The Effect of US Monetary Policy on the Credit Growth of Emerging Market Economies

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ARTICLE INFO	ABSTRACT
Keywords: FED Policy Rates Emerging Market Economies Credit Growth Financial Integration Received 8 August 2019 Revised 29 November 2019 Accepted 5 February 2020 **Article Classification:** Research Article	**Purpose** - Monetary policy decisions of advanced economies have effects on the emerging market economies through monetary transmission mechanisms. The purpose of this study is to examine the effect of US monetary policy on the credit growth of emerging market economies. **Methodology** - For this purpose, the effects of FED policy rates on the private non-financial credit to GDP ratios of selected emerging market economies are analysed by panel data. The study comprises quarterly data over the period of 1990-2018. Austria, Brazil, China, Greece, India, Poland, Portugal, Russia, and Turkey are determined as representatives of emerging market economies. The Seemingly Unrelated Regression (SUR) is used for model estimation **Findings** - According to the results, while FED reduces policy rates, credit markets of developing countries grow. However, slope and intercept parameters of the regression model are not identical for all countries. In other words, the sensitivity of national credit markets to FED policy rates varies under the influences of economic, legal and political environments of the countries. **Discussion** - When the results are evaluated comparatively on the country basis, it is seen that the credit markets of European emerging economies show the strongest reaction to the changes in US monetary policy while the credit markets of Turkey and Brazil show the weakest.

1. INTRODUCTION

Studies on the issue of global financial cycle and country experiences indicate that global financial markets and the world economy have become more integrated since 1980s and thereby, spill-overs among countries have also become important. Consequently, policymakers in each country have to consider economic developments in the rest of the world, especially in the advanced economies, when making their decisions. As experienced once again after the 2008 global crisis, US monetary policy implementations constitute the most important part of these developments.

In order to cushion the blow of the 2008 crisis, the Federal Reserve (FED) initiated a bond purchase program under the name of "*Quantitative Easing*" in November 2008 and rapidly reduced policy rates near to zero. This policy implementation named as "*unconventional monetary policy*" and continued until October 2014 under three separate Quantitative Easing programs (the Central Bank of the Republic of Turkey [CBRT], 2014: 3). Towards the end of this period, investors perceived the May and June 2013 Federal Open Market Committee (FOMC) announcements as the beginning of the end of unconventional monetary policy, and thereby, U.S. Treasury yields rose significantly after a long break. Sovereign bond yields in emerging markets also rose over this period, and simultaneously, the currencies of most emerging market economies depreciated substantially against the U.S. dollar and stock prices fell. The study of Bowman et al. (2014) reveals that U.S. monetary policy shocks that lower U.S. sovereign yields also lower sovereign yields in most emerging markets. Besides, several country-specific variables, including interest rates, credit default swap (CDS) spreads, inflation rates, current-account deficits and more-vulnerable banking systems, drive the vulnerability of these emerging market economies to changes in U.S. monetary policy.

Takáts and Vela (2014) also examine the channels through which monetary policy in advanced economies affects financial conditions in emerging market economies and reveal that; *(i)* emerging market economy policy rates appear to be conducted by monetary policies of advanced economies which are proxied by the US monetary policy, *(ii)* emerging market economy long-term interest rates are also affected by the US long-term interest rates importantly, *(iii)* after the 2008 global crisis, a stronger co-movement of long-term interest rates is observed, and *(iv)* international reserves and portfolio flows to emerging market economies are significantly affected by factors related to changes in US long-term interest rates.

The size of cross-border capital flows, including volatile portfolio flows, has increased importantly along with the integration of global financial markets. Especially the period of Quantitative Easing in advanced economies caused strong capital flows towards emerging market economies and most of the emerging market countries have used different types of macro-prudential policies to restrain the adverse effects of these volatile short-term capital flows. Turkey, as one of these countries, has designed and started to use several new tools, such as the interest rate corridor and the Reserve Option Mechanism, in order to decrease the global risk perception sensitivity of portfolio flows in Turkey. Furthermore, the exchange rate and credit growth were exposed to the adverse effects of these strong portfolio inflows and short-term capital. The Turkish Lira appreciated rapidly during this portfolio inflow period, and credit growth in Turkey reached around 35 %. Since both of these facts were seen as potential indicators of a financial crisis, the CBRT has used new macro-prudential policies (Fendoğlu et al., 2014).

From this point of view, the direction and strength of the relationship between FED policy rates and credit growth of emerging market economies will be investigated in this study. Austria, Brazil, China, Greece, India, Poland, Portugal, Russia and Turkey have been determined as representatives of emerging market economies, and the effect of FED policy rates on their private non-financial credit to Gross Domestic Product (GDP) ratios is analysed for the 1990-2018 period. The Seemingly Unrelated Regression (SUR), which is one of the heterogeneous panel data methods, is used in the model estimation and analysis results are evaluated comparatively on the country basis. These results indicate that credit markets of developing countries have grown considerably except for the 2008 global crisis period. Total private non-financial credit to GDP ratio has been reached approximately 140 % in Austria, 70 % in Brazil, 200 % in China, 110 % in Greece, 55 % in India, 80 % in Poland, 170 % in Portugal, 65 % in Russia and 85 % in Turkey by the year 2018 (Graph 1).
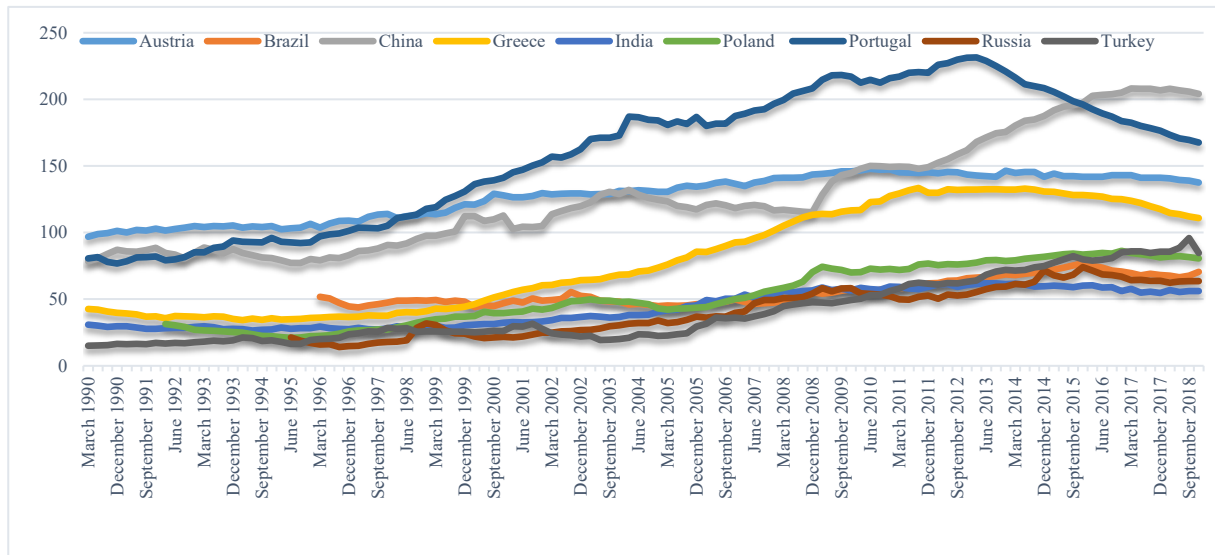
Graph 1. Total Credit to the Non-Financial Sector/GDP Ratios of Emerging Market Economies

Source: Bank for International Settlements, Statistics, [online] https://www.bis.org/, Accessed on June 2019.

2. LITERATURE SURVEY

Since globalization makes financial conditions in emerging market economies closely linked to the monetary policy implications of advanced economies, the number of academic studies in this field has increased rapidly. Most of these studies are examining the mechanisms that link global long-term interest rates to several macro-financial indicators such as cross-border capital flows, monetary policy, real exchange rates, credit growth, bank leverage and domestic bank lending in the emerging markets.

In one of these studies, Adrian and Shin (2009) state that 2008 global crisis has redirected attention to the monetary transmission mechanisms and tools of monetary policy other than the overnight interest rate. According to their findings, the credit channel of monetary transmission mechanism has been one of the most studied channels. Borio and Zhu (2008) have also suggested a new transmission mechanism, namely *risk-taking channel* of monetary policy, to define a wide set of effects that result from the expansive behaviour of financial intermediaries and the feedback effects that stem from the credit expansion. According to them, the feedbacks between both *perceptions of value and risk*, and *financing constraints and liquidity* has become more prominent.

Aftermath of the global crisis, in order to lessen the burden on the balance sheets of financial intermediaries, the Federal Reserve has put into action several lender-of-last resort programs. The need for the balance-sheet expansion of the Federal Reserve in the post-crisis period indicated that the downfall of the financial sector balance-sheet capacity can have strong adverse effects on the overall capital market conditions and also on the real economy. The mechanism that has increased fluctuations in capital market conditions is *the fluctuations in leverage* and the related *changes in haircuts* which is applied by financial intermediaries to the collateral against which they lend in collateralized credit markets. Therefore, an easier US monetary policy that reduces capital and collateral constraints of banks in emerging markets increases the potential to set off credit booms (Adrian and Shin, 2009).

Lane and McQuade (2013) indicate that *the balance sheet problems* related with rapid credit growth in some countries during the pre-crisis period and *excessive external imbalances* have been two key factors that contribute to the 2008 global crisis. According to them, if there is a significant relationship between these two variables, international capital flows should be an important issue in the process of understanding the dynamics of domestic credit growth and related risk factors. From this point of view, they examine the inter-relations between domestic credit growth and international capital flows for a sample of European countries including the EU27, plus Norway, Switzerland and Iceland over the period of 1993-2008. Their study also conducts an additional analysis on annual data for an extended sample of 54 countries over the period of 1994-2008. According to the analysis results, international capital flows have strong effects on the national credit growth rates, and therefore, these two variables should be evaluated in an integrated framework.

Bruno and Shin (2013) study on a model of the risk-taking channel of monetary policy transmission. The starting point of their study is the empirical evidence on the determinants of financial crises obtained by Gourinchas and Obstfeld (2011) using data for 1973-2010 period for both advanced and emerging economies. They find that the two most robust predictors of crises in general, for both emerging and advanced economies, are *domestic credit growth*, in other words *increase in leverage*, and *real currency appreciation*. Because credit booms also contribute real currency appreciation, which thereafter leads to low international competitiveness, countries that experience both of these simultaneously are most likely to be vulnerable to financial crisis. They also state *the level of foreign exchange reserves* of the country as a third robust predictor of crises but for only emerging markets.

From this point of view, Bruno and Shin (2013) imply that although expansionary monetary policies of advanced economies are the driving forces of international capital flows, and so excessive credit growth in the recipient economies, the exact economic mechanism behind such a transmission is more difficult to determine. They point out *bank leverage* as the linchpin in the risk-taking channel of monetary policy transmission that transfers lower risk measures into greater risk-taking, and then to other real and financial variables, particularly capital flows and exchange rates. They also state that a contractionary shock to US monetary policy

causes a decrease in the international capital flows in the banking sector, which in turn affects the credit growth indirectly.

Bruno and Shin (2014) also study on the explanation of the link between banking sector capital flows and US monetary policy. Their panel study comprises data from 46 developed and developing economies for the sample period of 1996Q$_1$-2011Q$_4$, and investigates the monetary policy spill-overs, particularly the impact of lower US dollar borrowing rates on global financial conditions. They use the risk-taking channel of monetary transmission to explain the link between *local currency appreciation* and *loosening of financial conditions* through developing a leverage in the banking sector. Accordingly, when the local currency appreciates as a result of the unconventional monetary policy of US, local borrowers' balance sheets become stronger, and so the credit risk decreases and bank lending capacity expands. In other words, currency appreciation causes greater risk-taking by banks, which results in credit booms and increased vulnerability to financial crisis.

Miyajima et al. (2014) examine the role of long-term interest rates in the international monetary transmission mechanisms and related challenges in policy implementations as a result of the unconventional monetary policy of US. For this purpose, a panel VAR model is used to analyse the impact of a very low US term premium on relatively small open Asian economies. The model is applied to monthly data for two samples spanning January 2003-December 2007 and June 2009-December 2013 and focus on five Asian economies, Indonesia, Korea, Malaysia, Philippines and Thailand. Theoretical and empirical models of this study indicate that the US term premium had a significant role in the transmission of US monetary policy to Asia even previous to the 2008 financial crisis, and this link has gained strength as FED introduced its large-scale asset purchase programme in the post-crisis period. Furthermore, the results show that unconventional monetary policy of US spills over to Asia mainly through two channels: *low domestic bond yields* and *rapid growth of domestic bank credit*. Although it is seen that financial integration does not lessen the control of national monetary policy authorities over short-term policy rates, it poses a risk to control over long-term interest rates, which are the key determinants of real economic activity.

Sobrun and Turner (2015) emphasize that globalization makes financial conditions in developing countries closely linked to the 'world' long-term interest rate, which has been driven down particularly by monetary policies of major advanced economies. And, starting from this point of view, they investigate some new mechanisms for the transmission of global long-term interest rates to monetary policy and to domestic bank lending in the emerging markets. According to the results, although monetary policies in developing countries continue to be formed according to meet domestic objectives, the effects of domestic monetary policy rates on bond markets, on the exchange rate and on banks have to be considered by central banks of these countries. Since easy borrowing conditions in global markets have encouraged foreign investors to take risk, the size of the aggregate balance sheet of the domestic banking system in many emerging markets has also increased. Thereby, *domestic bank credit* expanded sharply in the emerging markets in the post-crisis period, and bank lending conditions have eased.

Kara (2016) investigates the macro-prudential policies applied in Turkey aftermath of the global crisis. These policies have been valuable in the process of dealing with macro financial risks, particularly the raised volatility in capital flows in the aftermath of the crisis. The unconventional monetary policy of US and easy global liquidity conditions were the main reasons of these capital flows. Besides, structural adjustments that occurred on fiscal, monetary and prudential dimensions in Turkey after the 2001 crisis have caused increases in capital inflows. With the effects of these *financial improvements* and *increased global liquidity*, Turkey, as an emerging economy, faced with rapid credit growth during the past decade, and private credit to GDP ratio rose sharply. Meanwhile, Turkish Lira appreciated rapidly in real terms, which in turn caused a sharp widening in the current account deficit. Because either short-term or portfolio flows was used to finance nearly all the current account deficit by the end of 2010, the Turkish economy became susceptible to sudden reversals in the global conditions. At this point, macro-prudential policies in Turkey have got involved and aimed to dampen the negative impacts of such sudden prospective reversals by improving external balances and reducing the sensitivity of the Turkish economy to capital flows.

Finally, the study of Rey (2018) conducts a VAR analysis applied to quarterly data of 53 countries over the 1990Q1-2012Q4 period, and examines effects of *the global financial cycle* on national monetary policies. Analysis results suggest that monetary policy in the US plays a crucial role in the global financial cycle by affecting leverage of global banks, capital flows and credit growth in the international financial system. By this channel, the "*trilemma*", which states that with free capital mobility, independent monetary policies are applicable if and only if exchange rates are floating, is transformed into a "*dilemma*" or an "*irreconcilable duo*", which states that independent monetary policies are applicable if and only if the capital account is conducted, directly or indirectly via macro-prudential policies. In other words, if capital is freely mobile, national monetary policies are constrained by the global financial cycle regardless of the exchange rate regime. To deal with the global financial cycle and the "dilemma" and thereby increase financial stability, Rey (2018) suggests four policy options: *(i)* imposing either cyclical or permanent capital controls to insulate the economy from the global financial cycle; *(ii)* internalization of the global spill-overs of the monetary policies of FED and other main central banks; *(iii)* controlling the transmission channel of the global financial cycle by taking *cyclical* precautions (macro-prudential policies) to limit excessive credit growth; *(iv)* controlling the transmission channel of the global financial cycle *structurally* by imposing stricter limits on leverage for all financial intermediaries.

3. DATA AND METHODOLOGY

In this study, the effects of FED policy rates on the total private non-financial credit to GDP ratios of emerging market economies are analysed by using panel data analysis. This analysis method makes possible to analyse both cross sectional and time series data. In other words, not only the variations in the characteristics of individuals, but also the changes in the variables over-time can be reviewed by panel data analysis.

3.1. Definition of Variables and the Model

The data set used in the analysis was acquired on 20 June 2019 from the Bank for International Settlements (https://www.bis.org/statistics/) and consists of 116 quarters between 1990 and 2018. The relationships between variables are examined for nine developing countries which are Austria, Brazil, China, Greece, India, Poland, Portugal, Russia and Turkey. Thus, the results are evaluated comparatively for the nine units and over the 29 year-time period. The model is stated in Equation 1 and the variables of the model are defined as follows.

Table 1. The Definition of Variables

Variables	Definition
y (Dependent variable)	Total private non-financial credit to GDP ratio
X (Independent variable)	The FED Policy rates

$$y_{it} = \beta_0 + \beta_1 X_{it} + u_{it} \tag{1}$$

$$u_{it} = \mu_i + \lambda_t + v_{it} \qquad i=1, \ldots, N; \quad t=1\ldots\ldots,T \tag{2}$$

Two-way error component regression model (Equation 1) could be decomposed into an individual effect μ_i, a time period effect λ_t and a remainder disturbance v_{it} (Baltagi and Raj, 1992:87). When the data of all countries are evaluated in the panel data analysis, the intercept parameter β_0 and the slope parameter β_1 can be estimated. Although the effect of an independent variable on the dependent one can be interpreted through an equation model, each individual in the panel probably has its own characteristics. In addition, there may be specific characteristics of the time period investigated. All these facts cause the value of parameters to differ according to individuals and time. For this reason, the presence of individual effects and time period effects are investigated and homogeneity of the panel are tested.

3.2.   *Tests for the Presence of Unobservable Effects*

The problem of existence correlation between unobservable effects and explanatory variables can be controlled by using panel data (Hausman and Taylor, 1981). Individual effects and time period effects which are unobservable in the model, are respectively investigated by using Maximum Likelihood Method. The results of the test related to individual effects are given in Table 2. According to the results, the null hypothesis which suggests that "individual effects do not exist" has been rejected (prob = 0.0000). The results of the test related to time effects are also given in Table 3. According to the results, the null hypothesis which suggests that "time period effects do not exist" could not be rejected (prob = 1.0000). Therefore, it can be said that individual effects exist in the model although time period effects do not. In other words, the countries react differently to changes in explanatory variable but the countries' reaction don't change over time. Thus, the model is updated as follows because the intercept parameter varies according to the units.

Table 2. Testing for Individual Effects

Random-effects Parameters	Estimate	Std. Err.	[95% Conf. Interval]	
_all: Identity				
sd(R.id)	43.30529	10.22976	27.25627	68.80429
sd(Residual)	21.52829	0.4857789	20.59693	22.50177
LR test : chibar2(01) =1562.47		Prob >= chibar2 = 0.0000		

Table 3. Testing for Time Period Effects

Random-effects Parameters	Estimate	Std. Err.	[95% Conf. Interval]	
_all: Identity				
sd(R.t)	372.5578	431.9042	38.4061	3613.991
sd(Residual)	46.77883	1.050665	44.76423	48.88409
LR test: chibar2(01) = 0.00		Prob >= chibar2 = 1.0000		

3.3.   *Existing Tests of Homogeneity and the Final Model*

The homogeneity of both the slope parameter and the intercept parameter should be tested. Homogeneity is tested through the standard F Test and Swamy's test. In the F Test, the null hypothesis suggests that the parameters are homogeneous ($\beta_i = \beta \ for \ all \ i$). The F Test statistic can be calculated using the following Equation 3. If the value calculated for the F Test is greater than the table value [F table = α; K(N-1); N(T-K)], the null hypothesis is rejected (Tatoğlu, 2018).

$$F = \frac{(RRSS - URSS)/K(N-1)}{URSS/N(T-K)} \tag{3}$$

The residual sum of squares from unrestricted regression (URSS) is calculated as 353,093. However, the residual sum of squares from restricted regression (RRSS) is obtained as 2,348,971. The F statistic of the two-variable model, where the number of cross sectional units (N) is 9 and the number of time series (T) is 116, is calculated as 362 [F calculation = 362]. F table value is also 1.70 [F table = 0.05; 16; 1026]. Since "F calculation > F table", the null hypothesis, which states that the parameters are homogeneous by country, is rejected.

Swamy's test is also applied for parameter constancy. This test is based on the dispersion of individual slope estimates obtained from a suitable pooled estimator (Pesaran and Yamagata, 2007). As a result of the test, chi2 (16) = 7733.95 and prob > chi2 = 0.0000 values have been obtained. These results show that slope parameters are different from each other and the panel has a heterogeneous feature. A heterogeneous panel can be expressed as follows (Equation 4).

$$y_{it} = \beta_{0i} + \beta_{1i} X_{it} + u_{it} \tag{4}$$

3.4. Tests For Cross-Sectional Dependence

In heterogeneous panels, an appropriate estimation method is determined based on the existence of error cross-section independence. If there is a correlation among the series in the panel, the residues obtained from the models are related to each other. Even if the units seem different from each other, they may have been influenced by similar factors over the same time period. Therefore, the error terms of the models of these units may be related.

Table 4. Error cross-section independence

(H₀: Cov(uit,ujt) = 0 for all t and i!=j

Test	Statistics	p-value
LM	1702	0.0000
LM adjusted (two sided test)	1069	0.0000
LM CD (two sided test)	38.56	0.0000

Table 4 shows the results of the error cross-section independence test. According to the Lagrange-Multiplier (LM) test statistics, the null hypothesis which suggests that "there is no cross-sectional dependence" is rejected. In addition, Breusch-Pagan Test of independence also confirms this result [chi2 (36) = 1701.881, Pr = 0.0000]. The correlation matrix of residuals and the relationships between variables are presented in Table 5. When the correlation matrix of the residuals is examined, a high correlation is observed between some countries. As the values converge to 1, the relationship between countries becomes stronger. It can be seen that the credit markets of Brazil, China, Poland, and Russia are strongly related to Turkey's credit market.

Table 5. Correlation Matrix of Residuals

Credit to GDP	Austria	Brazil	China	Greece	India	Poland	Portugal	Russia	Turkey
Austria	1								
Brazil	0.1760	1							
China	0.4329	0.8322	1						
Greece	0.8455	0.5396	0.6178	1					
India	0.8421	0.4798	0.5594	0.9814	1				
Poland	0.7118	0.7626	0.8579	0.8769	0.8387	1			
Portugal	0.8729	-0.065	0.1281	0.7463	0.7666	0.4579	1		
Russia	0.6672	0.7170	0.7919	0.8646	0.8583	0.9296	0.4556	1	
Turkey	0.4361	0.8979	0.8902	0.7412	0.6862	0.9142	0.1503	0.8609	1

3.5. The Model Estimation with Seemingly Unrelated Regressions

Arnold Zellner (1962) developed the SUR for the models which have cross-section dependence, and Baltagi and Raj (1992: 91) searched theoretical developments in the econometrics of panel data and the SUR model. They pointed out that Avery (1977), who suggested estimates of the variance-components that are predicated

on Ordinary Least Squares (OLS) residuals, improved the SUR model with error component disturbances. Baltagi (1980) derived this variance-covariance matrix and recommended a substitute estimation. In this model, Generalised Least Squares (GLS) on the whole system is equal to GLS on each equation separately. Verbon (1980) improved the SUR model with heteroscedastic specification. For the case where the time series dimension is sufficiently large (around 80-100) and the cross-section dimension is reasonably small (around 5-10), the estimates of SUR are asymptotically efficient (Pesaran and Yamagata, 2007). Thereby, since the number of cross-sectional units in our panel data analysis is 9 and the time dimension is large, it is appropriate to apply the SUR model. Because the individuals in the panel are heterogeneous, a separate model is estimated for each individual and so the results could be interpreted in units.

Table 6. The General Results of Seemingly Unrelated Regression Model

Equation	R-sq	Chi2	P
Austria	0.6012	138.67	0.0000
Brazil	0.4978	91.19	0.0000
China	0.5000	92.01	0.0000
Greece	0.6470	168.66	0.0000
India	0.5682	121.04	0.0000
Poland	0.6850	200.08	0.0000
Portugal	0.6327	158.49	0.0000
Russia	0.5534	113.98	0.0000
Turkey	0.4030	62.11	0.0000

By means of the SUR model, 9 model estimation results have been derived for the 9 countries in the panel. According to the results, while FED policy rates increase, total private non-financial credit to GDP ratios of emerging market economies decrease. Therefore, a negative relationship has been found between FED policy rates and the credit growth of emerging market economies. In reference to parameter estimates, changes in FED policy rates principally affect credit markets of Portugal, Greece and China.

R-squared value shows the percentage of the total change in the dependent variable that can be explained by the independent variable. Analysis results indicate that the models which have the highest explanatory power are the models of European countries and these countries are respectively Poland, Greece, Portugal and Austria. Russia, India, China, Brazil and lastly Turkey follows the European countries in the manner of explanatory power of independent variable. The effect of FED policy rates on the private non-financial credit to GDP ratio appears to be higher in European countries. This finding is consistent with the findings of Lane and McQuade (2013) which indicate that international capital flows have strong effects on the national credit growth rates for a sample of European countries over the 1993-2008 period. On the other hand, the R-squared value of the model of Turkey is 40 %. This means that only 40 percent of the changes in the private non-financial credit to GDP ratio of Turkey can be explained with FED policy rates.

Table 7. The Parameter Estimates of Seemingly Unrelated Regression Model

Credit/GDP (Dependent Variable)	Policy rate (Independent Variable)	Cons.
Austria	-4.1379	143.6934
	(0.0000)	(0.0000)
Brazil	-3.1293	63.2264
	(0.0000)	(0.0000)
China	-12.2648	167.9505
	(0.0000)	(0.0000)
Greece	-12.6812	121.2902
	(0.0000)	(0.0000)
India	-4.2822	57.0986
	(0.0000)	(0.0000)
Poland	-7.4700	75.8565
	(0.0000)	(0.0000)
Portugal	-13.7314	209.3671
	(0.0000)	(0.0000)
Russia	-5.9330	57.0195
	(0.0000)	(0.0000)
Turkey	-6.6465	62.2267
	(0.0000)	(0.0000)

4. CONCLUSION

By means of the monetary transmission mechanisms, monetary policy implications can dominate real economy. Monetary policy rates are expected to have a strong impact on the credit, investment, and national product levels of economies by means of the credit channel of monetary transmission. On the other hand, consumption, production and investment decisions of households, firms and credit institutions are not only determined by interest rates. Therefore, as a result of the accelerating globalization process, the credit transaction volume of economies is under the influence of economic, political, legal, and psychological factors in both domestic and foreign markets. For this reason, policymakers in each country should consider economic developments in other countries, especially in the advanced economies, when making their decisions. As experienced once again after the 2008 global crisis, US monetary policy implementations constitute the most important part of these developments.

Literature survey also confirms this finding and reveals that monetary policy in the US plays a crucial role in the global financial cycle by affecting leverage of global banks, capital flows and credit growth in the international financial system. From this point of view, the effect of US monetary policy on the credit growth of emerging market economies is examined for the 1990-2018 period in this study. As expected, the relationship between FED policy rates and the private non-financial credit to GDP ratios of selected emerging market economies has been found to be statistically significant. However, the strength of this relationship is not the same for all countries. According to the results obtained from the SUR estimation method, which is suitable for heterogeneous panel data, the highest impacts of FED policy rates on the private non-financial credit to GDP ratios of emerging market economies are observed in the European countries. Russia, India, China, Brazil and lastly Turkey respectively follows the European countries in the manner of this relationship. Therefore, the effect of FED policy rates on the private non-financial credit to GDP ratio appears to be higher particularly in European countries. On the other hand, the influence of economic, political, legal, and psychological factors other than FED policy rates seem to have strong effects particularly on the credit markets of Russia, India, China, Brazil, and Turkey.

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