The 2007-2008 global financial crisis, and cross-border mergers and acquisitions: A 26-nation exploratory study

Reddy, Kotapati Srinivasa and Nangia, Vinay Kumar and Agrawal, Rajat

Indian Institute of Technology Roorkee, Indian Institute of Technology Roorkee, Indian Institute of Technology Roorkee

2014

Reddy, K. S., Nangia, V. K., & Agrawal, R. (2014). The 2007-2008 global financial crisis, and cross-border mergers and acquisitions: A 26-nation exploratory study. *Global Journal of Emerging Market Economies*, *6*(3), 257-281. Sage Publications

The 2007-2008 Global Financial Crisis, and Cross-border Mergers and Acquisitions: A 26-nation exploratory study

Kotapati Srinivasa Reddy[1*], Vinay Kumar Nangia[2], Rajat Agrawal[3]

(1*) Corresponding author; Fifth-year Doctoral Student (Ph.D.),
Indian Institute of Technology (IIT) Roorkee, Department of Management Studies,
Roorkee – 247667, Uttarakhand (India).
Mobile: +91-8859143689; E-mail: srinuddm@iitr.ernet.in, cssrinivasareddy@gmail.com

(2) Professor,
Indian Institute of Technology (IIT) Roorkee, Department of Management Studies,
Roorkee – 247667, Uttarakhand (India).
E-mail: nangvfdm@iitr.ernet.in

(3) Assistant Professor,
Indian Institute of Technology (IIT) Roorkee, Department of Management Studies,
Roorkee – 247667, Uttarakhand (India).
E-mail: rajatfdm@iitr.ernet.in

[III Revised Submission 31-Jan-2014]

Acknowledgements: Authors sincerely thank the Editors, Editorial Board and anonymous referees of *Global Journal of Emerging Market Economies* for their helpful comments and suggestions on the earlier version. The first author of this article (K.S. Reddy, Doctoral Student of Ph.D. program [self-finance category]) express his gratitude to Ganesh Reddy, Prashant Kiran & Jones, Alluri Satyanarayana, Vasu Kiran, Bandi Yogi Reddy, Vadicherla Koti Reddy, Bandi Harinarapa Reddy, M. Suresh Reddy, Virendra Balon, Kottala Sriyogi, A. Dalpathi, Naveen Srivastava, Baliwada Kiran and Vemparala Siva for their *ad hoc* financial support to complete his doctoral research at the campus–IIT Roorkee. He is also grateful to Punjab National Bank (IITR branch) for providing short-term educational loan. This paper is produced from Reddy's doctoral work (2010-2014). All remaining errors are the responsibility of the authors. The usual disclaimer applies.

Abstract

Around the 2007-2008 global financial crisis we found a great deal of interdisciplinary studies that examine the causes of crisis, comparison of previous and recent crises, corporate governance and firm value, stock market efficiency, new firm registration, macroeconomic performance, and so forth of economic behaviors; conversely, we also found some studies in other disciplines like geography and natural sciences. However, we do not find conceptual (empirical) studies that study foreign mergers or acquisitions with respect to the financial crisis. Therefore, we initiate to accomplish this important knowledge gap in the international economics/business research. In this exploratory study, we perform an investigation using the UNCTAD's dataset of worldwide cross-border mergers and acquisitions (CB-M&As). We select 26 countries and employ the adjusted event-study method to find significant difference between the means of pre-crisis period (2004–2006) and post-crisis period (2008–2010) for both sales and purchases in three variables, namely number of deals, deal value and average deal value. Our results show that the 2007-08 global financial crisis has oppressed both CB-M&A sale and purchase transactions all over the world economy during 2008–2009. The very interesting finding is that after the crisis period emerging market countries have taken advantage of the attractive asset prices in developed countries and increased their foreign acquisitions. Lastly, we offer 'crisis-related CB-M&A propositions' that would facilitate future hypotheses testing, empirical studies and policy-making research.

Keywords: Global financial crisis; Cross-border mergers and acquisitions; Foreign acquisitions; Foreign direct investment; Developed Economies; Emerging economies; Event study.

1. Introduction

It is worth mentioning that globalization and financial liberalization trend settings have exponentially increased the market for both international direct investments and foreign acquisitions (see UNCTAD, 1991, 1992, 2000).[1] However, these acquisitions had driven a severe of deals across the regions and continentals around the 2007-2008 global financial crisis, or U.S. mortgage-market meltdown (see UNCTAD, 2008, 2009). In Petri and Plummer (2009), the authors mention that crisis was (1) originated from policy failures in a developed economy, (2) promulgated quickly through new types of interconnections in the world economy …, and confirmed a need of new financial institutions and regulators for policy reform (p. 701). In other words, loose monetary policies or incentives were being the roots of the crisis that affected all business enterprises (Taylor, 2009). In fact, deeper global capital market integration, rise of securitization, growth of private capital and increase in financial derivatives also were being the most determinants of the crisis (Swagel, 2009). In addition, it had caused at two stages, firstly, the global macroeconomic liquidity policies, and secondly the inefficient framework for incentives of financial market agents, which accustomed by the bad regulations, tax incentives and governance standards (Blundell-Wignall & Atkinson, 2009, p. 536). Further, the crisis had seen a similar affect in advanced economies and developing economies, especially Asian and African continentals (Arner & Schou-Zibell, 2011; Boorman & Christensen, 2010; Fidrmuc & Korhonen, 2010). For instance, when one region suffers a bank crisis, the other regions suffer a loss because their claims on the troubled region fall in value (Allen & Gale, 2000, p. 2). By and large, the aforementioned views support the theoretical construct that economic disturbances affect the international direct investments and foreign acquisitions across regions (Gort, 1969; Kang & Johansson, 2000). At the outset, we examine cross-border mergers and acquisitions (hereinafter, CB-M&As) around the 2007-08 global financial crisis, and aim to acknowledge the FCIC (2011) and other investigations.

Until the great depression, major crisis was struck about every 15-20 years, for example, 1792, 1797, 1819, 1837, 1857, 1873, 1893, 1907, 1929-33, and now 2007 (see Dwyer & Lothian, 2012; Moss, 2009; Reinhart & Rogoff, 2008, 2009; Shachmurove, 2011). According to a World Bank study, the world economy has witnessed as many as 112 systemic banking crises from the late 1970s to the early 2001 (as cited in Kumar & Vashisht,

[1] In this article, we use [“cross-border/cross-country mergers and acquisitions”, “foreign/international acquisitions”, and “border-crossing mergers and acquisitions”]; [“foreign/international direct investments” and “cross-border investments”]; [“developed economies/markets” and “advanced economies/markets”]; and [“developing economies/markets” and “emerging economies/markets”], interchangeably.

2009). The extant studies indicated that recessions associated with the periods of deep financial disruptions, which show a larger decline in real economic activity (see Arnold, 2009). In this vein, the financial meltdown was embarked in the year 2007 with the collapse of the U.S. mortgage market (e.g. Allen & Giovannetti, 2011; Boorman, 2009; Claessens, Kose, & Terrones, 2010; Dwyer & Lothian, 2012; Goodhart, 2008; Grosse, 2012; Hodson & Quaglia, 2009; Kamin & DeMarco, 2012; Petri & Plummer, 2009). It is probably the harshest to the world's financial system since the Great Depression in 1929 (e.g. Bordo, Meissner & Stuckler, 2010; Shachmurove, 2011). As a result, the affect had set-down the assets in the U.S., Europe, and Japan would be as high as US$4.1 trillion (IMF, 2009).[2] Conversely, the crisis reflects the failure of an economic and regulatory philosophy that established ever more influential in policy circles during the past three decades (Moss, 2009). The asset market collapsed deeply and prolonged, then real housing prices were plunged by an average 35% stretched over six years, while equity prices sharply tumbled at an average 55% over a downturn of about three and half years (Reinhart & Rogoff, 2009). In particular, FCIC (2011) indicated that roughly US$11 trillion worth of households had been vanished with retirement accounts and life savings swept away. In our survey, we found numerous studies that examine economic crisis or 2007-08 global financial crisis, and its affect on stock markets and financial institutions across the world economy.[3]

With this in mind, we express objective and contribution of our investigation. This paper is constructed based on the observations and outcomes of the Financial Crisis Inquiry Commission Report (FCIC, 2011) and the World Investment Reports (UNCTAD, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011). More expressly, we have been encouraged by the research agenda and directions suggested both for developed and for emerging markets (Kearney, 2012).[4] Our study is an original contribution that is motivated by the recent studies performed around the 2007-08 global financial crisis and its affect on related financial markets (e.g. Takagi & Pham, 2011; Xu & Hamori, 2012).[5] Despite the limited research on

[2] The emerging stock markets are down, on average, more than 50%. For example, Shanghai was collapsed roughly 70%, and India was 50% (Spence, 2009, p. 503).

[3] Following the reviewer comments, and to conserve space, we have removed the literature review section due to availability of published articles in the given research, i.e. global financial crisis and its impact on financial markets, interdisciplinary and cross-disciplinary settings. However, a set of references are available with the corresponding author upon request.

[4] Kearney (2012) surveyed a recent research on emerging markets within the fields of economics, finance, international business, and management. Kearney suggests some areas for future research, for example, market efficiency, […] international business strategy and corporate governance.

[5] For example, Takagi and Pham (2011) analyzed the exchange rate policy in Vietnam around the crisis, 2008-09. In Xu and Hamori (2012), the authors examined the linkages of stock prices between Brazil, Russia, India, and China (BRICs) and U.S. with regard to financial crisis.

border-crossing M&As around the unpredicted event of global financial crisis, we aim to examine worldwide foreign mergers and acquisitions of 26 countries during pre- and post-crisis period. As a rationale, we select three years before (2004–2006) and after the crisis (2008–2010). In particular, the assessment is performed in three key variables: number of deals, deal value, and average deal value. Further, we develop and test hypotheses on the basis of our new idea "*adjusted event-study method*". To do so, we follow some guidelines propounded in different economic and finance theories, for instance, Jensen and Meckling's (1976) *"Agency Theory*", Fama, Fisher, Jensen, and Roll's (1969) *"Information Asymmetry Theory*", the "*Value Maximization Theory"* (e.g. Firth, 1979; Healy, Palepu, & Ruback, 1992), and importantly the "*Economic Disturbance Theory*" (Gort, 1969). From the empirical results reported in our study, we explore crisis-related CB-M&A propositions both for policy matters and for future research in strengthening the macroeconomics and M&A research. To the best of our knowledge, the task of 'developing theoretical propositions in the view of economic crises and direct international investments/acquisitions' is new initiative in M&A research, which would facilitate future hypotheses testing and policy making.

To do so, we establish a quadrilateral relationship between economic crisis, business cycles, trade/capital flows and cross-border M&As. In various economic theories, economic activity is defined as a "trade", which states that transfer or exchange of goods and services for a monetary paid in a given period. When we read the definition closely through our lenses, both "exchange" and "time", are being the key determinants of a trade. In general view, when the trade is created in a local setting, it is treated as "domestic trade"; conversely, when the trade is exhibited between two countries institutional frameworks, it is termed as "international trade". More notably, a country's economic development is determined by both domestic and international factors, for example, bilateral trades, capital flows and cooperative agreements (Fidrmuc & Korhonen, 2010; Kenc & Dibooglu, 2010). In Fidrmuc and Korhonen (2010), the authors also indicated that global institutional factors play a vital role in liberalized economies, also influence local policies, for instance, interim and annual budgets. With this in mind, we draw up important theoretical insights from the "*Theory of Business Cycles*" in the economics (e.g. Fels, 1952; Schumpeter, 1939), the "*Theory of International Trade*" in the international economics (e.g. Brecher & Parker, 1977), and the "*Theory of Multinational Firm*" in the international business (e.g. Hymer, 1970; Caves, 1971). First, there is a closeness and inter-linkage between business cycles and trade in the given period at both domestic and international environment. In Caves's (1971) view, there are two principal economic features of direct investment by multinational firms: (i) it ordinarily affects a net transfer of real capital from one country to another; and (ii) it represents entry into a national trade. Indeed, trade and capital flows are key factors of business cycles (Fidrmuc & Korhonen, 2010), for example, size of financial markets of a given country would be the most determinant when domestic firms invest abroad (see di Giovanni, 2005). Similarly, Chor and Manova (2012) suggested that "adverse credit conditions play a significant role in the conduction of the affect of the crisis to trade flows across the world economy". We then study different authors' perceptions on business cycles and understand that a business cycle in some countries can be low degree and high degree in other countries.[6] Second, we strongly believe that the 2007-08 financial crisis had transmitted from developed economies to emerging economies, which can be approved from the theories of business cycles and international trade. In other words, the crisis had spread from the U.S. to China and Japan, mainly via the trade channel and its cooperative role (Petri & Plummer, 2009, p. 702). In Kim, Koo, and Park (2013), the authors described two kinds of crisis, namely banking and currency crisis. They find regulatory implications on banking (e.g. restrictions and entry limitations) lessen the chances of banking crisis, while government ownership and capital interest in banks strengthen the chances of currency crisis. For case in point, international trade flows have declined approximately 12% in 2009 that augmented the estimated loss of 5.4% in world GDP (as cited in Chor & Manova, 2012, p. 117).

From the aforesaid theoretical (empirical) proofs, we recognize that a great extent of relationship exists between an economic activity, degree of business cycles, cross-border investments and CB-M&As. Further, we incorporate some lawful proposals suggested in well-established theories (information asymmetry, agency, value maximizing, and economic disturbance) to define testable hypotheses. While accepting [rejecting] the hypotheses, we consider the above theoretical arguments, and lookup the theory of business cycles, the theory of international trade, and the economic disturbance theory.

Hypothesis 1. In the light of country-wise CB-M&A sales, there is no significant difference between pre- and post-crisis in select four panels (number of deals, deal value and average deal value).

Hypothesis 2. In the view of country-wise CB-M&A purchases, there is no significant difference between pre- and post-crisis in select four panels (number of deals, deal value and average deal value).

[6] Business cycles of Asian markets are considered by a low degree of business cycle correlation with advanced markets (Fidrmuc & Korhonen, 2010). The financial crisis has had less of an impact for both China and India, because their finance and banking system is not highly connected with the global financial system (p. 301).

The remainder of the paper has following articulation. Section 2 presents data, rationale behind our dataset and method. In Section 3, we report empirical results and interpret them whilst testing the hypotheses. Section 4 outlines key findings to explore crisis-related CB-M&A propositions. In Section 5, we draw up our conclusions.

2. Data and method

2.1. Data collection and sample selection

To test the aforementioned hypotheses, we collect data on financial crisis, CB-M&As, and other macroeconomic variables. In detail, studies related to financial crisis and the extant review on CB-M&A determinants are referred from an esteemed set of international referred scholarly journals, for instance, *Journal of Asian Economics*, *Journal of Finance*, *Journal of Financial Economics* and *Journal of International Economics*, just to cite a few. The worldwide CB-M&A sales and purchases' data sheets for the period 1991−2010 are extracted from the UNCTAD's World Investment Reports. Lastly, real GDP growth rate for select countries is accumulated from a globally recognized Euro Monitor data warehouse (Passport). In particular, we perform an act of classification in reference to sales and purchases for three arrays, such as, number of deals, deal value, and average deal value.

With this in mind, we develop two-stage selection measure to choose a country for possible inclusion in our dataset. First, the country's number of deals must have 1% or more than that of world economy number of deals during 1991-2010. Second, a country being selected at first measure should occupy at least 'thrice' during 2004-06 and 2008-10. Briefly, sampling countries have to qualify the above two-stage selection measure to include in our sample. In addition, we made BRIC economies are compulsory, because they become emerging markets when the M&A concept had engulfed from western economies (e.g. Reddy, Nangia, & Agrawal, 2013). Therefore, our final sample reaches 26 countries and the selection is referred to 'number of deals in CB-M&A sales'.

2.2. Data support and checks

We select real GDP growth rate as a rationale to the study while attaining our goal of robustness checks (see Table 1). Indeed, we check real GDP growth rate to find macroeconomic signaling affect of an economy around the crisis period. More interestingly, Brazil was the only country that shown 5.2% GDP growth in 2008 compared to 4% in 2006; therefore, the real margin is 1.2%. Surprisingly, Ireland was largely declined by 3.5% in 2008 compared to 5.3% in 2006, and thus similar results were appeared for China, Denmark, Hong Kong, India, Italy, Japan, Russia, Singapore, and Sweden in the immediate succeeding year of the crisis. In 2009, Australia, China, and India were reported 1.3%, 9.2%, and 6.8% respectively; hence, their rise is lower than the previous year. However, remaining 23 countries have reported negative growth, for example, Finland (-8.2%), Russia (-7.9%), Ireland (-7.6%), Japan (-6.3%), and Sweden (-5.3%) [...]. In the recovery stage (the year 2010), Singapore, India, and China showed 14.5%, 10.4%, and 10.3% respectively. Further, a meager number of countries were reported significant growth. China showed highest growth prior to the crisis; similarly, Singapore recovered after the crisis, for instance, 12.7% and 14.5% respectively. On the other hand, Brazil, China, and India were being affected at a least collapse in 2009. However, India was the only country that shown 6.8% growth in 2009 compared to 6.2% in 2008, whereas all other countries in our sample confirmed lowest, hence a maximum number of countries reported negative trend. In fact, we observe positive growth (rise/decline, but not negative) for all countries before the crisis period. Furthermore, 24 countries have been recovered and two countries noticed a decline in 2010. We then construe that these countries might have– raised money supply, controlled bank interest rate and regulated investment policies.

[Insert Table 1 about here]

2.3. Method and data analysis

We develop conceptual model from the school of market efficiency theory (e.g. Fama, 1976; Fama & MacBeth, 1973; Fama et al., 1969), to examine the signaling affect of an event on CB-M&As. Subsequently, we use Pearson's correlation and analysis of variance (one-way) to find significant difference between the means of our sample during pre-crisis and post-crisis. Capital market efficiency is the key assumption underlying the use of finance theory and finance-based methodologies in event studies (see Binder, 1998; Brown & Warner, 1985; Fama, 1976; Fama et al., 1969; Johnson, Natarajan, & Rappaport, 1985). Rappaport (1983) and Johnson et al. (1985) argued that applications of finance theory provide better measures of firm performance compared to accounting-based measures, and therefore offer better guidance in strategic choices and decisions. In recent times, scholars in strategic management have been used finance methods including event studies to assess the impact of corporate announcements in the view of corporate restructuring, change in leadership [or] and M&A events. In this method, the event date is assigned as event time *t0* (Johnson, 1998). While measuring the long-term performance of merged entities, yearly-based accounting data has been used appreciably in earlier studies (see Ghosh, 2001; Healy et al., 1992). Additionally, we found some studies that employ event study method to investigate macroeconomic variables and capital market transactions around the financial crisis (e.g. Hale, 2012;

Miyajima & Yafeh, 2007; Takagi & Pham, 2011).[7] Likewise, we use year-wise CB-M&As data around the crisis. In our study, we adjust the earlier version of event-study method that typically use to calculate shareholders earnings during pre- and post-corporate events, such as, dividend issue, bonus issue, buyback program, merger, acquisition, [or] and any other market sensitive events.

In the previous version, researchers consider event time as *T0*, and T+1 return is computed based on *T0* value; therefore, value of change in T+1 causes the 'percent of change'. This can be expressed as follows:

$$T + 1\,return \; = \sum_{i=1}^{N}\left(\frac{[T+1]-[T0]}{[T0]}\right) \times 100$$

By contrast, [in our model] we consider event time as T−1 instead of *T0* while estimating means of the following year to the crisis (T+1). Simply, we replace T−1 to *T0* in the aforesaid formula.

$$T + 1\,return \; = \sum_{i=1}^{N}\left(\frac{[T+1]-[T-1]}{[T-1]}\right) \times 100$$

Where, T+1 refers to day after the event; T−1 refers to day before the event; *T0* refers to day of the event. Therefore, we call this adjustment as "*adjusted event-study method*".[8] Indeed, there are strong reasons and rationales behind employing or adjusting the previous version.

First rationale: In general, scholars use event studies to estimate the short-term stock earnings, for example, T−3, T−2, T−1, T0, T+1, T+2, T+3, which is day-wise computation. However, in our study we consider year-wise data due to unavailability of monthly, quarterly, and half-yearly classified data from the UNCTAD.

Second rationale: This is an important rationale behind our study. While applying event-study method, we observe an enormous growth rate in number of deals and deal value on *T0* that was the financial crisis year 2007. Due to crisis, most of the companies were being declared as bailouts, and the year 2007 had represented large number of deals ever before. Subsequently, growth rate has collapsed in 2008 and observed equivalent trend between pre- and post-crisis period (see, for instance, Figure 2). If we consider year 2007 as *T0*, then it shows higher growth rate in 2007 compared to previous years, thus it would cause 2008 as

[7] In Miyajima and Yafeh (2007), the authors examined abnormal stock returns for Japanese non-financial firms around events attached with the banking crisis.
[8] This method is different from the standard event study method (e.g. Campbell, Lo, & Mackinlay, 1997; Fama, 1976; Fama & MacBeth, 1973; Fama et al., 1969).

biggest fall year. If we could have applied previous version, post-crisis results would differ from pre-crisis. We then ignore the year 2007 [completely] while examining pre- and post-crisis CB-M&A performance. Therefore, pre-crisis refers to 2004–2006 and post-crisis refers to 2008–2010, then the estimated time-period is three year before- and after- the crisis. Certainly, pre-events describe as T−n to T−1 and post-events represent as T+1 to T+n (see Figure 1). On the other hand, we have no option to compute abnormal returns of CB-M&A deals like shareholders abnormal changes against market index (e.g. market efficiency models, see Fama, 1976). In sum, the adjusted event-study model is applied in our research to investigate border-crossing M&As around the 2007-08 global financial crisis.

[Insert Fig. 1 about here]

3. Results and discussions

3.1. Worldwide Cross-border M&As, 1991–2010: A bird's eye view

The year 1991 is being the globalized and liberalized period that persuaded most nations in introducing new economic policy regulations and guidelines for achieving economic growth. We consider 20-year period (1991–2010) to examine world economy border-crossing M&As (see Figure 2). In 1990, number of deals (deal value) has increased (raised trivially) by 23.65% (78.67%). Notably and historically, 1992 is the tremendous year that has shown a 34.77% growth rate for number of deals and a 128.06% for deal value (which is the highest rise during 1991–2010). Subsequently, number of deals reports a positive annual growth during 1993–2000, for instance, it has increased from 2.2% to 15.25% at an average rise 14.72%. Conversely, deal value shows a growth rate 110% and 124.85% in 1994 and 1998 respectively. In particular, both number of deals and deal value have reported negative trend for three years continuously (2001–2003); thereafter, prosperous rise is reported in the post-four years (2004–2008). In addition, number of deals (deal value) increase at an average 23.86% (56.63%). In the financial crisis year–2007, a worldwide CB-M&A transaction (deal value) is outstandingly boosted by 22% (63.55%). During the post-financial crisis, both number of deals and deal value show a negative trend for two years successively (2008 and 2009). More interestingly, the year 2009 is largely affected because of the global financial crisis. However, number of transactions (transaction value) is being recovered by 27.51% (35.68%) in 2010. Therefore, we foresee that cross-country mergers or acquisitions positive regime would continue over the next decade. Furthermore, 1992 is the historical year for CB-M&As in the view of economic, banking and financial reforms. Thus, it took two years to shore-up, for instance, number of deals 34.77% and deal value 128.06%. Likewise, we observe a massive amount of rise for transactions (transaction value) by 35.87% (103.44%) in 2005; in fact, it is observed after 12 years since 1992. We then infer that this achievement is because of policy reforms, amendments in foreign investment norms, and trade agreements between developed, emerging and developing nations. Now, we have substantial evidence that the 2007-08 crisis has adversely affected worldwide border-crossing acquisitions, for instance, number of deals (deal value) has significantly declined by 34% (64.65%) in 2009. Like 1992 and 2005, crisis has obtained two years to prove its principle or rule on CB-M&As. Therefore, we strongly suspect that companies' earnings could have been tumbled in 2008, and then it causes a negative trend in 2009; consequently, government is likely printed new currency that could largely influence consumption, demand, inflation, and so forth of economic behaviors. Further, these factors might have escorted in uplifting corporate earnings and cash flows. Finally, it causes to an early recovery that is being substantiated in 2010. In a nutshell, foreign acquisitions have been unfavorably affected by the global financial turmoil, which is two years after the crisis. With this in mind, we proceed to show our actual investigation.

[Insert Fig. 2 about here]

3.2. Country-wise CB-M&A Sales during pre- and post-crisis period

We show statistical results of CB-M&A sales in three panels (see Table 2). Panel 3A explains number of deals; Panel 3B describes deal value, and Panel 3C reports average deal value. In the aforementioned section, we have explained the rationale behind a selection of 26 countries from the UNCTAD data and provided their GDP estimates as data checks. First, we interpret results for number of deals in Panel 3A that notices Brazil and Russia show highest growth rate in the post-crisis period, 69% and 55% respectively. Therefore, we suspect that these countries are being attracted surplus inward foreign investments after the crisis. This could be possible in many situations, for instance, deregulating the investment norms, sale-out of state owned enterprises (disinvestment), and tax subsidies or incentives. It would be greater knowledge gap for future research while undertaking our research question – why emerging economies have reported superior growth rate in CB-M&A sales after the crisis. Further, it can be extended to find characteristics, firm-specific motives and macroeconomic factors that determine significant number of CB-M&A deals. In particular, U.S. shows negative growth 2%, and UK notices positive trend 5%. Similarly, China (India) is being noticed negative growth by 10% (3%) during the post-crisis. Likewise, Japan also has reported negative trend by 7% during the pre-crisis. Conversely, we test the mean differences of each country between pre- and post-crisis at 5% significant level. However, New Zealand shows partial difference between the means (p-value 0.056). On the other hand, Panel 3B describes deal value estimations. It is worth pointing that most advanced economies have attracted by the emerging economies investment in the aftermath of the crisis. For example, Australia, France, Italy, Norway, Singapore, Spain, the UK and the U.S. economies deal value is being improved by 68%, 87%, 85%, 166%, 101%, 82%, 22% and 31%, respectively. Indeed, this significant evidence is motivated us to suggest crisis-related CB-M&A propositions.

Importantly, Hong Kong (India) is reported a momentous growth by 75% (28%) during the post-crisis; conversely, China (Russia) is noticed a nominal surge by 1.6% (2.8%). From the statistical results, we notice that Netherlands shows mean difference during pre- and post-crisis deal value assessment (p-value 0.044). Panel 3C interprets the results of average deal value.[9] On one hand, Australia, Austria, France, Italy, Spain, Switzerland and the U.S. countries report a notable growth during the post-crisis by 40%, 32%, 32%, 23%, 58%, 34%, and 18%, respectively. Similarly, Malaysia, Singapore and Norway countries show a substantial rise by 347%, 112% and 104%, respectively; Belgium also notices 241%. While, China and India have noticed an epochal rise in BRIC group. Further, we do not notice any significant difference of means between pre- and post-crisis average deal-value results. Hence, we describe that post-crisis results are comparatively lower than pre-crisis.

[Insert Table 2 about here]

Then, we use the Pearson's correlation method to find evidential country-wise pairs that are closer (r=1) in CB-M&A sales: number of deals, deal value, and average deal value.[10] Thus, we present some pairs that have reported more than 0.95 at 1% significant level. For example, the pairs include Japan-Canada (0.949), Russia-Canada (0.972), Switzerland-China (0.971), Sweden-Denmark (0.960), Ireland-India (0.976), UK-India (0.946), UK-Ireland (0.945), Russia-Japan (0.983), Singapore-Malaysia (0.969), New Zealand-Netherlands (0.965), and Sweden-New Zealand (0.955). Therefore, we infer that most Asian economies have trade and business relationship or association with European countries. Indeed, the pairs explain that economic and legal environment factors are being favorable between each other around the crisis. We also observe negative pairs, which are not closer (r=−1) at 1% and 5% significant levels. In sum, our results rise a query "does a determinant of CB-M&A sales or inward foreign investments in the above pairs are similar and closer". We strongly argue that the issues being raised here need further research. For instance, one may refer to the

[9] For example, the average deal value represents total deal value divided-by number of deals in a given time.
[10] To conserve space, we do not present all the correlations either in text or in tabular form.

identifying success determinants of CB-M&As (e.g. Aybar, Jeffus, & Edmunds, 2012; Erel, Liao, & Weisbach, 2012).

Furthermore, we address whether the high rates of growth after the crisis are merely high because of the lower base in 2009, or a jump to the earlier trend. The observations are as follows. Regarding number of deals, 25 out of 26 sampling countries have shown negative growth in 2009 where the highest collapse appeared to be Brazil by 62%, but Russia left with a small rise by 2.2%. In 2010, Brazil has reported highest growth rate to be 154%, followed by Denmark (117%) and Russia (85%). By contrast, four countries have steadily shown negative trend in 2010, as it was in 2009, for example, Ireland (12%), Malaysia (21%), New Zealand (21%), and Switzerland (17%), and the remaining left with positive rise. It infers that the countries, which have shown merely a positive trend in 2010 is due to their negative base in 2009. While looking at BRIC group, one may infer that Brazil and Russian markets have attracted more number of inbound deals as their growth rates are significantly higher compared to China and India. It seems to be a policy-reform indication that after the crisis both Russian and Brazilian governments have been initiated in deregulating their foreign investment and taxation norms to be a focused-location for direct and portfolio investments from other developed/emerging countries. While assessing rates of growth to deal value, we also found few interesting results. A static, 22 countries have reported negative rise in 2009, except four countries: Austria (35%), Belgium (385%), China (103%) and Switzerland (131%), but their growth trend in number of deals has declined. It infers that these countries might have received investments from high-networth companies made deals in the crisis at lower number of deals, which makes higher deal value. Whereas in the year 2010, 15 countries notice negative trend in which 11 countries have reported as it was in 2009. However, few countries confirm momentous rise in 2010 due their negative base in 2009, for example, France (423%), Hong Kong (297%), Italy (509%), Malaysia (872%), Norway (340%), UK (132%) and US (100%), just to mention a few. More shockingly, BRIC group is found to be negative rise in 2010 except China. It realizes that the value of investments in the form of cross-border inbound acquisitions have declined *continually* due to serious fall in profits of other countries multinationals. Though, there are notable deals to attest that India has become a destination for multinational companies irrespective of its rigid institutional laws, for example, UK based multinational firms like Vodafone invested in India by acquiring Hutchison for $11 billion in 2007, then further increased their equity ownership in subsequent years (Reddy, Nangia, & Agrawal, 2014).

3.3. Country-wise CB-M&A purchases during pre- and post-crisis period

Similar to the discussions on CB-M&A sales, we show empirical results of CB-M&A purchases (see Table 3): number of deals in Panel 4A, deal value in Panel 4B, and average deal value in Panel 4C. We notice that some countries from BRIC group and advanced economies show impressive growth during the post-crisis, for instance, Brazil (59%), China (58%), New Zealand (35%), Russia (25%), Singapore (17%), and the U.S. (2%). Furthermore, we observe considerable increase in Canada (4%), Finland (25%), France (2%), Hong Kong (2%), India (34%), Italy (20%), Japan (13%), Netherlands (19%), Sweden (7%), and Switzerland (14%); hence, these economies drive is significantly lower than the pre-crisis period. On the other hand, Panel 6B reports CB-M&A purchases deal value. Our results describe that Belgium, Finland, Malaysia, Russia, Singapore, the UK and the U.S. economies show a substantial growth by 166%, 124%, 56%, 113%, 50%, 27% and 52%, respectively in the aftermath of the crisis. Likewise, we observe a rise in Brazil (28%), Canada (48%), China (68%), Germany (47%), Italy (20%), Japan (80%), Sweden (12%), and Switzerland (11%); hence, these economies trend is lower than the pre-crisis period. More importantly, India has reported an extreme growth 2,994%; by contrast, New Zealand has become the biggest tumble nation -883%. From the Panel 4A and Panel 4B discussions, we illustrate that most emerging economies have chosen cross-country purchase strategies [outward investment] after the crisis period. In the narrow view, one can suspect that developing economies multinational firms might have acquired bailout units (small and medium) in American and European continentals because of lower valuations. Therefore, we strongly believe that the 2007-08 global financial crisis has become a great deal for emerging nations' enterprises (e.g. BRICS) while going for internationalization or choosing foreign acquisitions, especially in developed nations due to attractive asset prices and undervaluation. These imperative issues have stimulated us to propose a research question– "what factors are being favored or motivated the emerging countries' companies while choosing border-crossing purchases after the crisis period". In other words, we strongly argue that these economies might have been– increased money supply, liberalized the investment norms, easy of doing business in a host country, or tax incentives. In this setting, we recommend academic scholars that serious investigation is required on case-by-case and country-by-country to find the motives of outward foreign investments. For case in point, it can be carried out by undertaking various firm-specific and macroeconomic variables, and causes and consequences of inward foreign acquisitions. In addition, Panel 4C presents the results of average purchase-deal value. We find a substantial growth in Belgium (142%), Canada (40%), Finland (39%), India (1,176%), Malaysia (63%), Russia (38%), Sweden (57%), UK (24%), and the U.S. (20%) during the post-crisis period; by contrast, find a negative trend. In particular, we do not notice any significant difference of means at 5% significant level. Therefore, we argue that post-crisis results are comparatively lower than pre-crisis.

Similar to CB-M&A sales correlation pairs, we observe some pairs that are closer (r=1); hence, most pairs show more than 0.95 at 1% significant level.[11] For example, the pairs are Australia-Hong Kong (0.947), Australia-Ireland (0.979), Belgium-UK (0.969), Brazil-China (0.957), and Hong Kong-Ireland (0.986). In fact, we also find negative pairs that are not closer (r=−1). These correlation results have stimulated us to suggest a research agenda in international business and macroeconomics disciplines. In other words, do the factors affect CB-M&A purchase deals are similar and closer to the aforementioned CB-M&A sales. Therefore, we recommend scholars that selecting firm-specific and country-specific attributes for a valid investigation in border-crossing purchases or outward investments would append a real contribution to the study. More expressly, we plot a graph for real GDP, and CB-M&A sale and purchase transactions during pre-crisis and post-crisis period (see Figure 3).

[Insert Table 3 about here] and **[Insert Fig. 3 about here]**

As discussed in previous section, we also assess whether the high rates of growth […]. Regarding number of deals, 25 out of sampling countries have reported negative growth in 2009, which is similar to the sales, but China left with positive rise by 41%. This important finding infers that Chinese companies have made significant number of outbound deals as part of their internationalization strategies. By and large, crisis has provided an opportunity to invest largely in developed economies on the basis of their deep pockets (cash flows) and availability of debt from local financial markets. In this setting, we agree with Deng (2009), evidenced that many Chinese companies participate in M&As to access developed markets, which is a reverse-investment flow. In 2010, two countries have noticed negative trend as it was in 2009, for instance, Austria and Germany. We suspect that the recent euro crisis has adversely affected these countries, and then their governments might have regulated outward foreign investment norms and laws. And, 24 countries show positive trend in which New Zealand has reported highest rise to be 171%, followed by India 148% due to their negative trend in the previous year. This observation also infers that New Zealand and Indian firms have marked a great extent of outbound deals, particularly in developed countries due to their deep pockets and availability of debt from the local bank lenders and investment bankers. In

[11] To conserve space, we do not present all the correlations either in text or in tabular form.

this vein, future researchers can enhance the empirical results by regressing home-host country determinants and investment risk factors. Conversely, we report few observations on rates of growth to deal value. In 2009, 23 countries report negative trend, but Austria left with positive trend by 10%, Denmark (13%), and Sweden (48%). However, Chinse firms have made significant outbound deals but their investment has declined by 43%. The common country that has shown positive trend for both sales and purchases is "Austria". This result infers that Austrian government might have cleverly acted, planned and opened their economy as free as to attract inbound deals (also, invest outside) irrespective of its decline in number of deals. To the best of our investigation, Austria might be the best case where one could study a great coverage of economic and investment policies from their policy-making strategy after the crisis.[12] Whereas in 2010, number of countries show positive (negative) growth to be 12 (14), and the highest positive (negative) trend observed to be India 8,979%, US 263%, Brazil 210% [...] (New Zealand 1932%, Norway 768%, Australia 614%, Ireland 576%, The Netherlands 535% [...]). Surprisingly, 12 out of 14 countries have steadily shown negative trend as it was in the previous year. Further, 12 counties have reported significant positive rise in 2010 due to their negative base in 2009. In particular, we strongly suspect that Indian-based firms have made highest investments irrespective of their negative trend in number of deals. It infers that due to erratic[13] foreign investment laws related to inbound deals, many Indian companies have planned to invest in developed countries (e.g. through acquisitions) and growth markets (e.g. Africa).[14] For example, when negations were broken [due to dual listing norms] with MTN during 2008-09, Bharti Airtel acquired Kuwait-based Zain Telecom for $10.7 billion in 2010 to grasp business opportunities in Africa. Likewise, Airtel also entered Bangladesh by acquiring 70% equity stake in Warid Telecom for $300 million (Reddy, Nangia, & Agrawal, 2012). In light of BRIC group, we report positive trend in 2010 that is followed by India, Brazil, China and Russia. From the above observations, one would recognize that emerging markets have been focusing on policy reformulation to host foreign firms and to improve their current economic systems.

Lastly, to support our empirical proofs we test the hypotheses whilst attaining the objectives of the study. We then draw one-way anova results to test the significant difference

[12] The interesting discussions related to the "Austrian" market have made on the basis of author(s) own perception and inference.
[13] The use of 'erratic' refers to the unpredictable institutional environment. For instance, Khanna and Palepu (2000) mentioned that "emerging markets like India have poorly functioning institutions, leading to severe agency and information problems".
[14] One could refer to the "outward foreign direct investment as escape response to home country institutional constraints" (Witt & Lewin, 2007).

between pre-crisis and post-crisis means of our sample (see Table 4). We divide sample into two groups, consist four panels in a group. More surprisingly, we do not find noteworthy difference of means in all four panels (see A to D). As a result, we accept null hypothesis H1 at 5% significant level (p-values: panel A (0.075), panel B (0.737), panel C (0.954), and panel D (0.996)). On the other hand, we discuss hypothesis H2 results in group II (panels E to H). We suggest that three out of four panels show no statistical difference; therefore, we accept H2 for panels F, G and H at 0.796, 0.670 and 0.992, respectively. In contrast to the aforesaid hypothetical results, we must reject H2 for panel E (p-value 0.040(<0.05)), infers that there is a great deal of statistical difference for CB-M&A purchase transactions between pre-crisis and post-crisis period. Parenthetically, we have shown all our robust results in the aforementioned discussions.

[Insert Table 4 about here]

4. Key findings and crisis-related CB-M&A propositions

The important verdict of our study is that "CB-M&A sale and purchase deals have been adversely affected after two years of the 2007-2008 global financial crisis" in which the results have supported the 'economic disturbance theory' (Gort, 1969; Kang & Johansson, 2000). Indeed, most countries in our sample have reported a negative trend in 2009. With this consistence and abovementioned robust findings, we suggest our [first] crisis-related CB-M&A proposition. We have attempted this task following the Lubatkin (1983), where the author developed few propositions with respect to the M&A performance on the basis of extant empirical findings.

Proposition 1: Global financial crisis and regional economic disturbances adversely affect direct investments and cross-border M&As, which would materialize in second year of the post-crisis period (T+2) to number of transactions and deal value.

During the post-crisis (2008–2010), Brazil (also, Japan and Russia) shows a historic rise by 69% (24% and 55%). Thus, we suspect that these countries might have restructured their– economic policies, investment guidelines and regulatory provisions. In fact, it may be the affect of bilateral trade agreements or any other mode of investment flows. On the other hand, Brazil, Russia, India and China (BRICs), New Zealand, and Singapore economies might have used their money supply and corporate earnings efficiently, thus their multinationals and local companies have acquired firms both in western and in other developing economies. However, it is positive signal that emerging-economies multinational firms are gaining strategic international advantage via reverse-investment flows. For instance, emerging market countries have increased their trade, investment, partnership within and with other regions due to increased formal integration, better use of comparative advantage in relation to the developed countries […] (see Loser, 2009). In 2009, India is the only country out of 26 countries that has shown a positive rise in country's real GDP growth rate. Therefore, we strongly suspect that Indian government might have produced more (new) currency against their gold reserves at the World Bank, improved household savings rate and deregulated both the domestic and foreign investment policies, for example, merger-related open offers and takeover laws.[15] Consequently, it leads to more inflation, affects consumption and demand that increased the production, and then it is escorted to a rise in GDP. We therefore offer our second proposition in the light of emerging economies' reverse-investment flows.

Proposition 2: *Crisis affects adversely, but 'turns' to motivate developing or emerging market companies to invest in developed markets through reverse-investment flows, acquisitions, alliances and joint ventures due to undervaluation and bailouts.*

During pre- and post-crisis period, worldwide CB-M&A sale transactions (deal value) have been declined gradually from 2005 to 2008, and then report a negative growth in 2009; subsequently recovered in 2010. More importantly, UK share has plunged by 8.61% in 2004 compared to 11.44% in 1991; afterward, there is an insignificant rise during 2005-08. However, transactions likely appear to be bowl-shaped (or, U-shaped) in 2009 (7.48%), and then recovered in 2010 (8.77%). Similarly, U.S. share shows 21.68% in 1991; unexpectedly, it declines by 14.82% in 1992, further increases by 18.15% in 2000 and 19.11% in 2004. Thereafter, U.S. share has been declined significantly until 2010. In the European Union region, Ireland shows a major contribution to the worldwide CB-M&A sale transactions in 2004 (1.14%); surprisingly, it has been disappeared since 2005. Furthermore, this may be policy-related evidence that European Union member nation' Poland has occupied the global list of countries that contributed more than 1% to the worldwide deals; as a result, it is placed in 2009 (1.13%) and 2010 (1.14%). On the other hand, New Zealand has disappeared, and Brazil has appeared for worldwide CB-M&A sale transactions during the post-crisis period. Likewise, since 1991 Indonesia is contributed [first time] 1.11% in 2010; Ukraine is appeared by 2.88% (1.55%) in 2009 (2010).

In particular, Austria has disappeared in 2009 and 2010 that contributes less than 1% to the worldwide CB-M&A purchase deals; hence, it had been performed fabulously in 1990s

[15] One could refer to the review of Indian takeover code and its impact on open offers market (Reddy, Nangia, & Agarawal, 2011).

and before the crisis. In the aftermath of the crisis, [repeatedly] Cyprus, Korea and Russia economies have contributed more than 1% in 2009 and 2010. More specifically, since 1991 UAE has contributed [first time] by 1.058% in 2008, and then disappeared. Therefore, academic scholars should investigate what are the determinants of CB-M&A purchase deals during pre- and post-crisis period. One could also examine – comparisons within the region, or within the similar growth countries. With this reliability, we develop our third proposition in the limelight of budding economies' prospects and priorities.

Proposition 3: Crisis does not affect budding economies, whilst their local companies have been motivated to go for international M&A purchases to improve global networks and alliances with developed and emerging economies.

5. Concluding remarks

We all know–the world's worst financial turmoil had crushed both business activities and relations between residents. On one hand, the U.S. economy has established a commission to investigate the causes and consequences of global economic crisis, and to recommend guidelines for economic recovery (FCIC, 2011). On the other hand, we noticed the economies (developed and developing) that turnaround, and their progress during the post-crisis period, for instance, GDP, corporate earnings and per capita income. Not surprisingly, there is no earlier study that has addressed the trend of worldwide CB-M&As around the financial crisis. Thus, we have investigated border-crossing mergers and acquisitions around the 2007-2008 financial crisis. In this regard, we acknowledge the data support from UNCTAD's World Investment Reports for the period 1991−2010. Indeed, we have developed various measures while selecting final sample of countries that is 26. To do so, we have used the corporate finance model 'adjusted event-study method' to find significant difference between the means [independently] for three variables, namely number of deals, deal value and average deal value – both in purchases and sales around the crisis (pre-crisis: 2004−2006 and post-crisis: 2008−2010). By and large, our exploratory study would append a larger contribution to the existing international economics literature on M&As.

The highlights of our paper are as follows. In the Asian region, since 1991 Indonesia has contributed 1.11% to the worldwide CB-M&A sales in 2010 of the post-crisis period. Similarly, UAE has appeared and contributed 1.06% to the worldwide CB-M&A purchases in 2008. In particular, we draw a novel conclusion- "because of the 2007-08 global financial crisis and the 2011 Euro crisis, both budding economies (e.g. UAE and Gulf region) and emerging nations (e.g. BRICS group and Latin American region) have been perceived or gained an opportunity to invest [reverse-flow] in western continentals (e.g. U.S., UK, Canada, Germany)". In other words, reverse-flow may be in the form of alliances, acquisitions, takeovers, and so forth of foreign market entry modes. The very interesting finding is that after the crisis period emerging market countries have taken advantage of the attractive asset prices in developed countries and increased their foreign acquisitions. Our important results infer that the crisis has trodden both CB-M&A sale and purchase transactions throughout the world economy during 2008−2009; in fact, many countries in our sample have reported negative trend in 2009. The then, it took two years to shore-up international M&A deals that have been noticed in 2010. While substantiating the earlier studies on crisis affect in [on] macroeconomic variables and capital market products, we conclude that the 2007-08 global financial crisis has a great deal of direct connections with business events, such as foreign investments, exports, technology, mergers, acquisitions, joint ventures, and so forth. Furthermore, it has been dampened the cross-border linkages between different continentals and nations, for instance, exports, imports and technology transfer.

The findings reported in our study would support different theories in economics (e.g. economic disturbance theory) and international business (e.g. foreign direct investment). Specifically, we have offered '*crisis-related CB-M&A propositions*' for further development in existing research related to international business and border-crossing acquisitions. Last but not least, our findings have some implications for entrepreneurs, M&A consultants, foreign investors, policy makers and multinational firms. Similar to previous studies, our exploratory study has certain limitations, for example, determinants of cross-country mergers/acquisitions and market efficiency variables were not considered in the study, and therefore we place this on the agenda for future research.

References

Allen, F., & Gale, D. (2000). Financial contagion. *Journal of Political Economy*, *108*, 1–33.

Allen, F., & Giovannetti, G. (2011). The effects of the financial crises on Sub-Saharan Africa. *Review of Development Finance*, *1*, 1–27.

Arner, D. W., & Schou-Zibell, L. (2011). Asian regulatory responses to the global financial crisis. *Global Journal of Emerging Market Economies*, *3*, 135–169.

Arnold, P. J. (2009). Global financial crises: The challenge to accounting research. *Accounting, Organizations and Society*, *34*, 803–809.

Aybar, C. B., Jeffus, W. M., & Edmunds, J. C. (2012). Successful cross-border acquisitions of Latin American financial institutions: Identifying success factors. *Global Journal of Emerging Market Economies*, *4*, 347–367.

Binder, J. J. (1998). The event study methodology since 1969. *Review of Quantitative Finance and Accounting*, *11*, 111–137.

Blundell-Wignall, A., & Atkinson, P. (2009). Origins of the financial crisis and requirements for reform. *Journal of Asian Economics*, *20*, 536–548.

Boorman, J. (2009). The current financial crisis: its origins, its impact, and the needed policy response. *Global Journal of Emerging Market Economies*, *1*, 127–135.

Boorman, J., & Christensen, B. V. (2010). The impact of the global financial crisis on emerging and frontier markets in Africa. *Global Journal of Emerging Market Economies*, *2*, 69–90.

Bordo, M. D., Meissner, C. M., & Stuckler, D. (2010). Foreign currency debt, financial crises and economic growth: A long-run view. *Journal of International Money and Finance*, *29*, 642–665.

Brecher, R. A., & Parker, I. C. (1977). Time structure of production and the theory of international trade. *Journal of International Economics*, *7*, 385–402.

Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics*, *14*, 3–31.

Campbell, J. Y., Lo, A. W., & Mackinlay, A. C. (1997). *The Econometrics of Financial Markets*. Princeton, NJ: Princeton University Press.

Caves, R. E. (1971). International corporations: the industrial economics of foreign investment. *Economica*, *38*, 1–27.

Chor, D., & Manova, K. (2012). Off the cliff and back? Credit conditions and international trade during the global financial crisis. *Journal of International Economics*, *87*, 117–133.

Claessens, S., Kose, M. A., & Terrones, M. E. (2010). The global financial crises: How similar? how different? how costly?. *Journal of Asian Economics*, *21*, 247–264.

Deng, P. (2009). Why do Chinese firms tend to acquire strategic assets in international expansion? *Journal of World Business*, *44*, 74–84.

di Giovanni, J. (2005). What drives capital flows? The case of cross-border M&A activity and financial deepening. *Journal of International Economics*, *65*, 127–149.

Dwyer, G. P., & Lothian, J. R. (2012). International and historical dimensions of the financial crises of 2007 and 2008. *Journal of International Money and Finance*, *31*, 1–9.

Erel, I., Liao, R. C., & Weisbach, M. S. (2012). Determinants of cross-border mergers and acquisitions. *Journal of Finance*, *67*, 1045–1082.

Fama, E. F. (1976). *Foundations of Finance: Portfolio Decisions and Securities Prices*. New York: Basic Books.

Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The adjustment of stock prices to new information. *International Economic Review*, *10*, 1–21.

Fama, E. F., & MacBeth, J. D. (1973). Risk, return, and equilibrium: Empirical tests. *Journal of Political Economy*, *81*, 607–636.

FCIC (2011). *The Financial Crises Inquiry Report.* Official government edition, United States of America: Financial Crises Inquiry Commission.

Fels, R. (1952). The theory of business cycles. *The Quarterly Journal of Economics*, *66*, 25–42.

Fidrmuc, J., & Korhonen, I. (2010). The impact of the global financial crisis on business cycles in Asian emerging economies. *Journal of Asian Economics*, *21*, 293–303.

Firth, M. (1979). The profitability of takeovers and mergers. *The Economic Journal*, *89*, 316–328.

Ghosh, A. (2001). Does operating performance really improve following acquisitions?. *Journal of Corporate Finance*, *7*, 151–178.

Goodhart, C. A. E. (2008). The regulatory response to the financial crises. *Journal of Financial Stability*, *4*, 351–358.

Gort, M. (1969). An economic disturbance theory of mergers. *Quarterly Journal of Economics*, *83*, 624–642.

Grosse, R. (2012). Latin American company strategies in the financial crisis. *Global Journal of Emerging Market Economies*, 4, 55–70.

Hale, G. (2012). Bank relationships, business cycles, and financial crises. *Journal of International Economics*, *88*, 312–325.

Healy, P. M., Palepu, K. G., & Ruback, R. S. (1992). Does corporate performance improve after mergers?. *Journal of Financial Economics*, *31*, 135–175.

Hodson, D., & Quaglia, L. (2009). European perspectives on the global financial crises: Introduction. *Journal of Common Market Studies*, *47*, 939–953.

Hymer, S. (1970). The efficiency (contradictions) of multinational corporations. *American Economic Review*, *60*, 441–448.

IMF (2009). *Global financial stability report: World economic and financial surveys*. Washington: International Monetary Fund.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*, 305–360.

Johnson, K. H. (1998). Graphical analysis for event study design. *Journal of Financial and Strategic Decisions*, *11*, 61–71.

Johnson, W. B., Natarajan, A., & Rappaport, A. (1985). Shareholder returns and corporate excellence. *Journal of Business Strategy*, *6*, 52–62.

Kamin, S. B., & DeMarco, L. P. (2012). How did a domestic housing slump turn into a global financial crises. *Journal of International Money and Finance*, *31*, 10–41.

Kang, N., & Johansson, S. (2000). *Cross-border mergers and acquisitions: their role in industrial globalisation*. OECD Science, Technology and Industry Working Papers, 2000/01, OECD Publishing. http://dx.doi.org/10.1787/137157251088.

Kearney, C. (2012). Emerging markets research: Trends, issues and future directions. *Emerging Markets Review*, *13*, 159–183.

Kenc, T., & Dibooglu, S. (2010). The 2007-2009 financial crises, global imbalances and capital flows: Implications for reform. *Economic Systems*, *34*, 3–21.

Khanna, T., & Palepu, K. (2000). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *Journal of Finance*, *55*, 867–891.

Kim, T., Koo, B., & Park, M. (2013). Role of financial regulation and innovation in the financial crisis. *Journal of Financial Stability*, *9*, 662–672.

Kumar, R., & Vashisht, P. (2009). *The global economic crisis: Impact on India and policy responses*. Working Paper 164, Tokyo, Japan: Asian Development Bank Institute.

Reddy, K. S., Nangia, V. K., & Agrawal, R. (2014). The 2007-2008 global financial crisis, and cross-border mergers and acquisitions: A 26-nation exploratory study. *Global Journal of Emerging Market Economies*, *6*(3), 257-281. Sage Publications

Loser, C. M. (2009). Cross-border trade and investment among emerging economies: lessons from differing experiences in Africa, Asia and Latin America. *Global Journal of Emerging Market Economies*, *1*, 43–62.

Lubatkin, M. (1983). Mergers and performance of the acquiring firm. *Academy of Management Review*, 8, 218–225.

Miyajima, H., & Yafeh, Y. (2007). Japan's banking crises: An event-study perspective. *Journal of Banking & Finance*, *31*, 2866–2885.

Moss, D. A. (2009). An ounce of prevention: Financial regulation, moral hazard and the end of 'too big to fail'. *Harvard Magazine*, (Sept-Oct), 24–29.

Petri, P. A., & Plummer, M. G. (2009). The triad in crisis: What we learned and how it will change global cooperation. *Journal of Asian Economics*, *20*, 700–713.

Rappaport, A. (1983). Corporate performance standards and shareholder value. *Journal of Business Strategy*, *3*, 28–38.

Reddy, K. S., Nangia, V. K., & Agarawal, R. (2011). Review, rewriting and impact of Indian takeover code. *International Journal of Law and Management*, *53*, 241–251.

Reddy, K. S., Nangia, V. K., & Agrawal, R. (2012). Mysterious broken cross-country M&A deal: Bharti Airtel-MTN. *Journal of the International Academy for Case Studies*, *18*, 61–75.

Reddy, K. S., Nangia, V. K., & Agrawal, R. (2013). Indian economic-policy reforms, bank mergers, and lawful proposals: The *ex-ante* and *ex-post* 'lookup'. *Journal of Policy Modeling*, *35*, 601–622.

Reddy, K. S., Nangia, V. K., & Agrawal, R. (2014). Farmers Fox Theory: Does a country's weak regulatory system benefit both the acquirer and the target firm? Evidence from Vodafone-Hutchison deal. *International Strategic Management Review*, (In Press).

Reinhart, C. M., & Rogoff, K. S. (2008). Is the 2007 US sub-prime financial crisis so different? An international historical comparison. *American Economic Review*, *98*, 339–344.

Reinhart, C. M., & Rogoff, K. S. (2009). International aspects of financial market imperfections – the aftermath of financial crises. *American Economic Review: Papers and Proceedings*, *99*, 466–472.

Schumpeter, J. A. (1939). *Business Cycles - A Theoretical, Historical and Statistical Analysis of the Capitalist Process*. New York: McGraw-Hill.

Shachmurove, Y. (2011). A historical overview of financial crises in the United States. *Global Finance Journal*, *22*, 217–231.

Spence, A. M. (2009). The financial and economic crisis and the developing world. *Journal of Policy Modeling*, *31*, 502–508.

Swagel, P. (2009). The financial crisis: An inside view. *Brookings Papers on Economic Activity*, (spring), 1–63.

Takagi, S., & Pham, T. H. A. (2011). Responding to the global financial crisis: Vietnamese exchange rate policy, 2008–2009. *Journal of Asian Economics*, *22*, 507–517.

Taylor, J. B. (2009). The financial crisis and the policy responses: an empirical analysis of what went wrong. Reprinted in *Critical Review*, *21*, 341–364. Also, available at: http://www.stanford.edu/~johntayl/FCPR.pdf

UNCTAD (1991). *World Investment Report: The Triad in Foreign Direct Investment*. New York and Geneva: United Nations Publications.

UNCTAD (1992). *World Investment Report: Transnational Corporations as Engines of Growth*. New York and Geneva: United Nations Publications.

UNCTAD (2000). *World Investment Report: Cross-border Mergers and Acquisitions and Development*. New York and Geneva: United Nations Publications.

Reddy, K. S., Nangia, V. K., & Agrawal, R. (2014). The 2007-2008 global financial crisis, and cross-border mergers and acquisitions: A 26-nation exploratory study. *Global Journal of Emerging Market Economies*, *6*(3), 257-281. Sage Publications

UNCTAD (2004). *World Investment Report: The Shift towards Services*. New York and Geneva: United Nations Publications.

UNCTAD (2005). *World Investment Report: Transnational Corporations and the Internationalization of R&D*. New York and Geneva: United Nations Publications.

UNCTAD (2006). *World Investment Report: FDI from Developing and Transition Economies – Implications for Development*. New York and Geneva: United Nations Publications.

UNCTAD (2007). *World Investment Report: Transnational Corporations, Extractive Industries and Development*. New York and Geneva: United Nations Publications.

UNCTAD (2008). *World Investment Report: Transnational Corporations and the Infrastructure Challenge*. New York and Geneva: United Nations Publications.

UNCTAD (2009). *World Investment Report: Transnational Corporations, Agriculture Production and Development*. New York and Geneva: United Nations Publications.

UNCTAD (2010). *World Investment Report: Investing in Low-carbon Economy*. New York and Geneva: United Nations Publications.

UNCTAD (2011). *World Investment Report: Non-equity modes of International Production and Development*. New York and Geneva: United Nations Publications.

Witt, M. A., & Lewin, A. Y. (2007). Outward foreign direct investment as escape response to home country institutional constraints. *Journal of International Business Studies*, *38*, 579–594.

Xu, H., & Hamori, S. (2012). Dynamic linkages of stock prices between the BRICs and the United States: Effects of the 2008–09 financial crisis. *Journal of Asian Economics*, *23*, 344–352.

Table 1. Real GDP growth rate of countries selected in our study

	2004	2005	2006	2007	2008	2009	2010
Australia	3.8	3.1	2.6	4.6	2.6	1.3	2.7
Austria	2.5	2.4	3.6	3.8	2.2	-3.9	2.1
Belgium	3.2	1.7	2.7	2.9	1.0	-2.8	2.2
Brazil	5.7	3.2	4.0	6.1	5.2	-0.6	7.6
Canada	3.1	3.0	2.8	2.2	0.5	-2.8	3.2
China	10.1	11.3	12.7	14.2	9.6	9.2	10.3
Denmark	2.3	2.4	3.4	1.6	-1.1	-5.2	1.7
Finland	4.1	3.0	4.4	5.3	1.0	-8.2	3.2
France	2.5	1.8	2.5	2.3	-0.1	-2.7	1.5
Germany	1.2	0.7	3.4	2.7	1.0	-4.7	3.6
Hong Kong, China	8.5	7.1	7.0	6.4	2.3	-2.7	6.8
India	8.1	9.2	9.7	9.9	6.2	6.8	10.4
Ireland	4.6	6.0	5.3	5.6	-3.5	-7.6	-1.0
Italy	1.5	0.7	2.0	1.5	-1.3	-5.2	1.3
Japan	2.8	1.9	2.0	2.4	-1.1	-6.3	4.0
Malaysia	6.8	5.3	5.8	6.5	4.7	-1.7	7.2
Netherlands	2.2	2.0	3.4	3.9	1.8	-3.5	1.7
New Zealand	4.5	3.3	1.0	2.8	-0.2	-2.1	1.5
Norway	3.9	2.8	2.3	2.7	0.8	-1.7	0.3
Russia	7.2	6.3	8.1	8.5	5.5	-7.9	4.0
Singapore	9.2	7.4	8.7	8.8	1.5	-0.8	14.5
Spain	3.3	3.6	4.0	3.6	0.9	-3.7	-0.2
Sweden	4.2	3.2	4.3	3.3	-0.5	-5.3	5.7
Switzerland	2.5	2.6	3.6	3.6	1.9	-1.9	2.5
United Kingdom	3.0	2.2	2.8	2.7	0.0	-4.9	1.4
USA	3.6	3.1	2.7	1.9	0.0	-2.6	2.9

Source: Data has extracted from Euro Monitor (Passport) database.
Note: The Real GDP growth rate is expressed in percent.

Table 2. Country-wise CB-M&A sales during pre- and post-crisis period

	Panel 3A: Number of deals				Panel 3B: Deal value				Panel 3C: Average deal value			
Country	*Pre-crisis*	*Post-crisis*	*t-stat*	*p-value*	*Pre-crisis*	*Post-crisis*	*t-stat*	*p-value*	*Pre-crisis*	*Post-crisis*	*t-stat*	*p-value*
Australia	20.112	11.294	-0.222	0.835	30.243	68.263	0.186	0.862	1.030	40.420	0.25	0.815
Austria	5.765	-1.776	-0.186	0.862	-15.141	-8.216	0.179	0.867	-19.026	32.844	0.858	0.439
Belgium	17.581	3.663	-0.32	0.765	-3.623	133.988	1.042	0.356	-4.827	241.906	0.986	0.38
Brazil	3.409	69.097	0.898	0.42	-20.395	-226.436	-0.748	0.496	-2.871	-156.248	-1.304	0.262
Canada	19.394	3.326	-1.175	0.305	-329.936	-15.827	0.822	0.457	-339.184	-22.503	0.89	0.424
China	3.082	-10.552	-0.707	0.519	44.404	1.688	-0.826	0.455	42.025	45.121	0.032	0.976
Denmark	20.601	17.761	-0.053	0.96	140.176	-43.653	-1.893	0.131	86.160	-47.522	-2.52	0.065
Finland	15.984	-9.151	-0.788	0.475	-24.464	-34.960	-0.532	0.623	-31.563	-17.042	0.513	0.635
France	3.306	-3.443	-0.211	0.843	14.845	87.398	0.421	0.695	6.419	32.731	0.247	0.817
Germany	13.579	-20.425	-1.769	0.152	20.667	-32.550	-2.438	0.071	7.525	-14.937	-1.21	0.293
Hong Kong	5.323	2.304	-0.097	0.928	166.459	75.830	-0.426	0.692	121.915	41.335	-0.569	0.6
India	24.542	-2.779	-0.865	0.436	233.631	28.413	-0.789	0.474	166.650	27.979	-0.764	0.488
Ireland	5.556	-6.512	-0.652	0.55	377.330	-3.555	-1.325	0.256	359.392	4.902	-1.218	0.29
Italy	7.607	8.248	0.016	0.988	37.562	84.619	0.215	0.84	28.234	23.164	-0.029	0.978
Japan	-7.405	24.946	0.988	0.379	-652.908	-185.743	0.77	0.484	-496.458	-172.856	0.667	0.541
Malaysia	34.230	-2.727	-1.098	0.334	268.465	265.201	-0.009	0.993	187.810	347.348	0.392	0.715
Netherlands	0.743	13.402	0.315	0.769	42.455	-176.737	-2.909	0.044*	68.763	-218.182	-2.303	0.083
New Zealand	9.805	-26.430	-2.66	0.056	63.816	-140.661	-1.988	0.118	37.302	-150.517	-1.807	0.145
Norway	15.351	10.651	-0.129	0.903	109.586	166.823	0.281	0.793	47.154	104.993	0.43	0.69
Russian Federation	29.429	55.608	0.88	0.428	-210.038	2.864	1.623	0.18	-182.310	-37.688	1.446	0.222
Singapore	22.495	-3.318	-1.193	0.299	115.997	101.661	-0.067	0.95	57.275	112.310	0.31	0.772
Spain	20.611	2.871	-0.407	0.705	58.097	82.113	0.167	0.876	85.793	58.940	-0.217	0.839
Sweden	20.851	6.225	-0.42	0.696	56.706	-13.278	-1.465	0.217	28.271	-32.287	-1.904	0.13
Switzerland	6.998	-8.940	-0.84	0.448	25.818	0.028	-0.326	0.76	23.563	34.673	0.097	0.928
United Kingdom	10.841	5.792	-0.133	0.9	63.101	22.183	-0.601	0.58	53.860	-3.661	-1.376	0.241
United States	14.519	-2.051	-0.788	0.475	40.318	31.968	-0.116	0.913	19.167	18.957	-0.004	0.997
Overall	13.243	5.272	-0.325	0.762	25.122	10.439	-0.461	0.669	13.541	11.315	-0.089	0.934
Positive growth: number of countries	25	13			18	15			19	15		

*Note: * Do not significant at the 0.05 level (2-tailed); Results reported in pre-crisis and post-crisis columns are expressed in per cent.*

Table 3. Country-wise CB-M&A purchases during pre- and post-crisis period

	Panel 4A: Number of deals				Panel 4B: Deal value				Panel 4C: Average deal value			
Country	*Pre-crisis*	*Post-crisis*	*t-stat*	*p-value*	*Pre-crisis*	*Post-crisis*	*t-stat*	*p-value*	*Pre-crisis*	*Post-crisis*	*t-stat*	*p-value*
Australia	18.563	-5.138	-0.464	0.667	84.550	-257.472	-1.652	0.174	34.821	-176.124	-1.734	0.158
Austria	4.607	-20.294	-1.577	0.19	101.473	-32.408	-1.484	0.212	95.250	-0.542	-0.918	0.411
Belgium	10.830	-12.861	-0.519	0.631	-145.727	166.228	1.079	0.341	-175.622	142.363	0.993	0.377
Brazil	2.994	59.158	0.795	0.471	250.487	28.667	-0.972	0.386	329.340	0.161	-1.542	0.198
Canada	5.373	4.650	-0.04	0.97	53.325	47.658	-0.065	0.951	38.283	40.644	0.03	0.978
China	-17.670	58.245	4.411	0.012*	161.667	68.781	-0.717	0.513	191.271	0.726	-1.786	0.149
Denmark	30.073	-12.614	-1.078	0.342	50.123	-53.585	-0.963	0.39	-1.759	-9.696	-0.068	0.949
Finland	33.658	25.253	-0.103	0.923	-250.974	124.147	1.546	0.197	-257.331	39.274	1.735	0.158
France	27.891	2.855	-0.445	0.679	-1592.557	-23.720	1.031	0.361	-767.063	-14.243	1.092	0.336
Germany	16.153	-10.526	-0.533	0.622	50.703	47.468	-0.021	0.984	54.660	31.990	-0.177	0.868
Hong Kong, China	4.608	2.058	-0.103	0.923	96.019	-277.094	-1.237	0.284	59.023	-352.746	-1.24	0.283
India	36.660	34.737	-0.029	0.978	110.327	2994.105	0.963	0.39	49.189	1176.406	0.945	0.398
Ireland	28.751	-23.539	-1.35	0.248	96.264	-251.396	-2.02	0.114	51.386	-252.233	-1.933	0.125
Italy	86.566	20.577	-0.488	0.651	169.756	20.533	-0.618	0.57	147.350	15.185	-0.761	0.489
Japan	28.060	13.841	-0.267	0.803	104.115	80.361	-0.186	0.862	56.512	43.352	-0.131	0.902
Malaysia	25.410	-3.720	-0.991	0.378	19.047	56.668	0.325	0.762	6.126	63.605	0.493	0.648
Netherlands	102.819	19.028	-0.655	0.548	403.934	-212.311	-1.047	0.354	83.299	-172.771	-0.571	0.599
New Zealand	6.675	35.863	0.336	0.754	-47.382	-883.499	-1.533	0.2	-59.767	-484.553	-2.182	0.095
Norway	27.494	-7.307	-1.282	0.269	371.660	-297.977	-1.769	0.152	263.036	-244.030	-1.737	0.157
Russian Federation	18.056	25.190	0.143	0.893	11.946	113.169	0.677	0.536	-20.228	38.880	0.969	0.387
Singapore	-3.234	17.984	0.583	0.591	15.412	49.791	0.424	0.694	33.352	19.888	-0.209	0.845
Spain	5.475	-15.861	-0.647	0.553	190.034	-153.431	-2.779	0.049*	311.854	-146.701	-1.672	0.17
Sweden	22.445	7.691	-0.387	0.718	90.695	12.419	-0.485	0.653	37.790	57.215	0.152	0.887
Switzerland	54.283	14.319	-0.423	0.694	89.530	11.852	-0.845	0.446	54.411	-13.342	-1.537	0.199
United Kingdom	10.703	-9.313	-0.598	0.582	-16.565	27.624	0.498	0.644	-25.022	24.577	0.49	0.65
United States	1.991	2.247	0.008	0.994	25.281	52.286	0.241	0.821	18.183	20.709	0.039	0.971
Overall	22.663	8.559	-0.348	0.746	18.967	56.110	0.358	0.738	23.398	-5.846	-0.509	0.638
Positive Growth: number of countries	24	16			21	16			19	15		

*Note: * Do not significant at the 0.05 level (2-tailed); Results reported in pre-crisis and post-crisis columns are expressed in per cent.*

Table 4. ANOVA results: CB-M&A sales and purchases

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Group I: CB-M&A sales						
Panel A: Number of deals between pre- and post-crisis						
Between Groups	825.813	1	825.813	3.302	0.075*	4.034
Within Groups	12505.97	50	250.119			
Panel B: Deal value between pre- and post-crisis						
Between Groups	2802.485	1	2802.485	0.114	0.737*	4.034
Within Groups	1229040	50	24580.798			
Panel C: Average deal value between pre- and post-crisis						
Between Groups	64.447	1	64.447	0.003	0.954*	4.034
Within Groups	975829.9	50	19516.598			
Panel D: Overall						
Between Groups	5622.769	5	1124.554	0.076	0.996*	2.274
Within Groups	2217376	150	14782.505			
Group II: CB-M&A purchases						
Panel E: Number of deals between pre- and post-crisis						
Between Groups	2586.138	1	2586.138	4.433	0.040	4.034
Within Groups	29171.39	50	583.428			
Panel F: Deal value between pre- and post-crisis						
Between Groups	17935.035	1	17935.035	0.068	0.796*	4.034
Within Groups	13267057	50	265341.141			
Panel G: Average deal value between pre- and post-crisis						
Between Groups	11117.976	1	11117.976	0.183	0.670*	4.034
Within Groups	3033465	50	60669.308			
Panel H: Overall						
Between Groups	55123.256	5	11024.651	0.101	0.992*	2.274
Within Groups	16329694	150	108864.626			

*Note: * significant at the 0.05 level (2-tailed).*

Reddy, K. S., Nangia, V. K., & Agrawal, R. (2014). The 2007-2008 global financial crisis, and cross-border mergers and acquisitions: A 26-nation exploratory study. *Global Journal of Emerging Market Economies*, *6*(3), 257-281. Sage Publications

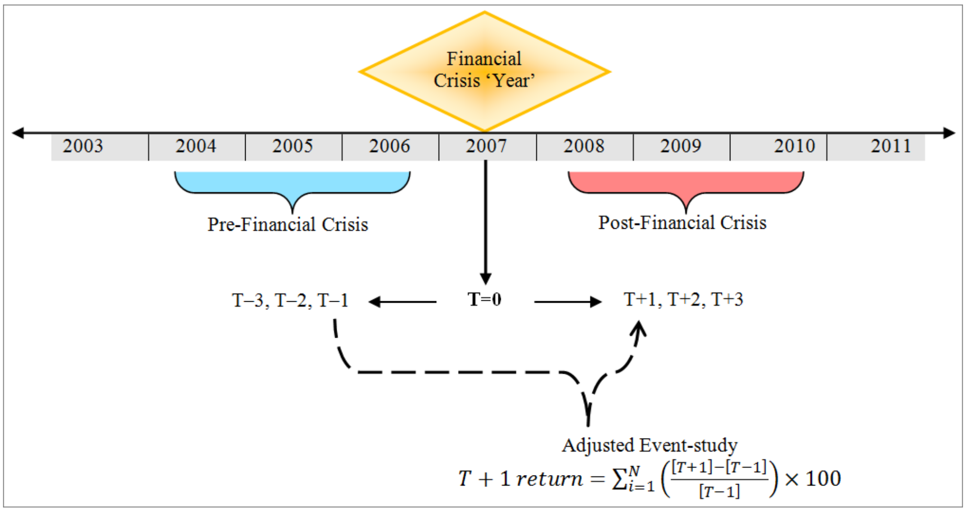

Fig. 1. The adjusted event-study method

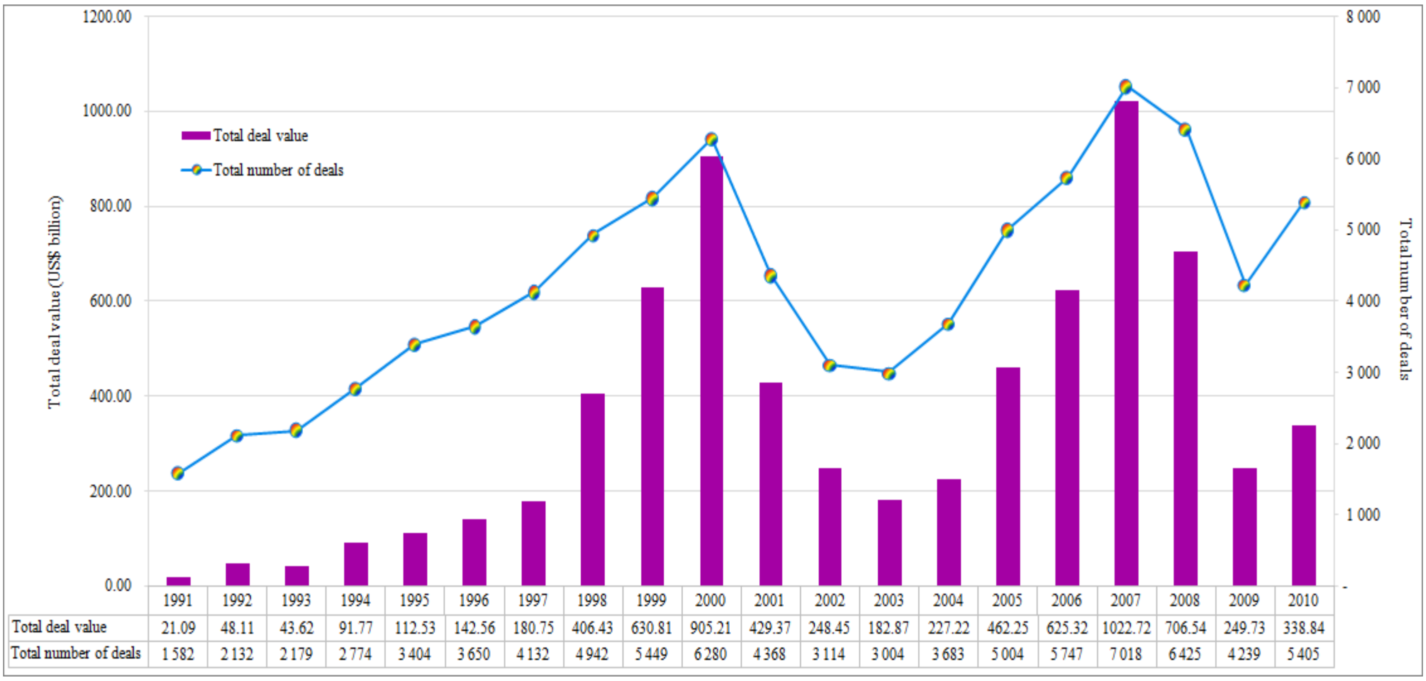

Fig. 2. Worldwide cross-border mergers and acquisitions, 1991–2010

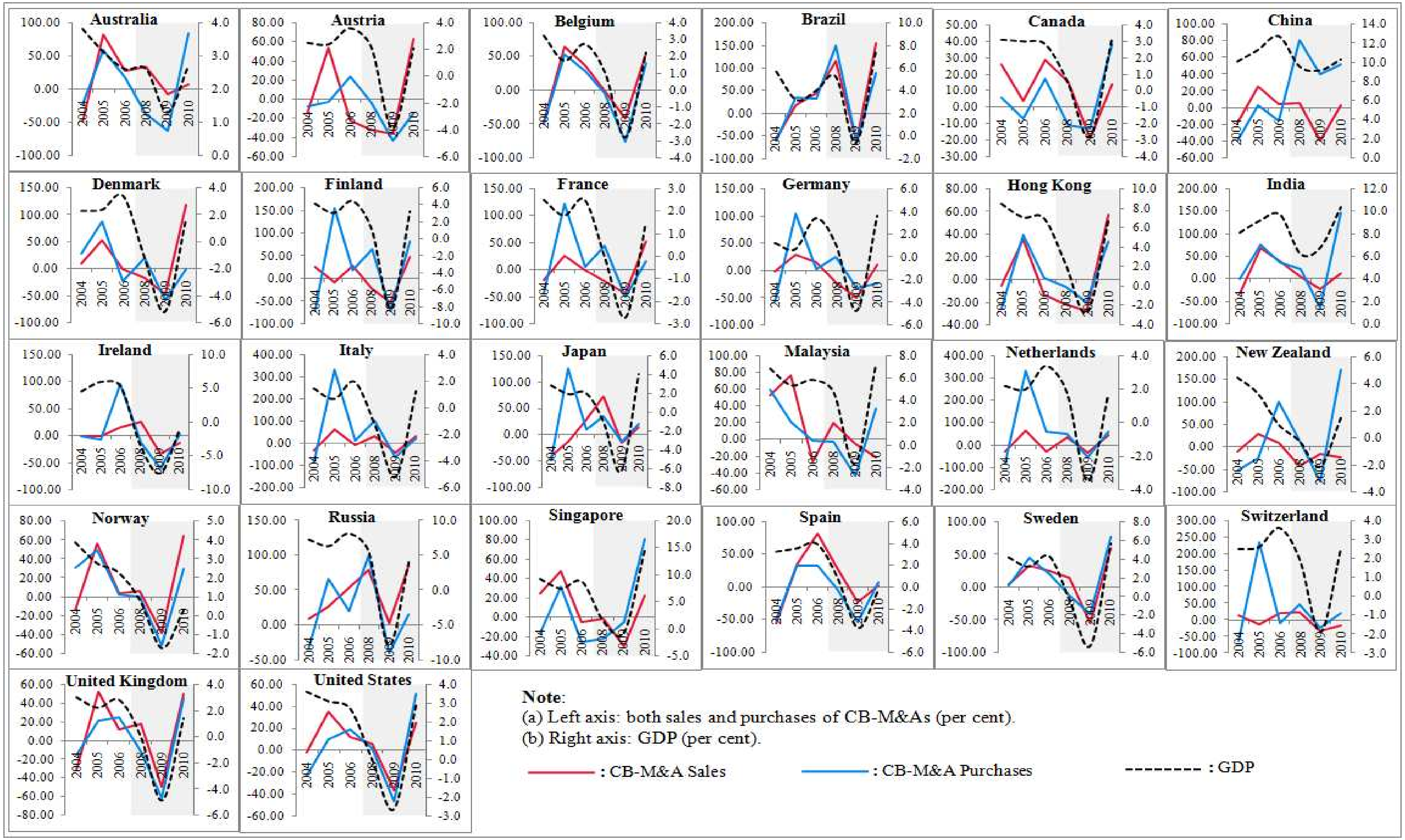

Fig. 3. Cross-border mergers and acquisitions (sales and purchases), and GDP of 26 countries during pre-crisis and post-crisis period