



## ***When the Dust Settles – Lessons to be Learnt***

Earthquakes are one of nature's most destructive and unpredictable forces. This has been illustrated most recently in Haiti and Chile, the latter recording the fifth strongest earthquake since 1900. Earthquakes occur when energy is released in the earth's crust. This energy is usually built up over a period of time along plate boundaries, and when released, causes violent shaking of varying magnitudes, which can be felt on the earth's surface. Earthquakes, where the epicenter is situated in the ocean, also have the potential to trigger tsunamis. These can be very destructive to coastal regions as portrayed in 2004, when a 9.1 magnitude earthquake occurred off the coast of Indonesia, which killed thousands. The devastation caused by earthquakes is primarily loss of life and infrastructural damage. However, the destruction goes beyond these aspects. The implications of earthquakes can filter deep into an economy and can undermine future development, especially in the case of developing economies. Additionally, the costs incurred are not limited to the domestic economy but also impacts the global economy as well.

The damage caused by earthquakes is massive, as infrastructural frameworks are either severely damaged or totally destroyed. These range from residential and commercial buildings to roads and bridges and telecommunications service among others. The estimated cost of these damages total millions and in some cases billions of dollars. Chile's 27 February 2010 earthquake is estimated to cost between USD15 billion to USD30 billion or approximately 15% of the country's Gross Domestic Product (GDP), making it one of the most expensive earthquakes in history. Rebuilding alone is a mammoth task which can take years and could be very costly. The financial cost to insurers is expected to be about USD7 billion. Rebuilding should not only entail the reconstruction of infrastructure, but should also include ways to mitigate the effects of future earthquakes. Although earthquakes cannot be predicted, a number of measures can be implemented to minimize the effects. Some examples include: stricter building codes, heightened awareness, and tsunami detection systems. These will all add to the cost which will be indirectly incurred as a result of these earth shaking phenomena.

The strength of a nation's economy also impacts the extent to which an earthquake will affect it. Economic strength will determine how the country will be able to withstand any negative shocks that it may face. Additionally, it will also give an indication of the length of time it may take that country to recover. The earthquake in Haiti is a prime example of how a nation's economy can hinder its recovery from a devastating earthquake. Haiti is the poorest country in the western hemisphere, and when it was hit by the 7.0 magnitude earthquake, this was further emphasized as it struggled to come to terms with the disaster. Already attempting to recover from the series of hurricanes that battered the country in late 2008, Haiti was left crippled after the quake in January. It lacked the equipment, funding and expertise to deal with the tragedy that it faced, having to rely on international aid to combat the disaster. Future advancement for the Haitian economy is

grim. As it struggles to deal with the humanitarian situation, some of its key infrastructure has also been severely damaged. This in turn would slow the pace of any economic recovery, as its major port has also been damaged while its labour force was greatly diminished (approximately 230,000 deaths). Thus, stimulus for the growth of the economy has been further set back.

Conversely, the Chilean economy, though hit by a moderately stronger earthquake (measuring an 8.8 magnitude on the Richter scale) is better poised to handle the disaster, both from an economic and recovery standpoint. Chile's economy is the second largest in Latin America, with GDP of USD244.3 billion in 2009. As a result, it has the resources necessary to combat such a disaster. Chile also has a history of earthquakes, the strongest occurred in 1960 with a magnitude of 9.5. Since then it has implemented stricter building codes, so the effects of the February earthquake was not as severe (approximately 700 deaths). Chile is the world's largest producer of copper, which accounts for more than 40% of the country's exports. Although the earthquake did not affect the supply of exports for world consumption, it did force the state-owned mining company to halt operations at its mines for as much as two days. This led to some volatility in copper prices, spiking it upwards on speculation of supply concerns. In addition to its strong GDP, Chile has a favorable debt profile and a substantial amount of savings, which are the main reasons why analysts believe that the earthquake will not pose a major setback to the growth of that economy this year and in the years to come.

International aid plays a major role in the aftermath of earthquakes and other natural disasters. In the wake of an earthquake, there is lack of infrastructure and in some cases lack of resources for the coordination of relief work. In the case of Haiti, telecommunications were down and local authorities were incapable of managing the dire situation. In such cases international aid organizations like the United Nations (UN) and the International Red Cross steps in to coordinate relief work. Together with these organizations, other countries usually provide financial aid and security and health personnel to help in the coordination of relief work for disaster stricken countries. Recovery work can take as much as months and in some cases, years as countries try to return to some degree of normalcy. In Indonesia and Haiti where there were a large number of casualties, the potential for disease outbreak was high, which required increased need for medical supplies. Also, there is a need for a sustained aid program which can last many years and may be very costly. Funds that are diverted to these disaster-stricken countries usually mean reduced spending within the supplying country, thus posing the potential problem of opportunity cost.

With the exception of Haiti, the Caribbean region has been spared from any devastating earthquakes in recent times. The region is very susceptible to earthquakes since fault lines are located along the island chain of the Lesser Antilles and one even runs through Trinidad. Although, seismic activity is not new to the region, the degree of preparedness is questionable. A definite learning that can be drawn from the Haitian experience is the need for disaster preparedness in the Caribbean. Regional heads have been meeting to formulate the necessary plans to deal not just with earthquakes, but any unforeseen hazard, be it natural or otherwise. It should be noted however, that the small economies of the Caribbean are very vulnerable given its extremely narrow revenue generating capacity.

The impact of earthquakes goes beyond the initial impact of the quake itself. Of course, the devastation immediately after an earthquake does demand immediate attention given the extent of losses to both human life and infrastructure. However, the impact goes much deeper. The implicit costs of such a disaster; financial costs, reconstruction, loss of productivity, and impact on growth should not be disregarded. Furthermore, it is a known fact that earthquakes cannot be

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predicted, however, preparation is essential to mitigate the threats it can pose. Foresight is vital to help prepare for the unexpected, and recent occurrences, namely in Chile and Haiti should be used as a learning experience of how to treat with such a disaster.

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## FINANCIAL & ECONOMIC INDICATORS

As at 11 March, 2010

Exchange Rate/US\$	Closing Value	Previous Week
Yen	90.51	89.02
Euro	1.37	1.36
Jamaica	89.73	89.73
Guyana	ND	ND

Commodity Prices	Closing Value	Previous Week
Crude oil (US\$/bbl)	82.11	80.21
Natural Gas (US\$/mmbtu)	4.46	4.78
Gold (US\$/Troy Ounce)	1,109.50	1,132.20

### Eurobond Indices (As at 011-03-10)

JP Morgan EMBI+ (Basis points)	258
JP Morgan Central America and Caribbean Index (CACI) (YTD return %)	4.60

Policy Interest Rates (%)	Closing Value	Previous Week
United States	0.16	0.17
Euro Zone	1.00	1.00
Japan	0.10	0.10
Brazil	8.75	8.75
Trinidad	5.00	5.00
Jamaica	10.00	10.00
Barbados	2.50	2.50

Market Interest Rates (%)	Closing Value	Previous Week
US 90-day T-Bill	0.15	0.14
US 10-Yr Treasury	3.73	3.60
3-month UK Libor	0.64	0.64
Japan 90-day T-Bill	0.28	0.28
Brazil 90-day T-Bill	9.56	9.54
TT 90-day T-Bill	1.29	1.41
Jamaica 90-day T-Bill	10.35	10.35
Barbados 90-day T-Bill	3.27	3.27

Sources: Bloomberg, J.P. Morgan, CMMB, Central Bank of Trinidad and Tobago, Bank of Jamaica, Central Bank of Barbados, [www.lehman.com](http://www.lehman.com)

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