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TOWARDS AN INFLATION TARGETING FRAMEWORK FOR SURINAME

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ABSTRACT

In several countries the adoption of an inflation targeting regime has resulted in an improvement of monetary policy effectiveness in terms of anchoring inflation expectations. The improvement is not only reflected in stable prices and higher economic growth but also in enhanced policy transparency and accountability. Even though inflation targeting is generally associated with freely floating exchange rate regimes, it can also be conducted in conjunction with intermediate exchange rate regimes under the condition that, in situations of conflict, priority is given to the inflation target over the exchange rate target. This paper examines the feasibility of introducing inflation targeting as a new monetary policy framework in Suriname, given the fact that the country currently has a *de facto* adjustable peg regime.

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1. Introduction

There is broad consensus that the primary goal of a central bank is price stability. To achieve this primary goal, central banks use monetary policy and monetary policy instruments. Since the 1970s intermediate targeting systems are used to carry out monetary policy, whereby a monetary aggregate is set as a main intermediate target to achieve an ultimate goal, usually price stability, economic growth, balance of payment equilibrium or high employment. Difficulties in conducting monetary policy using a monetary aggregate, however, arose due to rapid innovations and liberalizations in the advanced financial markets over the years. These developments in the financial markets destabilized the relationship between the monetary aggregates and the macroeconomic goals, causing a reduction in the effectiveness of this method of conducting monetary policy (Oh, 2000). In order to improve the effectiveness of monetary policy, many central banks have implemented or are moving towards an inflation targeting (IT) framework.

An inflation targeting framework involves the public announcement of medium-term numerical targets for inflation with an institutional commitment by the monetary authority to achieve these targets (International Monetary Fund, 2006). This framework for monetary policy is generally associated with a free floating exchange rate regime and a certain degree of independence, transparency and accountability of the central bank in conducting monetary policy.

Most IT countries[1] experienced more stable prices and higher economic growth, reduced public expectations of inflation after the introduction of an inflation targeting framework (Oh, 2000). Over the past fifteen years, a number of Latin American emerging market economies, such as Brazil, Chile, Mexico and Colombia, have adopted and implemented inflation targeting, as a framework for policymaking, combined with flexibility in the exchange rate (Torrejón-Flores, 2009). It is found that these economies obtained better short-term macroeconomic results and higher medium-term economic growth compared to other Latin American countries without an inflation targeting regime. With regard to enhance the monetary policy framework of Suriname the possibility of introducing inflation targeting as a new monetary policy is examined, given the fact that the country currently has a de facto adjustable peg regime.

[1]New Zealand, Canada, U.K., Israel, Sweden, Finland, Australia, Spain, Chili, Brazil, the Czech Republic, and South Korea.

In section 2 the literature on the evolution of inflation targeting is reviewed. Section 3 describes the necessary pre-conditions for implementing an inflation targeting framework. In section 4 the monetary policy framework in Suriname is discussed, while in section 5 the process towards as well as the feasibility of the implementation of an inflation targeting framework is described. Section 6 presents the conclusion of this study.

2. Literature Review

Inflation targeting leads us back to the reasoning of Irvin Fisher and John Maynard Keynes. Fisher (1920) made the first attempt to target prices. His thought was that the price level in terms of paper money would stay fixed in a compensated dollar system, in which the gold content in paper money would differ with the price of goods in terms of gold.
In order to keep the internal prices more or less stable, Keynes (1924) suggested a policy of exchange rate flexibility in which the currency had to be appreciated as a response to international inflation. On the other hand the currency had to be depreciated when there were international deflationary forces.

In the past decades monetary policy strategies, such as monetary targeting and exchange rate targeting, were used to stabilize the price level. Difficulties in conducting monetary policy using a monetary aggregate or the exchange rate as a main intermediate target, led some industrialized countries to implement a new monetary policy framework. This new framework was adopted in 1990 by New Zealand, and was based on achieving a specific target for inflation. In the early 1990s first industrialized countries adopted inflation targeting. However, since the late 1990s, an increasing number of emerging markets and developing economies have adopted this framework. At the start of 2012, some 27 central banks were considered full-fledged inflation targeters, and several others were in the process of establishing a full inflation-targeting regime (Hammond, 2012).

According to Bernanke (1999) inflation targeting is a framework for monetary policy characterized by the public announcement of official quantitative targets (or target ranges) for the inflation rate over one or more time horizons, and by explicit acknowledgement that low, stable inflation is monetary policy's long-run goal. Among other important features of inflation targeting are vigorous efforts to communicate with the public about the plans and objectives of the monetary authorities,

and, in many cases, mechanisms that strengthen the central bank's accountability for attaining those objectives. Oh (2000) states that inflation targeting is a forward-looking system in which monetary policy is implemented using the short-term interest rate as an operating target, without an explicitly selected intermediate target.

Mishkin (2000a) extracted a number of features from this definition, which are typical of inflation targeting. This monetary policy strategy encompasses five main elements:

1. The public announcement of medium-term numerical targets for inflation;
2. An institutional commitment to price stability as the primary goal of monetary policy, to which other goals are subordinated;
3. An information-inclusive strategy in which many variables, and not just monetary aggregates or the exchange rate, are used for deciding the setting of policy instruments;
4. Increased transparency of the monetary policy strategy through communication with the public and the markets about the plans, objectives, and decisions of the monetary authorities;
5. Increased accountability of the central bank for attaining its inflation objectives.

The list should clarify one crucial point about inflation targeting: it entails *much more* than a public announcement of numerical targets for inflation for the year ahead. This is important in the context of emerging market countries because many of them routinely reported numerical inflation targets or objectives as part of the government's economic plan for the coming year, and yet their monetary policy strategy should not be characterized as inflation targeting, which requires the other four elements for it to be sustainable over the medium term.

Svensson (2000) added two elements to this framework. First, the target can be described as a point target, with a band in which the rate of inflation can move, or a target interval. Second, a policy procedure is usually introduced with inflation targeting, namely 'inflation-forecast targeting', whereby a conditional inflation predictor is used as an intermediate variable.

Brenner and Sokoler (2006) argue that a credible monetary policy aimed at inflation targets should be conducted in a free floating exchange rate regime. It is generally agreed on that a credible inflation targeting regime requires a considerable degree of exchange rate flexibility (Masson, Savastano & Sharma, 1997; Fischer, 2001). Many countries, including inflation targeters, use interest rate or currency intervention to influence their exchange rates (Brenner & Sokoler, 2006).

In the past two decades many countries have sought for a way to improve their monetary and inflation performance. As policymakers moved towards more flexible exchange rate regimes, in many cases, they also adopted an inflation targeting framework. With regard to the expectations in the economy, central bank transparency, accountability and credibility are important aspects when implementing an inflation targeting framework.

Garcia-Solanes and Torrejon-Flores (2005) analyzed the extent to which inflation targeting has improved the macroeconomic performance in a group of Latin-American countries. It was found that inflation targeting goes along with lower levels of inflation and short-run interest rates and have contributed to GDP growth, while having flexible exchange rates provide a bonus in economic growth (Garcia-Solanes & Torrejon-Flores, 2009). Inflation targeting developing countries managed to bring inflation to lower and more stable levels and experienced higher and more stable GDP growth (Abo-Zaid & Tuzemen, 2010). In addition to this, fiscal imbalances are significantly reduced when countries target inflation.

Commonly, inflation targeting countries adopt a free floating exchange rate regime when implementing an inflation targeting framework. Leiderman et al (2006) found that highly financially dollarized economies can successfully implement inflation targeting, whereby some role is given to exchange rate smoothing. This under the condition that intervention does not aim at targeting a certain level or trend for the real or nominal exchange rate. Accordingly, Roger et al (2009) state that some degree of exchange rate smoothing can be beneficial to financially vulnerable emerging markets because of the impact that exchange rate movements have on the inflation level. However, Goldstein (2002) argued that the exchange rate smoothing has to have a clear secondary role and the primary objective of monetary policy has to be the inflation target. Within this context Miskin and Savastano (2000) emphasized the appearance of multiple objectives of monetary policy as insufficient clarity on the relative importance of each of these objectives could leave the system without a clear anchor and undermine its credibility.

With regard to independence, experience show that central bank independence increases the effectiveness of monetary policy. Besides this, several empirical studies found a negative relationship between central bank independence and inflation rates (Oh, 2000). Empirical studies such as Cukierman et al (1992) and Fischer (1994) also conclude that greater central bank independence is associated with lower levels of inflation because political and economic

dependence restrict the ability of the central bank to select its policy objectives free from government influence. Both argue that these countries need to develop monetary policy instruments and financial markets and avoid government intervention in the market, which will enhance the effectiveness of the transmission mechanism of monetary policy.

With regard to the importance of expectations central bank transparency, accountability and credibility are important aspects in an inflation targeting framework. An essential element for a transparent central bank is communication (Adhin, 2004). In his study, Caldas (2005) found that central bank communications can serve as an instrument of the central bank, as communications influence expectations for the future short-term interest rates and, therefore, financial market prices. These prices can, in turn, affect some macroeconomic variables, such as inflation and output (Caldas, 2012).

3. Inflation Targeting Framework

Inflation targeting is not only focusing on inflation, but also on improvement of the accountability and transparency of monetary policy. The target is the desired inflation level and this may be reflected as a point target or as a band target. In the case of point target, monetary policy aims at or near a specific inflation level. In the case of band target it is possible to change the inflation target, without losing credibility (Kvasnicka, 2000).

Inflation targeting distinguishes strict inflation targeting from flexible inflation targeting. Strict inflation targeting implies that the central bank adjusts monetary conditions such that the inflation projection hits the target at the shortest possible horizon.

Flexible inflation targeting means that monetary conditions are set less tight, so that the inflation projection hits the inflation target at a longer horizon (2-3 years) (Svensson, 1997).

Within the inflation targeting framework the consumer price index (CPI)[2] or the core inflation[3] can be used as the target indicator.

[2] CPI measures the price level of a market basket of consumer goods and services purchased by households.

[3] A measure of inflation that excludes certain items namely energy and food that face volatile price movements.

Necessary pre-conditions for inflation targeting

According to Oh (2000) there are some necessary conditions for the implementation of an inflation targeting framework:

1. Independent central bank

Several empirical studies have shown that a higher level of central bank independence coincides with a lower of level of inflation. Central banks with low level independence are not able to choose policy objectives, without the influence of the government. Political dependence leads to low credibility of the central bank.

2. Capacity to forecast inflation

Inflation targeting is a forward-looking and preventive framework based on mid-term forecasts of inflation as the explicit objective. At this, monetary policy is implemented using a short-term interest rate as an operating target, to meet the future forecast inflation with the selected inflation target. Accordingly, a proper forecast of inflation is essential within this policy framework.

3. Verifiable monetary policy instruments regarding intermediary targets

Verifiability is imperative for the central bank to use convenient policy instruments for achieving short-term objectives. In this regard, the interest rate channel can be used as a smoothing mechanism. The central bank estimates a target inflation rate and then attempts to steer actual inflation towards that target, using tools as interest rate changes. The interest channel would be a verifiable intermediate target within the inflation targeting framework. Verifiability also contributes to policy transparency.

4. Transparency, consistency and credibility of monetary policy

Transparency and consistency are important to reinforce credibility of monetary policy. Authorities responsible for conducting monetary policy are publicly held accountable for their decisions. This increases the incentives to achieve the inflation target.

5. Effective interest channel on prices

An effective interest channel is important within an inflation targeting framework, because the short-term interest is used as an implicit intermediate target. A change in the short-term interest rate

can affect the market interest rate. This change also affects the expenditures i.e. the aggregate demand in the economy. The changes in the aggregate demand, in turn affect the price level (Cevis, 2009).

6. Well-developed financial markets

It is important that the fiscal authorities ensure that the deficits in the government budget are such that the financial markets can finance those, without creating a significant pressure on the interest rates or without creating a situation of crowding out. It is therefore essential to have well-developed financial markets with a sufficient supply of credit.

7. Flexible exchange rate regime

It is very important that monetary authorities should not directly aim at other policy indicators, such as the level of wages, employment or the exchange rate. A country that opts for example, a fixed exchange rate system, subordinates the monetary policy to the exchange rate system. The risk is that if an inflation targeting regime is performed in combination with a fixed exchange regime, the priority is given to the exchange rate regime rather than the inflation target, in times of conflict. Nevertheless, in theory an inflation targeting policy can be conducted in conjunction with an exchange rate policy, whereby a variant of a fixed exchange rate system, for example an adjustable peg, is used. This under the condition that in situations of conflict, the central bank must give priority to the inflation targeting policy and this should also be reflected in their actions (Leiderman & Svensson, 1995).

The ideal situation to implement inflation targeting is when all the above mentioned pre-conditions are in place. However, central bank independence and well-developed financial markets are the crucial ones. The first one is due to a negative correlation between central bank independence and inflation, while the second pre-condition is because of the importance of sufficient liquidity in the credit market.

<u>Advantages of inflation targeting</u>

Monetary policy actions impact central bank target variables with a lag. Therefore it is more effective to execute monetary policy when it is pursued by forecasts. Since inflation targeting is a forecasting framework, it can be used to perform effective monetary policy (Mishkin, 2009).

Monetary authorities should hereby use all available information to determine the best settings for monetary policy (Mishkin, 2000b). This policy ensures the possibility to reduce political pressures on the central banks.

Inflation targeting is highly transparent and therefore relatively easily understandable for the public. Transparent and regular communication with the public is of the utmost importance. Through regular communication with the public the central bank is able to explain the goals and the limitations of monetary policy, the numerical values of inflation targets and how those targets were set. These communications will inform the public about the way of achieving the inflation targets given the current economic conditions, as well as the reasons for any deviations from the target (Mishkin, 2009).

Inflation targeting central banks regularly communicate with the government, because they are mandated by law to do so or simply in response to informal inquiries. Central bank officials take every opportunity to make public speeches on the monetary policy strategy. This strategy is also used by non-inflation targeting central banks, but inflation targeting central banks have taken this procedure a step further by distributing special inflation reports (Mishkin, 2009).

Research in several inflation targeting countries revealed that communication in an inflation targeting economy have improved private sector planning by reducing uncertainty about monetary policy, interest rates, and inflation. Communication also promotes public debate of monetary policy, especially by educating the public about what a central bank can and cannot achieve (Mishkin, 2009).

Disadvantages of inflation targeting

Monetary policy has long lags, which means that inflation outcomes are revealed only after a substantial lag. An inflation target is ineffective in sending immediate signals to both the public and markets about the stance of monetary policy.

Inflation targeting requires rigid rules on policymakers and limits their ability to respond to unseen circumstances.

Another disadvantage is that the sole focus on inflation may lead to too tight monetary policy in times when the inflation is above the target, which may lead to larger output fluctuations.

The fact that inflation targeting will lead to low growth in output and employment is another common concern regarding this framework (Mishkin, 2009).

4. Monetary Policy Framework in Suriname

The Bank Act of 1956 sets out the basis for the conduct of monetary policy in Suriname. Two main duties of the Central Bank of Suriname (hereafter mentioned as 'the Bank') are to maintain the value of the Surinamese currency and to promote a balanced socioeconomic development. The Bank can best perform these duties by maintaining low and stable inflation. Since the Bank's inception in April 1957, monetary policy has been primarily geared towards targeting the credit supply of commercial banks explicitly and the exchange rate implicitly to attain price and exchange rate stability. To date, the Bank has employed credit ceilings, reserve requirements, discount window, foreign exchange market intervention, moral suasion and to a lesser extent open market type operations as monetary policy tools. This section describes the monetary policy framework of Suriname in more detail.

Reserve requirements for local currency

The credit ceiling[4], used since 1968 as the main tool for conducting monetary policy, was replaced by the reserve requirement in 2001, as part of the in 1997 introduced reform program[5]. The aim of the replacement was to regain trust in the local currency and to prevent local currency depreciation (inflation), whereby a balanced government financial policy was set as a precondition (Centrale Bank van Suriname, 2002). Since May 2001, the Bank uses the reserve requirement and the discount window as its main instruments of monetary policy. The macroeconomic conditions (see Table 1) are, of course, of crucial importance for the monetary policy stance.

[4] Credit ceilings were placed on incremental domestic lending by commercial banks.
[5]This reform program focused on the recovery and modernization of the financial sector, the Bank would effectively supervise the financial system

Table 1: **Selected macroeconomic indicators**

Year	End of the year Inflation (%)	US$ Exchange Rate (SRD)	GDP Growth (%)	Fiscal Balance (in % of GDP)
2001	4.9	2.20	4.2	3.4
2002	28.4	2.55	2.8	-5.6
2003	14.1	2.65	6.3	1.4
2004	9.1	2.75	8.5	-2.5
2005	15.8	2.78	4.5	-1.2
2006	4.7	2.78	5.8	1.5
2007	8.3	2.78	5.1	4.3
2008	9.4	2.78	4.1	1.5
2009	1.3	2.78	3.0	0.8
2010	10.3	2.78	4.1	-2.9
2011	15.3	3.35	4.7	-1.9
2012	4.3	3.35	4.5	-2.8

Source: Central Bank of Suriname

The reserve requirement implies that the commercial banks are required to maintain a fraction of their deposit liabilities in a non-interest earning cash reserve account with the Bank. The cash reserve is determined on the basis of the reserve base, which comprises checking-accounts, saving deposits, (fixed) time deposits and other monetary liabilities of the commercial banks (Centrale Bank van Suriname, 2002). The reserve ratio is based on a uniform ratio for all participating banks and is updated or reconfirmed annually (Centrale Bank van Suriname, 2002). The banks' compliance with the reserve requirements is monitored on a weekly basis. Commercial banks can use the discount window of the Bank if they are unable to meet the reserve requirement.

The main reason for the introduction of the reserve requirement policy is to exert influence on the liquidity in the economy. The reserve requirement influences the liquidity in the economy through the money multiplier. It is generally accepted that the imposition of unremunerated reserve requirement impacts the spread between deposit and credit interest rates by financial intermediaries (primarily commercial banks) which incur opportunity costs (see Table 2). Of course, the reserve requirement is not the only factor that influences the spread. Banks need to target a profit, and therefore need to cover overheads and the cost of capital. In markets where there is substantial excess liquidity, the central bank should therefore not expect interest rates to respond significantly

to changes in reserve requirement until the point at which excess liquidity is substantially drained from the system (Gray, 2011).

Table 2: **Selected local currency indicators**

Year	Lending Rate (%)	Interest Margin (%)	Reserve Requirement (%)
2001	23.5	12.4	27.5
2002	21.1	12.9	35.0
2003	20.8	12.5	35.0
2004	19.0	11.0	32.5
2005	16.3	9.6	30.0
2006	15.3	8.7	27.0
2007	12.9	6.6	25.0
2008	11.7	5.3	25.0
2009	11.6	5.4	25.0
2010	11.8	5.6	25.0
2011	11.7	5.2	25.0
2012	11.8	4.8	25.0

Source: Central Bank of Suriname

It is noteworthy that in the period 2005-2012 the interest margins decreased as a combined result of the lowered reserve requirements, excess liquidity and money illusion. The latter is especially apparent after the devaluation of 2011 when interest rates remained stable.

Reserve requirements for foreign currency

According to Fritz-Krockow (2005) Suriname has exceeded the regional trend toward dollarization (see Table 3). Dollarization began with the deregulation process in the early 90s and accelerated during the near hyper-inflation episodes in the 1990s. In June 1992, residents were allowed to open and maintain foreign currency deposits at commercial banks and, in July 1995, to receive foreign currency loans from commercial banks. Dollarization accelerated in particular during the near hyper-inflation episode in 1999, when the central bank's ceilings on private sector credit in local currency and the loss of confidence in the currency prompted commercial banks to discourage domestic currency deposits and to revert to foreign currency lending (Fritz-Krockow, 2005). It is noteworthy that Suriname, due to geographical and historical reasons, is dollarized in two currencies, namely the U.S.dollar and the euro.

Table 3: **Financial Dollarization**

Year	Deposit Dollarization (%)	Credit Dollarization (%)
2001	51.3	40.0
2002	49.8	44.2
2003	56.0	47.9
2004	58.1	53.6
2005	56.8	49.4
2006	56.9	52.5
2007	56.3	49.4
2008	54.6	45.7
2009	53.8	41.0
2010	51.1	37.4
2011	56.5	40.5
2012	52.4	41.7

Source: Central Bank of Suriname

The dollarization in the economy made the financial system vulnerable as the CBvS could not function as the lender of last resort for the dollarization component of the financial intermediation (Fritz-Krockow, 2005). For liquidity and prudential purposes the Bank introduced the reserve requirement on foreign currency deposits in February 2003. With a view to promote the stability of the value of the local currency and eliminate the gap between the treatment of domestic and foreign currency deposits (Fritz-Krockow, 2005), the CBvS on one hand gradually lowered the reserve requirements on domestic currency deposits and on the other hand gradually increased the reserve requirements on foreign currency (see Table 4).

Table 4: **Selected foreign currency indicators**

Year	Lending Rate (%)	Interest Margin (%)	Reserve Requirement (%)
2001	12.0	10.3	-
2002	10.2	8.4	-
2003	9.2	7.3	17.5
2004	9.5	7.8	22.5
2005	9.8	7.1	33.3
2006	9.8	7.0	33.3
2007	9.7	6.6	33.3
2008	9.5	6.5	33.3
2009	9.5	6.6	33.3
2010	9.3	6.6	33.3
2011	9.5	6.9	40.0
2012	9.6	7.0	40.0

Source: Central Bank of Suriname

With regard to the reserve requirements on foreign currency deposits there is a uniform ratio for all participating banks, which are required to hold these reserves in a deposit account at a foreign bank with an A-rating from Standard & Poor's or an equivalent from a similar rating institute. In January 2006 the commercial banks were allowed to invest a part of their reserves in highly liquid negotiable bonds, under the condition of a written approval of the Bank. These securities must come from issuers with a high credit rating. The reserve requirement on foreign currency deposits is determined on a weekly basis by the Bank, as a result of which the banks are allowed to charge their specific accounts abroad accordingly. The reserve ratio for foreign currency is updated or reconfirmed annually (Centrale Bank van Suriname, 2007).

In Suriname, most (77%) of the lending in foreign currency is in the U.S. dollar. A simple data inspection shows that despite the gradual increase in the foreign currency reserve requirement there was a gradual decrease in the foreign currency interest rate margin of the commercial banks. The average commercial bank U.S.dollar deposit rate was 1.7% in 2004 and 2.6%, in 2012, while the average commercial bank U.S.dollar lending rate amounted 12% in 2004 and 9.6% in 2012. The increase in the foreign currency reserve requirement marginally impacted the interest rates of the commercial banks. The explanation for the credit expansion in U.S.dollar may lie in the realm of

local banks that compete among themselves and their attempt to offset the 'cost of funds' with the interest received on their foreign currency deposits abroad, thereby keeping the lending rate of the U.S.dollar low. Another explanation may be that in the period 2003 - 2012 the lending rate of the foreign currency averaged around 9.5% while the lending rate of the local currency was averaging around 14.5%, making it more attractive for the private sector to borrow in foreign currency.

As of 2004, the economy of Suriname grew steadily, the exchange rate was stabilized and inflation was contained. In line with these favorable macroeconomic developments, the Bank gradually lowered the reserve ratio of local currency deposits from 35% in 2003 to 25% as of 2007 to accommodate the demand for credit and to foster economic growth. As of February 2004, the Bank set up a financing facility from part of the required reserves for residential housing. The main objective of this facility is to bring private residential construction at affordable interest rates within the reach of mid-income groups, and thus help alleviate the housing problem (Central Bank of Suriname, 2007). The funding of this housing facility from the required reserves implied that the reserve ratio on domestic currency deposits was effectively lower than 25%. As of 2003, the Bank also applied reserve requirements on foreign currency deposits for prudential and liquidity purposes. The required reserve ratio was initially set at 17.5% and subsequently increased three times to 40% in 2011 to reduce the incentive for dollarization.

It can be concluded that the adjustments of the reserve ratio and hence the use of the reserve requirement as a policy tool mainly occurred in response to the monetary developments and does have an impact on the banks' lending in local currency and therefore on the liquidity level in the economy. This holds to a lesser extend for the reserve requirement on foreign currency deposits.

Exchange rate policy

In Suriname price stability is closely linked to exchange rate stability because of its small size and high degree of openness. Terms-of-trade shocks directly affect the exchange rate. In fact, the exchange rate pass-through to the domestic price level occurs in two stages (Warsosemito, 2010). In the first stage, large swings in the exchange rate are almost instantaneously reflected in prices of imported intermediate and consumer goods. In the second stage these price changes are passed through the domestically produced goods and services. For this reason, the Bank has the tendency to use the exchange rate as a nominal anchor for preserving price stability.

For a prolonged period until 1994, Suriname pegged its currency to the U.S. dollar at Sf 1.80 per U.S.dollar. Between mid-1992 and 1994, the Bank practiced a multiple exchange rate system as a transitory phase towards a single market-determined exchange rate system. As of 1994, Suriname has a *de jure* managed floating system, but the Bank employs *de facto* and adjustable peg system.

In preventing the exchange rate from deviating too far from the target band and keeping the exchange rate on a desired level, the CBvS intervenes in the banks-cambios market. In 2007, the Bank started with currency repros; a facility for commercial banks as a means to cover their short position on foreign currency (Fritz-Krockow, 2009). The *de facto* exchange rate system allows large spreads between the official and the banks rate. Whenever there have been persistent spreads between the two rates, it's to discretion of the authorities to adjust the official exchange rate (Fritz-Krockow, 2009), which happened in January 2011 when there was a devaluation of 20%. Since then, foreign exchange market interventions are employed to maintain the exchange rate at the level of SRD 3.35 per U.S.dollar.

5. Feasibility of Adopting Inflation Targeting

As stated in section 3 there are some pre-conditions to adopt an inflation targeting framework. This section examines the feasibility of adopting an inflation targeting framework in Suriname, whereby the fundamental steps as well as the prerequisites that need to be in place for the implementation are discussed, given a *de facto* adjustable peg regime of Suriname.

The case for the adoption of an inflation targeting framework begins with the assumption that the main goal of monetary policy must be to attain and preserve a low and stable rate of inflation in the long-term. With regard to the implementation the core inflation can be used as the target point indicator. As food and energy prices are very volatile within our CPI, core inflation is a better measurement compared to the CPI (Ramdat Tewarie, 2012).

An assessment of the current economic situation in relation to necessary pre-conditions for implementing an inflation targeting framework in Suriname revealed the following:

1. Independent central bank

The Central Bank of Suriname operates in the political sphere as a result of which its independence in conducting monetary policy can be limited. In addition, the Bank is also obliged to comply with the Bank Act of 1956. With regard to the conduction of an inflation targeting policy, the Bank should have a considerable degree on four forms of independence namely (Oemrawsingh, 2004):

1. *Institutional independence*: the government is not allowed to sanction the monetary decisions of the Bank;
2. *Functional independence*: the Bank has unlimited power of disposal of the monetary instruments;
3. *Personal independence*: decision-making bodies can act independently;
4. *Budgetary independence:* autonomy of the Bank with respect to the Government regarding the determination of the Bank's budget.

The revision of the Bank Act in 2005, has strengthened the institutional, the functional and personal independence of the Central Bank. With regard to the budgetary independence, nothing has changed as the Bank has always been autonomous in this area.

In order to increase the effectiveness of monetary policy of the Central Bank of Suriname, it is important that the quantification of policy objectives of the Bank is established by law. The changes in the legislation, with regard to the decision-making on monetary and interest rate policy, will give the Central Bank of Suriname more authority and lead them to focus mainly on the objective of price stability.

Even though the revision of the Bank Act brought a stop to fiscal domination, direct borrowing of the public sector from the Central Bank of Suriname and the local commercial banks must be reduced or terminated. The government of Suriname should impose more fiscal discipline on one hand, while on the other hand the development of the domestic financial market can be a source for the government to cover its deficits.

2. Capacity to forecast inflation

As inflation targeting policy is a forward-looking operating procedure, it is necessary to forecast domestic inflation. In 1996 the Central Bank of Suriname commenced with systematic economic modeling. With its macro model, important macroeconomic variables including the inflation rate are being forecasted. In addition to this, the Bank has an inflation monitor to forecast inflation on a monthly basis. Nevertheless, technical and institutional capacity needs to be enhanced to upgrade

this model. In addition, research needs to be done on several subjects, such as: an estimate of the time it takes for the determinants of inflation to have their full effect on the inflation rate; in what way the monetary impulses affect the macroeconomic variables; the relative effectiveness of the policy tools of the Bank.

With regard to implementation of inflation targeting as a tool for monetary policy, it can be concluded that although the Central Bank of Suriname has the capacity to forecast inflation, additional information is needed on the above mentioned subjects.

3. Verifiable monetary policy instruments regarding intermediary targets

As for now the Bank does not meet this precondition. The Bank does not target interest rates within its current monetary policy framework.

4. Transparency, consistency and credibility of monetary policy

In an inflation targeting framework, transparency of policy should be seen as a means to achieve a desired inflation target. The transparency policy of the Central Bank of Suriname is appropriate, but could be enhanced even further. The Bank provides information through its website (data, metadata, semi-annual and annual reports, a statistical compendium, a country profile) and press releases such as Central Bank Affairs.

In practice the Bank should inform the public with background information regarding their policy decisions, as far as possible. An essential element for a transparent central bank is communication with the public. Communication can occur through publications of reports, statistics and analysis, as well as organizing speeches and presentations, press conferences and interviews. The importance of the central bank communication lies in the ability to prevent misinterpretation of information and to influence market expectations in order to achieve the inflation target. In enhancing the transparency and credibility of monetary policy the Bank needs to write an Inflation Report or Monetary Policy Report containing the forecast of inflation and output growth over the coming years. This is not yet the case in Suriname.

Autonomy of policymaking of the Bank is a prerequisite for transparency. It can increase the effectiveness of monetary policy and is crucial to price stability. Autonomy of policymaking primarily relates to ensuring legal independence as well as operational independence of the Central Bank of Suriname. The legal independence can be secured when the Governor of the Bank is the chairman of the Monetary Policy Committee. The Central Bank of Suriname has to set a goal or an

(intermediate) inflation target for a specific period in consultation with the Government, after which the Bank independently formulates and declares/annunciate an operation plan for monetary policy. The direction of the monthly monetary policy needs to be decided by the Monetary Policy Committee and will be implemented by the Bank. In this way the operational independence of the Bank is secured.

5. Effective interest channel on prices

As for now the Bank does not meet this precondition. Interest rates are market determined, but are known to react with a long lag to price changes.

6. Well-developed financial markets

Another important condition for performing an inflation targeting policy is a well-developed local financial market. In this context, it is the intention of the Bank to carry out open market operations in the secondary market with Treasury bills. Via open market operations the Bank can attempt to influence the short-term interest rate and thus the liquidity in the economy. Within the conduct of the inflation targeting framework the Bank will use the short-term interest rate as an intermediate target for achieving price stability. Development of the local financial and capital market could absorb the government deficits whereby the advances from the Bank to the government can be reduced or terminated. Hence, this can positively impact the independence of the Central Bank of Suriname. Suriname is in the early stages of money market development (Fritz-Krockow, 2009). The planning is to start auctioning T-bills in the near future.

7. Flexible exchange rate regime

Low exchange rate flexibility and financial dollarization could to a certain extent have an impact on the implementation of an inflation targeting framework. Implementation of an inflation targeting framework is generally accompanied by a free floating exchange rate regime. Suriname has a *de jure* managed floating system, but the Bank employs *de facto* an adjustable peg system, whereby the market rate is allowed to fluctuate beyond the official exchange rate. The official exchange rate is defended through foreign exchange market interventions. With regard to the implementation of an inflation targeting framework the Bank has to make a switch to a *de facto* free floating exchange rate system.

The Bank can intervene in the foreign currency markets to limit exchange rate volatility as long as priority is given to the inflation target. To avoid damage to its credibility, the Bank should refrain from making strong commitments about the expected level of the nominal exchange rate.
There is a certain level of dollarization in the economy of Suriname, which has an impact on the level of the exchange rate. Consequently, improvement of liquidity management for the foreign currency, such as the use of a higher reserve requirement on U.S.dollar deposits can have a positive impact on liquidity.

The adoption of inflation targeting as a new framework for monetary policy should be seen in the context of improving the current monetary policy strategy of the Bank. This improvement is associated with a forward-looking operating procedure whereby the policy instruments will be utilized pro-actively in order to achieve the Bank's price stability objective. From a practical point of view, based on the abovementioned pre-conditions needed for a successful implementation, the adoption of inflation targeting as a new monetary policy framework for Suriname is not feasible in the short-run. However, this framework can be adopted after establishing a well-developed financial market. The Central Bank of Suriname could then enhance the implemented framework and stabilize the level of inflation in the long-run.

6. Conclusion

The implementation of an inflation targeting framework requires necessary pre-conditions. The most important pre-conditions, namely central bank independence and a well-developed financial market, are essential in order to implement an inflation targeting framework. In 2005 the Central Bank gained operational independence, while the financial markets are still underdeveloped. As a result, the government still needs to borrow from the Central Bank and the commercial banks, although within legal limits. Efforts are underway to develop an auctioning system to facilitate the trade in treasury bills. This will then enable open market operations in the future. Therefore the introduction of an inflation targeting framework in conjunction with a *de facto* adjustable peg exchange rate regime in Suriname is not feasible in the short run.

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