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Andres Rivas
Primerica

Rahul Verma
University of Houston-Downtown

Antonio Rodriguez
Texas A&M International University

Pedro H. Albuquerque
Aix-Marseille University

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Andres Rivas
Primerica, Laredo, Texas, USA

Rahul Verma
Marilyn Davies College of Business, University of Houston-Downtown, Houston, Texas, USA

Antonio Rodriguez
A.R. Sanchez, Jr. School of Business, Texas A&M International University, Laredo, Texas, USA

Pedro H. Albuquerque[1]
Aix-Marseille School of Economics, Aix-Marseille University, Marseille, France
ACCELERATION & ADAPTATION, Aix-en-Provence, France

The article examines stock index price responses in Brazil, Chile, and Mexico to those in the US, Spain, and four European countries during three sub-periods surrounding the neoliberal reforms of the 1990s: 1988 to 1994, 1995 to 1998, and 1999 to 2004, using VAR modeling. It finds that equity markets became more interconnected as countries opened to international trade and capital flows, and that there was an increasing impact of Spain on Latin American equity markets. Stronger economic linkages (more trade and foreign direct investment) between Spain and these countries, especially in Brazil, seem to explain increased equity markets' interconnectedness.

JEL Classification Codes: G15, O54, C22

Keywords: Emerging markets, Latin America, Spain, stock markets interdependence, VAR modeling

I. Introduction

Sanchez Valle (1998) and Soydemir (2000) point out that, during the 1990s, Latin American markets became increasingly attractive to investors since they provided high rates of return and had high prospects for economic growth. Given the significance of Latin American equity markets for investors, there has been a substantial body of literature that has examined different issues, among them, the effects originating from the US market (Soydemir 2000; Meric et al. 2001a, 2001b; Ratanapakorn and Sharma 2002); increased interdependence (Ratner and Leal 1996; Choudhry 1997; Meric et al. 1998; Christofi and Pericli 1999; Pagan and Soydemir 2000; Chen, Firth, and Rui 2002; Pretorius 2002; Johnson and Soenen 2003); macroeconomic spillovers (Bailey and Chung 1995; Bilson, Brailsford, and Hooper 2001; Adrangi, Raffiee, and Shank 2001; Verma and Ozuna 2005); economic asymmetries (Pagan and Soydemir 2001); US bond market effects

[1] Address correspondence to Dr. Pedro H. Albuquerque, Aix-Marseille School of Economics, Aix-Marseille University, MEGA, 424 chemin du Viaduc, 13097 Aix-en-Provence, France.

(Soydemir 2002); volatility spillovers (Ortiz and Arjona 2001); contagion (Calvo and Reinhart 1996; Bazdresch and Werner 2001; increased integration among regional market indices (Ratanapakorn and Sharma 2002); and increased integration among global and regional indices (Barari 2004).

The literature indicates that Latin American equity markets are driven by global and local risk factors. In particular, the US market and local macroeconomic variables are the most important factors, respectively. However, an important area that has been less studied is the investigation of the influence of European stock markets on Latin American markets, in particular Spain in relation to Brazil, Chile, and Mexico, during the period of the neoliberal reforms of the 1990s. One can expect such a relationship because of the following factors: first, there was substantial growth in the bilateral trade between Europe and Latin America during the 1990s (Yeyati and Sturzenegger 2000; Europa 2005); second, privatization policies pursued by Latin American countries led to a significant increase in foreign direct investments (FDI) in the region, especially by European countries (Hawkins and Mihaljek 2000; Bubel and Skelton 2002); third, during the 1990s, capital flows into Latin America from Europe steadily increased due to low rates of return in Europe (Verner 1999; Yeyati and Sturzenegger 2000). Because all these are important determinants of international stock market linkages, the 1990s should be marked by significant co-movements between Latin American and European stock prices.

The original contribution of this article is that, unlike previous studies that have compared the role of the US and European markets, such as Rivas, Rodriguez, and Albuquerque (2006), we concentrate our analysis on the impacts originating from the Spanish stock market, even if alongside other European markets, and refine it by using VAR modeling. This allows for a more careful examination of the structural breaks that happened during three sub-periods: 1988 to 1994, 1995 to 1998, and 1999 to 2004. We also refine previous results by identifying the Latin American markets that were the most affected by the Spanish market. For example, does Mexico respond similarly to Brazil and Chile to shocks originating from Spain?

Among other results, the impulse response functions generated from vector autoregression (VAR) models suggest that Latin American stock markets were responsive, with varying degrees of magnitude, to movements in the stock market of Spain. In addition, there were significant differences in the response of these markets during different sub-sample periods.

The paper is organized as follows: Section 2 provides a description of the connections between Latin America and Europe. Section 3 describes the theories of stock market interconnectedness. Section 4 presents the empirical results based on the estimated VAR models and the analysis of these results. Finally, Section 5 offers concluding remarks.

II. Economic interconnections between Latin America and Europe

As discussed in Dornbusch, Park, and Claessens (2000), international trade is one of the major channels through which a crisis in one economy can affect the economic pillars of other economies. A measure of market interconnectedness is the contemporaneous correlation between countries' output growth rates, based on the theory that trade linkages transmit economic activity from one country to another. If two countries experience output co-movements, then cash flows should also move together, and so will their equity markets (Phylaktis and Ravazzolo 2002). This mechanism has been confirmed in the long run by empirical studies that find a positive relationship between

output and stock prices (Schwert (1990) and Roll (1992) for the US, and Canova and De Nicolo (1995) for European countries).

Therefore, increasing economic and financial interdependence among European and Latin American countries was expected to rise in the 1990s, as Europe, and in particular some EU members such as Spain, became increasingly important as a source of capital inflows to Latin America (Yeyati and Sturzenegger 2000) and as trade connections between the two regions deepened (Europa 2005).

As shown in Rivas, Rodriguez, and Albuquerque (2006), Mexico has the highest trade links with the US among all Latin American countries. The volume of exports and imports of Brazil, Chile, and Mexico to European countries increased significantly from 1990 to 1998, suffered a small decline with the crises of 1998, and increased again in the early 2000s. Trade between Europe and Mexico rose but remained much less important than trade between Mexico and the US. Relatively speaking, trade connectedness between Brazil, Chile, and the US is much less important than for Mexico.

The literature consensus is that the neoliberal reforms of the 1990s led to an increase in the supply of foreign direct investment and capital. There was a significant rise in European foreign direct investment in Latin America; for example, it rose from US$31,179 million to US$73,915 million between 1996 and 1999. In large part, this was the result of privatization programs, starting with industrial sectors and subsequently moving to service sectors (Europa 2005). Among all European countries, and since 1995, Spain contributed to 45% of total FDI, followed by the US (32%), France, Portugal, the UK, Canada, and Italy. The banking industry was one of the most exposed to FDI after the structural reforms. The market share of foreign banks in Latin America rose from 7% in 1990 to 40% in 2000 (Hawkins and Mihaljek 2000), Mexico being the country with the largest participation of foreign banks in its financial sector (Bubel and Skelton 2002).

The rise of Europe as a source of foreign investment in Latin America was a consequence, among other factors, of the need of most European banks to diversify their portfolios. For European investors, Latin American countries were a potentially profitable and still unexploited destination for their investments. Investment fund managers in Europe had to confront an aging population always seeking higher rates of return and responded by increasing their investments in developing economies. Pension funds and insurance companies allocated a large share of their portfolios towards Latin American countries in order to diversify their risks (Verner 1999). The stock of European investment in Latin America and the Caribbean continued to increase, and by the early 2000s, it accounted for more than EUR 200 billion (Europa 2005).

Higher integration among European financial markets also contributed to the search for diversification, as correlations among assets in Europe increased (Soydemir 2000; Yeyati and Sturzenegger 2000). In conclusion, different factors during the 1990s led European investors to allocate higher amounts of funds into Latin American assets.

III. Empirical methodology

In order to investigate equity price co-movements, we created a database of closing prices of indices from Spain, Italy, Germany, France, and the UK, and from Brazil, Chile, and Mexico. We also included US stock market prices as a control variable.

Stock indices are represented by the Bovespa in Brazil, the general price index (IGPA) in Chile, the IPC price index (BOLSA) in Mexico, the Madrid SE price index in Spain, the Milan MIB

Storico price index in Italy, the DAX Industrial price index in Germany, the CAC 40 price index in France, the FTSE100 in the United Kingdom, and the S&P500 composite price index in the US.

We choose Brazil, Mexico, and Chile because they were, at that time, part of the group of the top 30 developed and emerging markets in the world, ranked 18th, 25th, and 30th, respectively (IFC 1999). We selected the European countries that are known to have the strongest economic connections with the chosen Latin American countries (International Monetary Fund 2001).

The data set ranges from January 4, 1988, to December 8, 2004, resulting in 778 observations. Data is represented as weekly percentage returns (log Pt – log Pt-1), where Pt is the value of the index at time t in terms of the local currency (Tsay 2002). We define the three sub-sample periods based on the timing of the different types of Latin American economic and financial crises that happened during the observation period (Kaminsky and Reinhart 1998; Edwards 2000; Gelos and Sahay 2001; UN 1998). The chosen sub-sample periods are, hence, January 1988 to December 1994, January 1995 to December 1999, and January 2000 to December 2004.

Firstly, the sub-sample period of January 1988 to December 1994 was marked by currency and banking crises and hyperinflation in Brazil. Secondly, the sub-sample period of January 1995 to December 1999 saw the financial crisis that started in Thailand (1997) and spread across Asian countries with consequences for Latin American countries as well as the Russian crisis of 1998 that also impacted Latin America. Finally, during the sub-sample period of January 2000 to December 2004, there was the creation of the euro as the currency of Europe.

Descriptive statistics of the continuously compounded returns are given in Table 1. As expected, higher return rates tend to be associated with higher volatility, and volatility tends to be higher among Latin American economies.

To address the robustness of our estimations, we conducted unit root tests to analyze the time series properties of the data. Table 2 reports the results of the unit root tests for the variables using the augmented Dickey-Fuller (ADF) test (Dickey and Fuller 1979, 1981; Enders 2003). For the ADF test, we reject the null hypothesis of non-stationary series of stock market returns. Given that the log of first differences of all the series is stationary, we estimated the model in log of first differences. This procedure guaranteed series with non-unit roots and, thus, eliminated the possibility of running into spurious relationships.

Table 1. Descriptive statistics of returns (in local currency).

Local Currency	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
R_BR	0.0189	0.0101	0.6931	-0.6931	0.1118	0.1179	19.9254
R_CH	0.0031	0.0024	0.1325	-0.1218	0.0234	0.1195	7.0056
R_MX	0.0043	0.0058	0.1730	-0.1676	0.0385	-0.1793	4.2786
R_SPA	0.0014	0.0036	0.0960	-0.1414	0.0271	-0.4277	5.0613
R_ITL	0.0009	0.0031	0.1058	-0.1153	0.0298	-0.1669	3.8493
R_GER	0.0011	0.0023	0.1490	-0.1526	0.0311	-0.4847	5.8852
R_FR	0.0008	0.0009	0.1432	-0.1094	0.0287	-0.1066	5.0601
R_UK	0.0009	0.0010	0.0991	-0.0815	0.0216	-0.1294	4.7257
R_US	0.0016	0.0023	0.0895	-0.1041	0.0213	-0.3559	4.7441

Notes: Brazilian stock market return (R_BR); Chilean stock market return (R_CH); Mexican stock market return (R_MX); Spain market return (R_SPA); Italian market return (R_ITL); German stock market return (R_GER); French stock market return (R_FR); UK stock market return (R_UK); and US stock market return (R_US). All variables are in the form of continuously compounded rate of change.

Table 2. Augmented Dickey-Fuller test results.

	Augmented Dickey-Fuller test statistic
Brazil	-8.942
Chile	-15.316
Mexico	-25.623
Spain	-17.744
Italy	-27.097
Germany	-28.598
France	-30.151
UK	-29.742
US	-29.325
Critical level: 0.01	-2.568
Critical level: 0.05	-1.941
Critical level: 0.10	-1.616

Notes: The variables in the augmented Dickey-Fuller test are: Brazilian stock market return (R_BR); Chilean stock market return (R_CH); Mexican stock market return (R_MX); Spain market return (R_SPA); Italian market return (R_ITL); German stock market return (R_GER); French stock market return (R_FR); UK stock market return (R_UK); and US stock market return (R_US). All variables are in the form of continuously compounded rate of change.

We used a VAR model to test for the presence or absence of a stock market response to changes in European stock markets (Sims 1980). The VAR model is appropriate when estimating unrestricted reduced-form equations with a uniform set of dependent variables as regressors. This model is useful for analyzing possible linkages that might exist between Latin American and European markets, since it does not impose a priori restrictions on the structure of the system and can be viewed as a flexible approximation to the reduced form of the correctly specified but unknown structural model.

The VAR model can be expressed as:

$$z(t) = C + \sum_{s=1}^{m} A(s)\, z(t-s) + e(t)$$

where *z(t)* is a column vector of stock market returns for the three periods of the study, *C* is the deterministic component comprised of a constant, *A(s)* is a matrix of coefficients, *m* is the lag length, and *e(t)* is a vector of random error terms.[2]

Sims (1980) suggests that autoregressive systems like these are difficult to describe concisely. It is difficult to explain them only by examining the coefficients in the regression equations. Additionally, Enders (2003) argues that the t-tests on individual coefficients are not reliable and do not uncover the most important relationships among the variables. In that sense, Sims (1980) recommends the analysis of the system's response to random innovations, i.e., IRFs. Thus, we construct IRFs for the VAR models to investigate the response of one variable to a one standard deviation innovation in another variable in the system, which can be thought of as a dynamic

[2] After conducting lag-length tests based on the Akaike information criteria and the Schwartz Bayesian criteria and taking into consideration the number of data points and the loss of degrees of freedom, the appropriate number of lags to be included in the model was found to be equal to two.

multiplier representation. The effects of these innovations can then be orthogonalized using Cholesky decomposition (Runkle 1987) or generalized impulses (Pesaran and Shin 1998). The results based on the Cholesky orthogonalization method may be affected by the choice of variable ordering, so we verify the results using the generalized impulses orthogonalization method, which does not depend on the variable ordering choice. Since impulse responses are non-linear functions of the estimated parameters, we construct confidence bands around the mean response. Responses are considered statistically significant at the 95% confidence level when the upper and lower bands carry the same sign.

IV. Estimation results

Sub-period January 1988 to December 1994

Figures 1-6 contain the impulse response functions of the Latin American stock market returns in dollars to shocks from European and US stock markets for the sub-sample period of January 1988 to December 1994.[3] Figure 1 contains the response of Mexico's stock market to shocks from European stock markets. The graphs in Figure 1 suggest that during this first sub-period of the study, movement in the Mexican stock market seems to be affected by the US and Spanish stock markets (see Figure 1a, b). Consistent with the finding of Soydemir (2000), we find that there is a positive and significant effect of the US on the Mexican stock market. The response is significant during the first week and becomes insignificant from the second week onward. Unlike Soydemir (2000), we also considered the effects of European markets on Latin America. Our results show that Spain had a positive effect on the Mexican stock market while the effect of the UK market was insignificant. The effect of Spain on the Mexican stock market is positive and significant the first week and becomes insignificant on the second week. However, during the third week, it becomes significant and then insignificant. Additionally, the graph in Figure 1 suggests that movements in France's stock market had a significant effect on the Mexican market during the second week while becoming insignificant thereafter. Lastly, we do not find evidence that the stock markets of the UK, Germany, and Italy had an effect on the stock market of Mexico (see Figure 1c, d, e). The response of Mexico to the US stock market is a bit higher than to the Spanish market, but much higher than to the French stock market. These findings are consistent with the trade links observed between these economies. The US-Mexico trade links are stronger than those between Spain and Mexico and France and Mexico.

Figure 2 presents the results based on generalized impulses. In this case, all countries, except for Italy, affect the Mexican market. The Spanish market, however, presents the most economically significant impact, followed by the US market.

Figures 3 and 4 contain the impulse response functions of the Brazilian and Chilean stock markets to shocks from the European and US stock markets for the sub-sample period of January 1988 to December 1994. The graph in Figure 3b shows that the Brazilian stock market is affected by shocks in the Spanish stock market during the third week. Additionally, Figure 3e suggests that movements in Italy's stock market affected Brazil negatively during the second week. Figure 4a shows that Chile's stock market is affected by shocks from the US stock market. During this period, we did not find evidence that shocks from other European markets had an effect on the Brazilian and Chilean stock markets.

3 The Cholesky decomposition ordering is: the US, Spain, the UK, Germany, Italy, and France.

Figure 1. Response of Mexico to European stock market innovations during 1988-1994.

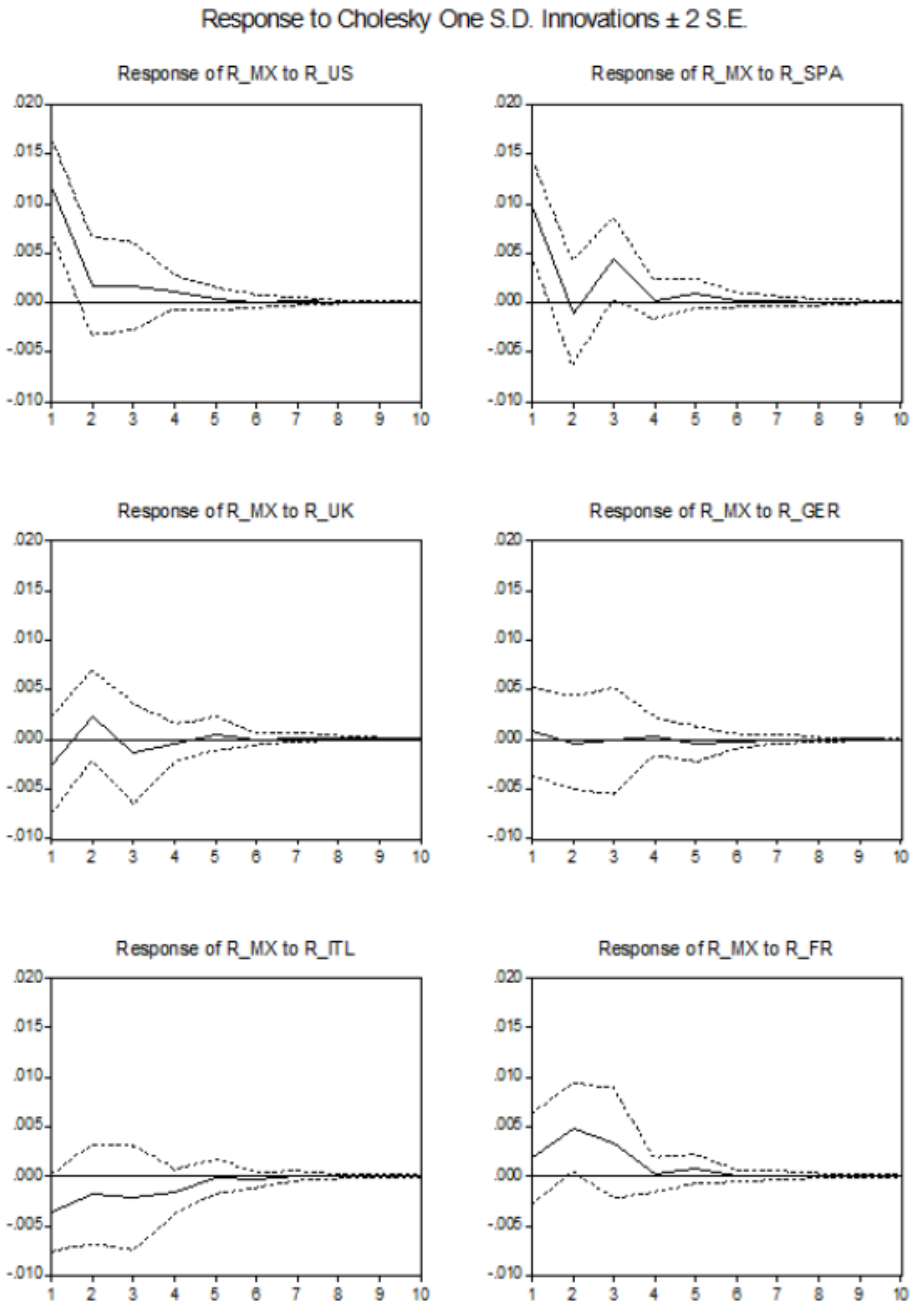


Figure 2. Response of Mexico to European stock market innovations during 1988-1994 (generalized).

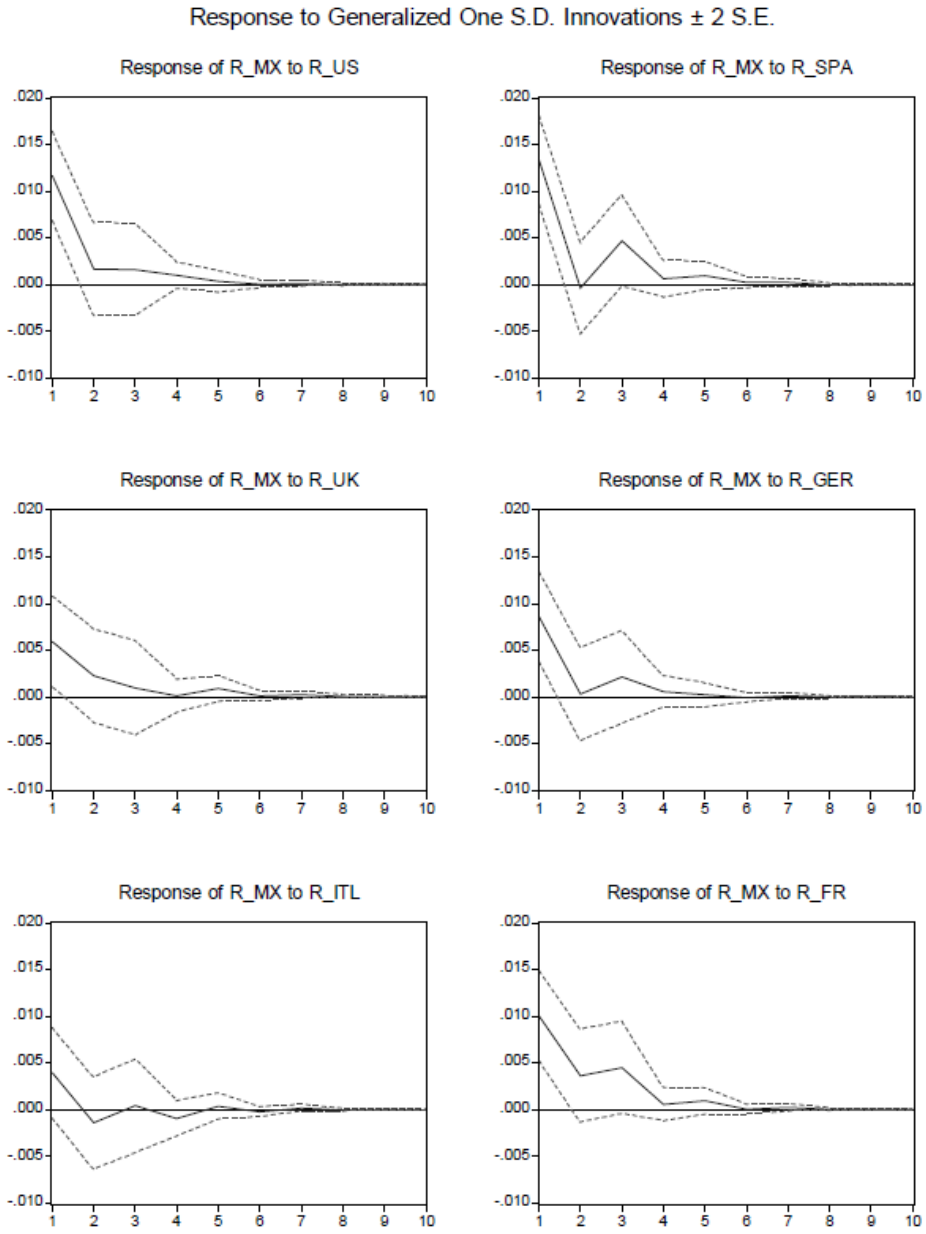


Figure 3. Response of Brazil to European stock market innovations during 1988-1994.

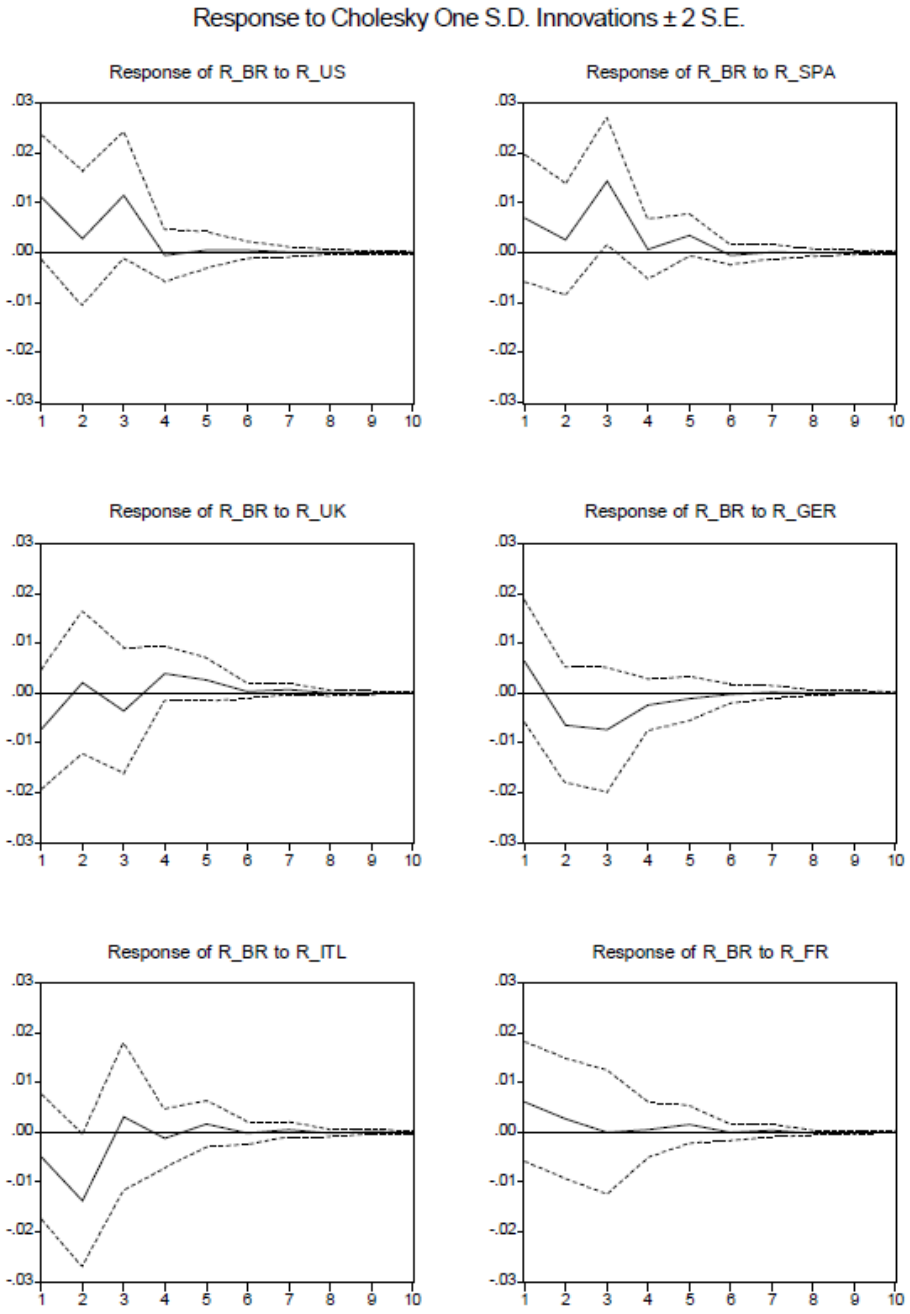
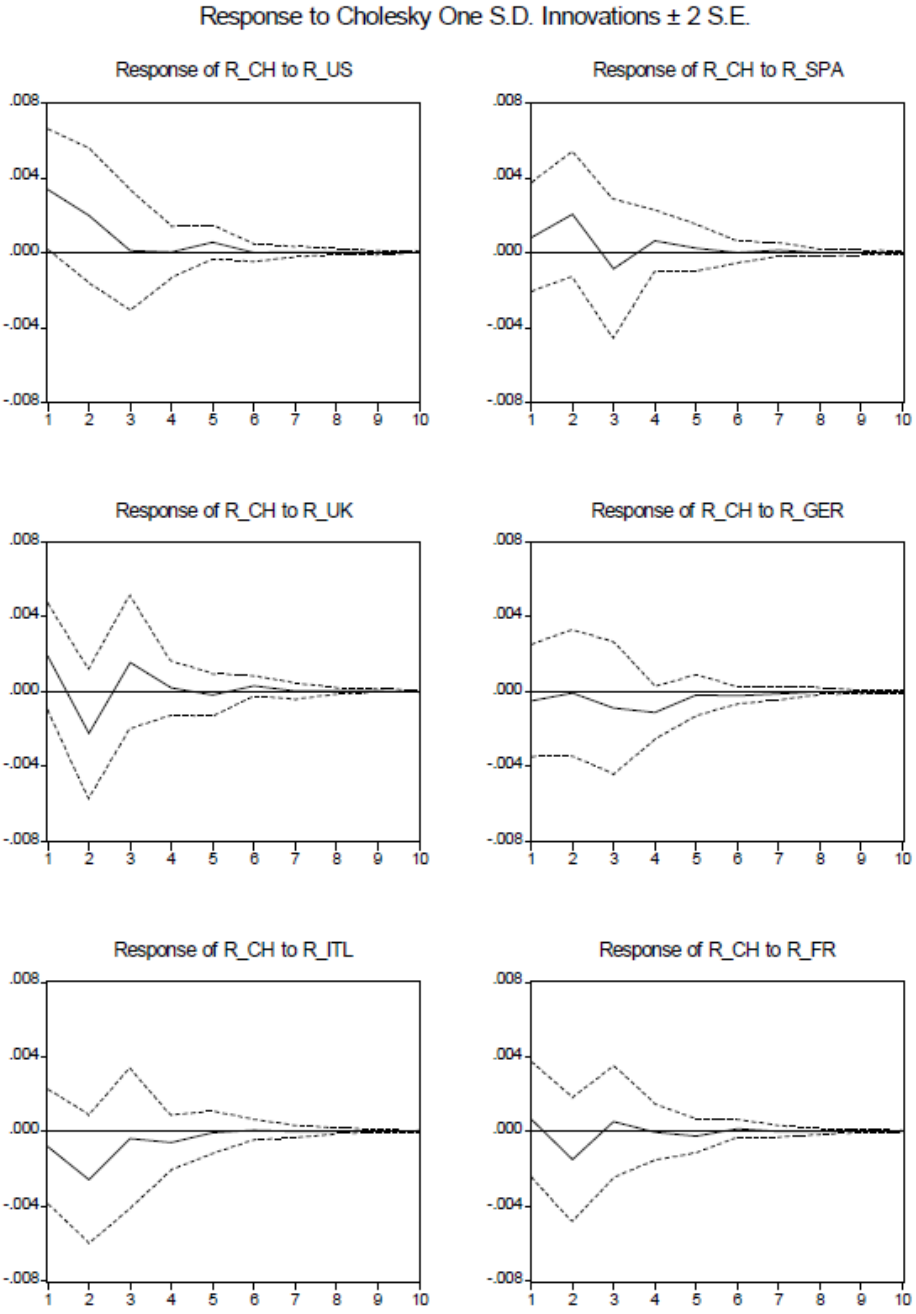


Figure 4. Response of Chile to European stock market innovations during 1988-1994.



Figures 5 and 6, based on generalized impulses, mostly confirm the results based on Cholesky decomposition, indicating that during this period the Brazilian market was not affected by any other market and that the Chilean market was affected only by the US market.

Figure 5. Response of Brazil to European stock market innovations during 1988-1994 (generalized).

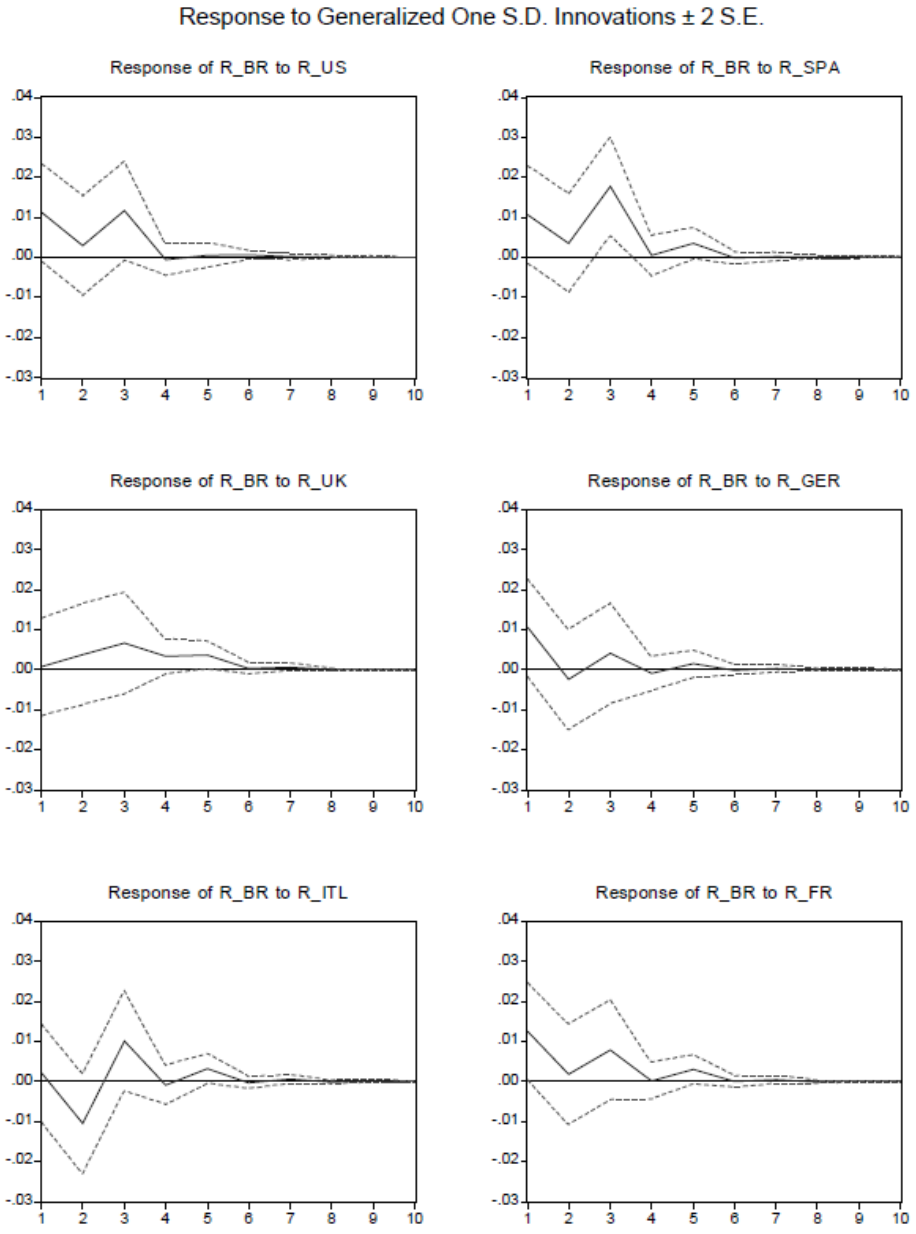
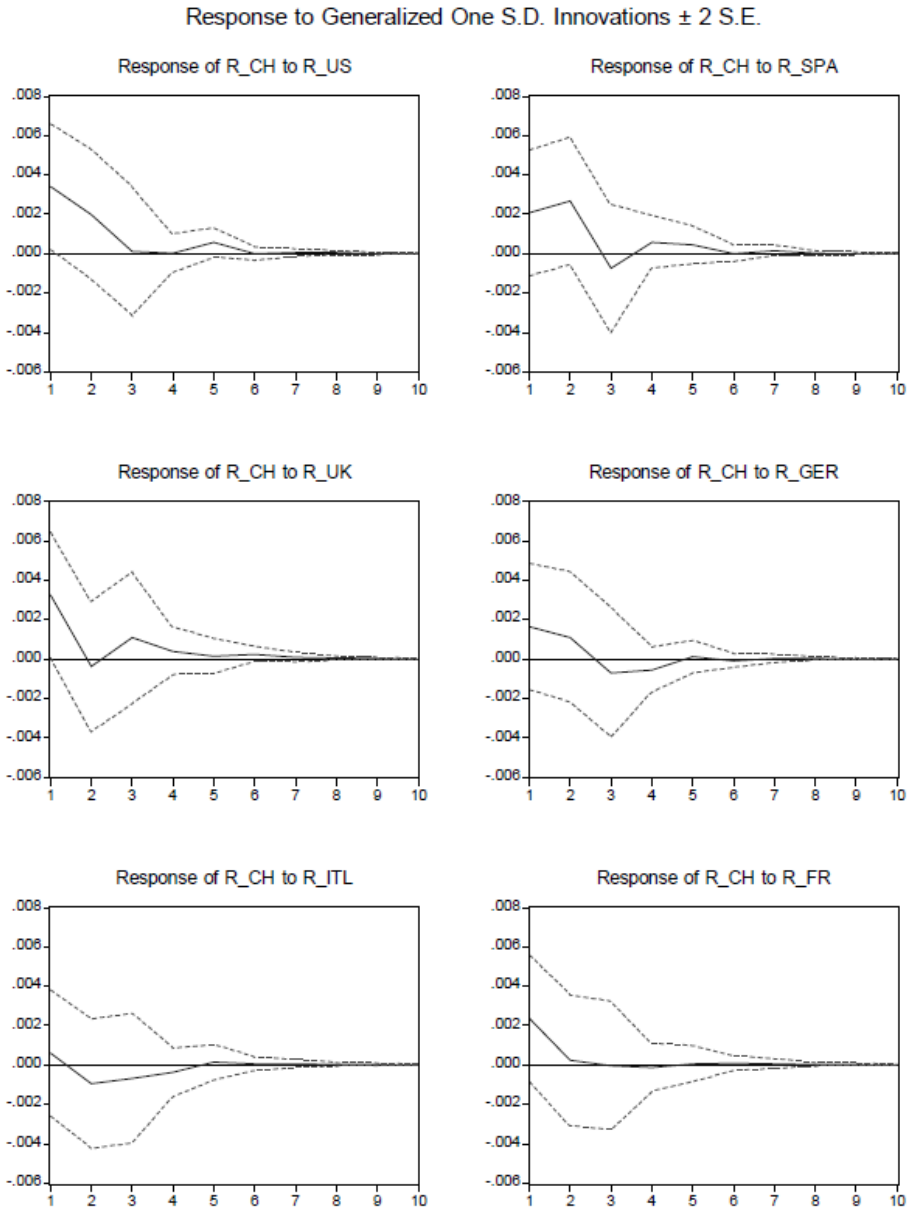


Figure 6. Response of Chile to European stock market innovations during 1988-1994 (generalized).



Sub-period January 1995 to December 1998

Figures 7-12 contain the responses of Mexico, Brazil, and Chile to shocks in the European and US stock markets during the sub-period January 1995 to December 1998. The graphs in Figure 7 suggest that movements in the US, Spain, and France affected the Mexican stock market (see Figure 7a, b, e). The stock market effect of the US and Spain on Mexico was significant during the first week and then became insignificant. However, the response of the Mexican stock market to France is positive and significant during the second week. Note that for this sub-period, both the US and Spain had a stronger effect on the Mexican stock market. The same result is obtained based

on generalized impulses, as seen in Figure 8, although in this case all European markets present effects on the Mexican market, even if less economically significant than the effects of the US and Spanish markets.

Figure 7. Response of Mexico to European stock market innovations during 1995-1998.

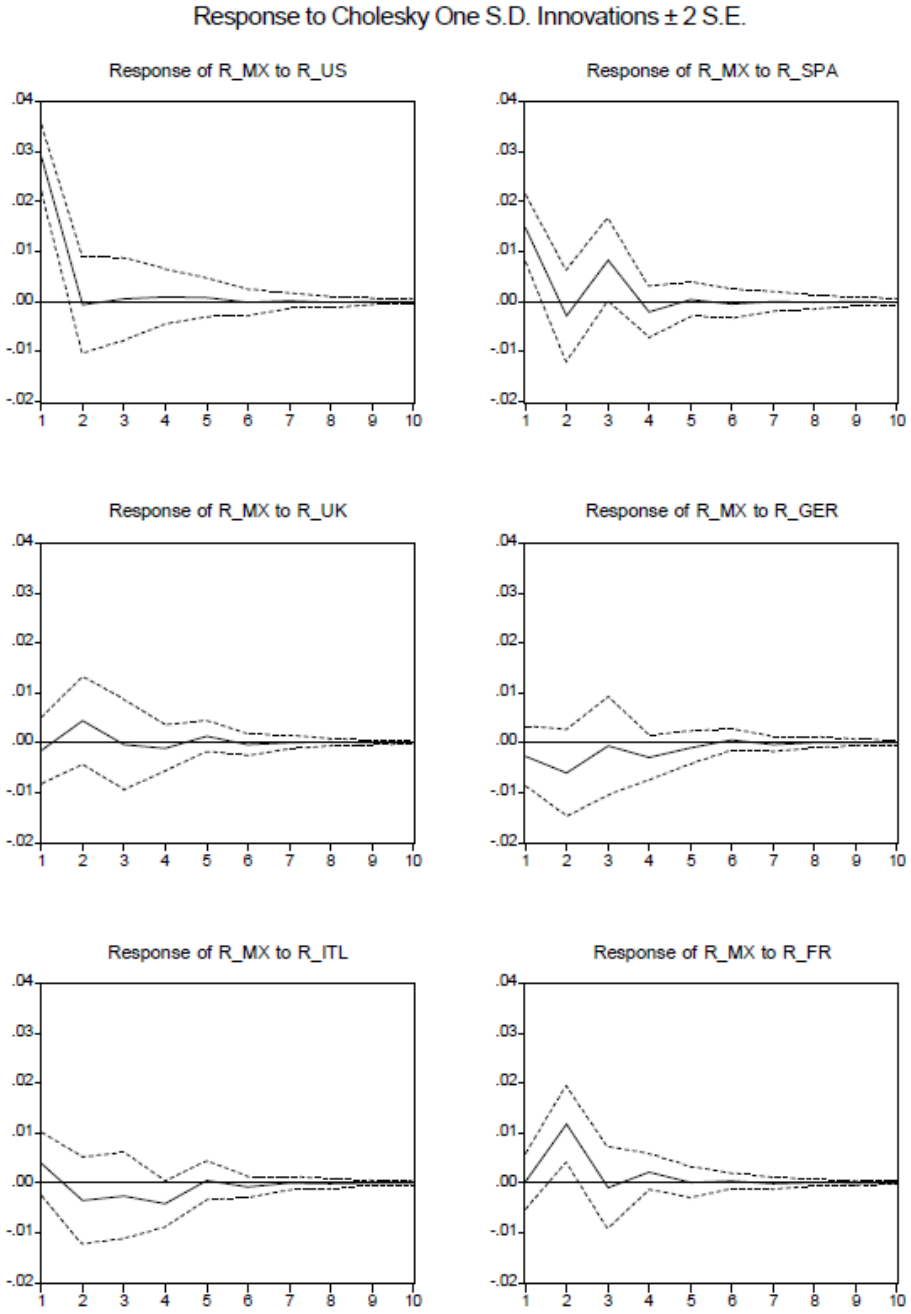


Figure 8. Response of Mexico to European stock market innovations during 1995-1998 (generalized).

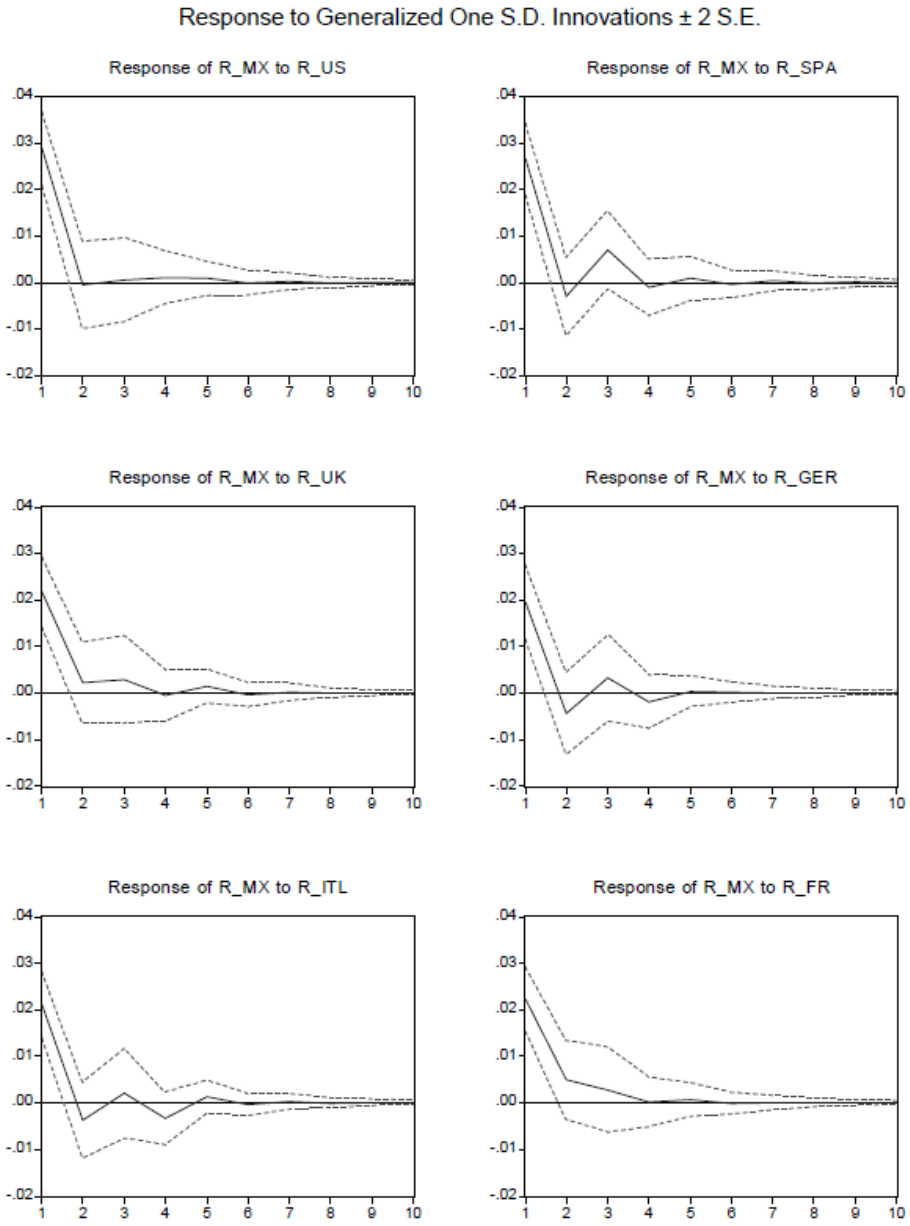


Figure 9 shows the response of the Brazilian stock market to the US and European stock markets shocks. Both the US and Spain had a significant effect on the Brazilian market during the first week. Spain, however, also had a significant effect on Brazil during the third week. Additionally, the dispersion around the mean response of Brazil to shocks from the US and Spain is smaller during this sub-period. The US-Brazil and Spain-Brazil trade links and the foreign direct investment links increased importantly during this period, which may partially explain the difference in response patterns between the first two sub-periods for these countries. Figure 10, based on generalized impulses, also indicates that the US and Spanish markets were the most influential, although all other markets in this case had effects on the Brazilian market.

Figure 9. Response of Brazil to European stock market innovations during 1995-1998.

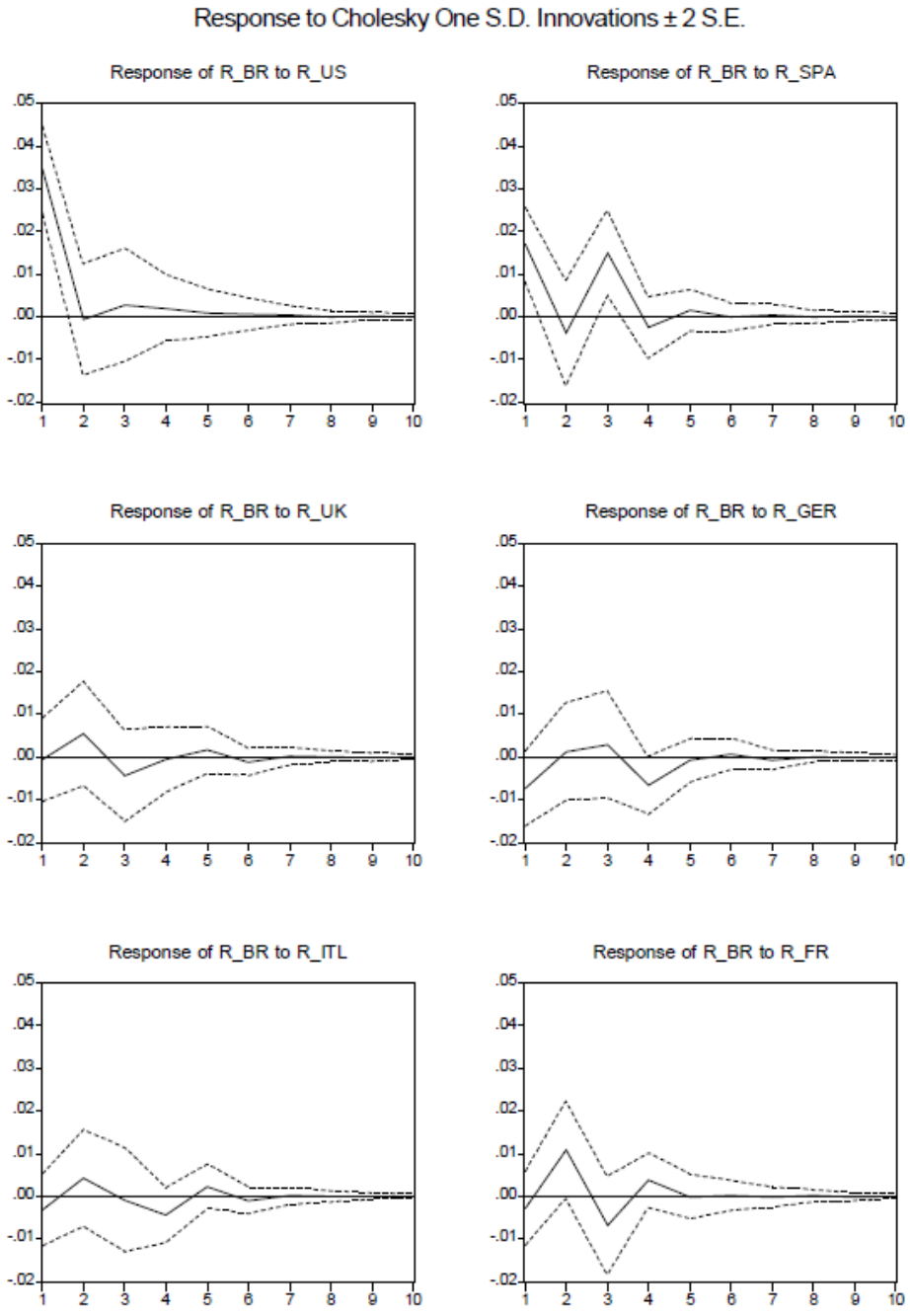


Figure 10. Response of Brazil to European stock market innovations during 1995-1998 (generalized).

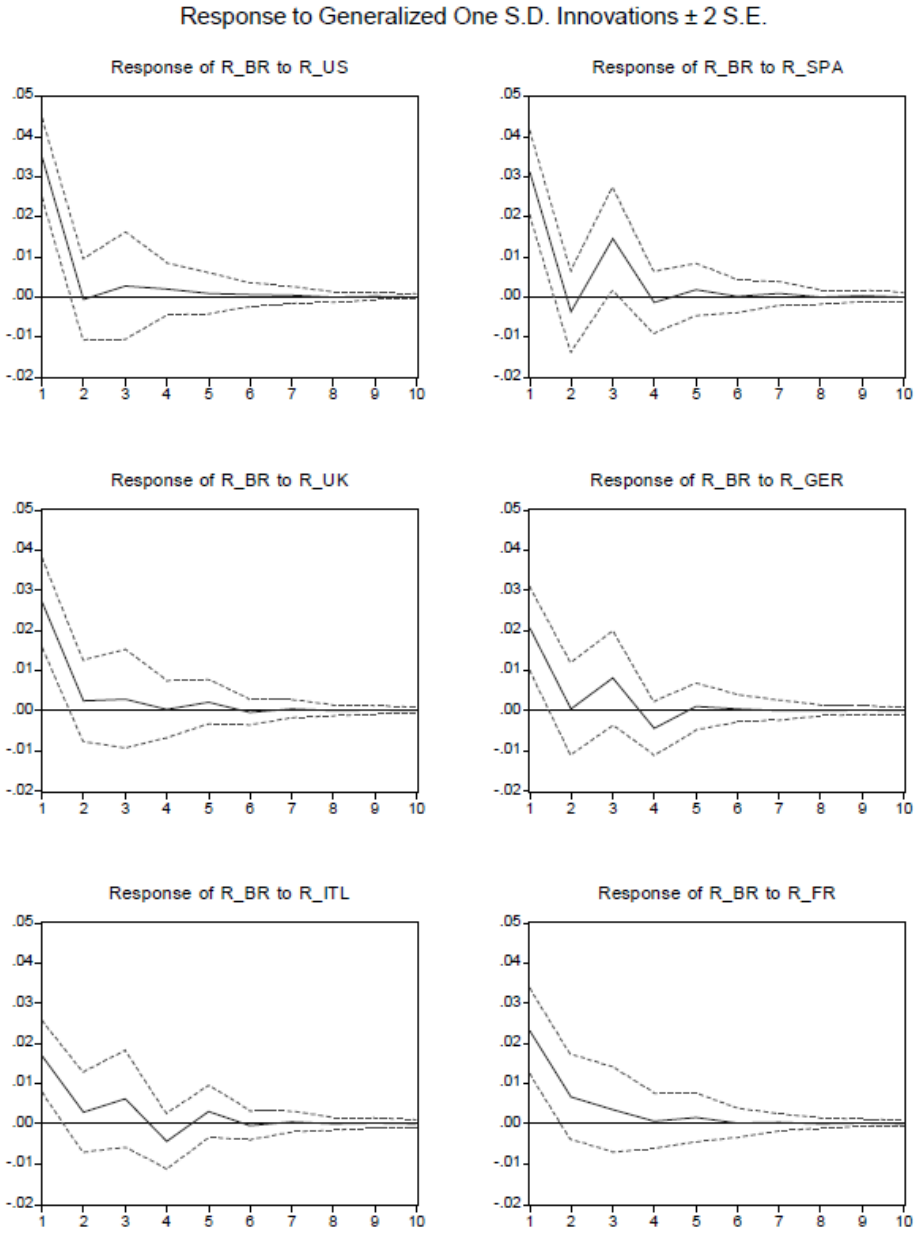


Figure 11 shows the response of Chile to shocks from the US and European stock markets. Shocks in the US and Spanish stock markets had significant and positive effects on Chile. This response lasted for two weeks and died down afterwards. The Chile-Spain trade and foreign direct investment links are greater than those for Chile and the US during this sub-period, which may partially explain the importance of Spain in the Chilean stock market. Figure 12 also indicates that, according to the generalized impulses method, the US and Spanish markets had the most economically significant effects on the Chilean market, even if all other markets, except for Italy, also had statistically significant effects.

Figure 11. Response of Chile to European stock market innovations during 1995-1998.

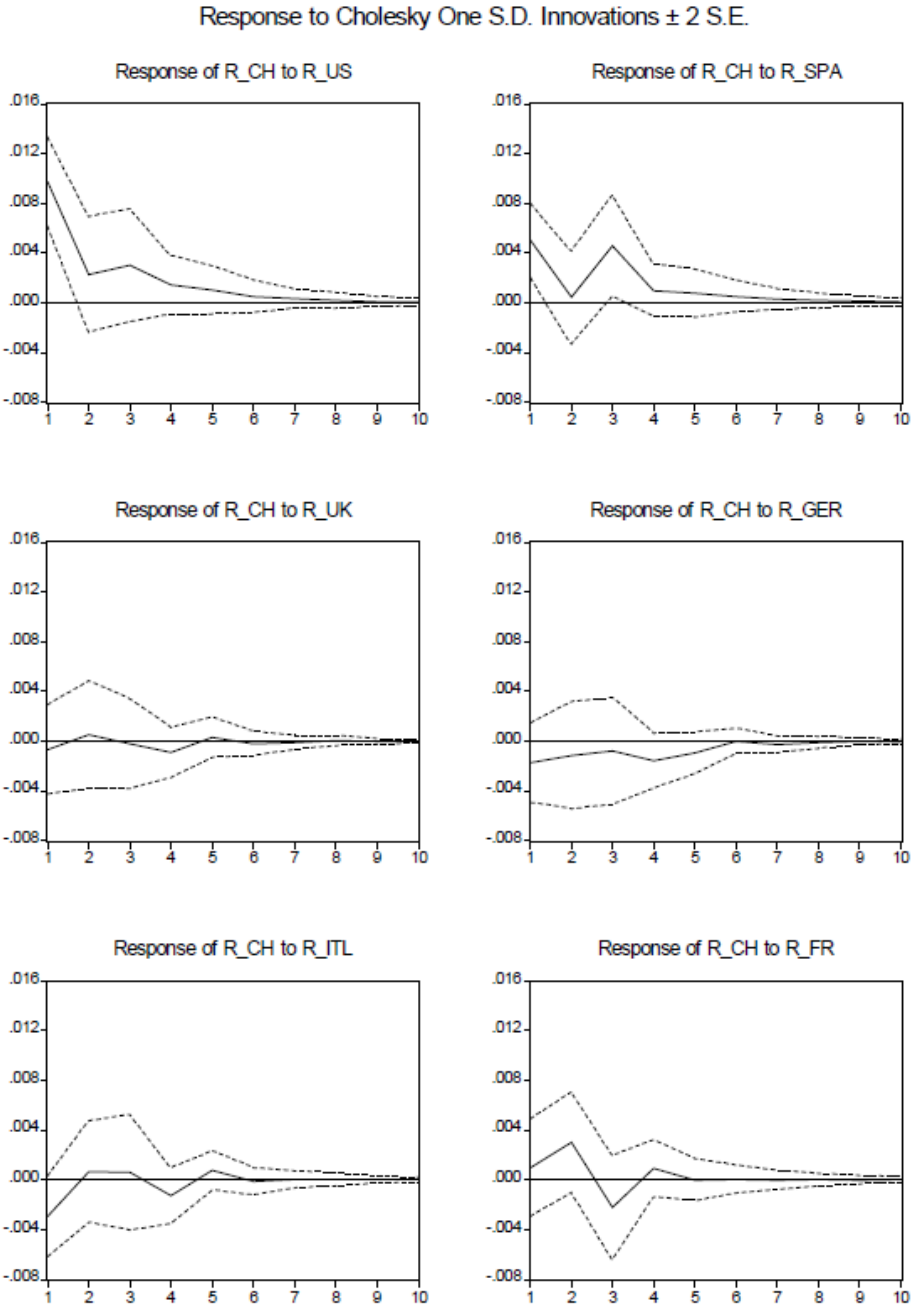
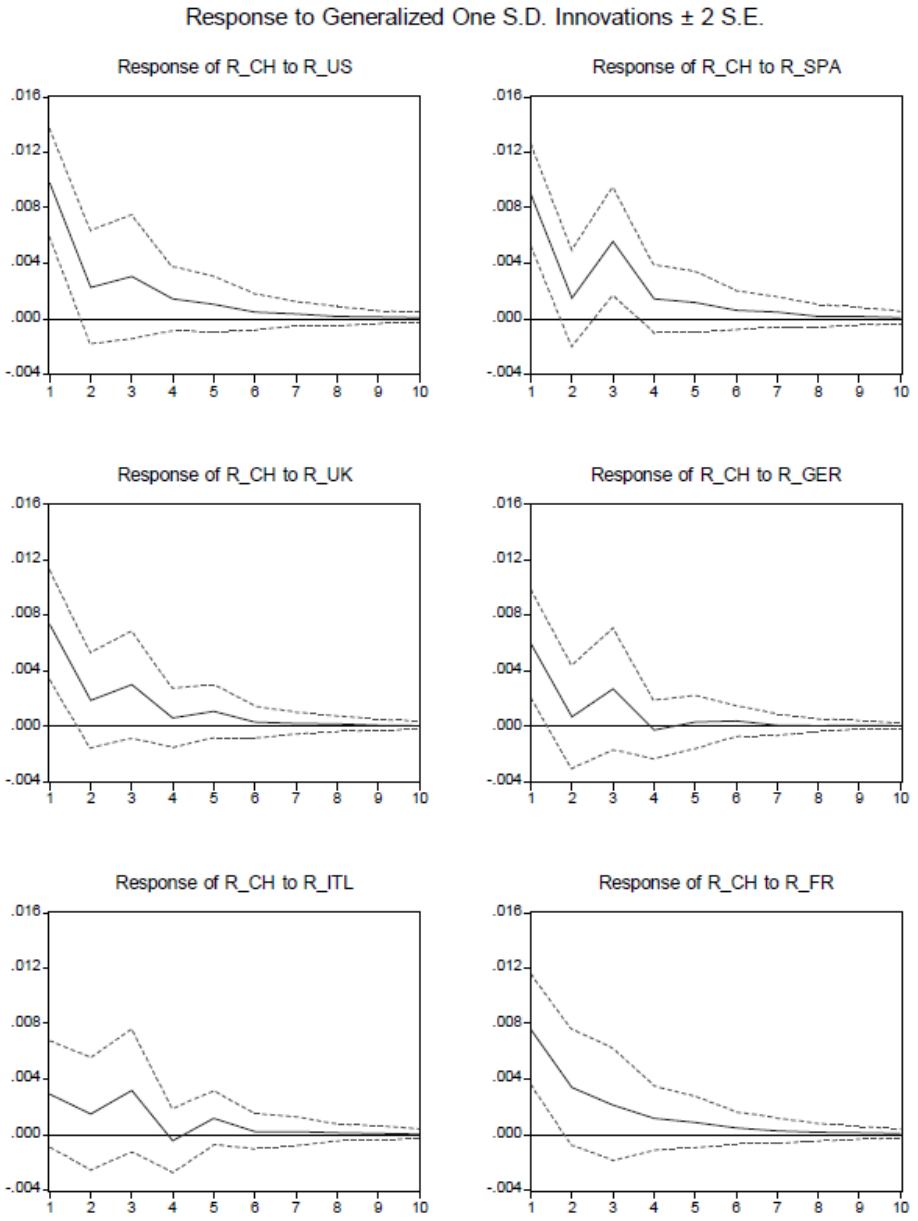


Figure 12. Response of Chile to European stock market innovations during 1995-1998 (generalized).



Sub-period January 1999 to December 2004

Figures 13–18 contain the Latin American countries' impulse response functions of the stock market returns in dollars to innovations from the European and US stock markets during the sub-period January 1999 to December 2004. Figure 13 contains the response of Mexico's stock market to shocks from the US and European stock markets. Similar to the previous sub-period, the graphs in Figure 13 suggest that after the implementation of the euro, the Mexican stock market seems to be affected by movements in the US and Spanish markets (see Figure 13a, b). The effect of the US on the Mexican stock market is higher than that of Spain, which may be due to the increased trade

link between the US and Mexico. However, an interesting finding for this sub-period is that, despite the fact that the impact of Spain is lower than in the previous sub-period, the dispersion around the mean response of Mexico to an innovation from Spain is also lower (the effects are statistically more significant). Lastly, we do not find that the stock markets of the other European countries had any effect on the stock market of Mexico (see Figure 13c-f) during the sub-period.

Figure 13. Response of Mexico to European stock market innovations during 1999-2004.

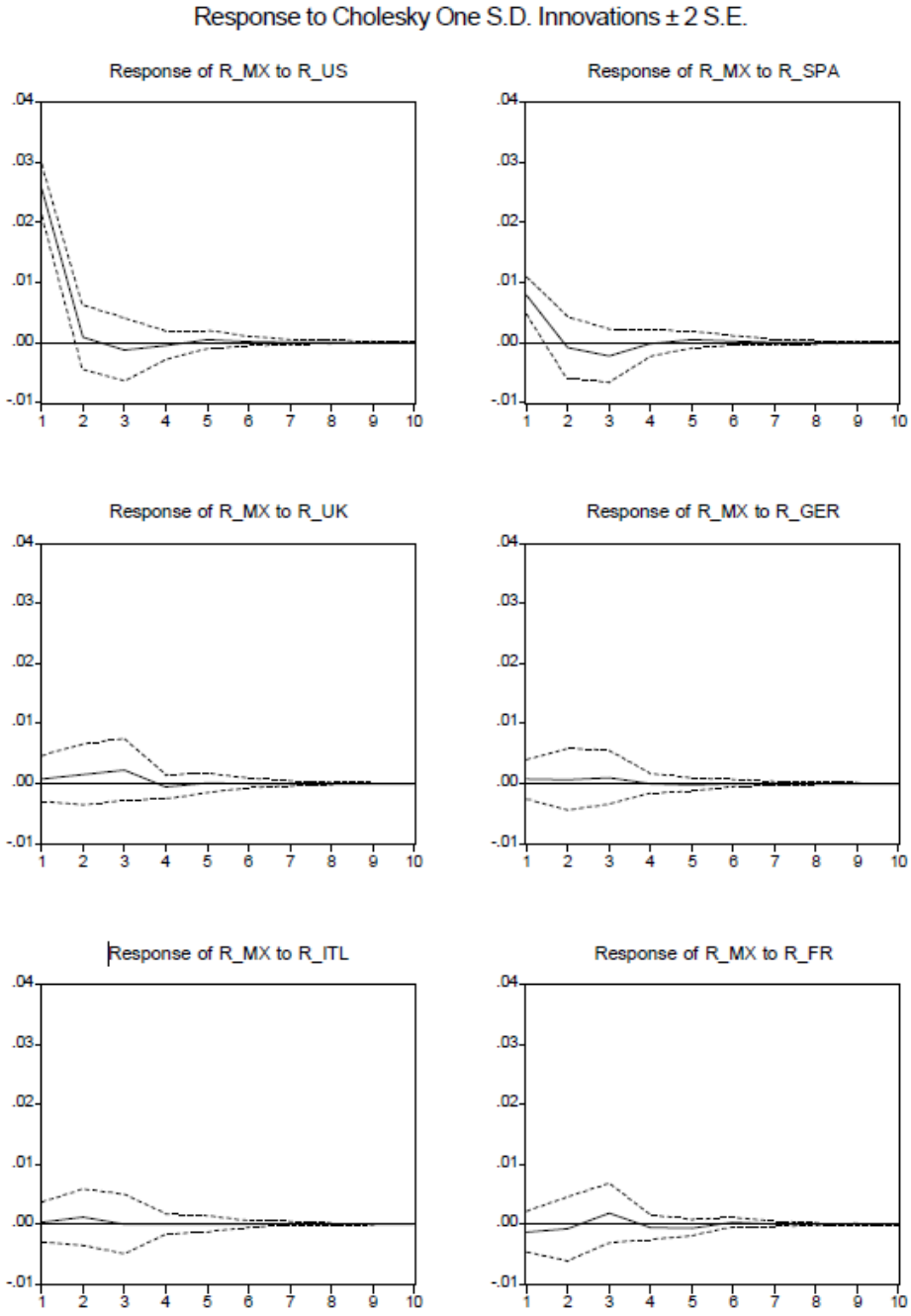
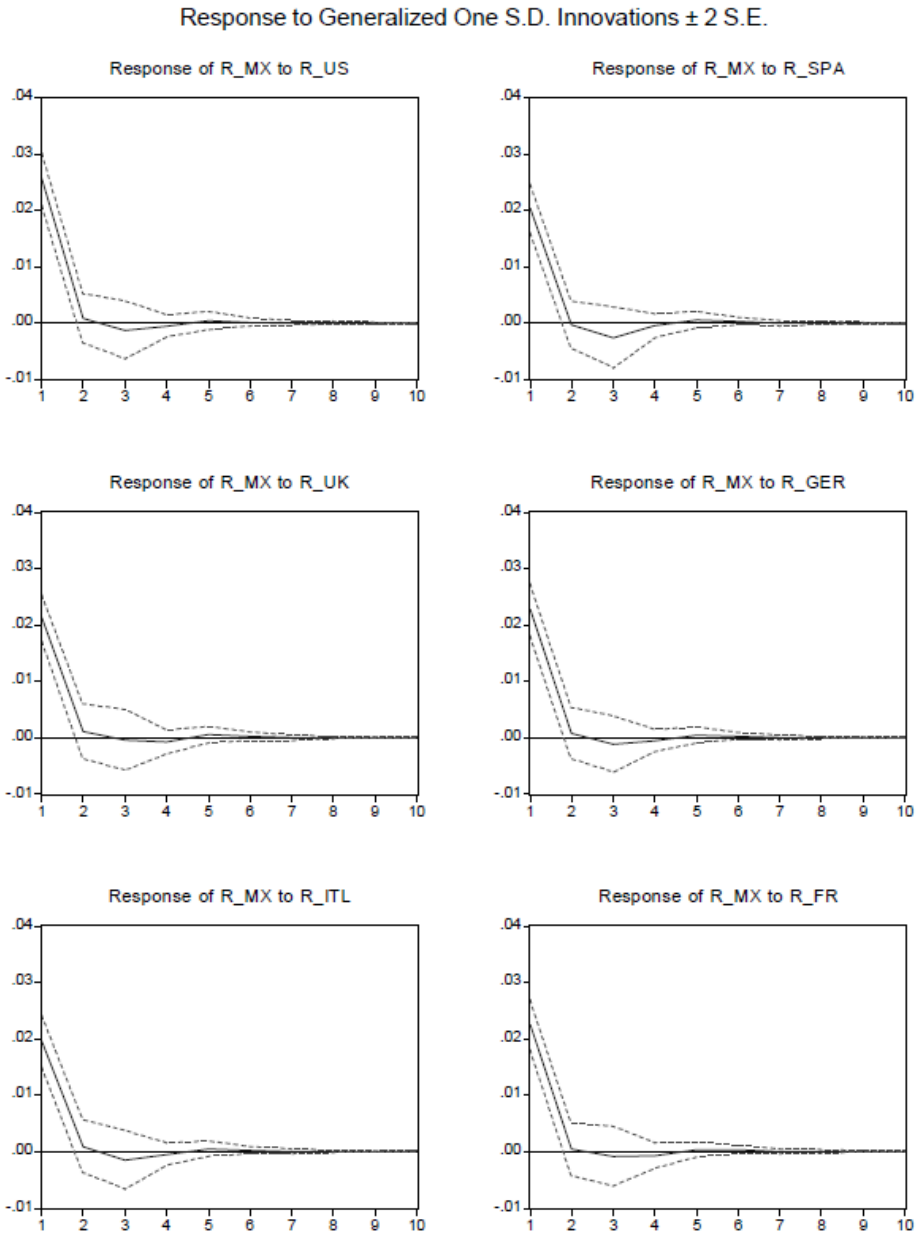


Figure 14. Response of Mexico to European stock market innovations during 1999-2004 (generalized).

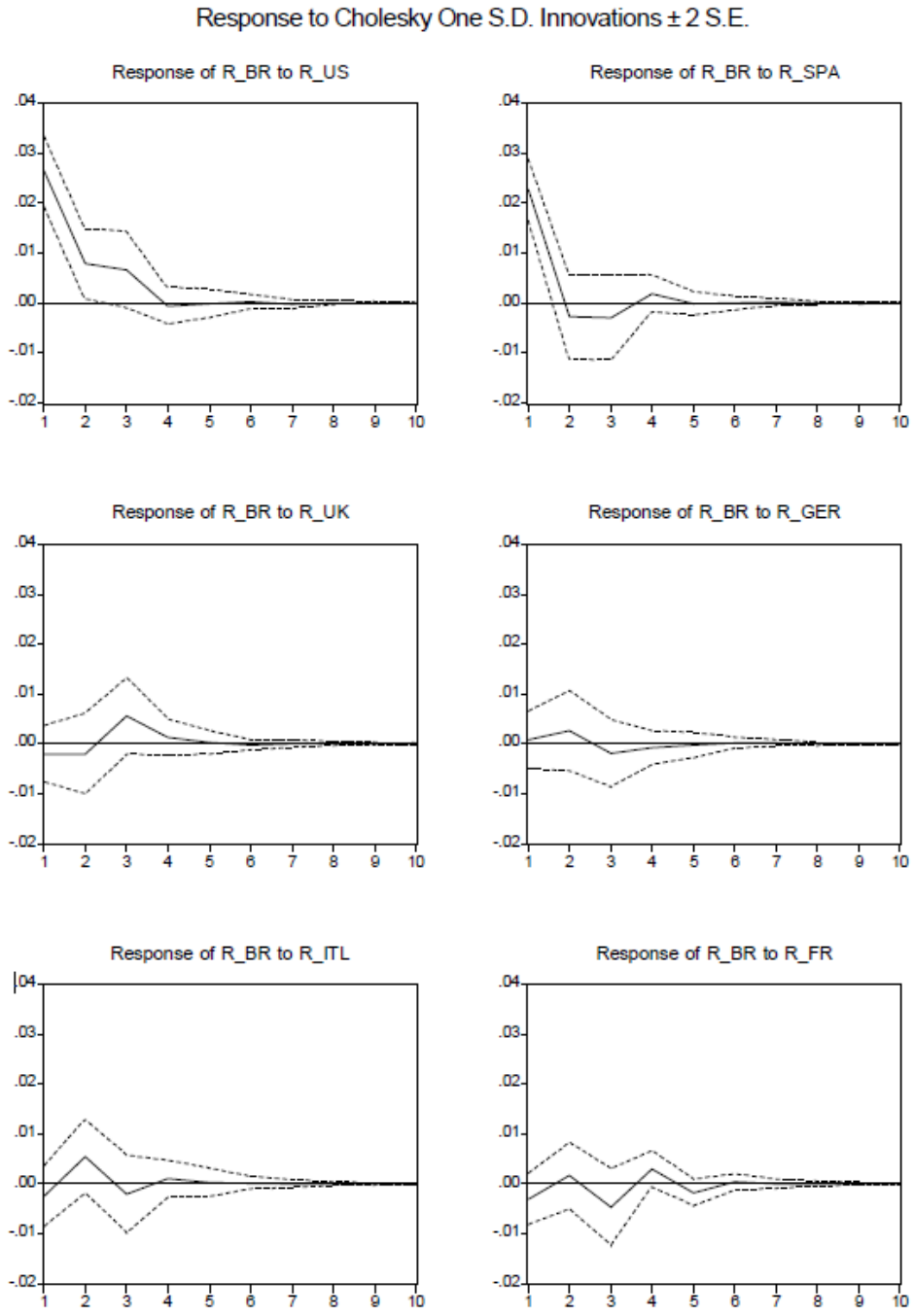


The results using generalized impulses shown in Figure 14, however, indicate otherwise, with all European markets now affecting the Mexican market with equal strength, maybe as a result of the adoption of the euro.

Figure 15 contains Brazil's impulse response functions to shocks from the US and European stock markets. The effect of the US and Spain on the Brazilian stock market was positive and significant during the first week while it became insignificant thereafter. The magnitude of the effect of the US was a bit higher than that of Spain, and the dispersion around the mean response of Brazil in this sub-period was smaller. Brazil's response is consistent with the fact that the trade

link between Brazil and the US has gotten stronger. Note also that the effect of Spain's stock market on Brazil is higher than in the previous sub-period and that it is statistically more significant, which may be attributed to the fact that both trade between these two countries and Spain's FDI in Brazil became more pronounced during this sub-period. Once again, we found no evidence that the rest of the European markets had any effect on Brazil's stock market during this sub-period (see Figure 15c–f). On the other hand, the results based on the generalized impulses method (Figure 16) show

Figure 15. Response of Brazil to European stock market innovations during 1999-2004.



that European countries were equally important during the period, with effects on Brazil that are in most cases stronger than the effects of the US market.

Figure 16. Response of Brazil to European stock market innovations during 1999-2004 (generalized).

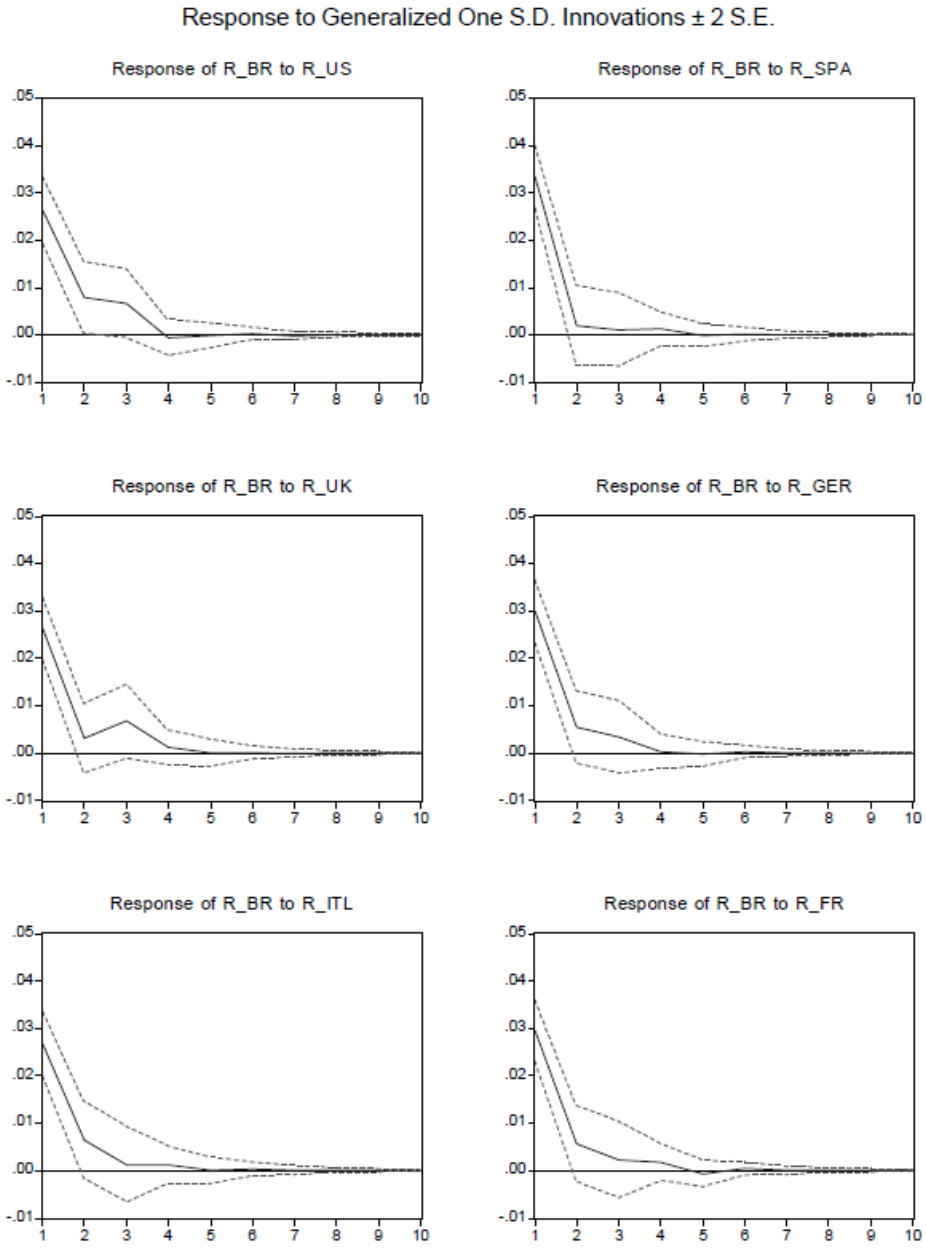


Figure 17. Response of Chile to European stock market innovations during 1999-2004.

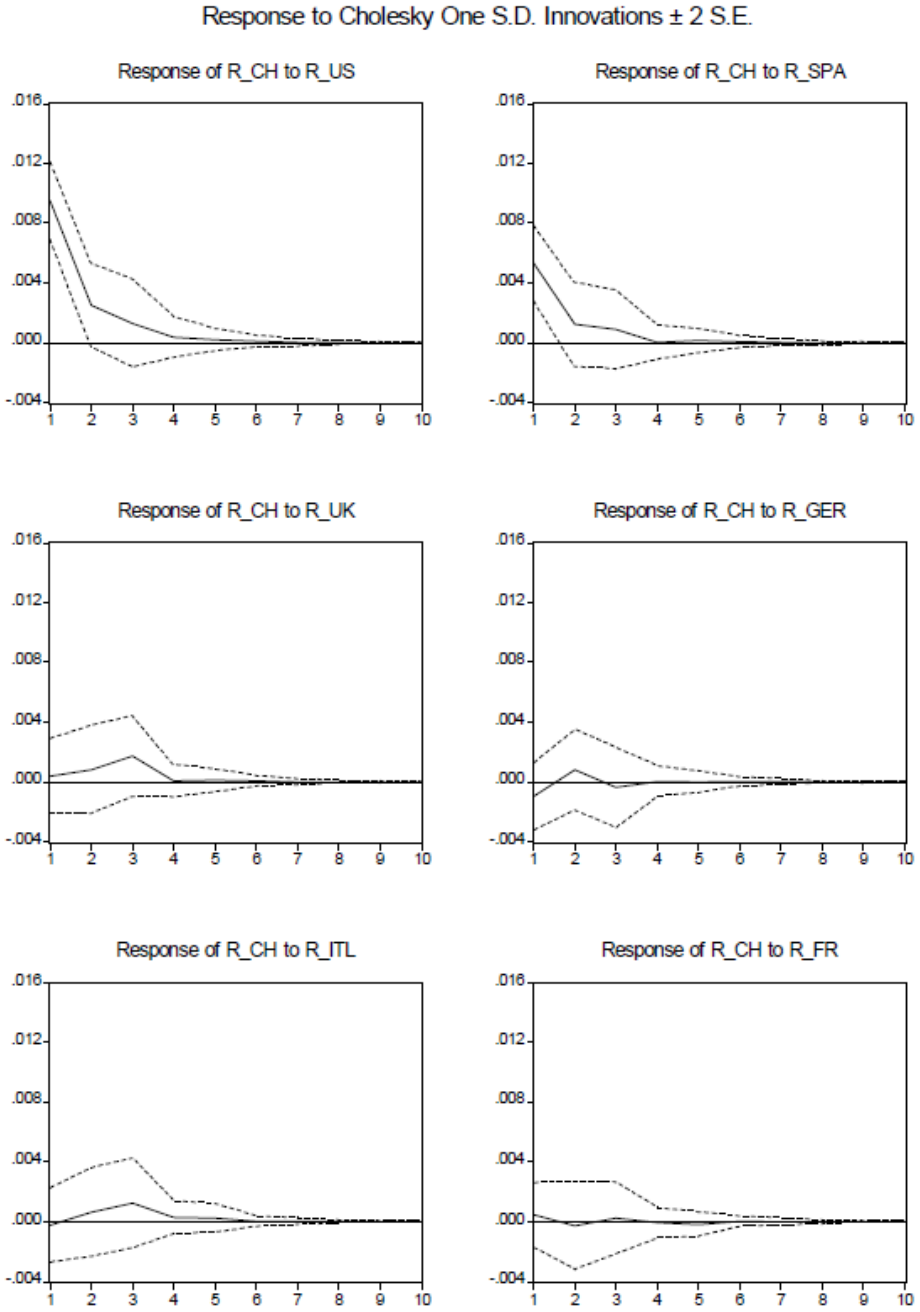
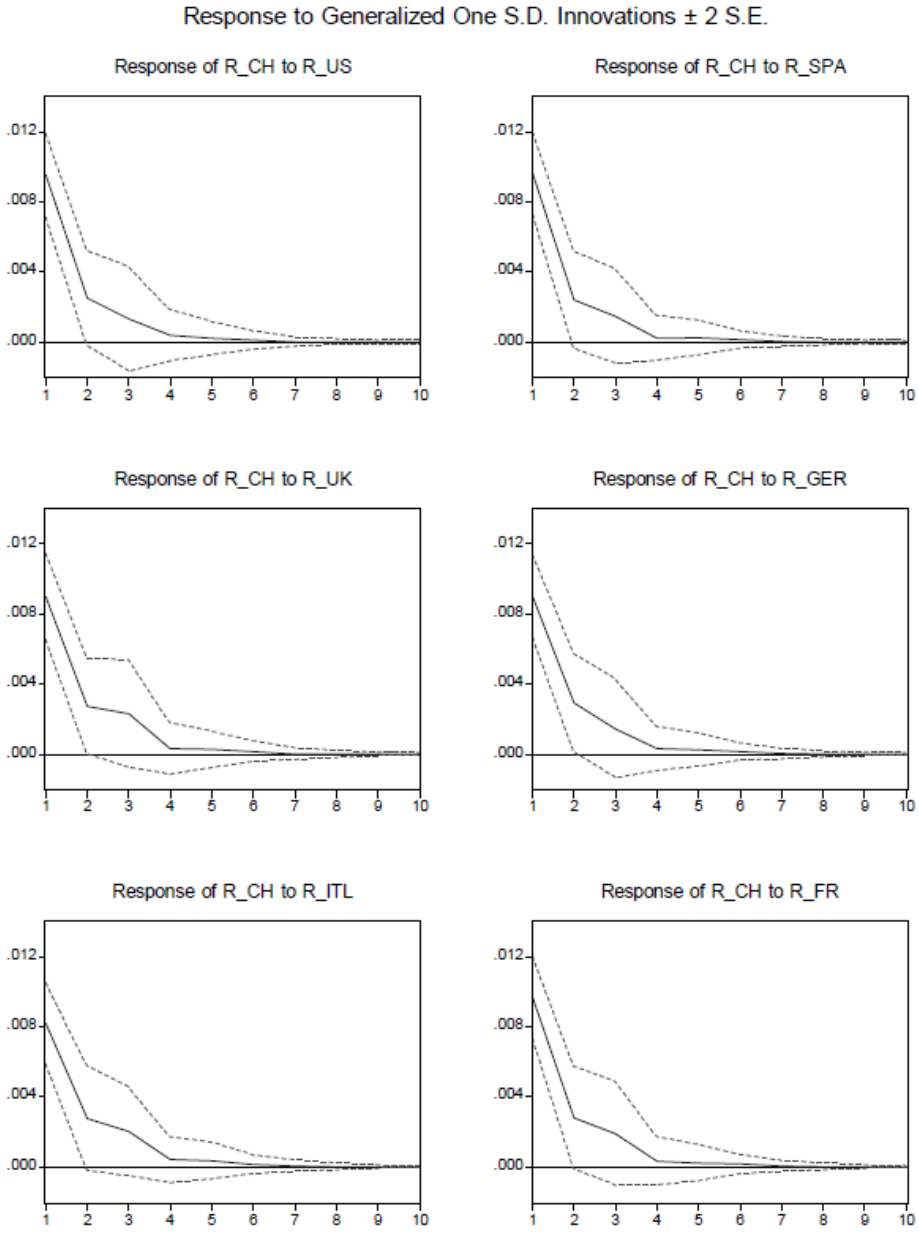


Figure 17 contains the response of Chile's stock market to shocks in European and American stock markets. The graphs in Figure 17 suggest that movements in Spain and the US's stock markets affect Chile's stock market (see Figure 17a, b). The US and Spain stock market effects on the Chilean stock market are positive and significant the first week and then become insignificant the second week. This might be accredited to the fact that the trade links with Spain are stronger than during the previous sub-periods. Figure 18, as in the case of Mexico and Brazil, indicates that,

based on the generalized impulses method, all European markets affected the Chilean market during the period.

Figure 18. Response of Chile to European stock market innovations during 1999-2004 (generalized).



V. Conclusion

In this study, we employed VAR models to examine the interdependence among equity markets of Latin American countries (Brazil, Chile, and Mexico), the US, and European countries during the years surrounding the neoliberal reforms of the 1990s, from January 1988 to December 2004. Three sub-periods were considered: 1988 to 1994, 1995 to 1998, and 1999 to 2004. Each sub-period represents different macroeconomic contexts as a result of stabilization policies or changes in trade and foreign direct investment flows.

During the first sub-period (January 1988 to December 1994), we found evidence of a significant response of Mexico to the US, Spain, and France. Moreover, during the second sub-period, January 1995 to December 1998, the markets of Spain and France seem to have had an even stronger effect on Mexico than during the first sub-period, and the dispersion effects seem to have gotten smaller. During the last sub-period, January 1999 to December 2004, however, we found evidence of a significantly smaller effect of Spain on the Mexican stock market and, based on generalized impulses, a tendency of all European markets to become equally important, maybe due to the adoption of the Euro.

In the case of Brazil, we found that, in the first and second sub-period of our study, innovations in Spain still produced an effect after two weeks. During the third sub-period, we found an even more statistically and economically significant effect of Spain on Brazil. The generalized impulses method indicates, on the other hand, that the effects of most European markets became larger than the effects of the US market during the third sub-period.

In the case of Chile, only the US seems to have had an effect during the first sub- period of the study. None of the European countries had a significant effect on Chile's stock market during the first sub-period. During the second and third sub-periods, however, Spain had a significant impact on Chile's stock market, and according to the generalized impulses method, all European countries had equally significant impacts after the adoption of the Euro. Consistent with previous studies, we found that the US stock market had a strong influence on the Latin American stock markets during the three sub-periods under study.

Our findings are consistent with the view that trade links and differences in institutional structures caused emerging markets to respond differently to shocks originating from Europe and the US. For example, Mexico, Brazil, and Chile are more responsive to US stock market movements than to European shocks, which can be attributed to the fact that the Latin American economies, and especially Mexico, are more geared towards the US economy. Additionally, during the second and third sub-periods, Spain had much stronger ties with Brazil, which may explain why Brazil responds more strongly to innovations originating from Spain than, for example, Chile.

In conclusion, this study reveals that European stock markets, particularly Spain, seem to have increasingly influenced Latin American markets during the years surrounding the neoliberal reforms of the 1990s. The effects of European markets vary across Latin American markets and time periods. In conclusion, our findings indicate that Latin American trade and financial participation in global affairs changed significantly in nature during the studied period.

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Conflict of Interest Statement

The authors have no competing interests to declare that are relevant to the content of this article.

Data Availability Statement

The dataset analyzed during the current study is publicly available in the OSF repository: https://osf.io/t64nx/files/osfstorage/63122c4cdb9397048c11e80e

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