NATURAL CALAMITY AS MAJOR CAUSE TO CURRENCY DEPRECIATION

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ABSTRACT

Last decade definitely had its share of defining disasters, 2004 Indian Ocean tsunami, 2005 hurricane Katrina, 2008 Sichuan earthquake are some of the examples. These disasters greatly hit an economy rooting the situations akin to loss of lives, loss in the production capacity, which causes the situation of less supply and more demand, and less available commodity gives rise to the price factor and causes inflation, and consequently weaken the purchasing power of a monetary unit of a country. Even though there are various factors affects the currency value however this paper precisely represents that how the value of a currency get downward all the way through natural disasters, with the help of an illustration given of flood arrived in Australia in December 2010-January 2011. From an extensive literature review the question that emerges is: is there any loss to an economy and its currency value if any contingent event like volcano eruption, earthquake, takes place. The below figures clearly demonstrate the gravity of natural disasters over the value of currency.

KEYWORDS: Currency depreciation, Economic Loss, Natural disaster, Recession.

INTRODUCTION

Economic crisis is a situation in which an economy of a country most likely experiences falling GDP, rising/falling prices, unemployment, and recession because of poor management of economy, natural disasters probably due to changes in global climate, reduced demand for the goods country exports.

Natural disaster leads to financial, environmental and/or human loss caused by the combination of natural forces of nature, such as volcano eruption, flood, earthquake, tsunami, landslide, hurricane.

Currency depreciation tends to the loss of value of one currency in relation to another or else reduction in the value of home currency with respect to foreign currency. For instance if Rupee (which is ₹ 44.67) depreciates with respect to Dollar (which is 1$) then it will take more Indian Rupee say ₹ 46.67 to purchase 1 $.

Over the time, natural calamity has been one of the most prominent causes of currency depreciation. Disaster can have devastating short and long term impacts on the economy. They
cause loss of life, social disruption, environmental damage, such as loss of fertile agriculture land, water contamination and tend to affect economic activities. If we talk about the last decade, In 2004 December 26, the killer Tsunami wave triggered by the earthquake in Indian ocean, which had first occurred in Indonesia followed by Sri Lanka, India, Thailand. Then comes to the disaster arrived in Queensland of Australia In December 2010-January 2011. Torrential rains have devastated much of the country, costing of many their lives, destroying houses, property and crops, washing out roads, and virtually cutting off entire towns from the rest of the world. The flood hit strategically important areas for the country’s coal and iron exports, this merely served to hike prices up because supply was stunted. And if the country’s export affects it will have very significant downfall in the value of currency because export from the country becomes diminutive as compare to import by that country consequently currency inflow get reduces over the currency outflow.

HOW THE VALUE OF CURRENCY DEPRECIATES THROUGH NATURAL DISASTER?

Here is an illustration given of the depreciating value of AUD (Australian dollar) against USD (U.S. dollar) during the period of December 2010- January 2011 when the flood occurred and hit very important areas of Australian economy, to understand that how currency of a country depreciates because of natural calamity. The following table and graph clearly mention the differences come about the values, while comparing the previous and subsequent values for the period December 2010 – January 2011 respectively of AUD against USD because of that mishap.

Average rates for Australian dollar are available from currency converter and exchange rates for the period of 1 year (from July 2010 to June 2011). As can be seen in Table 1, which gives the declining value of AUD in late December and early January because of flood arrived in Eastern Australia in December 2010.

**TABLE 1: AVERAGE RATES FOR AUD TO USD**

<table>
<thead>
<tr>
<th></th>
<th>Jul' 2010</th>
<th>Aug 22</th>
<th>Sep 37</th>
<th>Oct 58</th>
<th>Nov 08</th>
<th>Dec 54</th>
<th>Jan' 19</th>
<th>Feb 09</th>
<th>Mar 687</th>
<th>Apr 564</th>
<th>May 579</th>
<th>Jun 929</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.874</td>
<td></td>
<td>0.901</td>
<td>0.934</td>
<td>0.981</td>
<td>0.990</td>
<td>0.991</td>
<td>1.005</td>
<td>0.992</td>
<td>0.989</td>
<td>0.945</td>
<td>0.936</td>
<td>0.942</td>
</tr>
</tbody>
</table>

Source: GoCurrency.com Currency Converter and Exchange rates, & x-rates.com

The following Graph 1 represents the data given in the Table 1:
As shown in the graph the value of AUD against USD broke down by 0.00146 in December 2010 and by 0.01511 in January 2011 as compare to November 2010. And again in February 2011 it is increased by 0.0131 as compare to January 2011. The reason behind this downfall is the areas affected by the flooding produce cotton, sugar and coal. Consequently the crops and farmlands were damaged and the production of coal was greatly hit, which affect the export of the country.

**CURRENCY DEPRECIATION PROCESS THROUGH NATURAL DISASTER:**

- Natural disaster → Disruption to economy → Number of days and Volume of production loss
- Decrease the currency value ← Opportunities, Competitiveness, Reputation loss

Disruption of economy is a consequence occurs because of natural mishap and an economy suffers the loss in its production capacity, and this situation gives an opportunity to the other producers of in the global market. Condense supply of product reduces the demand of currency, and the value of currency decreases.

**AFFECTED INDUSTRIES AND ECONOMIC LOSS TENDS TO CURRENCY DEPRECIATION**

Sudden drop in the AUD is endorsed to the current flooding disaster experienced by eastern Australia. The flood water closed the coal mining industry in the area and submerged cotton and
sugarcane farmland resulting in economic impact of reduced export. Around two third of the world’s supply of coking coal comes from the Australia and most of it from Queensland and make it nations largest export. Countries like, Japan, Korea, china, Taiwan are major importer of coal. Australia’s export of coal is 233.5 million tons i.e. 88.6% in Asia, 20.9 million tons i.e. 7.9% in Europe, and 9.1 million tons i.e. 3.4% in other countries in 2008-2009. But after effects of flood led coal industry to limited production. Many mines are still unable to extract coal.

For the reason that flooding has led to the;

- Limited production of coal
- Ruined rail lines and closed transport ports
- Price hike
- Fluctuations in supply and demand from its major importers

And that has led to downward the value of AUD. Because of the lost production only 15 percent of the states 57 coal mines are fully operational and financial cost to the industry as a result of the damaging flood has become into the billions of dollars. Mines which are operational are under restrictions and have to deal with other factors such as ruined rail lines and closed transport ports. For that reason the increased coal cost tends to increase the price of coal in the international market, it is reasonable to assume that hard coking coal price could reach between US$400 to US $500 and the supply of coal in to the international market were not able to match the market demand.

All the above reasons puts the other exporters of coal such as United states, Russia, Indonesia in win- win position, because the demand of coal get down from the other countries due to increased coal cost and delay in its supply. Consequently the demand for Australian dollar decreased and hence the value of AUD broke down during that period.

Over and above the coal industry, the recent flooding in Australia estimated to have diminutive agriculture production (of fruit and vegetables, cotton, grain sorghum and some winter crops) by at least $500-600 million in 2010-11. Based on the information, ABARES estimated that around $225 million of fruit and vegetables have been lost as a result of flooding and the prices have risen limited to date. Australia is one of the world’s largest sugar producer followed by European community, china, India, Brazil, and closely after the United States, and Thailand. Australian sugar production in 2010-11 is estimated to be around 3.6 million tons, 0.9 million tones lower than 2009-10 and lowest output since 1991-92. Besides, Cotton industry has suffered revenue loss of 257 million $.
TABLE 2: AGRICULTURAL REVENUE LOSS (IN $ MILLION) IN 2010-2011

<table>
<thead>
<tr>
<th>Industry</th>
<th>Vegetable growing</th>
<th>Sugarcane growing</th>
<th>Cotton growing</th>
<th>Grain growing</th>
<th>Banana &amp; other fruit growing</th>
<th>Other Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry revenue</td>
<td>304.6</td>
<td>400.0</td>
<td>257.0</td>
<td>501.0</td>
<td>289.7</td>
<td>328.9</td>
</tr>
</tbody>
</table>

Source: IBIS World Special Report

The following Graph 2 represents the data given in Table 2:

GRAPH 2: AGRICULTURAL REVENUE LOSS (IN $ MILLION) IN 2010-11:

Now this is important, what impact it will have on GDP growth. According to Australia Bureau of Statistics, GDP for the first three month was down 1.2% from the previous quarter as Australian economy suffered its biggest contraction in 20 years, in the first quarter as resources generate major export revenue were crumpled. Australia’s Consumer Price Index or inflation rate rose by 3.6% through the year to June quarter 2011, compared with rise of 3.3% in the March quarter 2011. The most significant rise in the price of fruit (+26.9%), automotive fuel (+4.0%), hospital and medical service (+3.4%), furniture (+6.0%), and deposit and loan facility (+2.1%).
CONCLUSION

Certainly an economy will be affected negatively after any natural mishap. What bring on the sudden drop in the value of currency is clean up of affected areas and many homes of residents because of natural calamity. In dealing in foreign currency, investors and brokers are also impacted by natural disasters of the world. One day the currency is strong and in the next moment it may collapse because of calamity affected the country. Brokers dealing in foreign currency recognize the situation and start selling the currency before it falls any further. Selling the currency reduces demand for this currency and forces the same currency to weaken.

The above figures clearly demonstrate the gravity of natural disasters over the value of currency. Government can make the protection strategies to recognize the vulnerability ahead of time. Although several institutions such as, The Center for Research on the Epidemiology of Disasters, ICSU- International Council of Scientific Union, US Agency for International development have developed methodologies to quantify these losses in their specific domain, no standard procedure to determine the impact exists. The measurement methods or disaster indicators may help an economy in declining impact of natural disasters to some extent such as by proposing; onset date, disaster type, country in which disaster occurred, fatalities, and estimated amount of damage. Early warning systems are much more than just technical devices. They must be adapted to reduce losses of life and property to the sufficient extent.

REFERENCES


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