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Review

Is intervention effective after all?

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This study examines the effectiveness of direct official intervention in terms of whether the intervention by the Central Bank in the foreign-exchange market does offer effective or lasting instruments for exchange rates. The study is confirmatory research since it offers a descriptive survey of the impact of the Central Bank's intervention on exchange rates across several economies. The paper makes key contributions to the existing literature by reviewing the past records of intervention in advanced and emerging market economies in different countries, and in doing so, it provides empirical evidence as support. The main findings reveal that the Central Bank's intervention is rather effective. However, in most cases, monetary authorities try to intervene less and less as they believe in the use of market mechanism as the determinant for exchange rates. Even though the strongest intervention on money markets was made in developed countries through money expansion, only in some countries where the financial markets are thin and small is there the need for more frequent intervention. It can be concluded that the Central Bank's intervention aim to calm the disorderly market and smooth out volatility. The effect of intervention is more promising both when it is accompanied by monetary policies and when it is coordinated.

Key words: Intervention, effectiveness, foreign exchange rates.

INTRODUCTION

Until very recently, economists have not reached a consensus as to whether the intervention by the Central Bank in the foreign-exchange market does offer effective or lasting instruments to determine exchange rates. Intervention can influence foreign-exchange rates mainly through two possible channels (Dominguez and Frankel, 1993). The first is the portfolio channel, which considers foreign and domestic bonds imperfect substitutes in investor portfolios, and it predicts that a change in the relative supply of foreign and domestic assets under sterilized intervention will require a change in expected relative returns. On the other hand, in the second channel, called the expectation or signaling channel, public information about Central Bank intervention in the exchange rate market makes speculators expect the change in the price of currency. The two channels offer different ways in which the intervention can be effective. In the portfolio balance model, traders do not need to observe intervention or signal in order for it to be effective. Only the actual intervention operation that changes composition of domestic relative to foreign assets in trader's portfolios can influence exchange rates. However, the expectation channel does require the Central Bank's credibility in order for the intervention to influence exchange rates. As long as the information signaled through intervention is relevant and credible, it can potentially influence exchange rates (Dominguez and Panthaki, 2007).

The purpose of this study is to examine the effectiveness of direct official intervention by reviewing the records of the past episodes of intervention in advanced and emerging market economies. The analysis will be supported by evidence based on theoretical and empirical research. This study is expected to provide suggestive proposals on economic policies, which will ultimately contribute to the effectiveness of the government's intervention to target the level of exchange rates.

OFFICIAL INTERVENTION

Direct/indirect intervention

In a pure floating exchange rate system, the exchange rate is determined by the private market demand for and

supply of a particular currency. Generally, The Central Bank can supply more local currency on the market, having no objective criterion to determine how much liquidity should be introduced into the system. The Central Banks sometimes also take actions to either raise or lower the exchange rate leading to the semi-regular regime referred to as managed or dirty float. There are two methods the Central Bank can use to affect exchange rates: Direct and indirect intervention. Using the indirect method, the Central Bank raises or lowers the exchange rate through domestic money supply change.

With respect to direct intervention, which is also the focus of this study, official intervention in foreign exchange market involves purchases or sales of foreign currencies, usually in the spot market, with the intention to move the exchange rate of the domestic currency relative to foreign currencies. When authorities purchase foreign currency with domestic currency, they increase commercial bank reserves and domestic money balances, with the intended effect of depreciating domestic currency. When the authorities sell foreign currency, they reduce commercial bank reserves and hence domestic money balance, with the intended effect of appreciating the domestic currency. The only difference between the direct and indirect effects is the timing and sustainability of the operation. While the direct effect occurs immediately, the indirect effect may take some time to work through the money supply and interest rates.

Motives for intervention

Central Banks intervene in the foreign exchange market in order to achieve a variety of economic objectives. They target the level of exchange rates, dampen exchange rate volatility or influence the amount of foreign reserves (Moreno, 2005). There are several significant reasons why officials have to target the level of exchange rates. Firstly, Central Banks target exchange rates to achieve external balance or enhance competitiveness and boost growth. The exchange rate targets have been used to prevent exchange rate misalignment and achieve external equilibrium. According to Marshall (1923), Lerner (1944) and Stern (1973), this equilibrium obtain by using depreciation is weak and depends on the elasticity of exports and imports demand and offer. From time to time, the goal has been to prevent real exchange rate appreciation and large current account deficits, and finally the officials target the level of exchange rate to prevent a crisis.

The second motive for Central Bank operations in the foreign exchange market is to influence the level of foreign exchange reserves. While some countries try to accumulate the reserves, others sought to reduce them. Three considerations guiding the policy are exchange rate impact, market friendliness, and costs and benefits. In contrast to other goals of Central Banks' participation in the foreign exchange market which mainly focuses on maximizing the exchange rate impact, Central Banks' goal in influencing the amount of reserves is to minimize the impact on exchange rates. In addition, Central Banks' policies to adjust foreign reserves have to be market friendly as government market operation can impair foreign exchange market development. The size of Central Bank presence in the foreign exchange market can discourage private sector participation and price discovery. Lastly, the consideration in any decision affecting the level of reserves is the marginal costs of an additional dollar of reserves against the marginal benefits. Currently, there are no available cross-country studies comparing marginal costs with marginal benefits of foreign reserve accumulation. However, recent measures to reduce foreign reserve holdings and to limit foreign reserve growth suggest that in some Latin American countries, the costs of holding additional foreign reserves exceed the benefits. In contrast, a number of Asian countries with much higher foreign reserve levels do not appear to consider a reduction in reserve holdings a priority (Aizenman and Marion, 2004).

Sterilized/non-sterilized intervention

It is important to note that there are two types of official intervention: Sterilized and non-sterilized. When Central Banks use non-sterilized intervention directly in foreign exchange market, their operation changes domestic money supply. This change in money supply affects interest rates and price levels in the short-run and inflation in the long-run. Since the Central Banks usually aim for economic goals of maintaining appropriate interest rates, low unemployment rate and GDP growth, non-sterilized direct intervention often imposes conflicts on the macroeconomic policies.

Channels and tactics of influence

According to Archer (2005), there are 4 channels to influence the foreign exchange market including monetary policy channel, portfolio balance channel, signaling or expectation channels, and order flow channel. The monetary policy channel bases the influence on the relationship between domestic and foreign interest rates. Changes in real interest rate differentials caused by monetary actions tend to move exchange rates especially when it is unanticipated. But since the focus of this paper is on sterilized direct foreign exchange intervention aiming at neutralizing the money base, the monetary policy channel is inapt for the study. Portfolio balance channel postulates that foreign and domestic bonds are considered imperfect substitutes in

investor portfolios. Viewed from the perspective of a representative investor in an international portfolio of assets, a change in relative scarcity of domestic versus foreign currency assets will cause a portfolio reallocation that changes relative prices in the process and one type of the relative price changes might be exchange rates. It is predicted that changes in relative supply of foreign and domestic assets under sterilized intervention will require a change in expected relative returns (Dominguez and Frankel, 2003).

Even though domestic and foreign assets are imperfect substitutes, the intervention can be effective through signaling or expectation channel (Lim and Harper, 1991). With this channel, intervention influences the exchange rate because it changes perceptions of market participant about the future. Perception can be about future relative scarcities, future income streams, risks, and can change price levels without a single transaction taking place. Some signaling discussions concentrate on signals of future monetary policy, and there is evidence that it is through the changes in anticipation of future monetary policies that the exchange rates are influenced.

The last channel of influence, the order flow or microstructure channel is based on the idea that there is a relationship between the order flow and subsequent price action that is different from the relationship between the trading volume and price action, and the relationship has better predictive qualities than the relationship between news releases on conventional fundamentals and subsequent price actions. In this channel, Central Banks can alter the order flow with their own orders. If market professionals react more powerfully to the change in the order flow pattern that is presumed to originate from commercial entities rather than the Central Banks, anonymous and secret interventions may be more powerful (Archer, 2005). Under this mechanism, the size of intervention relative to market turnover is important, thereby suggesting that this channel is more effective in economies where markets are less liquid and Central Banks have better access to information on the flows (Ho and McCauley, 2003).

Choice of markets and instruments

According to Canales-Kriljenko (2003), eighty three percent of intervention in emerging market economies was conducted in the spot market with transaction onshore and in wholesale market. Figure 1 shows the result of BIS 2005 survey on the choice of market for intervention. Most Central Banks intervene in their own time zone during normal business hours in order to be transacting when the market is at the deepest and at its most liquid level. Other research suggested that one of the most powerful channels of influence is to use market friction to engineer an outside price response. With these frictions, small intervention can be large in scale when assessed in terms of the relationship between order flow and daily risk-bearing capacity. Once a price reaction had been engineered, achieving persistence requires repeat interventions, extrapolative dynamics, and change in market views as to the relevance of economic fundamentals (Archer, 2005).

Effectiveness of intervention

Portfolio and expectation channels offer different paths for the intervention to be effective. In the portfolio balance model, traders do not need to observe intervention or signal in order for it to be effective. Only an actual intervention operation that changes the composition of domestic relative to foreign assets in trader's portfolios can influence exchange rate. As aforementioned, Central Banks can affect the monetary base through open-market operations only when domestic and foreign currency bonds are imperfect substitutes in investors' portfolio. Under perfect substitutability, the capital-account-offset to domestic credit measures is immediate and complete, provided there are no lags in portfolio adjustment (Obstfeld, 1982). Therefore, sterilized intervention, as it amounts to an exchange of domestic assets for foreign assets in the balance sheet of Central Banks, has its effectiveness depending on how closely foreign and domestic assets substitute for one another in the portfolios of private investors (Lim and Harper, 1991).

Whether the intervention is effective depends on many factors (Schwartz, 2000). One of them is the fact that economist do not have a firm grasp on the time lags associated with the forces that determine movements in the exchange rates. Other factors are differences in expected real returns to investment and expected productivity growth, changes in current account balance, and changes in capital account. Thus, even unsterilized intervention, given the brevity of the intervals during which it occurs, and the uncertainty of the time lags on its effects, does not assure that the Central Bank will achieve its exchange rate aim.

It is very difficult to assess the success or failure of foreign exchange intervention on a few counts. First, it is difficult to distinguish whether the movements of exchange rates reflect intervention or changes in fundamentals that led to them. Moreover, it is very difficult to determine the timing of market response to a foreign exchange intervention because it is difficult to determine the extent to which the market anticipates it. If the intervention is anticipated, the speculators will respond to its anticipated impact before it actually occurs. Alternatively, if the market is uncertain about the magnitude of intervention, its response might be delayed until the true magnitude is revealed. And finally, it is difficult to tell whether exchange rates move because of an intervention

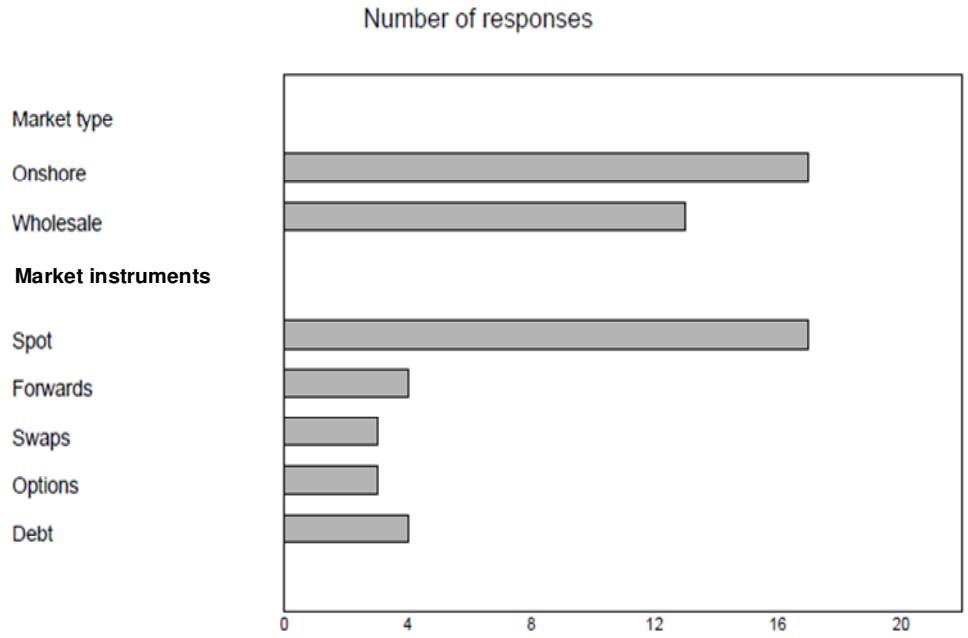

Figure 1. Market for intervention. Source: BIS report (2005).

or because the fundamental changes such as good economic news and better future prospect investment opportunities (Spiegel, 2003).

RECORD OF INTERVENTION

In this part, the records of past episodes and empirical researches are reviewed to evaluate the effectiveness of official intervention in different countries.

U.S. and industrialized economies

Starting in 1973 after the collapse of the Bretton woods when many countries moved toward a floating exchange rate system, American and other monetary authorities regarded intervention as an important policy tool. Until 1974, interventions were coordinated among the U.S. Federal Reserve, the Bundesbank, and Swiss National bank sporadically to assure orderly exchange arrangements and to promote a stable system of exchange rate but in the late 1980s, the coordination included the Bank of Japan and the objectives of intervention were to counter the decline in the U.S. dollar. In 1981, apart from to offset disorderly markets, the aim of intervention was to cushion the rise in the dollar and to acquire hard currencies so as to pay off swap debts. The authorities bought the Deutsche mark, Swiss franc, and French franc, more than doubling their foreign currency assets. During the 1981 and 1986 period, after the election of President Reagan, the government still continued to print dollars and it could be seen as the intervention on whole markets including foreign exchange market, but the authorities claimed to maintain a hands-off approach and the U.S. intervention in the exchange market was minimal. The Reagan administration halted the exchange market operation and intervened once later only to calm the disorderly market (Humpage, 1994). The period from 1987 to 1995 was marked by coordinated Central Bank intervention. In 1993, the action was limited to the yen, with alternating sales and purchases. Thereafter, the U.S. and other Central Banks appeared to passively accept the market's verdict on exchange values with the exception only on Japan who continued until recently to intervene by buying and selling yen.

Mexico

The monetary authorities of Mexico floated the peso in 1994 after it became evident that the pegged exchange rate against the U.S. dollar was untenable. Even with the fear of analysts that the floating regime would bring additional volatility and undermine economic stabilization policy, the Banco de Mexico was convinced that the float can discourage short-term capital flows and can be a useful indicator of both market perceptions and of inflationary pressure to guide monetary policies. The Banco de Mexico emphasized two main principles:

1. Not to interfere with the normal functioning of the market, and
2. To foster the development of the market through the

creation of new instruments and by encouraging the entrance of new participants.

These strategies are based on the belief that a foreign exchange market is able to function properly. Intervention by the Central Bank had relied exclusively on either indirect means, by keeping large public sector players away from the market to achieve more competitive outcomes or automatic schemes, oriented to stabilizing markets and managing the stock of international reserve. It is mostly a rule-based intervention following transparent schemes aiming to provide a level playing field for all market participants (Sidaoui, 2005).

Argentina

Until December 2001, Argentina had used a currency board system and the role of the Central Bank was to exchange pesos and U.S. dollar. Since the end of the currency board system in early 2002, Central Bank had intervened in the exchange market regularly with the objective to stabilize exchange rates and reduce its volatility. According to Arigoyen (2005), the interventions were accompanied by an increasing exchange rate control, regulations, and information requirements. It has had both short-term and sustained effects while allowing Argentina to meet an adequate level of volatility and keep inflation rate within its forecast band.

Chile

After the encounter of recessions associated with exchange rate rigidity, Chile moved gradually to a floating exchange rate regime. Chile reserved the right to intervene when it adopted the floating regime in 1999. But in country like Chile, with bad experiences in severe external turmoil, too often intervention is dangerous and had proven to be very costly. And since the float was implemented in accordance with the development of the financial markets, intervention in Chile is rare and comes only in extreme circumstances. Moreover, moving toward the float is the next step to accommodate flexibility in exchange rate targeting, making the inflation target more credible and the economy more resilient to external shock (Gregorio and R, 2005).

Peru

Financial dollarization is a key characteristic to consider in designing and implementing policies in Peru. The Central Bank of Peru intervenes into the foreign exchange market to moderate excessive exchange rate volatility. To be consistent with inflation targeting and free capital mobility policies, exchange rates need to be flexible in order to allow the Central Bank to implement an independent monetary policy that aims at attaining its inflation target. Although the dollarization increases the vulnerability of economy, it seems to made foreign exchange intervention less difficult. In Peru, the intervention has been small and not pre-announced but when there are interventions in the market, the media put special emphasis on the amount of intervention making it as relevant as a signal of the strength of decision to smooth volatility. Thus, the influences are basically through the expectation channel. Portfolio balance channel influences are effective only when there are anticipated one-time portfolio currency movements (Armus, 2005).

Poland

Poland had adopted nearly all possible exchange rate regimes, moving from fix peg to pure float. At the beginning, the policy was aimed at stabilizing the economy. The transition period is characterized by shallow financial markets and fragile real sector. So the policy was aimed at protecting the real sector from a shock appreciation of the domestic currency with sterilized foreign exchange intervention a main tool. But as the financial market developed, foreign exchange interventions appeared to be less and less effective (Pruski and Szpunar, 2005).

Korea

The Korean exchange rate system had been shifted from a fixed to a flexible one over two or three decades. The floating exchange rate system was adopted in 1997 after the currency crisis. Along with the change in the exchange rate system, inflation targeting was chosen as Korea's monetary policy framework. With its thin foreign exchange market, Korea faces the possibility of severe exchange rate volatility caused by various external shock resulted from global economic environment. Thus, foreign exchange intervention by authorities had been a main instrument in achieving foreign exchange market stabilization with the objectives to mitigate short-term exchange rate volatility, stabilize the foreign exchange market, pre-emp speculative attacks, and to acquire foreign exchange reserves rather than to maintain a certain exchange rate target. Like other countries, Korea sterilizes changes in its domestic supply brought about by foreign exchange market intervention. The intervention is known to be effective in the short-run through the signaling channel, portfolio balance channel, and noised trading channel with the signaling channel being the most effective one because the credibility of the Central Bank

is considered to be good (Rhee and Lee, 2005).

Indonesia

The foreign exchange market in Indonesia had moved toward market mechanism. After the free floating in 1997, the Bank of Indonesia implemented several policies taking into account factors such as market liquidity conditions, transaction turnover, and market psychology to maintain exchange rate stability. Supply and demand conditions in foreign currency market are always taken into account. Intervention had been used primary as liquidity management tool and at the same time it stabilizes rupiah volatility especially during rapid depreciation. As evidenced in the Bank Indonesia's report in 2005, the volatility of rupiah has diminished since the free floating was implemented suggesting the effectiveness of intervention. Reduced rupiah volatility is positive for the economy in general.

Thailand

Since 1997 when Thailand adopted a managed-float exchange rate regime, the Bank of Thailand manages the exchange rate by intervening in the foreign exchange market from time to time to prevent excessive volatilities in the markets. It is stated by the Bank of Thailand that for a small economy with openness to trade and capital flows like Thailand, movement in exchange rates can have a significant impact on the economy particularly on inflation and GDP. Therefore, intervention is needed to smooth out excess volatility and disorderly movement. As intervention and sterilization are necessary tools under inflation targeting framework with a managed-float exchange rate system, the Central Bank conducts open market operation to equilibrate bank's reserves supply and demand (Financial Markets Operation Group, BOT, 2005).

RESEARCH FINDINGS

Economists have been continuously engaged in Research to evaluate the success of official intervention. For instance, research of Friedman (1982) confirmed that the Federal Reserve, the Central Bank of the United States should adopt and implement the eight-point policy in order to produce a more stable monetary environment, and it would also help to eliminate inflation. Moreover other studies consist of observations based on when a currency is depreciating and when it is appreciating, and they range from testing portfolio balance effect to signaling or expectation effect using the traditional as well as new methodology. Dominguez and Frankel (1993) examine the effect of intervention by regression estimation. In contrast to the previous research studies which focus on the relationship between level of exchange rate and the supplies of domestic and foreign assets, their work takes the independent variable to be the differentials in expected rates of the return between domestic and foreign assets and uses ex post changes in exchange rate to measure investors' expectation. By assuming that investors choose their portfolio allocation to optimize a function of mean and variance of ending period wealth, their findings generally support the effectiveness of intervention through portfolio balance and expectation channels. Humpage (1999) tests the success of intervention and uses logit model to explain how various aspects of intervention affect its success. Aspects of consideration include the amount of intervention, monetary policy, and coordination as well as intervention announcement. The paper addresses the shortcoming of prior studies by seeking to understand the near term relationship, taking into account the simultaneity between intervention and exchange rates. It is found that intervention has value only as a forecast that the recent currency movement would dampen, implying the success of leaning against the wind. Further, the paper finds coordination to increases probability of success and when changes in monetary policy target intervention, the success seems certain. Fatum and Hutchison (2002)'s and Fatum and Hutchison (2003)'s reports on the effectiveness of intervention, using daily data from Bundes Bank, the Bank of Japan, the European Central Bank, and the Federal Reserve, find official intervention to be effective when used selectively and directed toward short-term objectives.

The relationship between Central Bank intervention and exchange rate volatility is examined by McKenzie (2004) with Australian evidence. The returns to exchange rate are regressed on the intervention dummy variables. The paper suggests that exchange rate volatility, as proxied by GARCH model is one factor entering into the intervention decision making process and the purchases and sales of foreign exchange by central bank have significant influence on both unconditional variance and the component of variance. The conditional variance on the day of intervention was significantly different compared to days on which no intervention occurred.

With regard to signaling effects of intervention, intervention is said to signal a change in monetary policy. Signal activates a response by the private sector to move exchange rates in the direction that monetary authorities seek. The view is supported by Dominguez and Frankel (1993) who find a strong positive relationship between reported interventions and expectations measured by the exchange rate survey data. Hopkins and Murphy (1997) examine information effects of intervention over short time frames using regression of daily changes in spot rate of the Australian dollar against amount of intervention. In addition, the paper replicates the work of Dominguez and Frankel (1993) partly in examining the effects of newspaper reports concerning the official exchange rate policies by regressing

changes in exchange rates based on policy announcement, intervention report, and secret intervention. The results indicate that information content of interventions is a major factor in the success of intervention policy. As with some other studies, they also use regression estimation with dependent and independent variables being a return on exchange rate, intervention indicator, and intervention news respectively. Together with this evidence, they examine the role of order flow in exchange rate determination. In theory, there is no reason for the order flow to rise in reaction to the news because the efficient market price is assumed to simultaneously adjust itself. However, it is found that prices are slow to adjust and the order flow has some explanatory power. Actual interventions and intervention news can explain only very small fraction of the variation in order flow. In general, research on signaling mostly find coordinated intervention to be more effective than unilateral intervention as market participants interpret policy coordination as a sign of credible commitment. However, Central Bank loses credibility when it signals the policy and does not intend to implement (Schwartz, 2000).

Other research studies base their study on difference data frequency. They emphasize on episodic approach and intraday currency movement. By dividing episodes into official purchase and sales of foreign exchange, official purchase against the German Mark or Japanese yen, and the market context prior to the intervention, Fatum and Hutchison (2003) test whether reversals in the direction of exchange rate are random or systematic and use matched-sample means to test whether there is significant shift in exchange rate change between prior and post event period. However, they find strong evidence that intervention affects exchange rates. The same methodology is applied later in Fatum (2000) to a different sample. This study confirms the evidence of effectiveness in terms of systematic association between exchange rate levels and intervention. The latter study includes logit estimation to examine the success of coordinated intervention and found that coordinated intervention is more likely to be associated with a success and that the first day of intervention in an event or cluster of daily interventions is more likely to be successful. In 2003, episodes or event study was conducted by Hutchison (2003) using several criteria of success. He identified 24 of 34 intervention episodes by bank of Japan as successful. As a support for Humpage (1999), Hutchison (2003) found intervention supported by Central Bank interest rate change and intervention coordination to have larger impact.

In contrast, when Fatum and King (2004) use high frequency data set to test the effectiveness of intervention on exchange rate during 1995 and 1998 but control for currency co-movements of CAD/USD exchange rate against the U.S. dollar, the findings find no significant impact of intervention. According to them, one of the possible reasons is that intervention by the Bank of Canada in the study is unilateral instead of coordinated one. However, Fatum and King (2005) find intervention to have a systematic impact on exchange rate volatility when aggregating intervention operations at the daily level. There is evidence that intervention was associated with changes in direction and smoothing of exchange rate. However, the effects are weakened when controlling for currency co-movements, against the USD, suggesting that controlling for currency co-movements is important in assessing the effectiveness of intervention.

ANALYSIS

Although conventional academic wisdom holds that sterilized interventions have little impact on the exchange rate and are a waste of time and of the government's foreign exchange reserves because domestic interest rate is usually considered the main determinant for the value of domestic currency and it must change in order to influence the exchange rate, it is suggested to be more effective than commonly believed (Hutchison, 2003).

From the record of intervention, however, there is little indication that the lasting change in foreign exchange market had resulted from the intervention to calm disorderly markets in the advanced countries but there was evidence that the authorities belief intervention had weakened. By 1999, U.S. foreign currency balances had fallen signifying that intervention was less desirable than before. In addition, the European Central Bank ignored the depreciation of the euro since its being launched in 1999 and the Bank of England also had not intervened despite the strong pound (Schwartz, 2000). On the other hand, Japan sought to weaken yen by sterilized purchase of dollars with the fear that the strong yen would threaten exports and reverse stock market gains. However, the strong yen had neither weakened as a result of intervention nor undermined exports. The demand for Japan's exports appears to depend more on how well its export market than on the exchange rate of the yen. But the interventions were satisfactorily effective, in general, in emerging countries although the transition toward floating exchange rate regime marks authority's belief in market mechanism. Mexico floated the peso and relied on indirect intervention only when it is necessary while Argentina Chile and Peru intervene rarely to meet adequate level of volatility. As fluctuation in exchange rate cause instability in business sector, international trade and foreign investment, Central Banks in many countries intervene to smooth the market and protect fragile business sectors.

A survey by Disyatat and Galeti (2005) argues in support that intervention in industrial countries is more likely to influence exchange rates through the expectations

channel signaling future monetary policies than through the portfolio balance channel. The effects of portfolio balance channel in these advance countries are weak because typical intervention transactions are very small relative to the stock of outstanding assets. In addition, the degree of substitutability between domestic and foreign assets in these countries is relatively high. On the other hand, the portfolio balance channel is more effective in emerging markets because they are more likely to have large reserve portfolios relative to local foreign exchange market turnover or the stock of domestic bond outstanding. In contrast, the signaling channel is likely to be weaker in emerging market economies as the Central Banks have shorter history of institutional and policy credibility than industrial economies. However, it is unclear whether the ability of the Central Bank to convey policy signals is more or less effective in emerging market countries.

The research findings demonstrate the effective of intervention in many cases including the advanced countries where the belief had been weaken. Most studies use regression analysis to test the effects of intervention on exchange rates or changes in exchange rates and their volatility. In short, the intervention does affect exchange rates and if supported by a policy on interest rate change, the intervention will have larger impact. The likelihood of success is greater when intervention is coordinated and when the volume of intervention is larger. Previous studies employ various methods and types of data in testing the effectiveness of intervention. Intervention is found to be more effective in the signaling channel than in portfolio balance channel and a strong relationship is found between reported intervention and expectation. Intervention news has significant influence on high-frequency, intra-day, and daily exchange rate as well as volatility. In addition, Mihaljek (2005) supports the idea by adding that with regard to the effectiveness of intervention in meeting different objectives, intervention to calm the disorderly market is mostly effective primarily because it helps relief a liquidity shortage that accompanies episodes of excessive exchange rate volatility due to shallow foreign exchange markets. Several studies in the context of industrial countries have found evidence that foreign exchange intervention might be more effective in influencing exchange rates at a shorter time horizon than a longer horizon.

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