Pertanika J. Soc. Sci. & Hum. 23 (S): 47 – 60 (2015)

PERTANIKA JOURNALS

SOCIAL SCIENCES & HUMANITIES

Journal homepage: http://www.pertanika.upm.edu.my/

The Importance of the U.S. Shocks and Monetary Transmission Mechanism Channels in the United Arab Emirates

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ABSTRACT

This paper examines the importance of the U.S. external shocks and monetary transmission mechanism channels in the United Arab Emirates (UAE). The focal points are to analyse whether or not the U.S. external shocks are relevant to influence the UAE economy and to identify the significance of the two channels of monetary transmission mechanisms (the interest rate and the exchange rate channels) in the UAE during the global financial crisis of 2007/2008. Using a non-recursive SVAR identification scheme, the results of impulse response function suggest that the U.S. external shocks affect the UAE output and inflation rate quickly and strongly. However, the interest rate and the exchange rate channels of monetary transmission mechanisms are not very effective in the UAE. This is consistent with the hypothesis of the study in which the interest rate and the exchange rate channels may not be effective due to the fixed exchange rate regime and the interest rate pegging in that country. Another key finding is that the world oil price has a dominant role in explaining major macroeconomic fluctuations in the UAE economy, which suggests that the UAE economy is vulnerable to the world's oil price shocks. This finding suggests that the UAE policy makers need to consider diversifying their export sectors in mitigating the economic fluctuations.

Keywords: Monetary Transmission Mechanism, SVAR, the U.S. External Shocks, United Arab Emirates

ARTICLE INFO

Article history:
Received: 15 December 2014
Accepted: 22 April 2015

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ISSN: 0128-7702

INTRODUCTION

The United Arab Emirates (UAE) has experienced tremendous transformation after oil was discovered 30 years ago. The UAE is the fiftieth largest economy in the world and the second largest in Gulf Cooperation Council (GCC). It is

integrated to the advanced economies of the world. According to the Index of Economic Freedom, the UAE has been a regional leader in economic freedom since 1996. Its openness and liberal economic policies such as 100% foreign ownership and zero taxes have helped UAE attract large foreign investments.

Some previous studies suggested monetary transmission channels have different effects on the UAE's economy. Using a panel VAR, Espinoza and Prasad (2012) found that the monetary policy of the U.S. has statistically significant impacts on broad money, non-oil activity and inflation rates in the GCC countries. Although Cevik and Teksoz (2012) found no support for exchange rate channel, interest rates have significant influences on real non-hydrocarbon output and consumer price index of the said countries.

The 2007-2008 financial crises hit the UAE hard. The UAE government used expansionary fiscal and monetary policies to boost liquidity and stimulate its economic growth. Beginning in 2008, the UAE central bank lowered its REPO rate (the official policy rate) close to zero following the Federal Funds Rate in the U.S. There is no sufficient and empirical support to prove whether or not the transmission mechanisms were effective in the UAE in pegging its interest rate and using a fixed exchange rate system, especially in the aftermath of the recent financial crisis. Meanwhile, the U.S. is one of the main trading partners of the UAE.

Therefore, the main objectives of this paper are to re-examine the transmission mechanisms of the interest and exchange rate channels and identify any changes in the effectiveness of the two channels. In particular, this is an important task because it considers the period (2008-2014) during which the UAE economy was hit by the global financial crisis. The second objective of the study is to evaluate the extent to which the U.S. shocks affect the UAE domestic output and inflation rate.

The results from the error variance decompositions and the impulse response functions indicate a common conclusion that the world oil price and the U.S. shocks affect the UAE economy. Domestic output responds positively both to positive shocks in the oil price and the U.S. output. As expected, however, it responds negatively to the U.S. policy rate. In addition, the findings suggest that neither the interest rate nor the exchange rate is significantly effective in the UAE.

Hereafter, some relevant reviews of the recent literature are provided in the first section. An explanation for the SVAR model, along with its identification and specification is given in the second part. Meanwhile, the estimated empirical results are presented in the third section, followed by conclusions of the paper in the last section.

LITERATURE REVIEW

Mishkin (1996) illustrates the main transmission channels of monetary policy. The traditional interest rate channel is a

mechanism through which the real interest rate affects the spending and investment decisions. With the global economic integration, majority of the countries have shifted to using a flexible exchange rate regime. Therefore, the effect of the exchange rate on exports is an important aspect of monetary transmission. A fall in the domestic real interest rate makes domestic deposits less attractive, while it increases the demand for foreign deposits. In other words, domestic currency depreciates. The depreciation in the domestic currency lowers the price for domestic goods. With an increase in the demand for domestic goods, there will be an increase in the domestic output.

Previous studies found support for interest rate and bank lending channels in the GCC countries. Cevik and Teksoz (2012) used a four-variable SVAR model and a standard identification scheme and found plausible impulse response functions to structural shocks. Their empirical results suggested no support for the effectiveness of the exchange rate channel in majority of the GCC countries, while the interest rate channel has a significant influence on real non-hydrocarbon output and consumer price index. Cevik and Teksoz (2012) also found a dominant role performed by the bank lending channel in transmitting monetary shocks in the GCC countries.

Meanwhile, Espinoza and Prasad (2012) studied the impacts of monetary policy shocks on macroeconomic variables in the GCC countries. The results of their study indicated shallowness of money markets and how the central banks operate in those countries. Furthermore, they also found strong support for the significance of the U.S. monetary policy on broad money, non-oil activity and inflation rates.

Monetary transmission mechanism and external shocks have also been extensively studied for other economies. Among other, Kim (1999) used SVAR model with two blocks of variables for the G-7 countries. He found that the effects of monetary policy shocks on exchange rates and other macroeconomic variables as consistent with the economic theory. In order to address the anomalies of liquidity, price and exchange rate puzzles, he used a foreign block consisting of three variables (namely, the world oil price, the U.S. federal funds rate and the exchange rate). He found monetary policy as not a major contributor to the output fluctuations in the G-7 countries, where fluctuations are significantly impacted by the foreign shocks.

There is a widespread consensus that developing markets are more prone and subject to external shocks than large and developed economies. Mackowiak (2007) estimated an SVAR model for eight (8) emerging markets (Chile and Mexico in Latin America; Korea, Malaysia, the Philippines, Hong Kong and Singapore in East Asia). His findings point out that external shocks are not only an important source of macroeconomic fluctuations in emerging markets, but the U.S. monetary policy shocks affect the interest rate and the exchange rate in an emerging market quickly and strongly.

Zaidi and Karim (2013) examined the relative importance of foreign and domestic shocks on three ASEAN countries (Malaysia, Indonesia and Thailand). Their results from individual SVAR models for each of the countries suggested that the foreign shocks have important role in influencing the macroeconomic activities of the three countries and that those shocks are more influential in the medium- and long term. In addition, they considered the GDP of the U.S. and Japan as the source of foreign shock and found that the role of the Japanese economic shock as more prominent than the U.S shocks for the three ASEAN countries. Meanwhile, Karim and Karim (2014) examined the implementation of monetary policy during interest rates targeting in Malaysia; they found that monetary policy had a significant role in affecting macroeconomics variables. Moreover, foreign shocks (world oil price) and U.S. transmission (U.S. income and the U.S. monetary policy) were also found to play prominent roles in influencing domestic monetary policy and macroeconomic fluctuations.

However, it is important to understand how external shocks affect domestic economies such as that of the UAE and how the channels of monetary transmission are effective at times of financial crisis. In general, the results of this paper reaffirm the findings of the previous studies that the U.S. external shocks are significant for the UAE economy and that the monetary transmission channels are not so effective in the country.

METHODOLOGY

SVAR models are useful tools for analysing the dynamics of a model by subjecting it to an unexpected shock (Gottschalk, 2001). It was first pioneered by Sims (1972, 1980). Studies by Sims (1986), Blanchard and Quah (1989), Gali (1992), Gordon and Leeper (1994), Christiano *et al*. (1996), Bernanke and Blinder (1992), Bernanke and Mihov (1998) and Sims and Zha (2006) are some examples of the works that investigated monetary policy and macroeconomic fluctuations using the SVAR models.

In this study, a seven-variable SVAR model was used to estimate six-year monthly macroeconomic variables. In the past studies, monetary VARs were estimated on annual data for the GCC countries. In order to conduct similar studies, it is more reasonable to use quarterly or monthly data. In addition, it is more plausible to assume contemporaneous effects when using high frequency data sets, particularly for financial variables (Walsh, 2003).

The data set consisted of four UAE domestic (industrial production index (LAIP), inflation (INF), 1-month interbank rate (IBOR) and real effective exchange rate (LREER) and three external variables (crude oil Brent price, the U.S. total industrial production index (LUSIP), and the U.S. federal funds rate (USR). As the UAE is a net exporter of oil, it is believed that the oil price plays an important role in its economy. During 2008-2014, the U.S central bank targeted at the federal funds rate to stimulate the U.S. economy. This

variable was used by Mackowiak (2007) and others to study the significance of the U.S. monetary policy on small open economies.

With the exception for the real exchange rate that was extracted from the Bruegel database, the other variables were obtained from International Financial Statistics (IFS) and the monthly financial bulletins published by the central bank of the UAE and by the UAE National Bureau of Statistics. The data set covered the period from February 2008 to May 2014. With the exception for the interest rate and inflation, all the other variables were logged. Figure 1 shows that almost all the variables used in the SVAR model are not stationary in level.

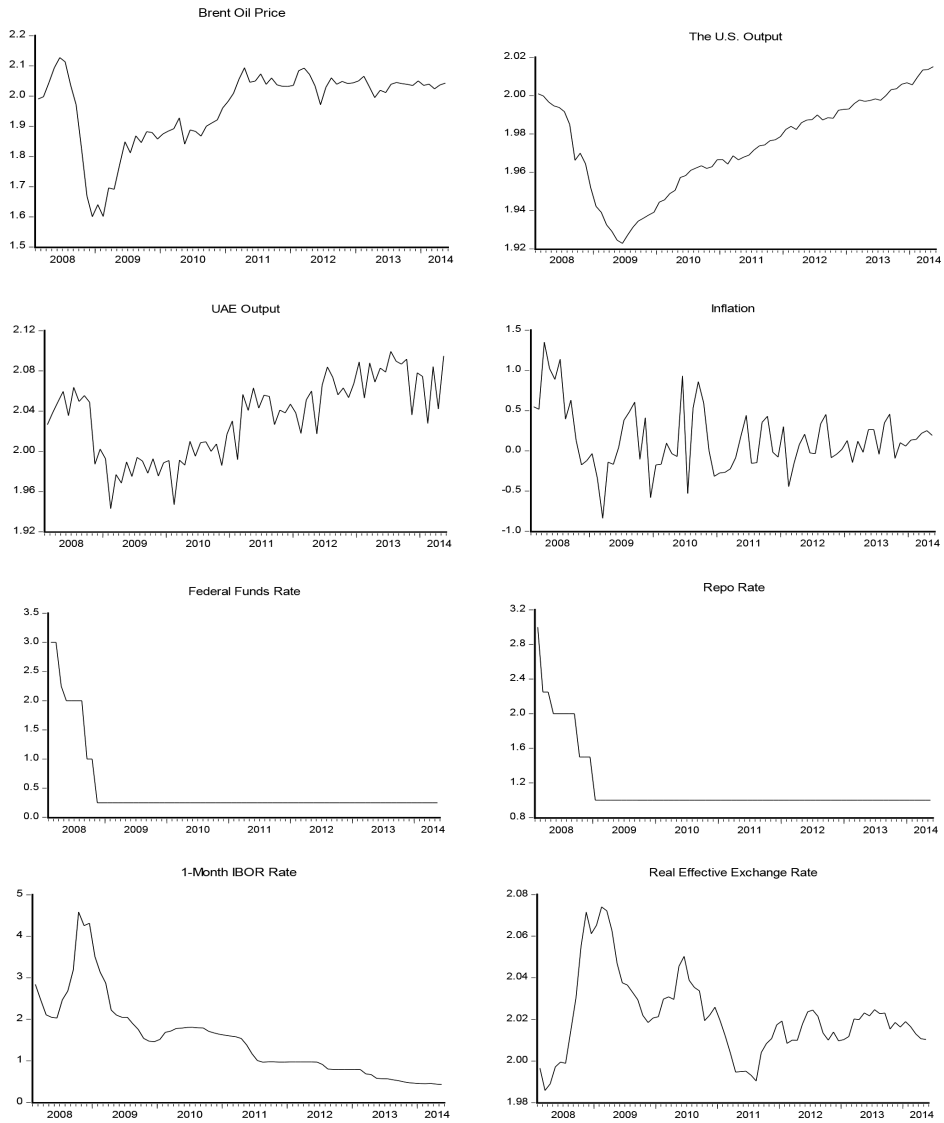

Fig.1: Domestic and External Macroeconomic Variables

The SVAR Model

$$BY_t = C + (\gamma_1 L + \gamma_2 L^2 + \cdots + \gamma_k L^k) Y_t + \varepsilon_t \quad (1)$$

In this SVAR model, B stands for a square matrix and it captures the structural contemporaneous relationships among the macroeconomic variables. Y_t is a (n × 1) vector of the macroeconomics variables, C is a vector of deterministic variables, $\gamma(L)$ is a k^{th} order matrix polynomial in lag operator, L and ε_t is vectors of structural innovations that satisfy the conditions, $E(\varepsilon_t) = 0$, $E(\varepsilon_t \varepsilon_s') = \sum_\varepsilon$ for all t = s and $E(\varepsilon_t \varepsilon_s') = 0$ otherwise.

When equation [1] is multiplied by B^{-1} a reduced form of the above SVAR model is obtained:

$$Y_t = B^{-1}C + B^{-1}(\gamma_1 L + \gamma_2 L^2 + \cdots + \gamma_k L^k) Y_t + B^{-1}\varepsilon_t \quad (2)$$

where $e_t = B^{-1}\varepsilon_t$ is a reduced form of the VAR residual that satisfies the conditions that $E(e_t) = 0$; $E(e_t e_s') = \sum_e$. $\sum_e$ is a (n × m) symmetric, positive definite matrix which can be estimated from the data. The relationships between variance-covariance matrix of the estimated residuals, $\sum_e$ and the variance-covariance matrix of the structural innovations, $\sum_\varepsilon$ are such that:

$$\sum_\varepsilon = E(\varepsilon_t \varepsilon_s')$$
$$= E(Be_t e_s' B') = BE(Be_t e_s') B'$$
$$= B\sum_\varepsilon B'$$

The Structural Model, Specification and Identification

Should the SVAR model be specified at levels or first difference? It seems the choice is between selecting or accepting a loss of efficiency (when a VAR model is estimated in levels) and a loss of information (when a VAR model is estimated at first difference). Ramaswamy and Sloek (1998) provided a detailed discussion on this topic. Following their recommendations, Zaidi (2011) specified the SVAR model in levels to re-examine monetary transmission mechanisms in Malaysia. When there is no prior economic theory, it is preferred to specify SVAR in levels. Thus, this paper specifies the SVAR model for the UAE in levels.

Favero (2001) provided a detailed discussion of the different approaches to identification problems. Taking the economic theory and the structure of the UAE economy into consideration, the SVAR model is specified as follows:

$$[BY_t] \equiv \begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ \beta_{21} & 1 & 0 & 0 & 0 & 0 & 0 \\ \beta_{31} & \beta_{32} & 1 & 0 & 0 & 0 & 0 \\ \beta_{41} & \beta_{42} & \beta_{43} & 1 & 0 & 0 & 0 \\ \beta_{51} & 0 & \beta_{53} & 0 & 1 & 0 & 0 \\ \beta_{61} & 0 & \beta_{63} & 0 & \beta_{65} & 1 & \beta_{67} \\ \beta_{71} & \beta_{72} & \beta_{73} & \beta_{74} & \beta_{75} & \beta_{76} & 1 \end{bmatrix} \begin{bmatrix} LOP_t \\ LUSIP_t \\ USR_t \\ LAIP_t \\ INF_t \\ IBOR_t \\ LREER_t \end{bmatrix} \quad (3)$$

The external variables are ordered first in the model, while the UAE domestic variables are ordered last. This standard ordering follows a block exogeneity assumption, whereby it is assumed that as

a small open economy, the UAE cannot influence the foreign macroeconomic variables. Cevik and Teksoz (2012) also considered a block of exogenous variables (the world commodity price, the U.S. output and interest rate) to study external shocks in GCC countries. For the identification of U.S. monetary policy shocks, the work of Leeper *et al*. (1996) is followed. Therefore, it is assumed that the U.S. policy rate can respond contemporaneously to changes in the oil price. Mackowiak (2007), who used monthly data sets for eight emerging economies, assumed the same role for commodity world price in his SVAR model. The oil price can be regarded as an expected inflation (Cushman & Zha, 1997). The oil price is included in the SVAR model in order to solve prize puzzle that occurs when monetary tightening leads to an increase rather than a decrease in the price level. Oil price is assumed to affect all variables; hence, the oil price instantaneously influences inflation in the UAE since it is a net exporter of crude oil.

Consistent with the previous studies and with the economic theory, it is assumed that the U.S. real economic activity cannot influence the UAE inflation rate and IBOR rate contemporaneously. Instead, the assumption is that it has a lagged impact on those variables. Due to the assumption of price rigidity, the UAE inflation does not instantaneously respond to a shock in the U.S. output. The second assumption is that the UAE policy makers do not look at the contemporaneous values of the U.S output to twist the UAE domestic interest rate; this same identification was also used by Zaidi (2011).

In this identification, the assumption is made that the U.S federal funds rate does have a contemporaneous effect on the UAE real output, inflation rate and the two financial variables (namely the IBOR rate and the real effective exchange rate, LREER). The reason is that during the period of this study, the UAE was closely following the trends in the federal funds rate and it was pegging its policy rate (the repo rate) to the federal funds rate of the U.S.

Furthermore, it is assumed that the UAE domestic output does not contemporaneously impact the inflation rate and IBOR rate in the UAE. Unlike Zaidi (2011) and Sims (1980), who specified domestic interest rate to have a contemporaneous effect on the domestic output, this paper assumes that the IBOR rate does not instantaneously affect the domestic output.

Consistent with the previous studies, the exchange rate in this study is ordered last. This is due to the fact that the exchange rate is a fast moving financial variable that can respond contemporaneously to all the external and the UAE domestic variables. Other variables respond to shocks in the exchange rate with lags. Furthermore, the real effective exchange rate is assumed to contemporaneously affect the IBOR rate. An alternative SVAR model was also tested where the IBOR rate was ordered last. This was done to check the robustness of the main model.

EMPIRICAL RESULTS

Here, Akaike and Schwarz's criteria for the choice of lag length and the results for error variance decompositions and the impulse response functions of the SVAR model are reported.

The results for the impulse response functions and variance decompositions from the alternative model indicate that the main SVAR model is robust in both stability and consistency of the results. But, the results for the contemporaneous coefficients of the model and the findings from alternative SVAR model are not reported here.

Choice of Lag Length

The Akaike's (1973) Information Criterion (AIC) and Schwarz's (1978) Bayesian Criterion (SBC) are used to identify the appropriate choice of lag length. AIC suggests a choice of four lags as appropriate for the model; SBC, however, proposes two lags. As the data set contained 72 observations, two lags[1] were chosen. The eigenvalues of the matrix of the SVAR model indicate that they are all inside the unit circle, an indication of stability when the model is used with two lags.

TABLE 1
AIC and SBC Tests for the Choice of Lag Length and the Stability Test

System Diagnostics		
K	AIC	SBC
4	-3224.49641	-2990.86955
3	-3170.96249	-2988.94135
2	-3179.37875	-3049.59941
1	-3039.59419	-2962.67999

Stability Tests: Eigenvalues of the companion matrix in absolute value, $\|\lambda\|$ =						
0.94	0.86	0.81	0.81	0.85	0.59	0.59
0.57	-0.53	-0.44	0.15	0.00	0.00	0.00

Error Variance Decomposition of:

The UAE output: The results show that LAIP (The UAE output) is mostly explained by its own shock (60% over 4 months), the oil price (34% over 24 months), the U.S. output (26% over 24 months), and to some extent by the U.S. policy rate (11% over 24 months). In the meantime, neither IBOR rate nor the exchange rate is significant in explaining variance decomposition in the domestic output in the short term.

The UAE inflation: Over the 24-month horizon, all the three external variables explain some sizeable variations in the forecast errors of the variance decomposition of the UAE inflation rate (by 17%, 48%, and 18%, respectively). Over four month's horizon, 65% of the error for inflation rate is explained by its own shocks. Nonetheless,

[1]An alternative model was tested with four lags, where the confidence intervals of impulse response functions explode and the results are not stable.

none of the UAE domestic variables is significant in explaining the variance decomposition of the UAE's inflation rate.

The IBOR rate: The U.S output (LUSIP 40% over 4 months) and the U.S. monetary rate (USR 34% over 24 months) are effective in explaining the variation in the errors of the forecast of variances of the IBOR rate. In addition, the real effective exchange rate explains about 9% of the errors for IBOR rate over the 4-month horizon. While the IBOR rate own shocks explain about 30% of its variations in the short term, none of the other two domestic variables is significant. Over a longer period of 24 months, over 70% of the errors for the IBOR rate are explained by the three external variables.

The UAE real effective exchange rate: In contrast, over 20% of the forecast errors of the variance decomposition of the real effective exchange rate are explained by the IBOR rate in the short-term horizon. It is also significant over long-term horizons. However, the UAE domestic output and inflation rate are not significant either in the short- or long-term horizon. However, more than 60% of the forecast errors of the exchange rate are explained by the oil price both in the short- and long-term horizons. This finding is indicative of the fact that the UAE is a net exporter of oil and the revenues from the export of oil are a very important fact about the UAE economy.

TABLE 2
Variance Decompositions of the UAE Domestic Variables

Table 2a of the LAIP

Horizon (Months)	LOP	LUSIP	USR	LAIP	INF	IBOR	LREER
4	26.73	6.99	4.18	60.28	0.92	0.08	0.81
8	32.60	19.31	6.86	39.47	1.05	0.09	0.63
16	33.88	24.48	10.00	30.11	0.97	0.08	0.49
24	34.11	25.60	10.81	28.03	0.91	0.07	0.46

Table 2b of the INF

Horizon (Months)	LOP	LUSIP	USR	LAIP	INF	IBOR	LREER
4	1.55	24.06	3.42	2.74	65.28	2.30	0.65
8	1.99	48.56	13.62	2.17	29.79	3.10	0.77
16	13.11	48.58	18.53	1.31	15.96	1.77	0.74
24	16.55	48.30	18.40	1.15	13.48	1.49	0.63

Table 2c of the IBOR

Horizon (Months)	LOP	LUSIP	USR	LAIP	INF	IBOR	LREER
4	3.60	40.20	12.35	1.39	4.01	29.80	8.65
8	2.92	32.41	34.02	2.66	5.28	18.47	4.25
16	14.84	25.54	33.78	2.41	4.59	15.39	3.44
24	15.07	25.58	33.65	2.40	4.56	15.29	3.45

Table 2d of the LREER

Horizon (Months)	LOP	LUSIP	USR	LAIP	INF	IBOR	LREER
4	61.73	10.38	1.68	0.32	0.22	20.35	5.32
8	64.75	9.52	2.88	0.28	0.32	16.31	5.94
16	59.69	11.56	5.94	0.69	1.18	15.53	5.41
24	59.98	11.39	6.12	0.69	1.19	15.32	5.31

Impulse Response Functions

Fig.2 presents the responses of the UAE output and inflation rate to a positive standard deviation shock to the three external and U.S. variables. LAIP immediately and positively responds to a shock in the oil price and to the U.S. economic activity shock. In line with the economic theory, a contractionary monetary policy slows down the UAE economic growth. This reflects a fact that the UAE has been closely following the U.S. policy rate. The results indicate that an increase in the federal funds rate affects the UAE output in the opposite direction.

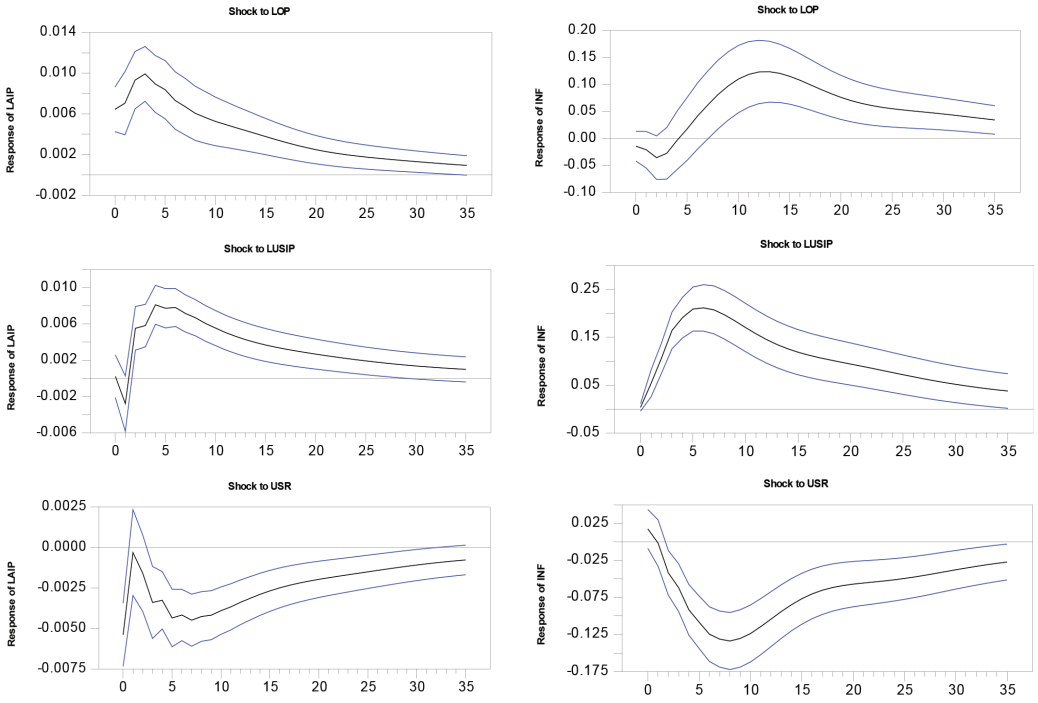

Fig.2: Responses of the UAE real variables to the external and the U.S. shocks

The response of inflation to a positive shock in the oil price is counterintuitive. Initially, a shock in the oil price lowers the inflation in the UAE but it leads to a positive response by inflation over a 3 month's time. This second response of inflation is

consistent with the theory and structure of the UAE economy. The response of inflation to the U.S. output is positive, instant and strong. It is according to the real economic conditions. The response of inflation to the US policy rate is also consistent with the theory. An increase in the U.S. policy rate leads to an increase in the UAE policy rate (because it is pegged against the U.S. interest rate), so the UAE inflation rate will decline.

Fig.3 shows the impulse responses of the domestic real variables to a one standard deviation of the IBOR rate shock. The UAE output falls after a positive shock in the IBOR rate. Though this is consistent with the economic theory, the response is very weak. It is believed that an increase in the short term interest rate will lead to a fall in the inflation rate. Fig.3 points out that a one standard deviation shock to the IBOR rate leads to a fall in the inflation rate. The IBOR rate causes the inflation rate to fall over a five-month period before it begins to stabilise. In addition, the real effective exchange rate appreciates with a shock in the IBOR rate. Thus the modal does not suffer from the exchange rate puzzle and this suggests that the exchange rate responds positively and immediately to a shock to the IBOR rate. Similar to the results for the forecast errors in the variance decompositions, the IBOR rate shock does not significantly affect the output. Therefore, it seems that the interest rate channel is not strong in the UAE economy.

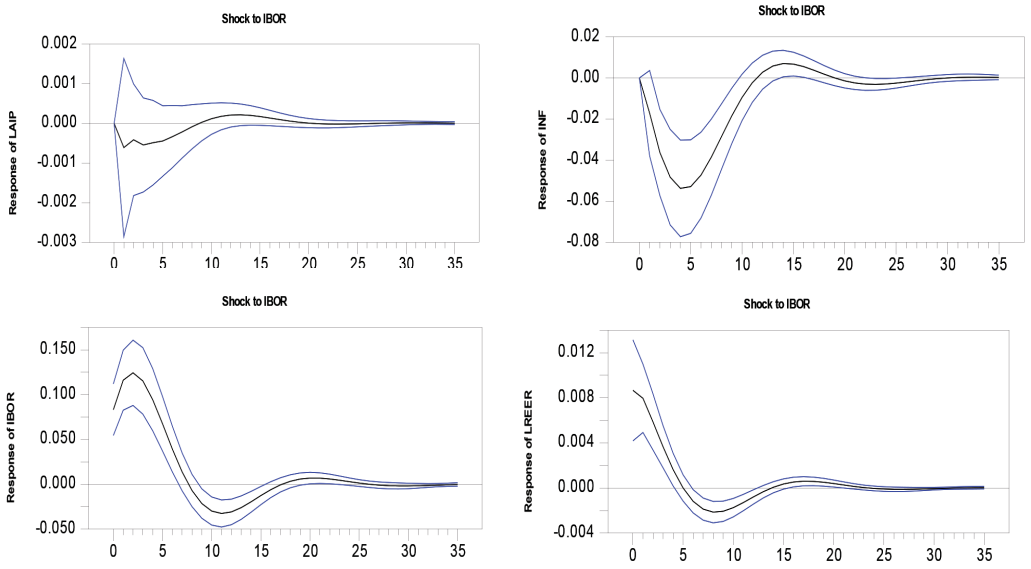

Fig.3: Responses of the UAE variables to an IBOR rate shock

The response of the UAE domestic output to a shock in the exchange rate is counterintuitive because a positive shock to the exchange rate brings about an increase in its output in the short term. Based on the theory, an appreciation of the currency should have lowered the domestic output. Zaidi (2011) found similar results, where

an appreciation in the Malaysian ringgit in the first place leads to a lower output in the immediate output. The response of inflation to the exchange rate is negative and it is consistent with the economic theory. An appreciation in the domestic currency will reduce demands for domestic goods and lead to a decrease in inflation.

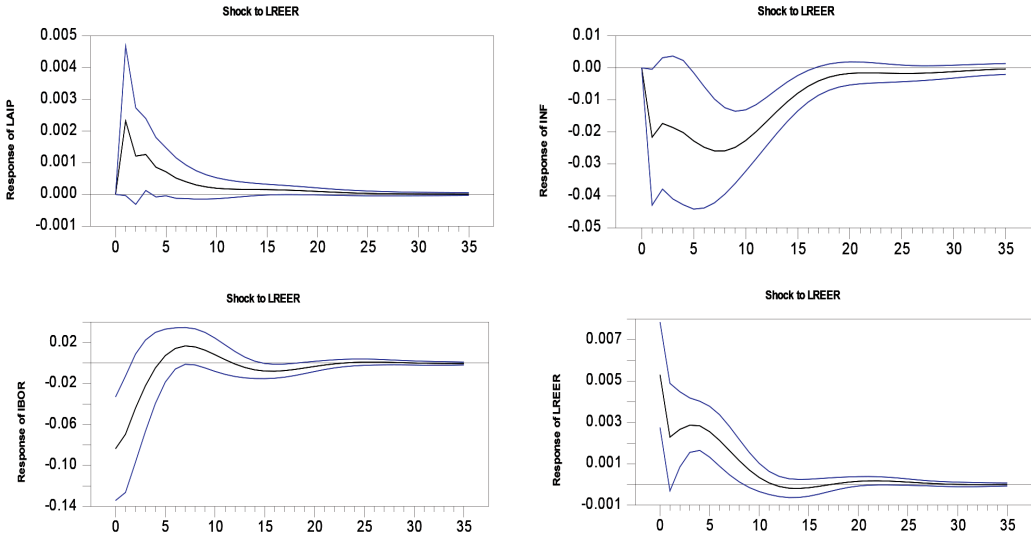

Fig.4: Responses of the UAE variables to a real effective exchange rate shock

In summary, the results from the SVAR model suggest that the three external variables are significant in influencing the extent and the direction of responses in the UAE domestic variables. These findings are consistent with the economic structure of the UAE. As a small open economy, it is strongly affected by the external shocks of the U.S. and the oil price. It can be concluded that the U.S. external shocks are significant. On the other hand, though exchange rate can affect the UAE inflation rate in an insignificant way, the results suggest that the IBOR rate does not influence the domestic variables. These further suggest that the interest rate and the exchange rate channels of monetary transmission mechanism are not so effective in the UAE economy.

CONCLUSION

The economy of the United Arab Emirates (UAE) was hit hard by the financial crisis of 2007-2008. Following the federal funds rate, the central bank of the UAE lowered its REPO rate close to zero. The effectiveness of its monetary policy changes overtime. Though the UAE pegged its interest rate and pursued a fixed exchange rate regime, there is no sufficient and empirical evidence to support whether the monetary policy channels operated after and during the financial crisis. Meanwhile, the U.S. is one of the main trading partners of the UAE. Additionally, knowing the nature and the direction of the U.S. shocks should therefore be of great interest to policy makers in the UAE, especially during economic crisis.

There are three main conclusions from the paper. First, the results indicate that both inflation rate and domestic output in the UAE are affected by the world oil price, the U.S. macroeconomic and the U.S. monetary shocks. In other words, the U.S. federal funds rate affects the UAE economy significantly. Furthermore, inflation responds positively to the U.S. output. This is consistent with the standard economic theory. Positive shocks to aggregate demand in the U.S. lead to a higher price level in the UAE. In addition, inflation rate in the UAE also responds negatively to the U.S. federal funds rate, the finding which is consistent with theoretical background.

Second, the response of inflation to real effective exchange rate is negative and it is consistent with the economic theory. An appreciation in the domestic currency will reduce demands for domestic goods, leading to a decrease in inflation. However, the real effective exchange rate is not significant in explaining the UAE's domestic output. In addition, the IBOR rate is also not important in explaining the variations in the domestic output and inflation.

Third, the world oil price has a dominant role in explaining major macroeconomic fluctuations in the UAE economy, which suggests that the UAE economy is vulnerable to the world oil price shocks. This finding suggests that the UAE policy makers need to consider diversifying the country's export sectors in mitigating the economic fluctuations.

The results from the forecast errors variance decompositions and impulse response functions of the SVAR model suggest that interest rate and exchange rate channels are not effective in influencing the domestic macroeconomic variables in the UAE. Nonetheless, there is a need for further research to examine the roles of other channels of monetary transmission such as credit and asset price channels, while policy makers should find ways to improve mechanisms of monetary transmission in the UAE economy so that the effectiveness of monetary policy could be strengthened.

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