,000 barrels of this demand growth. In fact, Asia-Pacific's oil demand is now almost equal to that of the Americas and the European Union combined (Exhibit 11), despite IEA's view that recent Asian demand growth has been tempered slightly due to a combination of environmental and governmental factors.

¹¹ Crude oil production in 2017 is forecasted higher than previously by almost 0.1 million b/d according to the EIA (<https://www.eia.gov/forecasts/steo/>)

EXHIBIT 11: GLOBAL DEMAND FOR OIL

MILLION BARRELS DAILY



Sources BP Statistical Review of World Energy

Most countries in Asia-Pacific require significant investment in energy infrastructure to keep pace with the growing domestic demand. This is partly driven by the expansion of basic electricity access to more rural areas and partly based on increased urbanisation and a growing middle class. However, the majority of Asian governments cannot afford to fund these investments, and therefore need to rely on private investment. Foreign investors often have significant reservations about investing in energy infrastructure, and infrastructure in general in developing Asia given the uncertainty of returns. Another hindrance to investment in energy infrastructure is the high cost of capital in parts of Asia and the relatively slow rate of return. In the United States, investors in shale in North Dakota can expect a return on their investment within seven to nine months. In Asia-Pacific, investments typically take seven to nine years before returns are realised. This combination of factors creates an unattractive investment for some key players and delays in necessary projects will only lead to greater shortfalls in supply over the long term.

At the 2015 UN Climate Change Conference in Paris, many Asian countries signed up to emissions targets which currently look unachievable, even from the most optimistic perspective. The financing of energy infrastructure in developing nations faces continuing uncertainty, particularly in the low oil-price environment. In some respects though, Asia-Pacific could become a genuine leader in the renewables sector. For example, China accounts for a third of global wind generation, and Myanmar uses solar energy for 15 percent of peak electricity supply. However, recent advances in renewables have been from a very low base, and a continued concerted effort will be required to transform the regional energy mix to any significant degree.

The World Energy Council's, World Energy Trilemma 2016 Index report, released in partnership with Oliver Wyman, recommends that countries in Asia focus on increasing the use of renewable energy sources, and decreasing import dependence through reliable trade relationships and improved infrastructure. Such a strategy should result in an improved balance between national energy security, equity and sustainability. Countries that act decisively in the current low oil price environment, seeking to enhance their energy mix while increasing their renewables base will find themselves much better positioned against future volatility as a result of their actions.

FISCAL CRISES

For 41 percent of executives in the region, the risk of fiscal crisis was among the top five risks causing gravest concern. Respondents from Vietnam rated it as the most important risk for the country, while for Australia and India it was the second most important risk. Other countries citing this risk among their top concerns included Japan, Korea, New Zealand, Pakistan, Bhutan, Laos and Mongolia.

In July this year, S&P Global Ratings cut the outlook of Australia's AAA rating to negative from stable citing "material government budget deficits" as one of the reasons¹². Exhibit 12 shows that sovereign rating downgrades were also felt more broadly across the region in 2016. The ongoing slump in commodity prices coupled with drop in demand from China has negatively impacted the Australian economy, resulting in a significant decline in the state's taxation revenues and inflating the country's budget deficit to US\$37 billion¹³. A fragmented political mandate casts further doubts on the possibility of decisive action aimed at fiscal consolidation.



Indonesia is another example of a commodity-driven economy reeling under the pressure of subdued Chinese demand, with GDP growing at a modest 5.2 percent, far below the peak of 6.5 percent of 2011¹⁴. For the Chinese economy itself, the stalling economic growth has meant that taxation revenues, inextricably linked to industrial boom, have been falling while the state's fiscal expenditure has been growing to prop up the economy, leading to an inevitably worsening fiscal situation. Bloomberg estimates indicate that China's fiscal deficit exceeded 10 percent of GDP in 2015 and is expected to go up further by 3 percent in 2016.

¹² Bloomberg. For more details visit: <http://www.bloomberg.com/news/articles/2016-07-07/australia-s-rating-outlook-cut-to-negative-from-stable-by-s-p-iqbnptne>

¹³ Government sources. For more details visit: http://budget.gov.au/2016-17/content/glossies/budget_repair/html/

¹⁴ Financial Times. For more details visit: <http://www.ft.com/cms/s/0/1d38b846-5ad2-11e6-9f70-badea1b336d4.html>

EXHIBIT 12: SOVEREIGN RATING DOWNGRADES 2016

COUNTRY	MONTH	NEW RATING	PREVIOUS RATING
 Taiwan	October	AA-	A+
 Federation of Malaysia	July	A-	A
 Kingdom of Thailand	July	BBB+	A-
 Republic of Korea	July	AA-	AA
 Republic of the Philippines	July	BBB-	BBB
 Democratic Socialist Republic of Sri Lanka	February	B+	BB-

Note Rating type: Long-term, local currency issues default
Source Fitch Ratings

ASSET BUBBLES

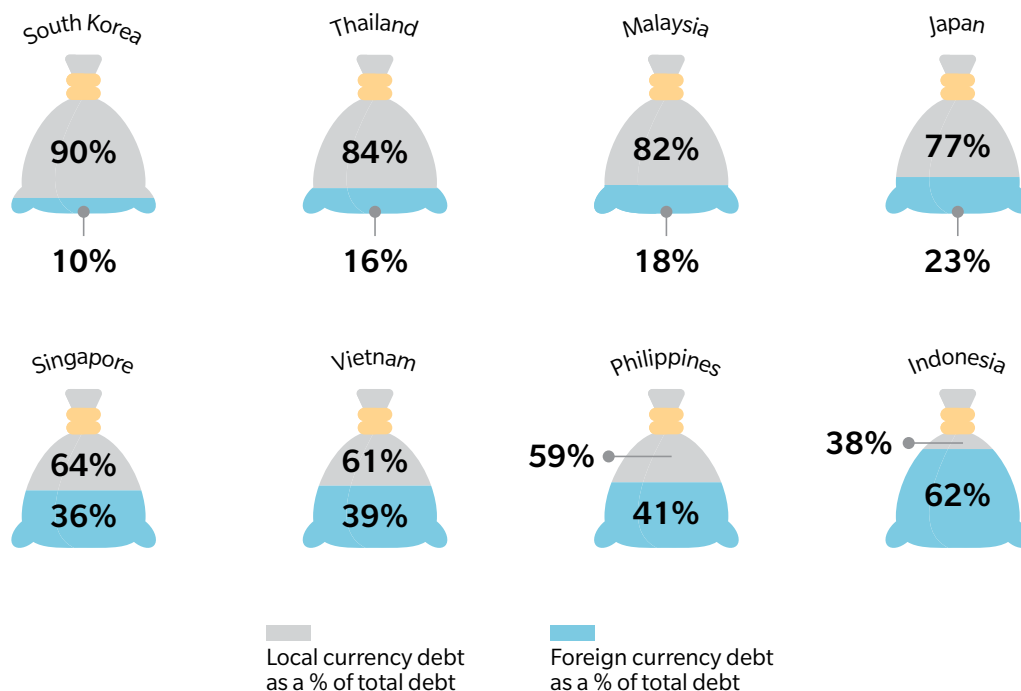
Asset bubbles rank as the top risk for executives in seven economies in Asia-Pacific (Australia, Cambodia, China, Hong Kong, Myanmar, New Zealand and Thailand). Recent loose monetary policies globally, and the subsequent search for yields by investors, has created an environment that is highly conducive to bubbles.

Southeast Asia has seen a sharp rise in the corporate bond market, sparking fears about a potential bubble. Since the start of 2012, a fifth of Asian local currency bonds have been issued in debut deals¹⁵. Concerns have been further increased by the equity market turmoil in China in 2015. This was driven by a focus on a credit growth-strategy for the economy and there are now questions about the potential ramifications for other countries in the region. Some commentators see this as the first crack in the Asian growth bubble which has developed in the years of foreign direct investment in Asia, low western interest rates (including the LIBOR) and reduced government bond yields. Beyond equity market concerns, but linked to the same underlying drivers, China is also experiencing the over-valuation of property in some major cities, a trend which can also be seen in Hong Kong, Sydney and throughout Southeast Asia. Shanghai property prices in August 2016 were 31 percent higher than a year earlier, as a result over 20 cities in China introduced or increased measures to lower demand, including raising down payments required for home ownership and new restrictions on ownership of multiple properties.

Additionally, the recent build-up of corporate debt and subsequently foreign currency debt (see exhibit 13), in countries such as the Philippines, Indonesia and Vietnam are making economists the world over very anxious.

¹⁵ Dealogic

EXHIBIT 13: BUILD-UP OF FOREIGN CURRENCY DEBT IN SELECTED ASIA-PACIFIC COUNTRIES, JUNE 2016



Sources AsianBondsOnline

The foreign currency rates for these countries have also fallen negatively in 2016 with the exception of Vietnamese Dong and Philippine Peso, worsening the already ballooning debt burden. While strongly reminiscent of the Asian Financial Crises of 1998, the situation may not be as bad. Most countries have significant stock-piles of foreign currency reserves and the structural changes to their currency rate regimes has meant that they are in a much better position to manage crises.

That said, the impact of another bubble bursting in a major economy would be especially damaging now. The weakness of the recovery and high levels of government debt mean there would be little remaining scope for further stimulus.

HIGH UNEMPLOYMENT

According to the Asia-Pacific Labour Market Update, published in October 2015 by the International Labour Organization, overall employment growth in the region is slowing¹⁶. Given their respective economic and demographic trends, some countries are more acutely affected than others. This variance is true even within the two distinct sub-groups of developing and developed nations.

¹⁶ Available at <http://www.ilo.org/>; http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_410962.pdf

For example, in Indonesia, employment growth in 2015 was robust at 2.3 percent. But, in Malaysia, the employment market only grew by 1.3 percent, not nearly sufficient to absorb a growth in the labour force of 1.7 percent. China's unemployment rate has long been around 4 percent, although this figure has often contested by international watchers. Other developing countries, such as the Philippines, Thailand and Vietnam, faced marginal contraction in employment growth.

Employment growth also remained subdued in the developed countries in the region, with the exception of bright spots such as New Zealand and Macau (China). Overall unemployment in the region still remains low, however, especially among the youth, compared with other parts of the world.

Despite the positive growth outlook of the major economies, including India and China, potential unemployment remains one of the most problematic challenges in the region. Unemployment can have far-reaching consequences for economies, from stifling growth to threatening social stability. Countering unemployment will require large-scale reforms, both by governments and businesses.

LARGE-SCALE CYBERATTACKS

Asia has not been spared from the growing menace of cybercrime. Recent examples include credit card data theft in Korea, the theft of customer data from the private banking arm of Standard Chartered in Singapore, and the monetary theft from the Central Bank in Bangladesh. In fact, our own upcoming review of the data suggests that Asia is most prone to cyber risks due to the combination of high interconnectedness with a relatively low awareness about cyber risk management. A growing number of cross-border data transfers, and a weak regulatory environment, heighten the risk of cyberattacks in Asia still further.

According to Juniper Research, cyber-attacks will cost \$2.1 trillion globally by 2019, an almost fourfold increase of the estimated cost of breaches in 2015. Data from the Marsh "Cybercrime in Asia" report, published in 2014, indicates that organisations in the Asia-Pacific region would spend US\$230 billion in dealing with cybersecurity breaches in 2014¹⁷. It is no surprise then that the risk of large-scale cyberattacks ranks third in the list of top risks for advanced economies, and fifth in the Asia-Pacific region. It has also been identified as the chief risk in Singapore and Malaysia.

Given the importance and urgency for building resilience against the risk of cyberattacks in the region, this will be the core focus of an upcoming edition of the quarterly "Risk in Focus" series.

17 Available at <https://www.marsh.com/>; <http://asia.marsh.com/NewsInsights/ID/41587/Cybercrime-in-Asia-A-Changing-Regulatory-Environment.aspx>

CONCLUSION

In this first edition of the “Emerging Risk Concerns in Asia-Pacific”, we have drawn attention to the unique risk concerns of the region, in its role as the powerhouse for growth in the world. The nature of these risks keeps evolving, becoming increasingly more complex and yet more lethal. The first steps towards creating long-term and sustainable defences to protect our economies, societies, businesses and individuals will be not only to understand these risks but also to be aware of the many ways in which these risks manifest themselves.

Given the fundamental socio-economic diversity of the region, each country’s response to these risks will have to be tailored according to their own unique situation. However, the need for stronger regional collaboration cannot be overemphasized. A multi-stakeholder forum, where each country is firmly committed to combating shared challenges, will be essential. In this way, the debilitating impact of prevailing risks on the socio-economic welfare of the Asia-Pacific region can be lessened.

Identifying stakeholders’ interests and aligning them on common key priorities across the region would be a good starting point. We hope that this report will provide a stimulus for both governments and businesses, propelling them towards change, concrete action and greater resilience.

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ACKNOWLEDGEMENTS

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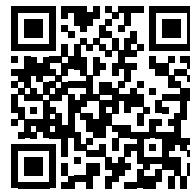
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