Demand Following Hypothesis:
Empirical Evidence from Insurance Sector of
Emerging Asian Markets

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Abstract
Using a two-step system GMM estimation, this study examines demand-following hypotheses (effect of macro-economic factors on insurance growth) on the sample of 19 emerging economies of Asia between 2007 and 2017. Effect of GDP is stronger in high income countries as compared to middle income countries. The positive significant impact of inflation exists only in middle income countries. A positive impact of trade openness and banking sector development is observed for both middle income and high income countries. Unemployment in high income countries doesn’t have any significant impact on insurance premium. High old dependency ratio, young dependency ratio and population have significant positive impact on insurance premium in middle income countries but result was insignificant for high income countries.

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Keywords: Macro-Economic, Emerging, Economics, Asia, Insurance, DPM, GMM, GDP, Inflation, Un-Employment, Population, India

I. Introduction
THE INSURANCE MARKET The insurance industry makes a considerable contribution to global economic growth, accounting for around 6.3 percent of global GDP. The insurance industry, which plays a critical role in the finance market, has a considerable impact on the viability of financial system in any economy. Insurance companies are institutional investors who contribute to economic development by performing the functions of risk transfer, indemnification and allocation of capital (Beck and Webb, 2003; Kumari, 2015) and their contributions are likely to increase

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income countries but significance is absent in case of high-income countries. The exchange rate has a negative impact on insurance premiums in middle-income nations and a positive impact in high-income countries, although in both situations. As consistent with the research of Li, Moshirian, Nguyen and Wee, (2007) and Outreville, (1996) banking sector development has positive but insignificant impact on insurance premium in both high and middle-income countries.

A favorable effect of trade openness is observed for both middle and high-income countries but result is significant only for middle income countries. Unemployment rate is having a significant negative effect on insurance premium in middle income countries. Young and old age dependencies both have a favourable impact on insurance growth, but significance is existing only for old dependency in case of middle-income countries.

The outcomes of this study, crucially, set the groundwork for a mixed method approach in the insurance growth model. Some of the concerns raised above could be used in a quantitative study to evaluate the ramifications of the constructs chosen. Efforts to improve socioeconomic development are advised because a substantial number of individuals are still unaware of the relevance of insurance as a protective measure, as evidenced by several empirical studies. The study also suggests that policies that support the insurance industry be taken into consideration.

References


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## Annexure I

### Definitions and Sources of Data

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>Notion</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Written Premium</td>
<td>The gross written premium is the total revenue generated to the insurers before deduction for reinsurance or ceding commission.</td>
<td>GWP</td>
<td>Sigma Reports</td>
</tr>
<tr>
<td>Insurance Density</td>
<td>Insurance density is measured by dividing total insurance premiums (in US dollars) to total population.</td>
<td>ID</td>
<td>Sigma Reports</td>
</tr>
<tr>
<td>Insurance Penetration</td>
<td>Insurance penetration is measured by dividing total insurance premiums (in US dollars) to GDP.</td>
<td>IP</td>
<td>Sigma Reports</td>
</tr>
<tr>
<td>Gross Domestic product</td>
<td>This represents size of economy and level of economic development. It is the value of all goods and services produced in a country during one year.</td>
<td>GDP</td>
<td>Sigma Reports</td>
</tr>
<tr>
<td>Inflation</td>
<td>Inflation shows rate of change in consumer price index during one year.</td>
<td>INFL</td>
<td>Sigma Reports</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>Exchange rate shows value of one nation’s currency in relation to USD.</td>
<td>ER</td>
<td>Sigma Reports</td>
</tr>
<tr>
<td>Commercial bank branches</td>
<td>Number of commercial bank branches per 100,000 adults in a country.</td>
<td>BSD1</td>
<td>World Dev. Indicators (WDI)</td>
</tr>
<tr>
<td>Domestic credit to private sector by banks</td>
<td>Amount of credit provided to private sector by bank as percentage of GDP.</td>
<td>BSD2</td>
<td>World Dev. Indicators (WDI)</td>
</tr>
<tr>
<td>Trade Openness</td>
<td>Total of imports and exports as percentage of GDP.</td>
<td>TO</td>
<td>World Dev. Indicators (WDI)</td>
</tr>
<tr>
<td>Unemployment</td>
<td>Unemployment rate is measured as percentage of unemployed workers to total labor force.</td>
<td>UMEP</td>
<td>World Dev. Development Indicators (WDI)</td>
</tr>
<tr>
<td>Population</td>
<td>Population shows total number of people living in a country as defined by national statistical offices.</td>
<td>POP</td>
<td>Sigma</td>
</tr>
<tr>
<td>Young dependency ratio</td>
<td>Young dependency ratio is measured as percentage of young dependents (under 15) to the working age population (between the ages of 15 to 64).</td>
<td>YDR</td>
<td>World Dev. Indicators (WDI)</td>
</tr>
<tr>
<td>Old dependency ratio</td>
<td>Old dependency ratio is measured as percentage of old dependents (aged 65 years or above) to the working age population (between the ages of 15 to 64).</td>
<td>ODR</td>
<td>World Development Indicators (WDI)</td>
</tr>
</tbody>
</table>

*Source: Self Formulated*