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Monetary Policy and Oil Prices

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1. Introduction

During the past three decades, monetary policy has served as a popular stabilizing strategy. Friedman and Schwartz (1968) empirically examined the relationship between money and prices in the United States. The authors showed that in the long-run there is a close relationship between money and prices. Other studies in this area concentrated on the cause and effect but generally they showed a direct relationship between money and income if the velocity of money (demand for money) remains stable.

Monadjemi and Kearney (1990) showed that in the 1970s in the United States, United Kingdom, Canada, Germany and Australia monetary targeting was successful in reducing inflation. During the 1980s, financial innovations and financial deregulations caused a considerable instability in the velocity of money. Fluctuations in the velocity of money introduced several problems in conducting monetary targeting. For example, financial deregulations led to a significant expansion of bank deposits and the supply of money (money supply include bank deposits). An increase in the supply of money without a corresponding rise in nominal GDP led to a fall in velocity of money¹. Most of the above-mentioned countries suspended monetary targeting in the 1980s.

During the 1980s, several countries conducted monetary policy by targeting the exchange rate. Stability of the exchange rate is important particularly for countries that international trade comprises a large proportion of their aggregate economic activity.

In 1979, in the context of the European Monetary System (EMS), eight European countries decided to limit fluctuations of their exchange rates within ± 2.5 percent relative to the German Mark. EMS was successful in keeping the inflation rates of the member countries in line with the rate of inflation in Germany, which was the lowest in Europe. EMS actively continued operation until 1992 when a significant depreciation of the British Pound and an increasing limit of fluctuations to ± 15 percent automatically caused the breakdown of the system. Eventually the European Monetary Union and the single currency were introduced in 1999.

In the commodity producing countries, the exchange rate is highly correlated with the commodity prices. In these countries exchange rate targeting may cause problems that are similar to the Argentine (2001), Mexico, (1994) and Britain (1992)². In these cases eventually the central bank.

1.This is with respect to the equation of exchange where $MV = PQ$, $V = PQ/M$ in which PQ , V and M are nominal GDP, velocity of money and the supply of money.

2. In Argentina one unit of local currency was set to one US dollar. This procedure reduced inflation but created banking crises. In 1994 Mexico attempted to limit fluctuations of peso against the US dollar. However, political turmoil and the loss of foreign exchange reserves forced the government to devalue the peso. In 1992 Britain was forced to leave the EMS fixed exchange rate system when Bank of England experienced heavy losses.

During the 1990s, Australia, Brazil, Britain, Canada, Chilli, Norway, South Africa, Korea, and New Zealand commenced conducting monetary policy based on inflation targeting. In this procedure, the central bank by implementing monetary attempts to keep the expected rate of inflation within a specified range. Countries that exercised inflation targeting were successful in keeping their rate of inflation within the targeted range.

Because of volatility, commodity prices are excluded from the CPI when inflation targeting is exercised. Rising commodity prices contribute to inflation but central banks show no reaction since the CPI does not register rise in prices. Frankel (2006) argues that monetary policy should consider the price of important export commodities such as oil, in oil exporting countries. He maintains that by doing so central banks are able to benefit from the fluctuations of the exchange rate in the presence of a negative international trade shocks. Central banks cannot benefit from the fluctuation of the exchange rate if inflation targeting is the strategy for conducting monetary policy.

The purpose of this study is to investigate the relationship between monetary policy and oil prices in local currency (in oil exporting countries). A contractionary/expansionary monetary policy increases/decreases the opportunity costs of holding oil reserves, which in turn causes an increase/decrease in production of oil and leads to a decrease/ increase in the price of oil. There is an inverse relationship between price of oil and real rate of interest. Frankel (2006) argues that oil-exporting countries should conduct monetary in a manner consistent with keeping the price of oil in domestic currency unchanged. When the price of oil in international markets changes the central bank by changing monetary policy and the exchange rate maintains the price of oil in local currency.

Initially a model similar to Frankel (2006) is developed where changes in monetary policy cause a significant change in oil prices in the short run. Oil prices are flexible in the short run but prices of goods are relatively stable in the short run and flexible in the long run. Oil prices behave like the exchange rate in the Dornbusch (1976) model. They overshoot in the short run but return to the equilibrium in the long run. The relationship between oil prices and monetary policy for oil producing countries such as Iran, Saudi Arabia, United Arab Emirates, Bahrain, Kuwait, Venezuela, and some commodity producing countries such as Australia, Canada, Norway, New Zealand will be estimated using OLS. In Section 2, monetary targeting and interest rate are examined. Some contemporary monetary policy strategies such as exchange rate and inflation targeting are discussed in Sections 3 and 4. The theoretical model of monetary policy and oil prices are presented in Section 5. Section 6 includes sources of data and empirical results. Concluding remarks and policy recommendations are offered in Section 7.

2. Monetary Targeting and Interest Rate

In conducting monetary policy some variables such as inflation, rate of growth, unemployment rate are called intermediate target and some such as money supply, interest rate and exchange rate are called intermediate targets. Central banks attempt to influence the final targets by setting the intermediate targets.

For a successful targeting, an intermediate target must meet the following conditions:

1. The relationship between intermediate and final targets must be stable. If this condition is not met, changes in the intermediate target may not influence the final target or they may change the final target in an undesirable direction.
2. Data on the intermediate target must be available prior to the data on the final target. This condition allows the central bank to forecast the future changes in the final target by observing the behaviour of the intermediate target.
3. The intermediate target must be under the control of the central bank.

Monetary targeting was exercised during the 1970s for controlling inflation in Britain, United States, Canada, Australia and New Zealand. This procedure relied on Friedman Schwartz (1963) where the authors showed a close relationship between money and prices in the United States.

Monetary targeting adds to the credibility of the central bank and prevents inflationary consequences of a discretionary policy based on the choice between growth and inflation.

Moreover, the existence of a target creates transparency in implementation of monetary policy and allows the private sector to anticipate the direction of monetary policy.

During the 1970s and the 1980s, intermediate targeting was based upon monetary and exchange rate targeting. The exchange rate targeting restricts the ability of the central bank to pursue domestic stabilization goals since monetary policy is preoccupied to keep the exchange rate fixed. Those countries that had floating exchange rate system adapted targeting the growth rate of money supply. In this strategy, assuming that the growth rate of money and the rate of inflation are closely related, the central bank attempts to maintain the targeted growth rate of money using the rate of interest.

The central bank cannot control both money and interest rate simultaneously. If money is controlled, interest rate is left free and vice versa. Poole (1970) proposed conditions for choosing money or interest rate as an intermediate target. Poole assumed that the objective of the central bank is to minimize the deviation of output from its desired level.

Monetary targeting is preferable if the economy is subject to a real sector shock such as changes in consumption, investment or exports. Interest rate targeting is preferable if the source of instability is from the financial sector. Poole's proposal is illustrated in Figures 1 and 2.

Figure 1

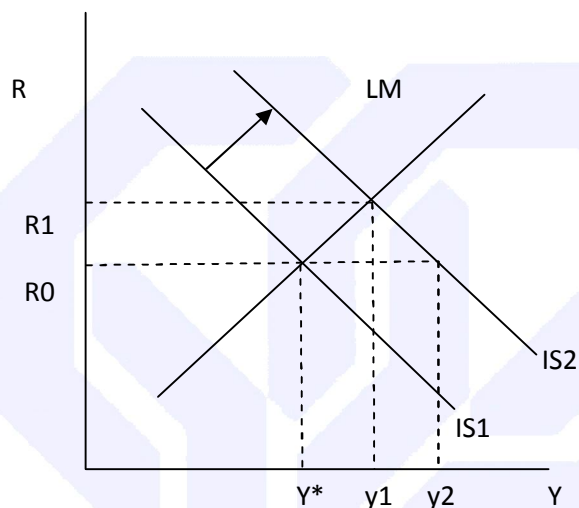
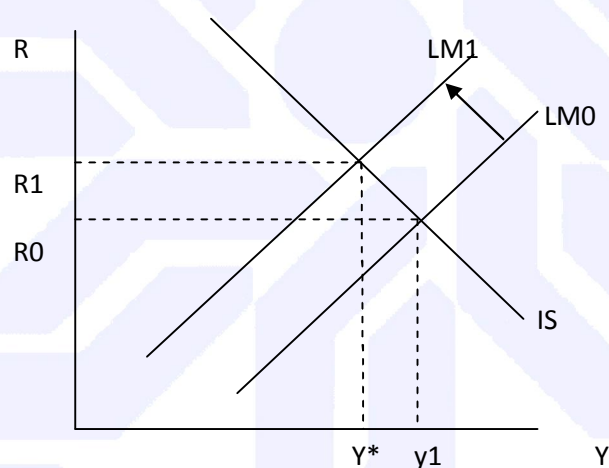


Figure 2



In Figure 1 an increase in aggregate demand shifts the IS curve to the right. If money supply is left unchanged output changes by y^*y_1 . If money is increased to keep R constant output rises to y_2 . In this case money supply targeting is preferable since $y^*y_1 < y^*y_2$.

In Figure 2 an increase in demand for money shifts the LM curve to the left. Output declines to y^*y_1 . If authorities decide to target money and keep the supply money constant. Output remains unchanged. If they keep interest rate constant by increasing the supply of money. In this case, interest rate targeting is preferable.

Sterlla and Mishkin (1995) examined the role of money supply in conducting monetary policy and showed that since 1979 money supply in the United States has not provided useful information.

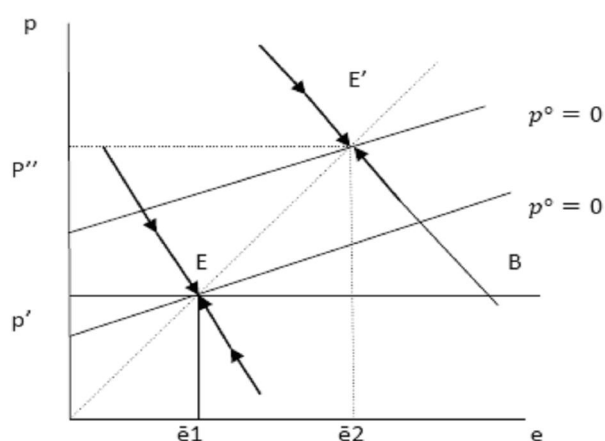
In Germany, also M3 did not perform better than the money base in the United States. In this article, the authors in the context of a VAR model investigated the role of M2 and money base in the United States and M3 in Germany in provision of useful information for conducting monetary policy. The empirical results of the study indicate that the above-mentioned variables may provide misleading guides for monetary policy. In other words, the private sector cannot use these variables for forecasting the direction of monetary policy.

3. Monetary Policy and the Exchange Rate

The stability of the exchange rate is particularly important in those countries that foreign trade constitutes a large proportion of their economic activity. A stable exchange rate allows exporters and importers to plan respectively, their income and expenditure with more confidence without risking fluctuations of the exchange rate. During the 1970s, several countries that experienced problems with monetary targeting attempted to conduct monetary policy by targeting the exchange rate. In this procedure the central bank sells and purchases foreign currency (purchases and sells domestic currency) to maintain the exchange rate. For example, the central bank purchases domestic currency if the local currency tends to depreciate in the international markets. Purchase of local currency reduces the supply of money and may be in conflict with domestic economic stability goals. Sometimes the central bank may offset the money supply effects of the foreign exchange market intervention through sterilization.

Most of the economists argue that inability of the central bank to implement an independent monetary policy is an important weakness of the exchange rate targeting. Eichengreen (1993) argues that this weakness may not be so important if monetary policy is not a powerful stabilisation tool. For example, monetary policy is more powerful in the United States than in Europe. Accordingly, in Europe, the loss of an independent monetary policy because of fixing the exchange rate may not be so costly.

Figure 3



The theoretical relationship between monetary policy, expectations and the exchange rate was developed in the classic article by Dornbusch (1976). Dornbusch's model attempts to examine the responses of the exchange rate and prices in the short run and in the long run to changes in monetary conditions. The model assumes that prices of goods and services are relatively stable in the short run but fully flexible in the long run. Interest rates and exchange rate are fully flexible.

An expansionary monetary policy reduces domestic interest rates causing depreciation of the currency in the short run. As long as the price level is constant at p' , the exchange rate "overshoots" to B. At B the excess demand for goods pushes up prices. The rise in price level reduces the real value of money supply causing a rise in interest rates. A rise in interest rates coupled with expected appreciation (because of excessive depreciation) leads to capital inflow and appreciation of the local currency. The economy moves towards point E'. At E' proportional changes in prices, exchange rate and the supply of money are equal thus causing the real exchange rate and the real value of money to remain constant. In this model, the exchange rate is volatile in the short run when the price level is relatively stable.

Because of high intra-trade, in 1979 eight member countries of the European Monetary System (EMS) decided to limit the fluctuations of their currencies to ± 2.5 percent relative to the Mark. These countries used monetary policy to keep their exchange rate within the desired limit. Thus the monetary policy of seven countries followed the monetary policy of Germany. Krugman (2003) showed that this development allowed them to keep their inflation as low as inflation in Germany.

The EMS effectively operated until 1992 when Britain departed the system and the permissible limit of the exchange rate fluctuations was increased to ± 15 percent. Eventually the single currency, Euro, was introduced in 1999.

The Currency Board is another fixed exchange rate system in which the exchange rate is geared to another currency. An extreme case of the currency board was implemented in Argentina in 1999-2004, where the exchange rate against the US dollar was set at 1. In this system the central bank must hold 100 percent foreign currency against the Monetary Base. Because of liquidity crises in the banking system, eventually in 2004 Argentina converted to a floating exchange rate system.

4. Inflation Targeting

Inflation targeting as a strategy for conducting monetary policy became popular among the industrial and developing countries during the decade of 1990s. The strategy for conducting monetary policy in the 1970s, 1980s and the 1990 respectively changed from money supply targeting, inflation control and central bank independence and inflation targeting. It is interesting to note that the change in the strategy occurred at the same time for the countries that followed the above monetary policy strategies.

The preference of price stability over growth and employment was demonstrated in Rogoff (1985). Rogoff argued that the society is better-off if the objective function of the central bank is different than the objective function of the society. In other words, the monetary authorities must be conservative with an objective function that assigns higher weight to price stability than employment. Decisions made by a conservative central bank must be independent of the expansionary policies of the government. Alesina and Summers (1993) showed that over a decade, Germany and Switzerland with most independent central banks experienced lowest possible rate of inflation.

In separate articles, Friedman (1968) and Phelps (1968) discuss preference of price stability over employment. Both studies showed that an expansionary monetary policy increases employment in the short run. In the long run employment returns to the natural rate and inflation remains at a higher level. In other words, in the long run an expansionary monetary policy increases inflation without affecting unemployment.

Kyland and Prescott (1977) argue that society's welfare is improved if the central bank conducts monetary policy based on a rule rather than discretion. The authors showed that conducting monetary policy based on a rule generates no inflation whereas a discretionary monetary policy produces positive inflation. Rogoff (1985) argues that in the absence of productivity shocks, inflation targeting is the best strategy because it has no trade-off between inflation and unemployment. Inflation targeting is not suitable in the presence of a supply shock. In this case control of inflation is associated with a large drop in output and employment.

In inflation targeting by publicly announcing targets and monetary policy strategy the central bank becomes more transparent and responsible. Mishkin and Posen (1997) argued that those countries that implement inflation targeting must have developed financial markets, macroeconomic stability, an independent monetary policy and a credible monetary policy. Moreover, the central bank must not be committed to maintain the exchange rate.

The logic behind the inflation targeting is based on the long run policy ineffectiveness of monetary policy. In the long run monetary policy affects prices but not output.

The importance of maintaining an inflation target varies among different countries. At the top of the list is New Zealand where the governor of the central bank's job depends on the maintenance of the inflation targets. Inflation targeting is not sensitive to the terms of trade shocks because generally prices of food, energy and interest rate on mortgages are excluded from the consumer price index. Prices of these items are very volatile and cause changes in the aggregate supply curve.

Those economists who are against the inflation targeting such as DeBelle and Fischer (1994) and Posen (1995) argue that in Germany and Switzerland inflation targeting was successfully enforced at the cost of high unemployment. Recently most of the macroeconomists and central bankers believe that maintaining a low inflation target leads to macroeconomic stability in the long run. Supporters of inflation targeting are not in favour of zero inflation. They argue that since nominal wages are rigid downward, having a positive inflation is the only way to reduce real wages and create employment. Moreover, maintenance of a very low inflation target may lead to the danger of

deflation. Bernanke and Mishkin (1997) argue that similar situation existed in Japan in the late 1990s.

Svensson (1999) identifies three features for inflation targeting:

1. Existence of a clear numerical target for inflation,
2. Forecasts of inflation as a framework for conducting monetary policy,
3. High level of transparency and responsibility.

McCallum (1996) examined the success of inflation targeting in Canada, Britain, Sweden and New Zealand that conducted monetary policy in the context of inflation targeting in 1990 to 1993. All of these countries used consumer price index, excluding food and energy prices, as a measure of price level. McCallum argues that inflation targeting is preferable to the discretionary policy because in the latter method more attention is paid to the benefits of an expansionary policy than the costs of the policy.

McCallum showed that high rates of inflation that existed in the above mentioned countries in the 1970s and the 1980s, declined to 2 to 4 percent in the 1990s.

Among the developed and developing countries respectively New Zealand and Chilli were the first countries that commenced inflation targeting. Bosede (2004) showed that before the implementation of inflation targeting the average rate of inflation in the developed and the developing countries were 3.72 and 13.11 percent respectively. 12 months after the implementation both rates declined to 2.71 and 8.3 percent respectively.

5. The Model of Oil Price Targeting

Variables such as money supply, inflation rate, nominal income, exchange rate and the price of gold that are targeted somehow cause complications in implementation of monetary policy (see Frankel (2006) for the examples of these cases). Targeting oil prices creates no complications in implementation of monetary policy. When targeting oil prices in domestic currency, an expansionary monetary policy in response to a negative shock to exports causes depreciation of the local currency. This is the best policy under such circumstances. Frankel (2006) argued that the response of oil price to changes in monetary policy is similar to the over-shooting exchange rate in Dornbusch (1976).

Initially a contractionary monetary policy increases real interest rates. The real oil price declines and continues to decline until all of the market participants are convinced that oil prices are very low and expect them to rise in the future. This expected appreciation coupled with the benefits of storage is sufficient to compensate for the rising real interest rates and the cost of storage. In this situation, private agents are willing to store oil. In the long-run prices of goods and services respond to the changes in the supply of money such that the real supply of money, real rate of interest and the real price of oil return to their original equilibrium values. Similar to the Dornbusch's model it is assumed that commodity prices are flexible in the short run and in the long run. Prices of goods and services are flexible in the long run but relatively rigid in the short run. Market participants expect real oil prices to change whenever they are not at their long run equilibrium.

Based on Frankel (2006), the following model investigates the relationship between monetary policy and oil prices.

$$E[\Delta(s - p)] = E[\Delta g] = -\theta(g - \bar{g}) \quad (1)$$

$$E(\Delta s) = -\theta(g - \bar{g}) + E(\Delta p)$$

In the above equation E , s , p , g and \bar{g} are the expectations, the nominal price of oil, the price of goods and services, the real price of oil and the equilibrium real price of oil respectively. Similar to the Dornbusch's model, equation 1 represents the expected real price of oil that is a function of the deviation of the real price of oil from its equilibrium value. Equation 2 shows the expected nominal price of oil.

$$E\Delta s + c = i$$

$$\text{Where } c = cy - sc - rp \quad (2)$$

In the above equations cy , sc , rp and i respectively represent the convenience of storing raw material (availability of oil if supply is interrupted), the cost of holding raw material, the risk of holding raw material and the rate of interest.

There will be no changes in the demand and supply of oil when equation 2 holds.

Combining equations 1 and 2 gives equation 3, which can be estimated.

$$\begin{aligned} -\theta(g - \bar{g}) + E(\Delta p) + c &= i \\ g - \bar{g} &= -\left(\frac{1}{\theta}\right)(i - E(\Delta p) - c) \end{aligned} \quad (3)$$

In equation 3 the deviation of real oil prices from their equilibrium value is function of a constant c and the real rate of interest.

When real interest rates are high like 1980s, capital moves toward bonds causing downward pressure on commodity prices (oil prices). The downward pressure continues until investors think that oil prices have reached the bottom and are expected to rise in the future. Conversely, when real interest rates are low such as early 2000s, speculators purchase oil thus, causing upward pressure on oil prices. The rising oil price continues until investors are convinced that it is are too high and expect it to fall in the future. Accordingly, oil price and global real interest rates move in the opposite direction.

Equation 3 is valid for large economies such as United States and Japan that can influence global oil prices. With a slight changes equation 3 can be modified for small economies.

Assume that the world consists of US and country j . The logarithm of the price of oil in terms of the currency of country j is presented in equation 4.

$$S_j = S_{(j/\$)} + S_{(\$ / c)} \quad (4)$$

In equation 4 $\frac{s_j}{\$}$ and $\frac{s_s}{c}$ respectively, represent the exchange rate of country j in terms of US dollar and the market price of oil in US dollar which will be shown simply by s. The real exchange rate between US dollar and the currency of country j is represented in equation 5.

$$(s_{(j/\$)} - \bar{s}_{(j/\$)}) - (p_j - \bar{p}_j) + (p_s - \bar{p}_s) = \left(\frac{1}{v}\right)(i_j - i_s - [E(\Delta p_j) - E(\Delta p_s)]) \quad (5)$$

Combining equations 3, 4 and 5 yields equation 6.

$$\begin{aligned} (s_{(j/c)} - \bar{s}_{(j/c)}) &= (s_{(j/\$)} - \bar{s}_{(j/\$)}) + (s_{(\$ / c)} - \bar{s}_{(\$ / c)}) \\ &= (p_j - \bar{p}_j) - \left(\frac{1}{v}\right)(i_j - i_s) - [E(\Delta p_j) - E(\Delta p_s)] - \frac{1}{\theta}(i_s - E(\Delta p_s) - c). \\ (g_{(j/c)} - \bar{g}_{(j/c)}) &= -\left(\frac{1}{v}\right)(r_j - r_s) - \left(\frac{1}{\theta}\right)(r_s - c) \end{aligned} \quad (6)$$

Frankel (2005) argues that in inflation targeting when import prices rise the exchange rate appreciates because the central bank attempts to control inflation by exercising tight monetary policy.

Targeting commodity prices or oil prices in countries that export commodities or oil, will preserve the beneficial features of the floating exchange rate. In this system when export prices fall the exchange rate depreciates and when import prices rise the exchange rate will not appreciate.

equation 6 r_s and r_j are interest

rates in the United States and country j respectively. In the above equation, the deviation of real oil prices from its equilibrium value is a function of the interest rate differential and the US rate of interest. Equation 6 is estimated for all of the oil and major commodity producing countries.

Sources of Data and Statistical Results

All of the data used in this study are monthly time series that were collected from the IMF International *Financial Statistics* CD Rom. The sample periods of series are based on the availability of data in the CD Rom during the decades of 1980s and 1990s until 2003. The price level for all of the countries is the consumer price index. The interest rates for all of the countries are money market rates. The consumer price indices for Australia and New Zealand were quarterly series that were converted to monthly series using E-views software. All of the exchange rates are against the US dollar.

Several studies such as Goodwin and Grenns (1994) and Chin and Frankel (1995) have demonstrated that real interest rates are not stationary. The "t" statistics in the regressions that include non-stationary series are biased. The bias is due to the over time rising variances of non-stationary series.

Dickey, Jensen and Thornton (1991) showed that several non-stationary time series may be co-integrated together. If so, in the long run these series approach an equilibrium. In other words, co-integrated series may move in different directions but in the end, economic forces move these series towards the equilibrium. Accordingly, the variances of co-integrated series do not rise over time and the “t” statistics in the regression including these series can be reliable.

The OLS regression results of equation 6 are presented in Table 2. In these results, the dependent and independent variables for Iran, Saudi Arabia and Venezuela are not co-integrated. However, the variables in the other 7 regressions are co-integrated and the “t” statistics are reliable.

Table 2 Regression Results

| Country | US real interest rate | Interest differential rate | Sample period |
|----------------------|-----------------------|----------------------------|------------------|
| Australia | -0.02 (-2.09) | -0.01 (-2.51) | 1980.1 – 2003.12 |
| United Arab Emirates | -0.16 (-5.38) | 1.52 (-2.32) | 1991.1 – 2003.12 |
| Iran | -0.22 (-4.19) | -0.28 (-0.17) | 1987.1 – 2003.12 |
| Bahrain | -0.06 (-5.03) | -0.06 (-7.45) | 1985.7 – 2001.9 |
| New Zealand | -0.11 (-5.79) | -0.03 (-1.99) | 1991.1 – 2003.12 |
| Saudi Arabia | -0.12 | 0.16 | 1997.1 – 2003.12 |

| | | | |
|-----------|------------------|-------------------|------------------|
| | (-7.02) | (4.2) | |
| Canada | -0.29 (-3.20) | -0.03 (-6.25) | 1985.1 – 2003.12 |
| Kuwait | -0.07 (-4.77) | -0.03 (-1.99) | 1993.1 – 2003.12 |
| Norway | -0.03 (-2.31) | -0.01 (-0.097) | 1991.1 – 2003.12 |
| Venezuela | -0.13 (-4.88) | -0.003 (-0.93) | 1996.1 – 2003.12 |

The dependent variable is the real price of commodities for Australia, Canada and New Zealand and the real price of oil for the other countries. The values in brackets are “t” statistics. Due to the unavailability of data on interest rates for Iran and the United Arab Emirates, the difference between the growths of money supply in these countries the growth of money supply in the United States was included in the regression.

In Table 2 all of the coefficients of US real rate of interest are negative and significant. For most of the countries, the coefficients of interest rate differentials are negative and significant. The coefficients of interest rate differentials for Iran and Saudi Arabia obtained wrong signs. Generally the regression results indicate that the commodity prices, including oil, and the global monetary policy (indicated by the US interest rate) move in the opposite direction. When monetary policy in the United States is relaxed, world’s interest rates fall leading to a rise in oil prices. Conversely, oil prices fall when US interest rates tend to rise. Rising oil prices in the 1990s and the 2000s when global interest rates were falling are in support of the empirical results of this study.

6. Summary and Concluding Remarks

The empirical results of this study indicate that commodity prices are useful indicator of the direction of monetary policy. Accordingly, commodity prices are important variables when central banks of commodity producing countries conduct monetary policy. In other words like the exchange rate, the interest rate, the share prices and the real estate prices, commodity prices may also provide useful information for monetary authorities.

Currently, Britain, Chile, Australia, Brazil, Norway, South Korea, and South Africa use inflation targeting as a framework for conducting monetary policy. Inflation targeting commenced in the early 1990s when countries such as Britain, Mexico and Argentina had trouble in targeting the exchange rate. In inflation targeting as a measure of price level consumer price (CPI) index is used. Because of excessive fluctuations, CPI excludes commodity prices. The empirical results of this study suggest that the central banks should consider the export price index along with the CPI. For example, the price of oil in oil exporting countries, the price of wheat in Canada, the prices of wool and coal in Australia and the price of gold in South Africa should provide useful information for monetary authorities. Targeting domestic currency price of the major export preserves the response of the flexible exchange to an adverse external. Faced with a negative export or import shock, implementation of an expansionary monetary policy reduces interest rates, the exchange rate depreciates, which reduces the adverse effects of the shock on economic activity. This beneficial outcome is not possible when inflation targeting is the monetary policy strategy.

Some argue that the current recession in the United States was partly due to the tight monetary policy and appreciation of the US dollar that occurred in the late 2006 and early 2007. An expansionary policy would have been conducted if the US Federal Reserve Bank at that time had considered rising oil prices. The resulting falling interest rates and a weaker US dollar would have been more helpful to mortgage borrowers and the overall economic activity.

The main argument of this study is to suggest that when conducting monetary policy central banks should consider commodity prices and not to rely only on inflation targeting.

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