Relative Impact of Global and Country Specific Uncertainties on Stock Market Returns

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This research attempts to uncover the following important relationships: (i) what is the relative impact of global and country specific economic uncertainties on stock market returns of the U.S., U.K. France, Germany, and Japan? (ii) What are the duration of these impacts (if any) i.e., how long does the impact of global and country specific uncertainties on stock returns lasts? It employs the time series data obtained in monthly interval during 1997-2015 on the economic uncertainties and stock market returns for the U.S., U.K., France, Germany, and Japan. The findings of the impulse response functions generated from a ten variable VAR model suggest the following: (i) consistent with existing research there is a strong negative relationship between economic uncertainty with stock market returns i.e., an increase in economic uncertainty depresses the stock prices in case of all five countries in the sample (ii) there is a significant impact of local uncertainty on stock prices in all the cases (iii) the global uncertainties which have significantly high impact on foreign country's markets mainly seems to stem from the U.S. and Germany (iv) the impact of local uncertainty is higher in case of U.S. and Germany while the impact of global uncertainty is higher in case of U.K., France, and Japan.

INTRODUCTION

The research of Nobel laureates, Shiller, Fama and Hansen has challenged the profession to determine whether fluctuations in asset prices are better explained by psychological and behavioral factors or by a more general theory of how investors react to uncertainty (Siegel, 2014). This study is motivated by their empirical research and recent puzzling evidences on stock markets' responses to global and country specific or local uncertainty. It attempts to uncover which of the uncertainties, global or local has greater impact on a country's stock market.

Recently, stock markets worldwide have surprisingly reacted sharply to both global and local uncertainty. For example, markets reacted sharply to default/bailout of Greece (even though it represents less than 2% of Europe's GDP); and, slowdown in China, and recovery in Germany (although only 2% and 4% of S&P 500 revenues are directly linked to China and Western Europe respectively). Similarly, local uncertainties (for example, expectations of the likely timing of the interest rate hike by the Federal Reserve Bank) has created an additional risk factor which seems to be priced in the markets and is inconsistent with the risk return characteristics.

A most followed uncertainty and its impact on global equity markets relates to the timing of the interest rate hike by the Fed. An interest rate hike following good economic data should be perceived as good news as it signals an improvement in the labor market and the economy. On the contrary, uncertainty of interest rate hike has made investors nervous about future direction of easy money policy and consequently good news about economy has become bad news for the market.

The purpose of this research is to empirically examine the mechanism in which global and country specific economic uncertainties affect a country's stock market. Accordingly, the following research questions are investigated: (i) what is the relative impact of global and country specific economic uncertainties on stock market returns of the U.S., U.K. France, Germany, and Japan? (iii) What is the duration of these impacts (if any) i.e., how long does the impact of global and country specific uncertainties on stock returns lasts?

This study employs the time series data in monthly interval during 1997-2015 on the economic uncertainty developed by Baker, Bloom and Davis (2013) on the U.S., U.K., Japan, France and Germany economies and stock market index data for these five countries. The economic uncertainty index is constructed from three components: first component quantifies news coverage of policy related economic uncertainty; second component reflects the number of federal tax code provisions set to expire in future years; and third component uses disagreement among economic forecasters as a proxy for uncertainty.

A set of generalized impulse responses obtained from a 10 variable VAR model suggests the following: (i) consistent with existing research there is a strong negative relationship between economic uncertainty with stock market returns i.e., an increase in economic uncertainty depresses the stock prices in case of all five countries in the sample (ii) there is a significant impact of local uncertainty on stock prices in all the cases (iii) the global uncertainties which have significantly high impact on foreign country's markets mainly seems to stem from the U.S. and Germany (iv) the impact of local uncertainty is higher in case of U.S. and Germany while the impact of global uncertainty is higher in case of U.K., France, and Japan.

This paper is organized as follows: Section two presents the theoretical foundation and reviews the relevant literature on uncertainty while sections three and four present the econometric methodology and the data. Section five discusses the empirical results and this is followed by the concluding remarks provided in section six.

THEORETICAL FRAMEWORK

The theoretical framework on economic uncertainty and financial market movements is based on Knight (1971) which differentiates between uncertainty and risk. Risk is characterized by randomness that can be measured precisely. An event is uncertain if it has an unknown probability (Ellsberg, 1961).This difference is important in financial markets. If risk were the only relevant feature of randomness well organized financial institutions should be able to price and market insurance contracts that only depend on risky phenomena. Uncertainty creates frictions that these institutions may not be able to accommodate. Individuals tend to prefer gambles with precise probabilities to ones with unknown odds. Risk and uncertainty are distinct characteristics of random environments but can affect investors' behavior differently. Since uncertainty as distinct from risk can exert a significance influence on individual behavior it can also be a significant determinant of equilibrium outcome.

Uncertainty makes opportunities for mutually satisfactory trade difficult to find in an exchange economy Bewley (1989). A peculiar consequence of uncertainty is that individuals are unwilling to insure each other. This aversion to trade is counterbalanced by the presence of risk aversion, which makes mutual insurance attractive. Rigotti and Shannon (2001) show that equilibrium can be characterized by the interplay between uncertainty and risk. For example sometimes uncertainty is so large that no trade results; other times desire to insurance prevails and there is trade. This trade-off is not captured by the standard expected utility model where only risk aversion has a role.

It is well documented that firms and households in general consider the role of uncertainty in decision making process. For example, since 2008 recession uncertainty about future tax, spending, regulatory,

health-care and monetary policies seems to slow the recovery from the recession by leading businesses and households to postpone investment, hiring and consumption expenditure. However, little empirical research is done to quantify the impact of economic uncertainty on the financial markets.

In an efficient financial market, one would expect the reaction of market only to the *unanticipated* component of explanatory variables. Elton and Gruber (1991) argue all the variables in a multi index model need to be *surprises* or *innovations* and therefore should not be predicted from their past values. Thus, asset pricing models such as Arbitrage Pricing Theory (APT) employ the unexpected component (innovations) of explanatory variables, while modeling expected returns. Uncertainty by nature is surprises which may or may not be factored in the financial markets. In an expectation driven market such as options, stocks and bonds the valuations should factor in the current level of uncertainty at all times. The purpose of this research is to provide an empirical test of this relationship.

Empirical studies have analyzed the effect of economic uncertainty on macroeconomic variables such as employment, output and productivity growth (Bloom, 2009); economic growth (Caglayan, Maioli and Mateut, 2012); firms' investments and cash flows (Baum, Caglayan and Talavera, 2010); economic activity (Bachmann, Elstner and Sims, 2010); output and inflation (Jones and Olson, 2013). However, the relevance of economic uncertainty on financial markets is examined to a lesser extent (For example, Antonakakis, Chatziantoniou and Filis, 2012 examined the co-movement between economic uncertainty and S&P 500 volatility and find significant relationships).

This study extends the previous research and contributes by examining the *intensity* and *duration* of the effect of uncertainty innovations on a set of four different market portfolio returns. Specifically, it investigates the response of these market portfolios to shocks in the uncertainty variable. It also examines the role which the movements in market portfolios play in formation of uncertainty perceptions in the economy.

The findings of this study could have direct implication. Evidence on significant role local vis-à-vis global uncertainties uncertainty would suggest increased role of a specific type of economic uncertainty on asset pricing models. By exploiting these specific surprises (local versus global), rational investors can make superior profits in financial markets. There is a good case for policy measures to help investors make better choices and make the market more efficient by minimizing uncertainty. The policy makers should be concerned about the potential for market bubbles or irrational exuberance due to higher uncertainty which can adversely affect economic activity.

ECONOMETRIC METHODOLOGY

The VAR model by Sims (1980) is chosen as an appropriate econometric approach to investigate the postulated relationships. In addition, the following additional factors are taken into consideration before the estimation: in an efficient financial market, one would expect the reaction of the stock market only to the *unanticipated* component of explanatory variables. Elton and Gruber (1991) argue all the variables in a multi index model need to be *surprises* or *innovations* and therefore should not be predicted from their past values. Thus, asset -pricing models such as Arbitrage Pricing Theory (APT) employ the unanticipated component (innovations) of explanatory variables. Since, the formulated models are multi index models; direct estimation in its present form would only give the relationships between the *anticipated* components. Such estimation would mean ignoring the effect of changes in the *unanticipated* components of investor sentiments and stock market returns and therefore could be misleading. To overcome such potential misspecification problems, the powerful impulse response functions (predicted pattern of surprise changes or innovations) are generated from the VAR model. Additionally, the prediction performance of VAR models has been shown to be better than the structural models during the past two decades (Litterman and Supel, 1983; Hakkio and Morris, 1984; Litterman, 1984; Lupoletti and Webb, 1986 and Webb, 1999).

It is also important to consider that the transmission of information contained in the stock returns may not always be contemporaneous due to the time delays in the generation and dissemination of information concerning both the noise and rational factors, especially macroeconomic variables. Reporting delays

may create lags between the observation of data concerning such variables and the incorporation of this information to stock prices. Hence, a model in which all variables are measured at time *t*, would imply an unrealistic assumption of *only* contemporaneous association. For this purpose the use of *Akaike information criterion* (*AIC*) and *Schwarz information criterion* (*SIC*) also helps in identifying the appropriate lag lengths. Thus the lags in the VAR model capture the dynamic feedback effects in a relatively unconstrained fashion and are therefore a good approximation to the true data generating process. The VAR model is expressed as follows:

$$Z(t) = C + \sum_{s=1}^{m} A(s)Z(t-m) + \varepsilon(t) \tag{1}$$

where, *Z(t)* is a column vector of variables under consideration, *C* is the deterministic component comprised of a constant, *A(s)* is a matrix of coefficients, *m* is the lag length and *ε(t)* is a vector of random error terms.

The VAR specification allows the researchers to do policy simulations and integrate Monte Carlo methods to obtain confidence bands around the point estimates (Doan, 1988). The likely response of one variable to a one time unitary shock in another variable can be captured by impulse response functions. As such they represent the behavior of the series in response to pure shocks while keeping the effect of other variables constant. Since, impulse responses are highly non-linear functions of the estimated parameters, confidence bands are constructed around the mean response. Responses are considered statistically significant at the 95% confidence level when the upper and lower bands carry the same sign.

It is well known theoretically that traditional orthogonalized forecast error variance decomposition results based on the widely used Choleski factorization of VAR innovations may be sensitive to variable ordering (Pesaran and Shin, 1996; Koop, Pesaran and Potter, 1996; Pesaran and Shin, 1998). To mitigate such potential problems of misspecifications, *generalized impulses* technique as described by Pesaran and Shin (1998) is employed in which an orthogonal set of innovations does not depend on the VAR ordering.

DATA

A time series data in monthly interval during January 1997- August 2015 is employed to test the postulated relationship. Specifically, this study employs ten variables on economic uncertainty and stock market returns of the following five countries: U.S., U.K., France, Germany and Japan. Specifically these variables are as follows: (i) economic uncertainty in U.S. (U_USA) (ii) economic uncertainty in U.K. (U_UK) (iii) economic uncertainty in France (U_FRA) (iv) economic uncertainty in Germany (U_GER) (v) economic uncertainty in Japan (U_JAP) (vi) U.S. stock market returns (S_USA) (vii) U.K. stock market returns (S_UK) (viii) French stock market returns (S_FRA) (ix) German stock market returns (S_GER) and (x) Japanese stock market returns (S_JAP).

The data on uncertainties is obtained from studies conducted by Baker (Northwestern University), Bloom (Stanford University) and Davis (University of Chicago). Their research involves constructing indexes on uncertainty for different economies based on the following three components: first component quantifies news coverage of policy related economic uncertainty; second component reflects the number of federal tax code provisions set to expire in future years; and third component uses disagreement among economic forecasters as a proxy for uncertainty. The data on stock market returns is obtained from the *Global Business Cycle Indicators* database provided by the *Conference Board*.

Table 1 reports the descriptive statistics for the continuously compounded monthly returns for the ten variables included in the sample. The mean monthly return for the U.S. stock market is the highest followed by Germany and France. The mean of return for the Japanese stock market seems to be the lowest during the sample period. The risk as measured by the standard deviation seems to be high for both Japan and Germany and relatively lower for U.S. and U.K. Among the economic uncertainty variables, the movements in uncertainty originating from U.K. is the highest followed by France and Germany. The

economic uncertainty changes for the U.S. appears to be the lowest in the sample. The standard deviation of the economic uncertainty is the highest in case of France while the U.S. economic uncertainty displays the lowest volatility.

TABLE 1
DESCRIPTIVE STATISTICS: RETURNS

	Mean	Median	Max	Min	Std. Dev.	Skewness
S_USA	0.0046	0.0100	0.1135	-0.2281	0.0394	-1.3623
S_UK	0.0027	0.0074	0.0951	-0.2093	0.0380	-1.3150
S_FRA	0.0039	0.0143	0.1085	-0.1989	0.0478	-0.9690
S_GER	0.0039	0.0135	0.1308	-0.2337	0.0531	-1.0516
S_JAPAN	0.0008	0.0038	0.1235	-0.2264	0.0519	-0.4709
U_USA	0.0017	-0.0167	0.8025	-0.6430	0.1648	0.6970
U_UK	0.0064	0.0140	0.8677	-0.8148	0.3006	0.0358
U_FRA	0.0055	0.0126	1.7070	-1.3466	0.4835	0.2104
U_GER	0.0041	-0.0060	1.1307	-0.9879	0.4020	0.1481
U_JAP	-0.0040	0.0043	0.7864	-0.8439	0.3045	-0.2778

Figure compares the growth in economic uncertainties of the five countries in the sample. Consistent with the descriptive statistics results (table 1), the economic uncertainty of France seems to be fluctuating more than other those of other countries. The economic uncertainty is extremely high during 2001 and 2008 which were the period of dotcom and financial crisis in the U.S. During the end of the sample period (during 2009-2010) the economic uncertainty displays its highest negative growth probably due the positive effects of the quantitative easing program undertaken by the Federal Reserve during the post crisis period.

FIGURE 1
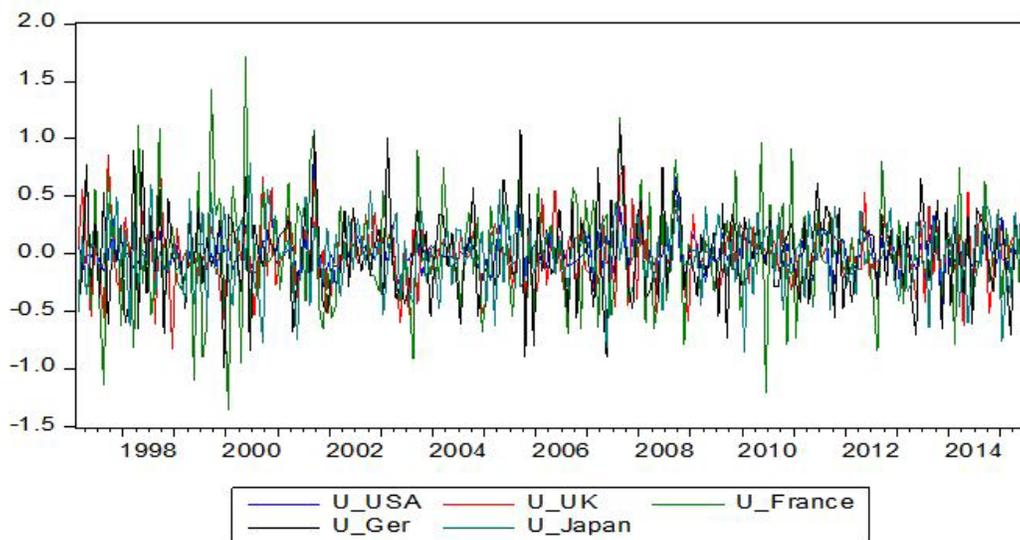**CHANGES IN ECONOMIC UNCERTAINTIES**

Table 2 reports the cross correlation between the five variables. As expected the relationship of all the five markets seems to be highly correlated. This is consistent with the notion that as markets become more integrated, they tend to move in tandem. Specifically, the correlation between U.S. and U.K and those between France and Germany is extremely high. A possible reason could be that these two set of countries have similar economic and financial institutional structures and are highly depended on each other as far as trade is concerned. Also, in almost all the cases, the relationship between economic uncertainties with stock market variable is negative indicating that an increase in uncertainty causes stock prices to depress.

TABLE 2
CROSS-CORRELATIONS

	S_USA	S_UK	S_FRA	S_GER	S_JAP	U_USA	U_UK	U_FRA	U_GER	U_JAP
S_USA	1.00									
S_UK	0.89	1.00								
S_FRA	0.85	0.89	1.00							
S_GER	0.83	0.84	0.94	1.00						
S_JAP	0.55	0.56	0.54	0.53	1.00					
U_USA	-0.29	-0.29	-0.26	-0.26	-0.22	1.00				
U_UK	-0.23	-0.22	-0.21	-0.21	-0.17	0.33	1.00			
U_FRA	-0.13	-0.14	-0.15	-0.18	-0.11	0.30	0.30	1.00		
U_GER	-0.27	-0.27	-0.30	-0.27	-0.18	0.38	0.31	0.28	1.00	
U_JAP	-0.06	-0.08	-0.13	-0.07	-0.05	0.12	0.00	0.00	0.03	1.00

Before proceeding with the main results, we first check the time series properties of each variable by performing unit root tests. Table 3 reports the results of unit root tests using Augmented Dickey Fuller (ADF) test (Dickey and Fuller, 1979, 1981). Based on the consistent and asymptotically efficient *AIC* and *SIC* criteria (Diebold, 2003) and considering the loss in degrees of freedom, the appropriate number of lags is determined to be two. In the case of the ADF test, the null hypothesis of nonstationarity is rejected. The inclusion of drift/trend terms in the ADF test equations does not change these results (Dolado, Jenkinson, and Sosvilla-Rivero, 1990).

TABLE 3
AUGMENTED DICKEY-FULLER TEST RESULTS

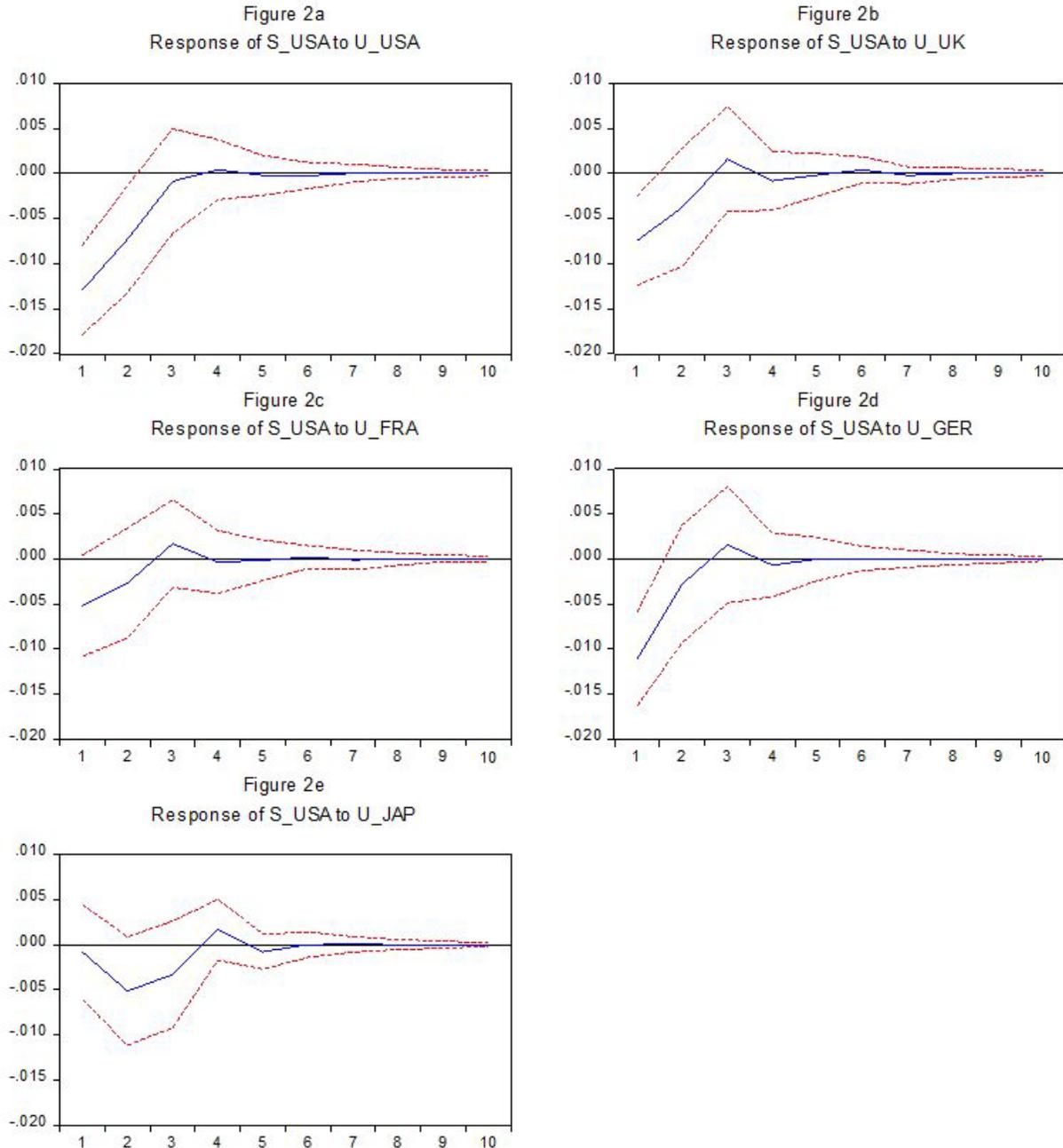|	Log returns
S_USA	-11.63
S_UK	-12.58
S_FRA	-11.10
S_GER	-10.81
S_JAPAN	-11.85
U_USA	-11.55
U_UK	-19.80
U_FRA	-15.59
U_GER	-21.87
U_JAP	-21.28
Critical level: 0.01	-3.4363
Critical level: 0.05	-2.8633
Critical level: 0.10	-2.5677

ESTIMATION RESULTS

To analyze the postulated relationships between global and country specific uncertainty and stock market returns a ten variable VAR model with two lags as depicted in equation 1 is estimated. Specifically, the variables included are economic uncertainty and stock market returns of the following five countries: U.S., U.K., France, Germany and Japan. Table 4 reports the estimation results of this VAR model. Sims (1980) suggests that autoregressive systems like these are difficult to describe succinctly. Especially, it is difficult to make sense of them by examining the coefficients in the regression equations themselves. Likewise, Sims (1980) and Enders (2003) show that the *t*-tests on individual coefficients are not very reliable guides and therefore do not uncover the important interrelationships among the variables. Sims (1980) recommends focusing on the system's response to typical random shocks i.e., impulse response functions. Given these theories, the relevant impulse response functions are analyzed and not much emphasis is placed on the estimated coefficients of the VAR models and provide the VAR estimation results in the technical appendix.

Accordingly, the generalized impulse responses from the VAR model are generated to trace the response of one variable to a one-standard-deviation shock to another variable in the system. The Monte Carlo methods is employed to construct confidence bands around the mean response. When the upper and lower bounds carry the same sign, the responses become statistically significant at the 95% confidence level.

Figures 2a – 2e plot the impulse responses of the U.S. stock market return to one time standard deviation increase in the U.S. and global economic uncertainty respectively. The effect of the U.S. economic uncertainty on the U.S. stock market return is significant and negative. Among the global effects, the impact of economic uncertainty of U.K. and Germany are negative and significant. There are insignificant effects of economic uncertainties stemming from France and Germany. The impact of the U.S. economic uncertainty is higher in magnitude and lasts longer than those of U.S. and Germany. Specifically, the effect of the U.S. economic uncertainty is significant for almost two and a half months while the effects of U.K and Germany's economic uncertainty lasts for almost one and a half month. Overall these findings are consistent Antonakakis, Chatziantoniou and Filis, (2012) which suggests negative dynamic correlations of economic policy uncertainty and stock market returns. The U.S. stock market seems to be more driven by the local uncertainty than the global uncertainty.
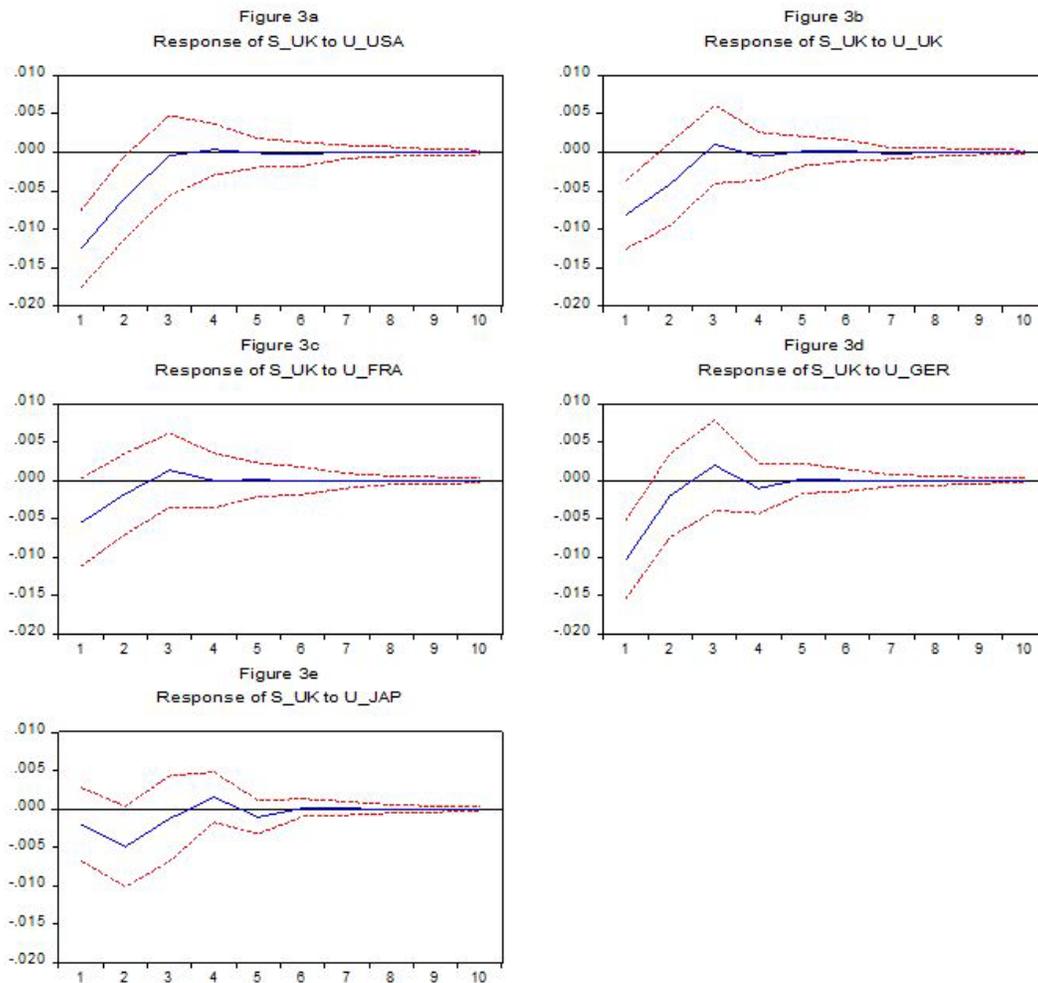
FIGURE 2
RESPONSE OF U.S. STOCK MARKET RETURNS TO GLOBAL AND
U.S. ECONOMIC UNCERTAINTY

Figure 2a
Response of S_USA to U_USA

Figure 2b
Response of S_USA to U_UK

Figure 2c
Response of S_USA to U_FRA

Figure 2d
Response of S_USA to U_GER

Figure 2e
Response of S_USA to U_JAP

Figures 3a – 3e plot the impulse responses of U.K. stock market return to one time shocks in the U.K. and global economic uncertainties. The responses are similar to the ones obtained in case of the U.S. stock market return. It is quite possible that both U.S. and U.K highly integrated economies with similar economic and institutional structures and thereby are driven similarly by local and global uncertainties. Specifically, there are significant negative responses of the U.K. stock market return to the local

uncertainty i.e., economic uncertainty of U.K. as well as to uncertainties emanating from Germany and the U.S. However, unlike the findings of the U.S., where local uncertainty has greater impact in terms of magnitude and duration, here the impact of global uncertainty, mainly from the U.S. is stronger and lasts longer than the effect of the local uncertainty (U.K.). Also, the impact of the U.S. economic uncertainty is of lesser magnitude than its impact on the U.S. stock market. In addition, the duration of the impact of the U.S. economic uncertainty lasts for approximately one and a half month as against two and half months duration observed in the case of the U.S. stock market's response to the same uncertainty variable. Lastly, the effect of Japanese economic uncertainty in this case is insignificant.
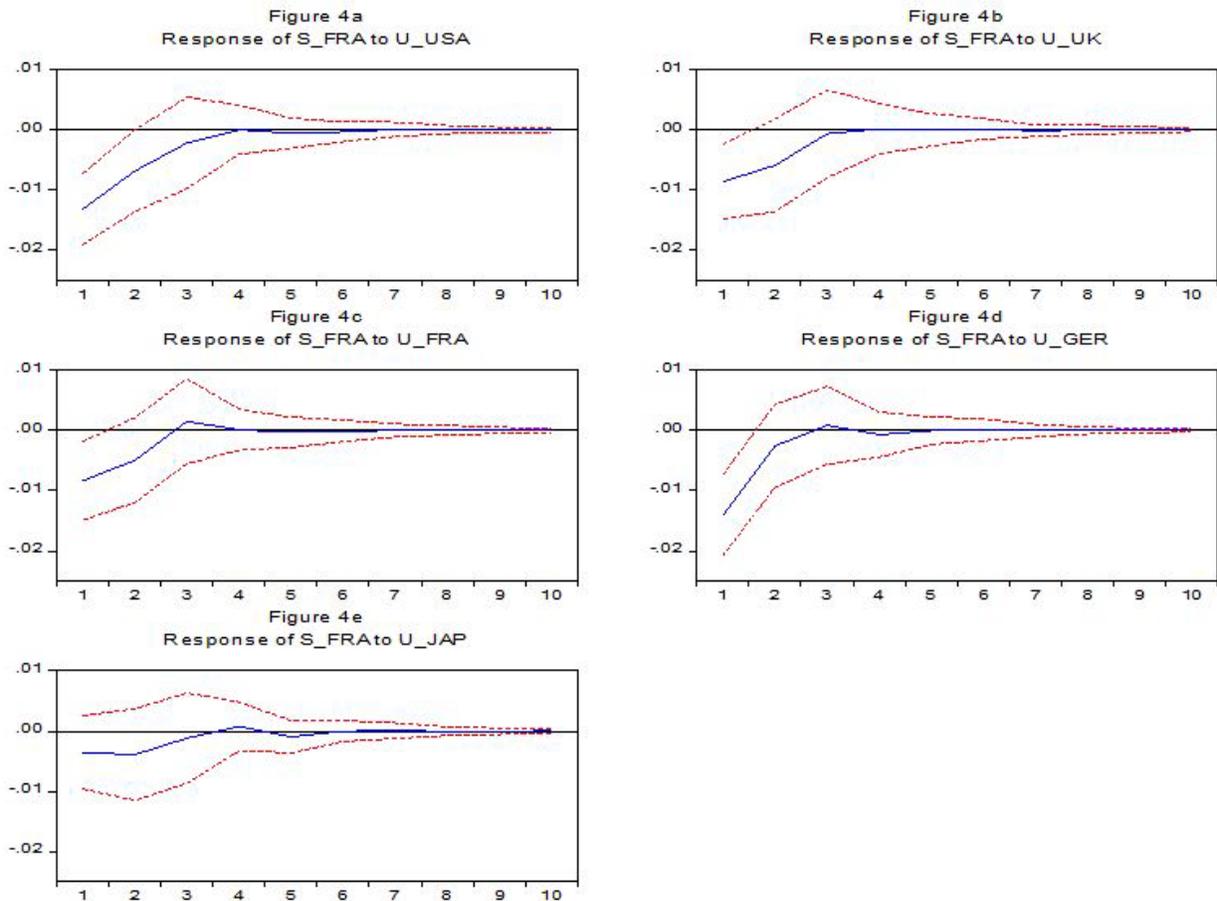
FIGURE 3
RESPONSE OF U.K. STOCK MARKET RETURNS TO GLOBAL AND
U.S. ECONOMIC UNCERTAINTY

Figures 4a – 4e plot the response of French stock market return to unexpected shocks in the local and global uncertainties. Consistent with the findings of the U.S. and U.K. stock market's response, the effect of global economic uncertainties originating from the U.S., U.K. and Germany are significant and negative while the impact of Japan is insignificant. However, unlike the previous results where economic uncertainty of France has insignificant effects on the U.S. and U.K. markets, the response of French

market to economic uncertainty of France is significant and negative. This suggests that like U.S. and U.K., local uncertainty does play a significant role in asset prices in case of France also. Interestingly, unlike prior results of stronger impact of the economic uncertainty of U.S. (figures 2 and 3), than uncertainties originating from other countries, here the impact of Germany's economic uncertainty is the highest in terms of magnitude. A possible reason could be that due to France' closer trade linkages with Germany than those with the U.S., there is a greater effect of German uncertainty than the U.S. uncertainty on French market returns. In addition, both Germany and France are key players in the European Union with Germany playing a dominant role and is expected to impact the stock markets in the region. However, in terms of duration the impact of the U.S. economic uncertainty is the highest and lasts for almost two months in comparison to one and half month observed in cases of uncertainties of U.K., Germany and France.
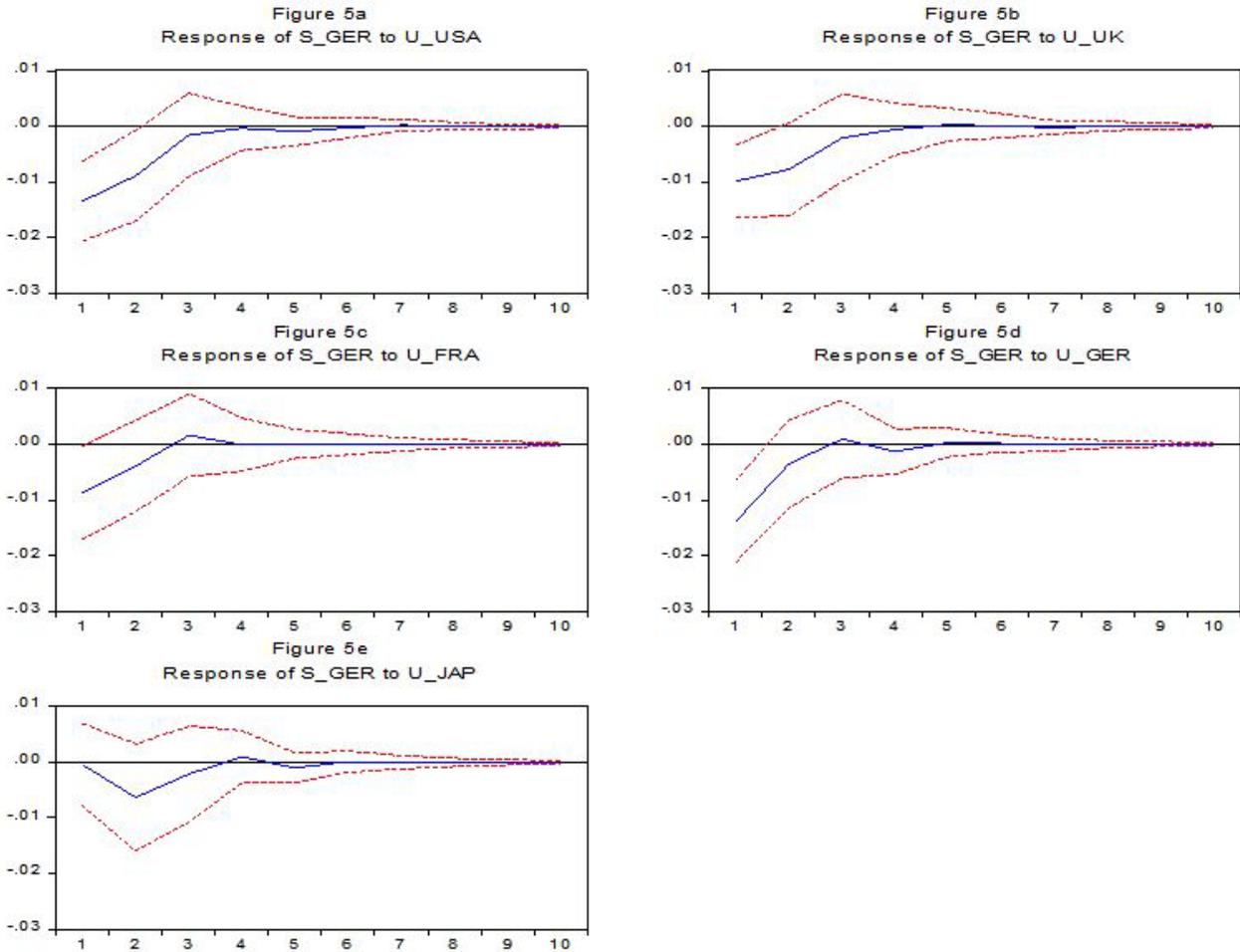
FIGURE 4
RESPONSE OF FRANCE STOCK MARKET RETURNS TO GLOBAL AND
U.S. ECONOMIC UNCERTAINTY

Figures 5a – 5e plot the response of Germany's stock market returns to unexpected shocks in local and global economic uncertainties. In terms of magnitude, the impact of local uncertainty (emanating from Germany) is the highest followed by the ones from U.S. and U.K. Specifically, the results for Germany is similar to the ones obtained for the U.S., in that there is stronger impact of local economic uncertainty than global uncertainties. There are insignificant impact of economic uncertainties from

France and Japan on German stock market returns. In terms of duration, the impact of U.S. economic uncertainty lasts for almost two months as against impact of U.K. and Germany which are significant for almost one month.
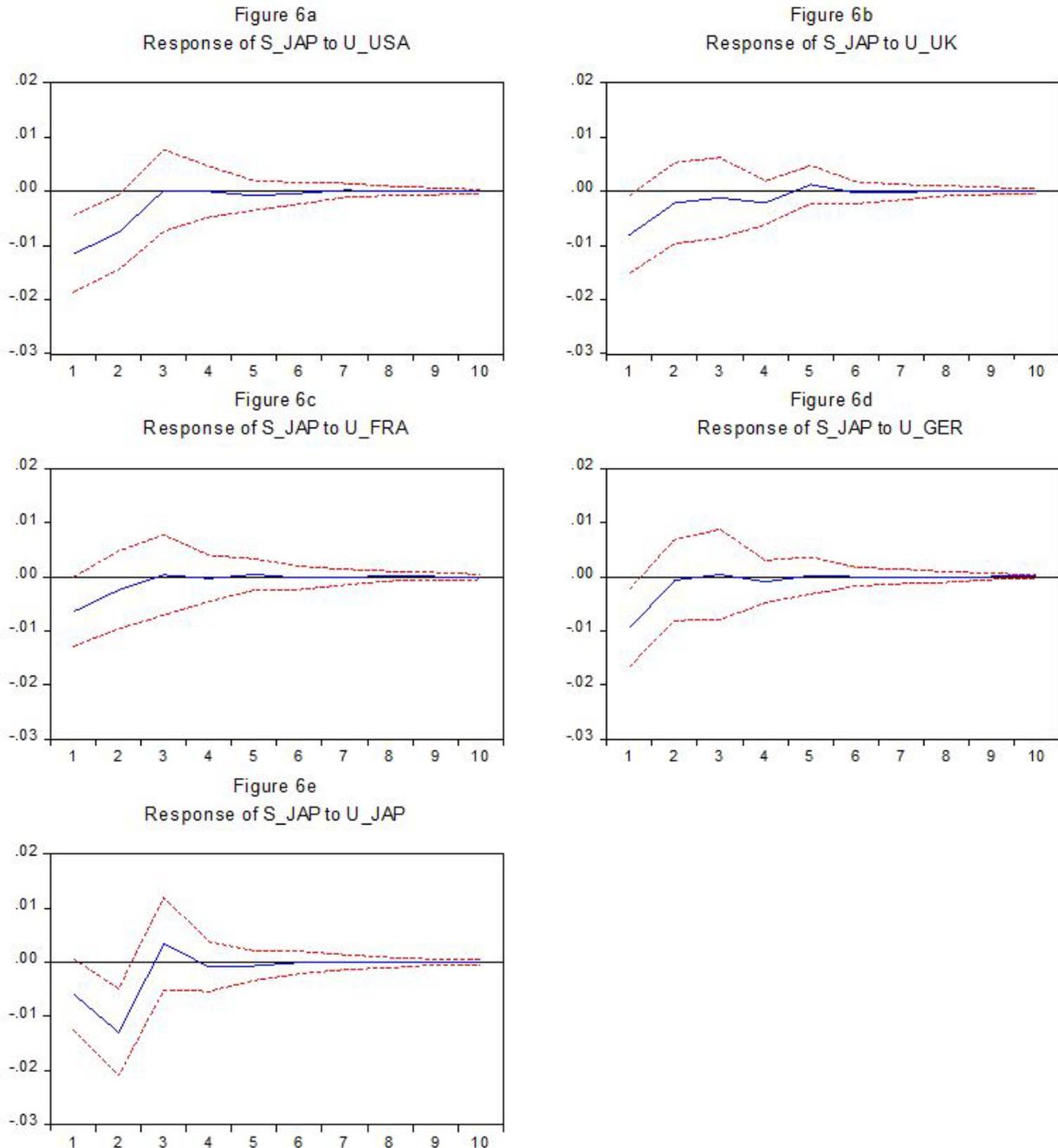
FIGURE 5
RESPONSE OF GERMAN STOCK MARKET RETURNS TO GLOBAL AND
U.S. ECONOMIC UNCERTAINTY

Figure 5a
Response of S_GER to U_USA

Figure 5b
Response of S_GER to U_UK

Figure 5c
Response of S_GER to U_FRA

Figure 5d
Response of S_GER to U_GER

Figure 5e
Response of S_GER to U_JAP

The dashed lines on each graph represent the upper and lower 95% confidence bands. When the upper and lower bounds carry the same sign the response becomes statistically significant. On each graph, "percentage returns" are on the vertical and "horizon" is on the horizontal axis.

Figures 6a – 6e plot the response of Japanese stock market to the global and local uncertainties. This is the only case, where economic uncertainty of Japan seems to have a significant effect and is consistent with the previous findings of strong impact of local uncertainty. In terms of global uncertainty there are significant effects of economic uncertainties of U.S., U.K. and Germany on Japanese stock market returns. In terms of duration, the effect of the U.S. economic uncertainty is the highest followed by Japan, U.K. and Germany.

FIGURE 6
**RESPONSE OF JAPANESE STOCK MARKET RETURNS TO GLOBAL AND
U.S. ECONOMIC UNCERTAINTY**

Figure 6a
Response of S_JAP to U_USA

Figure 6b
Response of S_JAP to U_UK

Figure 6c
Response of S_JAP to U_FRA

Figure 6d
Response of S_JAP to U_GER

Figure 6e
Response of S_JAP to U_JAP

Overall, a set of generalized impulse responses obtained from a 10 variable VAR model suggests the following: (i) consistent with existing research there is a strong negative relationship between economic uncertainty with stock market returns i.e., an increase in economic uncertainty depresses the stock prices in case of all five countries in the sample (ii) there is a significant impact of local uncertainty on stock

prices in all the cases (iii) the global uncertainties which have significantly high impact on foreign country's markets mainly seems to stem from the U.S. and Germany (iv) the impact of local uncertainty is higher in case of U.S. and Germany while the impact of global uncertainty is higher in case of U.K., France, and Japan.

CONCLUSION

The purpose of this research is to empirically examine the mechanism in which local and global economic uncertainties affect the stock markets of the U.S., U.K., Germany, France and Japan. Specifically, the following research questions are investigated: (i) what is the relative impact of global and country specific economic uncertainties on stock market returns of the U.S., U.K. France, Germany, and Japan? (iii) What is the duration of these impacts (if any) i.e., how long does the impact of global and country specific uncertainties on stock returns lasts?

This study employs the time series data in monthly interval during 1997-2015 on the economic uncertainty developed by Baker, Bloom and Davis on the U.S., U.K., Japan, French and German economies and stock market index data for these five countries. Overall, a set of generalized impulse responses obtained from a 10 variable VAR model suggests the following: (i) consistent with existing research there is a strong negative relationship between economic uncertainty with stock market returns i.e., an increase in economic uncertainty depresses the stock prices in case of all five countries in the sample (ii) there is a significant impact of local uncertainty on stock prices in all the cases (iii) the global uncertainties which have significantly high impact on foreign country's markets mainly seems to stem from the U.S. and Germany (iv) the impact of local uncertainty is higher in case of U.S. and Germany while the impact of global uncertainty is higher in case of U.K., France, and Japan.

These findings have direct implication for rational investors. There is a good case for policy measures to help investors make better choices and make the market more efficient by minimizing uncertainty. Policy makers should be concerned about the potential for market bubbles or irrational exuberance due to higher uncertainty which can adversely affect economic activity.

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