Cross Border Mergers & Acquisitions and Its Impact on the Economic Growth: An Econometric Study

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The corporate sector all over the world is restructuring its operations through mergers and acquisitions in an unprecedented manner in order to successfully overcome the challenges posed by globalization. Over the last two decades, the share of cross-border mergers and acquisitions (CB M&As) in the global FDI inflows has been more than 50%. There is a boom in Indian Corporate sector in this form of FDI. The objective of the present paper is to examine the trends, contribution and impact of CB M&As on various facets of Indian companies. FDI Confidence Index has improved significantly in 2012. Liberalized foreign investment regime and regulations have resulted in favourable business environment in the Indian market. This scenario is shown by OECD FDI Regulatory Restrictiveness Index, which is a tool for benchmarking countries, measuring reform and assessing its impact. To find whether there exist a significant relationship between FDI Confidence index and OECD FDI Regulatory Restrictive Index and the stock of FDI, OLS (Regression technique) was applied which showed significant results. To examine the impact of FDI inflows (M&A) on GDP (a proxy of economic growth). The results exhibit bi-directional causality i.e GDP leads to rise in FDI and vice versa. Hence owing to its role in the economic development important steps must further be taken by the government relating to policy issues and further liberalisation to improve the present landscape and taking this to a marked level.

Keywords: Corporate Performance, Cross-border Mergers & Acquisitions, FDI

SECTION I: INTRODUCTION

International investment flows have the potential to provide strong stimulus to economic growth, particularly for developing nations that have constraints on availability of capital to the increasing needs of capital formation. No wonder, global foreign direct investment (FDI) flows exceeded the pre-crisis average in 2011, reaching $1.5 trillion despite turmoil in the global economy (UNCTAD, 2012). While most of the empirical and theoretical literature on international investment flows has not distinguished between the two modes of FDI, greenfield and cross-border M&A, their motives and impacts on economic growth of the recipient country may be different. Besides the asymmetric technology transfer effects of two entry modes, the greenfield investment is considered to be a welfare dominant FDI entry mode for the host country, while cross-border M&As are carried out more for their strategic effects through greater market access and efficiency enhancing implications (Kim, 2009). Though both the modes of FDI involve quite a significant amount of investment flows, cross-border M&As account for almost three-fourth of the global FDI (UNCTAD, 2012). In the emerging markets, Foreign Direct Investment (FDI) represents the largest share in the composition of capital flows as it is the most stable capital.

Earlier a major part of the FDI transactions were limited to developed economies. However, during the last two decades there has been a significant shift in the attitude of developing countries towards FDI. From a position of distrust and suspicion that used to be associated with FDI in the past, countries are shifting towards a policy of leveraging FDI to foster growth and development. As a consequence developing countries are competing to attract FDI. Formulation of appropriate strategy to attract FDI would require understanding of the factors that influence the flow of FDI into the country. The empirical studies have shown that country specific environment factors explain to a large extent the levels of, and disparity in, the distribution of FDI inflows, are due to factors such as a deficient regulatory framework, high taxation, unfavourable tariff structure, a poor business environment and opportunities, weak FDI policies and incentives, poor institutional frameworks, limited market access,
unfavourable comparative costs and lack of political stability (Obwona, 2001, Na and Lightfoot, 2006; Ramirez, 2006, De Mooij and Ederveen, 2003, Tung and Cho, 2001). Though there is considerable amount of consensus among scholars regarding the role of each of these factors, very little evidence is available, particularly in emerging market economies like India, the collective role of these factors on FDI. The present paper make a modest attempt in this direction. It examines the relationship between an aggregate of these factors and the FDI using the M&A route. Other important sets of factors that influence the FDI in host countries relate to the motives and perceived opportunities for investment through the cross border M&A route. To achieve the objective of the study the paper is divided into following sections; Section 1 i.e. the present section gives the role of FDI by way of cross border mergers and acquisitions comparing developing countries with the developed countries factors and scenario. Section II gives the extensive review of literature pertaining to the factors affecting cross border mergers and acquisitions. Section III gives details of data and methodology used in the study, followed by a detailed section of analysis and interpretations of the results contained in Section IV. Section V gives summary and conclusions of the paper. References are the part of the last section i.e. section VI.

SECTION II REVIEW OF LITERATURE:

There is a significant amount of literature available both on the aspects of relating to FDI flows through M&A route, namely the motives of M&As and the factors determining FDI.

A) Motives behind cross border M&As
A number of theories offer explanation to the increasing interest in cross border M&As. They include efficiency theory, managerial synergies theory, monoply theory, valuation theory, empire building theory, process theory, disturbance theory, etc. Efficiency theory assumes that managers aim at maximizing a company’s value and efficiency by exploitation of synergies. (Lubatkin, 1983, Sirower, 1997, Trautwein, 1990, Leland, H. E., 2007). Managerial synergies theory posits that synergies occur when the management of one of the merging companies has superior abilities from which the other firm can profit (Jensen and Murphy, 1988). A change in ownership may reduce managerial overheads (Scherer and Ross, 1990). According to Jensen and Ruback (1983), one of the main reasons for mergers is the competition between alternative managerial teams for controlling rights over the corporate resources. According to monopoly theory, the main goal of acquiring another company is to increase market power through a high market share and market-entry barriers. Market power exists when the costs of a company’s primary or support activities are below those of its competitors or when a company is able to sell its goods or services above competitive levels (Hitt et al., 2005). According to valuation theory, mergers are planned and executed by managers having information about the value of the target superior to that of the stock market (Steiner, 1975; Ravenscraft and Scherer, 1987). The acquirer believes that it is better informed about possible advantages that might be derived from combining the target’s businesses with its own; or the acquirer believes that it has found an undervalued target that it can manage more successfully than the current management. Empire-building theory says that managers try to maximize their own utility instead of maximizing shareholder’s wealth when planning and executing mergers (Trautwein, 1990). Berle and Means (1933) conclude that management often follows different interests than shareholders’, creating a strong potential for conflicts. Several various managerial theories of the firm (e.g., Baumol, 1959; Marris, 1964; Williamson, 1964) highlight the agency theory. Scholars have put forward various arguments for the empire-building motive of managers. Marris (1964) and Jensen (1986a) suggest that as the size of a company increases, typically management’s compensation does so as well; a revenue increase from an M&A would thus also increase the income of the respective managers (Rodermann, 1997). Other authors suggest “increasing prestige” or a “visible heritage” through increased company size (Balzer, 2000, Macharzina, 1995) as arguments. In his overpayment hypothesis, Black (1989) postulated that managers overpay for targets because they are too optimistic and their interests diverge from those of their shareholders. The free cash flow hypothesis by Jensen (1986) is also based on the
separation of ownership and control. Process theory augues that strategic decisions like M&As are not rational choices but the outcomes of processes; these processes are influenced by limited information processing capabilities of individuals (Simon, 1957), limited rationality of participants (Cyert and March, 1963), or tactical considerations and mutual adjustments (Pettigrew, 1977). The process perspective on mergers and acquisitions takes explicit acquisition process perspective and argues that the acquisition process itself has a crucial role in determining acquisition activities and outcomes (Jemison and Sitkin, 1986). Some scholars (Gort, 1969) opine that merger waves are caused by economic disturbances which cause changes in individual expectations and increase the general level of uncertainty. Previous non-owners of assets now value the assets higher than the actual owner of the assets and vice-versa.

B) Determinants of FDI through M&A
The country specific factors have been found to influence the FDI flows through the M&A route. La Porta, Lopezde Silanes, Shleifer, and Vishny (1997), (1998), and Bhattacharya and Daouk, (2002) opined that volume of M&A activity is significantly larger in countries with better accounting standards and stronger shareholder protection, antitrust legislation and takeover laws. Pagano, Roell, and Zechner (2002) and Reese and Weisbach (2002) show that firms from countries with weak legal protection for minority shareholders are often sold to buyers from countries with stronger investor protection. Khemani (1991) finds that there are numerous factors which persuade firms to take on Merger and Acquisition like economic factors, institutional factors etc. Re-organisation and restructuring result in the long term profits (Jensen, 1988). The shareholders of the target firm gain and the shareholders of the acquiring firm generally lose (Franks & Harris, 1989). Ghosh (2001) finds that post acquisition, there is no confirmation of improvement in the functional performance of the merging firms. Studies reveal that cross border M&A grants positive outcomes if compared with horizontal and vertical M&A (Reid, 1968, Mueller, 1980). After acquisition there is no considerable progress in the long term profitability of the firm (Schere, 1988).

As regards the impact of M&A on operating performance is concerned, there are mixed results. Some of the studies (Kruse, Park and Suzuki, 2003, Healy et al, 1992, Grabowski, et al, 1995, Switzer, 1996, Smart and Waldfogel, 1994 and Vander, 1994, Scherer & Ross, 1990) observe augmentation in the operating performance after merger. Saple, (2000) affirms that profitability of the target companies is better than the industry averages in comparison with acquiring company before merger. The corporate performance of the firms generally improves post-merger (Healy et al, 1992, Grabowski, et al, 1995, Cornett & Tehramian, 1992, Switzer, 1996, Smart and Waldfogel, 1994 and Vander, 1994). However, Pawaskar (2001) finds that there is no substantial increase in the profit margins of acquiring firms after merger but there is augmentation in the liquidity performance of the shareholders of the target firm after merger. In the long run, the merger and acquisition are found to be not profitable (Ikeda & Doi, 1983, Cosh et al, 1984, Kumar, 1984, Geroski, 1988 and Odogiri, 1992). Ooghe, Laere & Langhe, 2006 states that there is considerable decrease in the profit and liquidity of the merged firm. There is decline in the profitability of the acquiring company post Merger and Acquisition (Pazarskis, Vogis, Christ & Drogalos, 2006). There seems to be two plausible reasons for differences in the findings regarding the impact of M&A on performance. One of course relates to the profile of the sample used particularly the set of economic sectors. Evidence of differences in the impact of M&A on performance is evidenced in the study by Mantravadi and Reddy (2008). They find that there is positive impact on the banking and financial industry in terms of profitability in comparison with the chemical and Agri-products sector, while there is slight decrease in the profit margins of the pharma, textile and electricity equipment sectors. Similar results were observed in other studies as well. For example, M&A in technology sector had have negative impact on the returns to the target firms (Adavi Kolance & Korrapati, 2009). Studies on the effect of M&A on banks conclude that there is decline in the profitability ratios of the merged banks (Kumar and Kumar, 2012, Kithniji & Waweru, 2007). The other relates to the country specific characteristics.
C) Aggregating FDI favouring Factors:
One of the common way to aggregate heterogenous factors is the use of index. Two FDI specific indices that measure the FDI attractiveness of nations, are commonly quoted. They are OECD FDI Regulatory Restrictiveness Index and A.T. Kerney’s FDI Confidence Index. While the former focuses more on the the policy framework and the restrictive practices of the host economies, the latter is more focused on the business environment including the regulatory architecture of the host country. The FDI confidence index is designed to measure the likelihood of FDI in specific economies, in order to gain insight into the trends in FDI flows. The external validity of the index is said to be established by the fact that top 10 ranked countries received more than half of the total FDI flows, each year since the inception of the index. The index value for each country is computed on the basis of the data collected with the help of annual survey of executives of the level of CEOs, CFOs and Chief Strategists, Board members, etc. from top 1000 global companies. The sample used is quite representative as the countries represented in the survey account for 90% of the global FDI flows. The index is computed as weighted average of the responses on a three point scale regarding the FDI attractiveness and likelihood of the FDI given by the responding executives. The index is based on non-source country responses. In-spite of the clearly stated commitment to promotion of FDI, many developing countries have continued to put regulatory restrictions on the flow of FDI. The rationale behind such restrictions is that these countries wish to direct the FDI flows into specified sectors and align that to the priorities of the national economic policy. These regulations are expected to influence the volume of FDI in these countries. The OECD FDI Regulatory Restrictiveness Index was originally developed in 2003 and is jointly maintained by the OECD Investment Division and the OECD Economics Department. The FDI Index focuses on four types of measures: equity restrictions, screening and approval requirements, restrictions on foreign key personnel, and other operational restrictions (such as limits on purchase of land or on repatriation of profits and capital). The discriminatory nature of measures is the central criterion to decide whether a measure should be scored. Nevertheless, non-discriminatory measures are also covered when they are burdensome for foreign investors. In this paper an attempt has been made to examine the relationship between the OECD FDI Regulatory Restrictive Index and the stock of FDI and the A.T. Kerney’s FDI Confidence Index. An attempt has also been made to examine the impact of FDI inflows (M&A) on GDP.

SECTION III: DATA AND METHODOLOGY
To achieve the objectives of the study secondary data was collected from various sources i.e. UNCTAD Report, World Investment Reports, publications from Ministry of Commerce, Asian Development Bank’s Reports, Reserve Bank of India bulletins, Economic and Social Survey of Asia and the Pacific, United Nations, Asian Development Outlook, Country Reports on Economic Policy and Trade Practice-Bureau of Economic and Business Affairs, U.S. Department of State and from websites of World Bank, IMF, OECD, WTO, RBI, UNCTAD, EXIM Bank etc. Time series data and the relevant data have been collected for the period 1991 to 2011. Given the nature of the problem and the quantum of data, we first study the data properties from an econometric perspective and find that co-integration equilibrium relationship between the variables. To test the causality block Granger Causality test is performed and the findings are provided in detail in results section. The regression analysis would yield efficient and time invariant estimates provided that the variables are stationary over time. However, many financial and macroeconomic time series behave like random walk. We first test whether sample series are co-integrated. The concept of co-integration becomes relevant when the time series being analyzed are non stationary. The time series stationarity of sample price series has been tested using Augmented Dickey Fuller (ADF) 1981. The ADF test uses the existence of a unit root as the null hypothesis. To double check the robustness of the results, Phillips and Perron (1988) test of stationarity has also been performed for the series. To test other hypothesis ordinary Least square (OLS) Regression technique is used.
SECTION IV: ANALYSIS AND INTERPRETATIONS OF RESULTS

I) Relationship between OECD FDI Regulatory Restrictive Index and the stock of FDI:
In order to ascertain whether there exist a significant relationship between OECD FDI Regulatory Restrictive Index and the stock of FDI, regression analysis was carried out on FDI Stock as on end of 2010 and FDI Index 2011. The results of the regression are presented in Table 1. As may be observed from Table 1, the impact of the FDI regulatory index was found to be significant (p value= 0.0089), though the explanatory power of the model is quite low (Adjusted R² being 0.1317). Thus, it can be concluded that the economies with less restrictive FDI regime are likely to receive more FDI investments and vice versa.

Table I: Regression Results of FDI Regulatory Index and FDI Stock

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>β Coefficient</th>
<th>P Value</th>
<th>Adjusted R²</th>
<th>Independent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI Regulatory Index 2011</td>
<td>0.1635**</td>
<td>0.0089**</td>
<td>0.1317**</td>
<td>FDI Stock 2010</td>
</tr>
<tr>
<td>FDI Stock 2010</td>
<td>0.9289**</td>
<td>0.0089**</td>
<td>0.1317**</td>
<td>FDI Regulatory Index 2011</td>
</tr>
</tbody>
</table>

*Regression results are significant at 0.05 levels (2-tailed)
Source: E-Views output

The regression results show that once taking FDI as dependent and another regression equation by taking fdi index as dependent, both show significant relationship of the two equations, clearly showing if economy is more open with less of restrictions the inflow of FDI will be more and vice-versa. This leads to the acceptance of the hypothesis that there is a significant relationship between Regulatory Restrictive Index and the level of FDI stock.

II) To find whether there exist a significant relationship between FDI Confidence Index and the stock of FDI. A regression was carried out on 2010 FDI Stock and 2011 FDI Index, the relationship was found significant i.e. the economies which have high confidence Index receive more FDI investments and vice versa see Table III

Table II: Regression Results of FDI Confidence Index and FDI Stock

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>β Coefficient</th>
<th>P Value</th>
<th>Adjusted R²</th>
<th>Independent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI Inflows</td>
<td>-64837.19**</td>
<td>.0003**</td>
<td>0.5360**</td>
<td>FDI Confidence Index</td>
</tr>
<tr>
<td>FDI Confidence Index</td>
<td>-8.69E-06**</td>
<td>.0003**</td>
<td>0.5360**</td>
<td>FDI Inflows</td>
</tr>
</tbody>
</table>

*Regression results are significant at 0.05 level (2-tailed)
Source: E-Views output

The regression results show that once taking FDI as dependent and another regression equation by taking FDI confidence index as dependent, both show significant relationship of the two equations, clearly showing if economy is having high level of confidence index the inflows of FDI will be more and vice-versa. This leads to the acceptance of the hypothesis that there is a significant relationship between FDI Confidence Index and the level of FDI stock. Knowing the importance of these indexes economies must try to improve the ranking according to the nature of these international Indexes as investors see this as a bench mark and indicator to invest in the host country.

III) To examine the impact of FDI inflows on GDP (economic growth):
FDI is an engine of capital, technology, managerial skills, technological progress & capacity, access to foreign markets and in maintaining economic growth and development for developing countries, whereas for developed countries it is considered as a tool for accessing the market of emerging economies. It is also considered as tool of filling the savings, foreign exchange reserves, revenue, trade deficit, management and technological gaps. Its impact on economic growth depends on country’s
domestic policy and foreign policy. It refers to foreign direct investment. Economic growth has a profound effect on the domestic market as countries with expanding domestic markets should attract higher levels of FDI inflows.

As shown in the graph there is a sharp rise of FDI (Inward & Outward), which is a clear indication that globally this is accepted as a good corporate restructuring strategy and owing to its catalyst role in economic growth. Given the nature of the problem and the quantum of data, we first study the data properties from an econometric perspective and find that co-integration model is required to establish the equilibrium relationship between the markets. To test the causality Granger causality Test is performed and the findings are reported. The regression analysis would yield efficient and time invariant estimates provided that the variables are stationary over time. However, many financial and macroeconomic time series behave like random walk. We first test whether or not the sample variables are co-integrated or not. The concept of co-integration becomes relevant when the time series being analyzed are non stationary. The time series stationarity of sample price series has been tested using Augmented Dickey Fuller (ADF) 1981. The ADF test uses the existence of a unit root as the null hypothesis. To double check the robustness of the results, Phillips and Perron (1988) test of stationarity has also been performed for the series.

The results of stationarity tests are given in Table IV. It confirms non stationarity of GDP & FDI(inflows) hence we repeat stationarity tests on first difference series (estimated as first difference of log series) which are also provided in the same table. The table describes the sample series that have been tested using Augmented Dickey Fuller (ADF) 1981. The ADF test uses the existence of a unit root as the null hypothesis. To double check the robustness of the results, Phillips and Perron (1988) test of stationarity has also been performed for both the series. The sample log series exhibit stationarity thus conforming that both variables are integrated to the first order.

<table>
<thead>
<tr>
<th>Name</th>
<th>ADF Test</th>
<th>Phillips-Perron Test</th>
<th>ADF Test</th>
<th>Phillips-Perron Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t-statistics</td>
<td>t-statistics</td>
<td>t-statistics</td>
<td>t-statistics</td>
</tr>
<tr>
<td>FDI INFLOWS</td>
<td>1.12</td>
<td>-1.38</td>
<td>-41.35 **</td>
<td>-41.32 **</td>
</tr>
<tr>
<td>GDP</td>
<td>-1.09</td>
<td>-0.51</td>
<td>-41.98 **</td>
<td>-41.98 **</td>
</tr>
</tbody>
</table>

The table describes the sample series that have been tested using Augmented Dickey Fuller (ADF) 1981. The ADF test uses the existence of a unit root as the null hypothesis. To double check the robustness of the results, Phillips and Perron (1988) test of stationarity has also been performed for the actual series and then both the test are performed on first difference series also as shown in table (Actual series) and (first series difference) are integrated to I(1). All tests are performed using 5% level of significance (**).

If two or more series are themselves non-stationary, but a linear combination of them is stationary, then the series is said to be co-integrated. Given that sample series are integrated of the same order, co-integration techniques are used to determine the existence of a stable long-run relationship between the price pairs. The price linkage between sample series (GDP, FDI INFLOWS) is examined using cointegration (Johansen, 1991) analysis that has several advantages. First, cointegration analysis reveals the extent to which two markets have moved together towards long run equilibrium. Second, it allows for divergence of respective markets from long-run equilibrium. The co-integrating vector identify the existence of long run equilibrium while error correction dynamics describes the price discovery process that helps the markets to achieve equilibrium (Schreiber and Schwartz, 1986). Co-integrating methodology fundamentally proceeds with non-stationary nature of level series and minimizes the discrepancy that arises from the deviation of long-run equilibrium. The observed deviations from long-run equilibrium are not only guided by the stochastic process and random shocks in the system but also by other forces. On the other hand, if some level series are integrated of the same order, it does not mean that both level series are cointegrated. Cointegration
implies linear combinations of both level series cancelling the stochastic trend, thereby producing a stationary series.

Johansen’s cointegration test is more sensitive to the lag length employed. Besides, inappropriate lag length may give rise to problems of either over parameterization or underparametreisation. The objective of the estimation is to ensure that there is no serial correlation in the residuals. Here, Akaike information criterion (AIC) is used to select the optimal lag length and all related calculations have been done embedding that lag length. The results are reported in Table V.

**Table V: Results of Johansson cointegration Test**

<table>
<thead>
<tr>
<th>Name of the variable</th>
<th>Lag Length</th>
<th>Max Eigen Value</th>
<th>Trace Statistic</th>
<th>Critical Value**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AIC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI INFLOWS</td>
<td>2 lags*</td>
<td>37.78</td>
<td>39.53</td>
<td>15.49</td>
</tr>
<tr>
<td>GDP</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
<td>3.84</td>
</tr>
</tbody>
</table>

The table provides the Johanssen’s co-integration test, maximal Eigen value and Trace test statistics are used to interpret whether null hypothesis of \( r=0 \) is rejected at 5 % level and not rejected where \( r=1 \). Rejection of null hypothesis implies that there exists at least one co-integrating vector which confirms a long run equilibrium relationship between the two variables. The null hypothesis is rejected which reveals that one cointegration relationship exists between GDP and FDI inflows.

Maximal Eigen value and trace test statistics are used to interpret whether null hypothesis of \( r =0 \) is rejected at 5% level and not rejected when \( r =1 \). Rejection of null hypothesis implies that there exists at least one co-integrating vector which confirms a long run equilibrium relationship between the two variables, spot and future prices in our case. The null hypothesis is rejected which reveals that one cointegration relationship exists between sample variables. Thus, FDI inflows and GDP share common long-run information. Our cointegration result confirm a long term relationship .Despite determining a co integrating vector for each variable, it is customary to produce the diagnostic checking criterions .Diagnostic tests are performed for these two variables whose relationship is confirmed based on Johnson cointegration test. Vector Auto Regression (VAR) estimated with various lags selected by AIC is used to check whether the model satisfies the stability, normality test as well as no serial correlation criterion among the variables in the VAR Adequacy model. Testing the VAR adequacy of the sample series as shown in Table VI, it was revealed that both the sample variables are satisfying the stability test. In normality test both the sample variables are found to be normal. In verifying the VAR Residual Serial Correlation LM Tests it was found that in sample series have no serial correlation. Therefore, it leads to take the position that our model fulfils the adequacy criterion for majorly both the variables which exhibited a long run relationship between spot and futures prices as shown by Johansson Cointegration Test.

**Table VI: Adequacy test for VAR Model**

<table>
<thead>
<tr>
<th>NAME OF THE VARIABLE</th>
<th>Var Adequacy Test</th>
<th>Critical Values</th>
<th>Lags</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP AND FDI INFLOWS (1991-2012)</td>
<td>1 Stability (modulus values of roots of characteristics polynomials)</td>
<td>0.94, 0.89, 0.24, 0.08 (Stable)</td>
<td>2*</td>
</tr>
<tr>
<td></td>
<td>2 Normality Chi-Square values</td>
<td>4.81 (Jarque-Bera) ( p ) Val ( 0.09 ) (Normal)</td>
<td>2*</td>
</tr>
<tr>
<td></td>
<td>3 Serial Correlation LM-Test</td>
<td>18.55 ( ( p ) Val 0.08) (no serial correlation)</td>
<td>2*</td>
</tr>
</tbody>
</table>
The asterisk (*) shows significance at 1, 2, 3 and 4 lags. Diagnostic tests are performed for sample variables. Vector Auto Regression (VAR) estimated with various lags selected by AIC is used to check whether the model satisfies the stability, normality test as well as no serial correlation criterion among the variables in the VAR Adequacy model. Results reveal that all the sample commodities and indexes are satisfying the stability test except MCX Metal Index. In normality test all the sample variables are found to be normal. In verifying the VAR Residual Serial Correlation LM Tests it was found that both sample series no serial correlation was present. Therefore, it leads us to take the position that our model fulfils the adequacy criterion for both the variables. In addition, the empirical results of Granger Causality test between two sample variables have been examined to check the direction of causality. The results of VEC Granger causality test are provided in Table. VII There is bi-directional Granger lead relationships between FDI inflows to GDP and vice versa which are significant at 5% level.

<table>
<thead>
<tr>
<th>Null Hypothesis:</th>
<th>F-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP does not Granger Cause FDI</td>
<td>7.73482</td>
<td>0.00345</td>
</tr>
<tr>
<td>DFDI does not Granger Cause GDP</td>
<td>8.93482</td>
<td>0.00245</td>
</tr>
</tbody>
</table>

The results exhibit that FDI inflows are causing rise in GDP (economic growth) and GDP is also important in causing FDI inflows and this important relationship is realised by many players in the international scenario that FDI inflows (both cross border mergers and acquisitions and Greenfield investments) help the corporates to experience and expertise and help the business owners and management teams achieve their strategic goals. Government should realise this important role which can be played by both mergers and acquisitions and green field investments.

SECTION V: SUMMARY AND CONCLUSION

The practice of mergers and acquisitions has attained considerable significance in the contemporary corporate scenario which is broadly used for reorganizing the business entities especially after the economic reforms were initiated by Indian economy. India has experienced a substantial surge of foreign inflows during the last two decades because of the motives like, the search for new markets, increased market power and market dominance; access to proprietary assets; efficiency gains through synergies; greater size; diversification (spreading of risks); financial motivations; and personal (behavioural) motivations. According to the Outlook Report of OECD, India’s economic growth is likely to rise to more than 7.5 percent in the calendar year 2013 in comparison to 6.5 percent in the financial year 2011-12, subject to the government policies and uncertainty whereas, ICRA, a rating agency predicts India’s GDP growth rate at 6.2-6.4 for the financial year 2012-13 suggesting that various reform measures are imperative to enhance the macroeconomic outlook and to reinstate the confidence of investors. Indian position on FDI Confidence Index has improved significantly in 2012. Liberalized foreign investment regime and regulations have resulted in favourable business environment in the Indian market. This scenario is shown by OECD FDI Regulatory Restrictiveness Index, which is a tool for benchmarking countries, measuring reform and assessing its impact. There is a close relationship of OECD FDI Regulatory Restrictiveness Index and the level of FDI stock. After analysing the position deeply it is evident that despite the on-going global economic challenges, the latest results of the Grant Thornton International Business Report (IBR) clearly signify that dynamic businesses are successful in retaining 2011, transformed appetite for mergers and acquisitions (M&A) activity. A similar trend is observed in the Indian context and there is a steep rise in inflows via FDI Mode(cross border mergers and acquisitions). This these trends and patterns show this strategy is
adopted and accepted across the globe as the vital restructuring corporate strategy owing to changing landscape of the globe and growing and deepening globalisation. To find whether there exist a significant relationship between OECD FDI Regulatory Restrictive Index and the stock of FDI and To find whether there exist a significant relationship between FDI confidence Index and the stock of FDI OLS (Regression technique) was applied which showed significant results. To examine the impact of FDI inflows (M&A) on GDP (a proxy of economic growth) The results exhibit bi-directional causality i.e GDP leads to rise in FDI and vice versa. Hence owing to its role in the economic development important steps must further be taken by the government relating to policy issues and further liberalisation to improve the present landscape and taking this to a marked level.

SECTION VI : REFERENCES


- Scherer, F.M., “Corporate Takeovers: The Efficiency Arguments,” Journal of Economic
Perspectives 2, 1988, pp. 69-82.