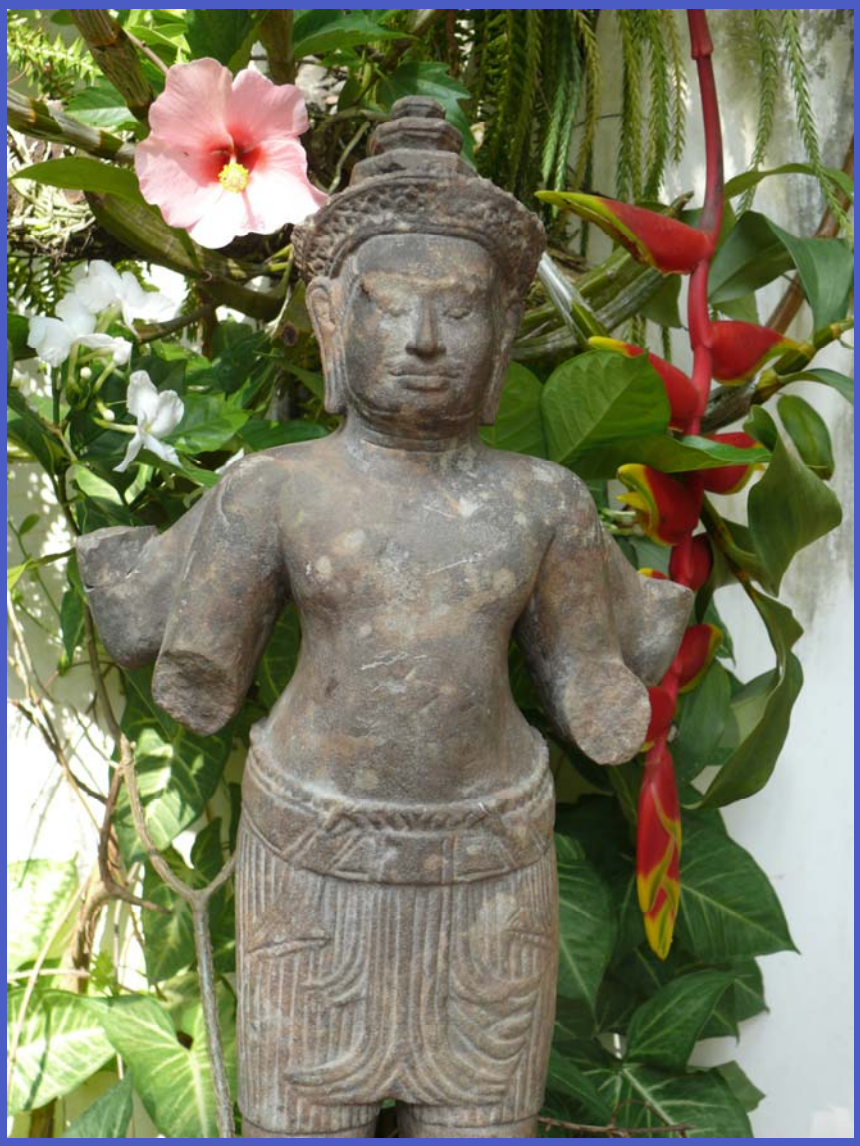
THREE ESSAYS ON MACROECONOMIC MANAGEMENT OF CAMBODIA



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The front page photo is Vishnu—*the Preserver of the Universe*— in the Bakong style, 9th century, purchased by SNEC in February 2008 and donated to the National Museum on 17th March 2008.

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Preface

Cambodia's recent macroeconomic performance in terms of low inflation, high fiscal discipline and maintenance of a stable exchange rate has sparked the interest of researchers and policy analysts who are curious to know more about the techniques of macroeconomic management of Cambodia. It was felt that the time was appropriate that an insider should present an overview of the methods and techniques of macroeconomic management in Cambodia. This paper attempts such an overview.

The paper contains a set of three essays covering areas which are central to Cambodia's macroeconomic management. The first essay is a discussion of Cambodia's dollarization, its implications for monetary and fiscal policies. The second deals with monetary management which is primarily the function of the central bank, the National Bank of Cambodia (NBC). The third deals with budget and fiscal management, which is primarily the function of the Ministry of Economy and Finance (MEF). All the essays are closely linked. Dollarization of the economy has severely constrained the use of monetary policy in Cambodia. As a consequence fiscal policy is the only potent macroeconomic policy lever available to the government to influence economic outcomes in the country. It is hoped that the paper will provide useful information to the researchers and public at large on the systems of macroeconomic management in Cambodia and spark constructive debates on how to improve it.

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Hang Chuon Naron

Part I
Dollarization and Macroeconomic Policies in Cambodia

1. Dollarization in Cambodia

There is an overwhelming literature on the issue of dollarization (see, for instance, Belino, Bennett and Borensztein, 1999; Berg and Borensztein 2000a and 2000b; Bogetic, 2000; Calvo and Vegh, 1992; and Ortiz, 1983; and the references therein) for obvious reasons.

Dollarization is manifested in many ways in different economies. Economic literature on dollarization uses different terms to describe this phenomenon: dollarization, official dollarization, unofficial dollarization, semi-official dollarization, full dollarization, currency substitution, asset substitution etc.

Ortiz (1983) defined *dollarization* as the degree to which real and financial transactions are performed in dollars relative to those performed in domestic currency. This definition of dollarization pointed out the use of U.S. dollars as the medium of exchange in an economy other than the U.S.

According to Calvo and Vegh (1992), *currency substitution* is the use of cash foreign currency and of foreign currency deposits only as a medium of exchange in domestic economy. McKinnon (1996) went further to distinguish between *currency substitution* and *asset substitution*, as the two motives for the demand for foreign-currency-denominated assets, thus emphasizing the use of dollars as the medium of exchange (currency substitution) and the store of value (asset substitution).

There is also a body of literature, for example a study by the Supreme National Economic Council (SNEC, 2002) and De Zamaroczy and Sa (2002), that reviewed the costs and benefits of dollarization. But very few studies have focused on the relationship between dollarization and monetary and fiscal policies. Therefore, in view of the above considerations, the aim of these essays is to fill this gap by investigating the implication of dollarization on fiscal and monetary policies of Cambodia.

Within the Cambodian context, dollarization can be defined as the use of the US dollar in any of the three functions of money in an economy other than US: unit of account, medium of exchange and, in particular, store of value. More generally the term currency substitution refers to the use of a foreign currency other than the domestic currency as a means of exchange in the domestic economy. The term dollarization is used to specifically to describe the currency regime in Cambodia where the US dollar is the dominant currency in circulation not withstanding the availability of the local currency, the riel.

Dollarization occurs in several ways. Partial dollarization occurs when people hold a portion of their financial wealth in foreign assets. This is equivalent to "asset substitution". In some cases, currency substitution occurs, even if the foreign currency is not considered legal tender. This is called unofficial dollarization. Wages, taxes, and everyday expenses continue to be paid in domestic currency, but expensive items are often paid in foreign currency.

Semiofficial dollarization occurs when the economy has a *de facto* bi-monetary system. Under this system, foreign currency is legal tender and dominates bank deposits, but plays a secondary role to domestic currency in paying wages and taxes. Semiofficial dollarized economies such as Cambodia maintain a central bank or other monetary authority and have some flexibility to conduct monetary policy.

Official dollarization, also called full dollarization, occurs when foreign currency has exclusive or predominant status as full legal tender. That means not only is foreign currency legal for use in contracts between private parties, but the government also uses it in domestic transactions. Domestic currency may still exist, but its monetary role is minor.

Currency substitution arises when high and variable inflation rates discourage the use of the domestic currency. Asset substitution can also result from the flight from the domestic currency as people turn to foreign currency denominated assets as a store of value. Moreover, in recent years, dollarization has become more prevalent in some countries because of institutional changes, particularly capital account liberalization, have facilitated it. Hence, the increase in foreign currency assets in recent years is a consequence of portfolio decisions under stable macroeconomic conditions and is not necessarily a flight from the domestic currency.

Against the backdrop of continued large flows of foreign assistance and private transfers, high-inflation environment and political uncertainty, the dollarization of the Cambodian economy started in the early 1990s. In the initial stage dollarization emerged in the Cambodian economy largely due to the loss of confidence by the public in the riel, hyperinflation and the rapid loss of purchasing power of rthe domestic currency. However, this economic phenomenon has persisted even with improved macroeconomic performance in the last decades. The increase in broad money has essentially resulted from a buildup in foreign assets, which itself stemmed from a rise in foreign currency deposits.

At present, Cambodia is a highly dollarized economy, with 97.8% of the bank assets held in US dollars. The trends will not be reversed soon. As late as in 2006 the bank deposits in riel increased only by 26%, while the deposits in US dollars increased by 46%. The foreign currency deposits to total deposits ratio has crept up from 84.3% in 1993 to reach 97% in 2006. Thus, only 3 percent of bank deposits and 5 percent of bank loans were denominated in Cambodian riel.

The Cambodian economy is a highly but fully dollarized. However the actual amount of dollars and other foreign currencies in Cambodia outside the banking system is unknown (although it is generally assumed that foreign currency makes up about ninety percent of the total bills in circulation). Vietnamese dong and Thai baht are also widely used in the provinces bordering the two countries. However the US dollar commands the largest share of currencies in use in Cambodia.

This paper attempts to contribute to the understanding of interaction between dollarization and macroeconomic management of Cambodia.

2. Dollarization and Macroeconomic Policies

In some ways dollarization has promoted the stability and development of the financial sector but has severely limited the scope of monetary policy in macroeconomic management and as a tool to promote growth. The balance sheet of costs and benefits of dollarization is presented below.

2.1. Dollarization and Monetary Policy

Dollarization has had a major influence on the development of the financial sector in the Cambodian economy. In particular the following benefits of dollarization have contributed to financial sector development:

- ***Stability and protection against exchange rate risks*** – in a highly dollarized economy, the bulk of trade-related and large financial transactions are settled in dollars. This has reduced the risk of currency devaluation. The transaction demand for riel is low and the market for it small with little scope for speculative gains. The riel has therefore remained very stable with average annual depreciation against the dollar of approximately one percent for the three year period ended 2005. As a result the pass-through effect of higher import prices on inflation has been limited;

- ***Protection against currency crisis*** – since there is no pressure to defend the exchange rate the risk of balance of payment crises and vulnerability to contagion is greatly reduced and the need for the national currency in order to cool demand across the board through domestic price adjustments. However, this option is not available in a highly dollarized economy. Adjustments can only be made in the specific goods and factors markets;

- ***Loss of an effective monetary policy*** – another major cost is losing flexibility in monetary policy. The central bank, the NBC, cannot in any significant way influence foreign currency component of broad money and determine the money supply. The money supply depends on the behavior of agents holding both dollar and riel-denominated assets. A fully dollarized economy therefore has no choice but to adopt the monetary policy of the issuing country. This has led to what is called asymmetric shocks (Calvo, 1999);

- ***Losing the central bank as lender of last resort***. Dollarization does not eliminate the risk of a banking crisis. During a banking crisis, the central bank should function as a lender of last resort to the commercial banks by providing advance or credit lines to solvent but not liquid commercial banks. Dollarization prevents the monetary authorities from providing short-term liquidity to the banking system to address the liquidity crunch. The use of dollars by the commercial banks in their transactions undermines the ability of the central bank in guaranteeing the payment system and the bank deposits. The central bank cannot inject the riel into a system dominated by dollars. One solution is to arrange for lines of credit from foreign banks. However this can be costly even if available. Another alternative is for the central bank to accumulate foreign exchange reserves and along with the treasury, establish a stabilization fund, which can be used to counter bank runs. Thus, the NBC cannot develop strong instruments of monetary policy and its role of lender of last resort for banks facing liquidity

problems is greatly constrained. The only policy instrument available for the central bank is the use international reserves to lend to the commercial banks. This may not be sustainable if the crisis extends over a long period.

2.2. Dollarization and Fiscal Policy

Dollarization can have the following implications on fiscal and economic policies:

- ***Promoting budget discipline*** – dollarization fosters budgetary discipline. While it will not eliminate budget deficits, these will be financed through fairly transparent methods of foreign financing, higher taxes or more government debt. Thus, dollarization has promoted awareness by policymakers of the need to avoid bank financing of public deficits, which could lead to spiraling inflation. Bank financing of the budget deficit, i.e. the borrowing by the government from the central bank to finance budget deficit would drastically increase the riel-denominated money supply, which immediately impact the money market, thus affecting the demand and supply of US dollars. Exchange rate fluctuations can occur through this channel. Therefore, dollarization requires the government to ensure budget discipline and to resort to financing budget deficits only through grants or concessional loans, i.e. external borrowing on concessional terms (both provided mainly in US dollars);

- ***Managing exchange rate stability***—dollarization requires that the Ministry of Economy and Finance, especially the National Treasury disburse budget spending denominated in riel in a manner that ensure the stability of the exchange rate. As dollarization undermines the ability of the central bank, the NBC, to use the interest rate to regulate the money supply and the value of the national currency, i.e. the exchange rate, fiscal policy play therefore

a predominant role in ensuring macroeconomic stability. Excessive supply of riel in the money market will immediately impact the exchange rate. With both current account convertibility and capital account liberalization, however, the fiscal policy should take into account the inflows and outflows of US dollars, through the exchange rate. In short, within the context of dollarization, monetary policy is geared to stabilize the exchange rate via budget management, i.e. through fiscal policy. A sound macroeconomic management in a dollarized economy requires close coordination between the central bank and the Ministry of Finance;

- ***Promoting price stability***—one of the objectives of macroeconomic policy is to ensure price stability and economic growth. There is strong correlation between the level of inflation and economic growth, as discussed in the second section of this paper. Within the context of dollarized economy, price stability can be achieved through exchange rate stability, as Cambodia imports the bulk of consumer goods for domestic consumption, exchange rate fluctuations can translate immediately into price fluctuations. Thus, budget management can be used as a channel to ensure price stability;

- ***Facilitating international trade and economic integration*** – dollarization lowers transaction costs, which stem partly from the difference between the buying and selling rates for converting domestic currency to foreign currency. By reducing trade transaction costs through avoiding currency conversions it has contributed to the rapid growth of the booming garment industry. Hedging for currency risk against the US dollar has become unnecessary. This would help the integration of domestic market into the rest of the world. In a highly dollarized economy, international reserves will be used more to ensure the integrity of the banking system, and less to ensure exchange rate stability.

Dollarization can thus be used to promote institutional change, promote financial accountability and transparency;

- ***Loss of seigniorage*** – the main cost of dollarization is the loss of seigniorage for the government. Seigniorage is the revenue from issuing currency. The seigniorage arises from the difference between the cost of producing and distributing paper money and coins and their purchasing power. Some estimates show that seigniorage losses can be significant for Cambodia. Estimates of this foregone income by the National Bank of Cambodia (NBC) range from US$20 to US$90 million;

Part II
Monetary Management

1. The Goals of Monetary Policy

Monetary policy has the following goals: (i) promote sustainable economic growth; (ii) promote macroeconomic stability, especially price stability; (iii) create employment; (iv) assure stability of the financial markets; and (v) promote stability of the foreign exchange markets.

Most countries target low inflation as the central objective of monetary policy. This would provide a measurable and credible touchstone to assess policy performance in terms of macroeconomic stability, sustainable growth and poverty reduction. Inflation targeting empowers the central bank to manage monetary aggregates and domestic credit and accords a central role to monetary policy in macroeconomic management. However, a full-fledged inflation targeting regime is not compatible with a heavily dollarized economic regime.

A central bank can target variables that contribute to the achievement of its objectives. For e.g. a central bank could choose price stability and economic growth as its objectives and select a set of variables the will help achieve these objectives. These are called intermediate targets. For e.g. for achieving price stability and economic growth the central bank could target growth in broad money (M2) or interest rates, which will directly impact on growth and the price level.

However, the available policy tools of the central bank may have no direct impact on even these intermediate targets. The central bank usually chooses a set of variables to target which can be directly influenced by its policy tools such as reserve aggregates (bank reserves or monetary base).

These are called operating targets. By using intermediate and operating targets, it can more quickly judge whether its policies are on the right track, rather than waiting until it sees the final outcome of its policies on economic growth and the price level.

For example, the central bank could aim for a monetary policy that is consistent with nominal GDP growth rate of 10%. If the central bank estimates that the 10 per cent nominal GDP growth rate will be achieved by a 20 per cent growth rate for M2 (its intermediate target), which will in turn be achieved by a growth rate of 10 per cent for the monetary base (its operating target), it will manipulate the monetary policy instruments to achieve the 10 per cent growth in the monetary base. If during monetary policy implementation it finds that the monetary base is growing only at 6 per cent, then it will take steps to increase the monetary base by an additional 4 per cent.

2. The Targets

There are two different types of operating targets: interest rates and monetary aggregates (for e.g. bank reserves, M0, M1, etc.). In our example, the central bank chose a 20-percent growth rate for M2 (its intermediate target) to achieve a nominal GDP growth rate of 10%. This could be achieved by targeting an interest rate that is consistent with the desired level of M2. However, in a highly dollarized regime, the central bank can only target M2 since the interest rates are set independently by the commercial banks, reflecting the country risk premium and the US interest rates.

A central feature of monetary policy design is the use of a **nominal anchor** , a nominal variable that monetary policymakers use to tie down the price level such as the inflation rate, an exchange rate, or the money supply. Adherence to a nominal anchor forces the central bank to conduct monetary policy so that the nominal anchor variable such as the inflation rate or the money supply stays within a narrow range. For e.g. if the price

level is used as a nominal anchor, the central bank will monitor the price level such that it does not increase or fall too fast thus preserving the value of the money.

2.1. Targeting Money Market Conditions

This approach is based on intuitive judgment and a feel for the money market. The standard process is that the central bank will target money market conditions, in particular interest rates.

An important consequence of this approach is that it is pro cyclical i.e.it results in a more rapid growth of money supply when the economy is expanding and a slowing of money growth when the economy is in recession. A rise in national income during expansion should lead to a rise in market interest rates as the demand for loanable funds will increase. With the rise in interest rates, the price of bonds will fall; the central bank would purchase the bonds to bid their price up and lower interest rates to their target level. The resulting increase in the monetary base will cause the money supply to rise and the business cycle expansion to be accompanied by a faster rate of money growth. A problem with using interest rates as the primary operating target is that it may encourage an inflationary spiral to get out of control. In a recession, the sequence of events would be in the opposite direction with the decline in income accompanied by a fall in money growth.

2.2. Targeting Monetary Aggregates

Monetary targeting involves the use of money aggregates as intermediate targets of monetary policy. However, monetary targeting as actually practiced is different from Milton Friedman's suggestion that the chosen monetary aggregate be targeted to grow at a constant rate. In practice, the central bank sets target ranges for the growth rates of various monetary aggregates and determines what policy interest rates (for e.g. in the US the federal funds rate or the interest rate on funds loaned overnight between banks) are consistent with these aims. The target ranges for the growth in

monetary aggregates could be broad, for e.g. in the US a typical range for M1 growth is 3% to 6%; and for M2, 4% to 7%, which are considered consistent with the fluctuations in the federal funds rate limited to the narrow band, 7½% to 8¼%. In this framework, the federal funds rate is used as the operating target of monetary policy.

The advantages of monetary targeting over exchange rate targeting are as follows:

- First, it enables a central bank to adjust its monetary policy to cope with domestic developments. It allows the central bank to choose goals for inflation that may differ from those of other countries and allows some flexibility in monetary policy to respond to output fluctuations;

- Second, information whether the central bank is achieving its target is known almost immediately. Thus, monetary targeting can send immediate signals to the public and the markets about the stance of monetary policy and the intention to keep inflation in check;

- Third, the central bank's accountability for monetary policy to keep inflation low is made clear;

The disadvantages of monetary targeting are as follows:

- First, if the relationship between the monetary target and the objective variable (inflation or nominal income) is weak, monetary targeting will not work. Thus, achieving the target will not produce the desired outcome on the objective. In such a case, monetary targeting will not help lower inflationary expectations and be a good guide for assessing the accountability of the central bank;

- Second, an unreliable relationship between monetary targets and objectives of monetary policy makes it difficult for monetary

targeting to serve as a device to improve the transparency of monetary policy.

2.3. Exchange Rate Targeting

Exchange rate targeting can take the form of fixing the value of the national currency to a commodity such as gold (gold standard) or anchoring the value of the national currency to that of a large, low-inflation country like the United States (the anchor country). Another alternative is to adopt a crawling target or peg, in which the domestic currency is allowed to depreciate in real effective terms against the currency of the anchor country.

Exchange rate targeting has several advantages:

- First, the anchor of the exchange-rate target directly contributes to keeping inflation under control by tying the inflation rate for internationally traded goods to that prevailing in the anchor country (the prices of internationally traded goods are fixed by the world market, while the domestic prices of these goods are derived by converting the international prices to domestic prices at the exchange-rate target);

- Second, an exchange-rate target provides an automatic rule for the conduct of monetary policy that helps mitigate the time-consistency problem associated with policy making. For example, an exchange-rate target forces tightening of monetary policy when there is a tendency for the national currency to depreciate or a loosening of policy when the national currency tends to appreciate;

- Third, an exchange-rate target has the advantage of simplicity and clarity, which makes it more easily understood by the public;

- Fourth, in countries whose political and monetary institutions are weak and which have experienced hyperinflation, exchange-rate

targeting may be the only way to break inflation psychology and stabilize the economy.

However, there are several disadvantages of exchange-rate targeting:

- First, with capital mobility, the targeting country no longer can pursue its own independent monetary policy, thus losing its ability to use monetary policy to respond to domestic shocks that could be different from those affecting the anchor country;

- Second, shocks in the anchor country are directly transmitted to the targeting country, because changes in interest rates in the anchor country following the shocks lead to corresponding changes in interest rates in the targeting country;

- Third, exchange-rate targeting leaves the country open to speculative attacks on the national currency;

- Fourth, exchange-rate targeting can weaken the accountability of policymakers by eliminating an important signal that can help constrain monetary policy from becoming overly expansionary. The need for responding to signals from the foreign exchange market may be more acute for emerging market economies.

2.4. Inflation Targeting

Given the breakdown of the relationship between monetary aggregates and monetary policy objectives such as inflation, many countries that want to maintain an independent monetary policy are using inflation targeting in their monetary policy management. Inflation targeting involves a number of elements: (i) public announcement of medium-term numerical targets for inflation; (ii) an institutional commitment to price stability as the primary, long-term goal of monetary policy and a commitment to restrain inflation to less than the target; (iii) an information-inclusive strategy in which many variables and not just the monetary aggregates are

used in making monetary policy decisions; (iv) increased transparency of the monetary policy management through communication with the public and the markets about the plans and objectives of monetary policymakers; and (v) increased accountability of the central bank for attaining its inflation objectives.

Inflation targeting has several advantages over exchange-rate and monetary targeting:

- First, it enables monetary policy to focus on domestic considerations and to respond to shocks to the domestic economy;

- Second, it allows the central bank to use all available information, not just one variable, to determine the best parameters for monetary policy. For example, the stability in the relationship between monetary aggregates and inflation is not critical to the success of monetary policy since factors other than this relationship may deteriorate inflation;

- Third, it is more easily understood by the public and is highly transparent;

- Fourth, it increases the accountability of the central bank and can help focus more realistically on what a central bank can do in the long-run, i.e. control inflation, rather than what it cannot do, which is permanently increase economic growth and employment through expansionary monetary policy;

- Fifth, it places emphasis on making policy transparent and on maintaining regular communication with the public.

However, the disadvantages of inflation targeting are:

- First, delayed signaling – inflation is not easily controlled by the central bank. Because of the long lags in realizing the impacts of

monetary policy, inflation outcomes are revealed only after a substantial lag. Thus, an inflation target is unable to send immediate signals to both the public and markets about the stance of monetary policy;

- Second, too much rigidity in policy making – it imposes a rigid rule on monetary policymakers, limiting their discretion to respond to unforeseen circumstances when for e.g higher inflation results from a higher velocity of circulation of money;

- Third, potential for increased output fluctuations – it may lead to a monetary policy that is too tight when inflation is above target and thus may lead to larger output fluctuations;

- Fourth, it may lead to lower growth in output and employment by limiting producer incentive.

2.5. Nominal GDP Targeting

Under the nominal GDP targeting, the central bank would target the growth rate of nominal GDP (real GDP times the price level) rather than inflation. The advantage of nominal GDP targeting is that it puts some weight on output besides inflation in policymaking. A decline in projected real output growth would automatically imply an increase in the central bank's inflation target. This increase would tend to be counter cyclical and stabilizing, because it would automatically lead to an easier monetary policy.

However, the disadvantages of nominal GDP targeting are:

- First, a nominal GDP target forces the government to adopt a target for potential (long-term) GDP growth. This is problematic, because estimates of potential GDP growth are far from precise and change over time;

- Second, information on prices is more timely and more frequently reported than data on nominal GDP;

- Third, the concept of inflation is much better understood by the public than the concept of GDP;

- Fourth, it is doubtful that, in practice, nominal GDP targeting would be more effective than inflation targeting in achieving short-run stabilization.

3. Monetary Policy Instruments

Monetary policy instruments are the various tools that a central bank can use to influence money market and credit conditions in the pursuit of its monetary policy objectives. In the conduct of monetary policy, a central bank can act directly, using its regulatory powers, or indirectly influence money market conditions as the manager of base money (currency in circulation and reserve balances with the central bank). The instruments of monetary policy can be therefore classified as direct and indirect.

3.1. Indirect Monetary Policy Instruments

Indirect instruments act through the market by adjusting the demand for and the supply of bank reserves. The greater use of indirect monetary instruments was a result of the enhanced role of price signals in most of the modern economies. The three main types of indirect instrument are open market operations, reserve requirements and central bank lending activities (short-term rediscounting of high quality financial assets).

Using indirect instruments, the central bank can determine the level of reserve money. However if the capital account is open and the exchange rate fixed, the manipulation of reserve money to achieve domestic policy objectives will not be effective in the long run. For e.g. if the central bank raises reserves to support a lower interest rate but the level of money supply is excessive in relation to what can be supported under the fixed

exchange rate regime there would be capital outflow which will be counter -productive. However, even under a pegged or managed exchange rate regime, a central bank can manipulate the reserve money, in the short run. The changes in reserve money resulting from central bank operations affect banks' liquidity positions, which results in adjustments to interbank, money market, and bank loan and deposit interest rates to re-equilibrate the demand for, and the supply of, reserve balances.

Indirect instruments of monetary policy therefore encourage financial intermediation in the formal financial sector. They also permit more flexibility to the monetary authorities in policy implementation. Small, frequent changes in instrument settings become feasible, enabling the authorities to respond rapidly to shocks and to correct policy errors quickly.

The indirect monetary policy instruments can also be classified as follows:

- **Interventions in the market**: open market operations and the discount window;

- **Portfolio constraints**: reserve requirements and open restrictive instructions

3.1.1. Open Market Operations

Open market operations are by far the most commonly used by monetary authorities in developed market economies and are the most useful and important of the central bank's policy tools. Open market operations comprise the purchase or sale of financial instruments by the central bank, in either the primary market (open market-type operations) or the secondary market (full-fledged open market operations). Financial instruments commonly used for this purpose include treasury bills, central bank bills, or prime commercial paper.

In industrial countries with highly developed financial markets, open market operations conducted with treasury bills or central bank bills have become the monetary policy instrument of choice. Countries with under-developed financial markets conduct open market operations through central bank interventions in primary markets for securities. A common approach is to hold regular auctions of treasury or central bank bills and vary the net amount auctioned in order to influence bank reserves. Often, this instrument is used in combination with other tools – including auctions of central bank credit, use of rediscount facilities, and changes in reserve requirements – to achieve the desired impact on reserves and to smooth day-to-day liquidity fluctuations.

Open market operations are used for steering interest rates in the economy. Each purchase or sale of securities directly affects the volume of reserves in the banking system, and thereby impacts on interest rates and money supply.

Purchases of government securities increase reserves and ease credit while sales decrease reserves and tighten credit. With a purchase of securities, the central bank credits the reserve account of the seller's depository institution. The depository institution can then set in motion a chain of lending and deposit operations which will result in an increase in the supply of money matched by an increase in loans in the banking system. A purchase of government securities modifies the portfolio composition of both non-bank public and the banking system. The non-bank public exchanges monetary assets with the securities, while the banking sector increases its commitments in the form of deposits and cash. The increase in the cash within the banking system allows banks to increase loans, thus leading to further increases in money supply.

Conversely, sales of securities reduce reserves and tighten credit because the central bank debits the reserve account of the buyer's bank, decreasing the reserves available for loans.

Depending on the volume of the purchase or the sale of government securities, open market operations can have a substantial impact on interest rates. The purchase by the central bank of securities increases the demand for securities, leading to an increase in their prices and the reduction of the interest rate. Additional liquidity also allows the banking system to lend more, thus exerting downward pressure on the interest rates from the supply side. The sale by the central bank of securities will have an opposite effect. If the central bank wants to exert upward pressure on interest rates or reduce the growth of money supply, securities will be sold through open market operations.

Open market operations can be effectively implemented in an economy where public debts are relatively high and government securities are widely held by creditors. In principle, the majority of the central bank assets used in open market operations should consist of government securities in order to send a strong policy signal to the market.

Open market operations are either "dynamic" or "defensive. Dynamic operations are those taken to increase or decrease the volume of reserves to ease or tighten credit. Defensive operations are undertaken to offset effects of other factors influencing reserves.

3.1.2. The Discount Lending

The discount lending window of the central bank acts as a safety valve for relieving reserve requirement pressures that depository institutions face from time to time. By lending funds against acceptable collateral, the central bank provides liquidity to solvent financial institutions thus helping to assure the stability of money markets and the banking system.

In the early stages of banking development commercial banks borrowed from the central bank by bringing bonds and other asset documents to the discount lending window. The amount loaned was the face value of the asset, minus a "discount." Today, financial institutions still borrow from the central bank. However, the term "discount window" is simply an

expression for central bank loans that are repaid with interest at maturity, arranged by telephone, and secured by pledged collateral. Banks also resort to repurchase agreements and reverse repurchase agreements among each other and with the central bank to tide over short run liquidity problems.

The discount rate is the interest rate charged to depository institutions on loans from the central bank's credit facility, the discount window. Changes to the discount rate are initiated by the board of directors of the central bank. The discount rate is normally changed infrequently.

Changes in the discount rate affect credit conditions and therefore the economy. An increase in the discount rate, for example, makes it more costly for depository institutions to borrow from the central bank. The message of higher cost of central bank credit accommodation filters through to the entire range of interest rates on the banking sector. The higher cost discourages depository institutions from using the discount privilege and they respond to the higher discount rate by slowing down lending and limiting bank lending to high quality, low risk borrowers.

Apart from these direct impacts, changes in the discount rate can affect expectations in financial markets. If, for example, the market interprets an increase in the discount rate as the beginning of a sustained program to tighten credit, lenders will cut back projects waiting for more attractive rates. Potential borrowers will try to borrow before the expected higher rates materialize. Market equilibrium resulting from these actions by lenders and borrowers will produce the expected tight credit environment.

Discounts and other forms of central bank credit to the banking system are used for three purposes: to relieve liquidity shortages (lender of last resort function); to control monetary and credit conditions; and to allocate credit selectively. The discount window comprises various techniques of setting the level of loans extended by the central bank to the banking system. The most important technique is the discount rate. The

other techniques consist of setting conditions of access to the discount window, defining the categories of financial assets that the central bank is willing to hold or accept as collateral, and setting a ceiling on central bank lending to depository institutions.

In operating the discount facility, central banks could follow different strategies. Some central banks rely on the market to limit access, in which case the discount rate needs to be high enough so that, as a first resort, banks seek funds from other sources, such as deposits and the interbank market. Others, such as the US Federal Reserve and the Bundesbank, maintain the discount rate below market levels and seek to limit access to the facility administratively.

Some central banks use changes in the discount rate primarily as a way of signalling a change in monetary policy. Other central banks use the discount window as the main instrument to influence money market conditions.

It is obvious that the discount rate can influence the market interest rates only when the central bank operates the facility frequently. Its impact in the market is less obvious when the central bank chooses to use the facility only while exercising its role as the lender of last resort. The discount will become an effective monetary policy instrument only when the supply of loans is inadequate compared to demand. In such as case, the qualified borrowers wishing to improve their liquidity positions will use the discount window, thus allowing the central bank to regulate the volume of liquidity.

The discount facility can be used to support and enhance open market operations. For example, when the central bank wants to implement a restrictive monetary policy during a period of inflation, it can use open market operations to reduce liquidity in the face of the increasing demand for loans. As a result, the interest rate will increase and commercial banks, feeling the pressure on their reserve positions, will borrow from the

central bank. To discourage the creation of additional reserves through borrowing, the central bank can increase the discount rate along with the increase in market interest rate resulting from the open market operations.

3.1.3. Reserve Requirements

Reserve requirements are the mandated level of deposits that depository institutions must hold either as currency or as deposits at the central bank. Reserve requirements directly link central bank and commercial bank balance sheets. They can be used as a means of expanding or sterilizing liquidity. The level of the reserve requirement affects monetary and financial conditions. For example, a reduction in the reserve requirement decreases the amount of reserves that banks must hold and therefore banks can make more loans. The larger volume of loans creates money and stimulates the economy.

Raising the reserve requirement has the opposite effect. Unremunerated reserve requirements are equivalent to a tax on depository institutions and can lead to financial disintermediation. Additionally, reserve requirements lack flexibility. Although the reserve requirements are a potentially powerful tool, the central bank seldom changes these requirements in the conduct of monetary policy. Reserve requirements are used more as a regulatory mechanism to provide security and stability in the banking system.

3.1.4. Foreign Exchange Operations

As a means of fostering improved international liquidity and offsetting temporary disruptive international capital flows, the central bank can also engage in the purchase and sale of foreign currencies. Foreign currencies are generally purchased in the market or acquired through "swaps" with foreign central banks that credit the account of the borrower central bank on their books in exchange for a corresponding debit in the assets held by the concerned central bank in their books. For example country A can

swap its currency against a US dollar credit given by country B with the reverse transaction taking place at the end of the agreed swap period.

Since foreign exchange operations have important effects upon the supply of foreign currencies, they must be conducted in close cooperation with the concerned foreign monetary authorities.

3.2. Direct Monetary Policy Instruments

The direct instruments operate by setting or limiting either the interest rates or the amount of credit through regulations. The most common direct instruments are interest rate controls, credit ceilings, and directed lending (lending at the behest of the authorities, rather than for commercial reasons). Direct methods of monetary control are appealing. They are perceived to be reliable, at least in the short run in controlling credit aggregates and both the distribution and the cost of credit. They are relatively easy to implement, and their direct fiscal costs are relatively low. They are attractive to governments that want to channel credit to meet specific objectives. In countries with rudimentary and non-competitive financial systems, direct controls may be the only option until the institutional framework for indirect instruments has been developed.

However, the use of direct instruments of monetary policy results in inefficient resource allocation and inequity. It is often rendered ineffective due to evasion. Economic agents usually find the means to circumvent them. To the extent that credit ceilings relate to particular institutions, they tend to ossify the distribution of credit, limit competition, and discourage the entry of new banks. Direct controls may lead to an overhang of liquidity, financial repression, and disintermediation. Moreover, direct instruments have become ineffective in an increasingly open economic environment characterized by widespread adoption of current account convertibility and progress in moving to full external account convertibility.

3.2.1. Credit Ceilings

Credit ceilings are one of the most commonly used instruments of selective credit control. A credit ceiling is the maximum allowed percentage increase of the stock of pre-specified types of bank assets over a given time period. Its value is usually set in reference to the stock of the regulated assets at the end of some base period. By manipulating the modalities of their design, credit ceilings can be used by central banks for a variety of purposes (e.g., targeting of monetary aggregates, enforcement of prudential rules, channeling of credit to specific sectors of the economy etc.).

The rationale for the use of credit ceilings as a monetary policy instrument stems from the accounting equivalence between the stock of the domestic currency component of broad money (M2) and the sum of the stocks of the adjusted monetary base (monetary base minus banks' borrowed reserves from the central bank) and banks' domestic currency earning assets. As money can be created by either the central or commercial banks, monetary control must be implemented through operating on the lending activities of both the central bank and the commercial banks.

Credit ceilings can be used within a framework of monetary policy based on targeting of a monetary or credit aggregate. The central bank can effectively target the growth of the money supply and credit by manipulating the size of its liabilities and using the estimated money multiplier to forecast the resulting changes in the quantity of money and credit. There are two types of credit ceilings depending on the scope of the regulated banks' earning assets: total and partial credit ceilings. Total credit ceilings limit the rate of growth of the total of the banks' earning assets. Partial credit ceilings limit the rate of growth of only selected types of banks' earning assets.

Credit ceilings can be used jointly with indirect monetary instruments by first adjusting the indirect monetary instruments so as to achieve the

desired rate of growth of the monetary base, and then setting the credit ceilings to correspond with the money multiplier.

As regards the effect of credit ceilings on the interest rate, if the prescribed ceilings are below the market clearing levels, the interest rate will increase in the absence of interest rate control. The joint use of credit ceilings and interest rate control would result in the misallocation of financial resources, as project selection by the banks would not be driven by commercial principles.

3.2.2. Directed Lending

Directed lending occurs when financial resources are allocated at the behest of the authorities to meet policy objectives rather than on commercial principles. The banking sector is required to finance the sectors, the enterprises or the projects under government directives.

The main objective of directed lending is to gear the loans toward the desired sectors preferred on policy grounds. Directed lending could also take the form of setting the conditions of the loan such as loan maturity; prescribing loan ceilings for specific purposes; prescribing margin requirements to be self financed by prospective borrowers differentiated according to policy priorities, and mandating a negative list of prohibited sectors. Directed lending is often resorted to to give priority to the export and the real estate sectors.

3.2.3. Interest Rate Control

Interest rate control as a monetary policy instrument is characterized in terms of the authorities control over prices in the base money market, rather than quantities. Central banks can exert a direct influence over only a narrow subset of these rates: the rate at which they supply marginal funds to the commercial banking system. Accordingly, the market interest rates which impinge upon real activity are typically distinct form - though not independent of - the official interest rate.

Interest rate control leads to the existence of parallel interest rates: the official interest rate and 'other' market rates. Therefore, the monetary authorities must first understand the nature of the feed-through of official interest rates into market rates when deciding on the appropriate level of the monetary instrument. Second, interest rates include risk premia and therefore may not all move perfectly in line. Policy-makers and commentators alike need to be conscious of the possibility of interest rates reflecting a plurality of market conditions when assessing the overall tightness or looseness of monetary policy.

4. Monetary Policy in Cambodia

The principle mission of the NBC is to determine and direct monetary policy aimed at maintaining price stability and to facilitate economic development. Its main functions are to: (a) act as the monetary authority and conduct monetary policy. In this role it has actively intervened in the foreign exchange market to deliver a stable exchange rate and domestic price stability. As a result the riel over the last three years has depreciated at an annual average rate of 1 percent but in 2006 appreciated approximately 1 percent against the US Dollar; (b) act as the sole issuer of the national currency. It has accordingly increased the number of currency denominations and replaced worn out and dirty bank notes; (c) act as the supervisory and regulatory authority of the banking and financial system; (d) oversee the payments system in Cambodia and (f) manage the international reserves of the country, which stood at a record level of US$ 1.7 billion at end December 2007.

4.1. The Instruments of Monetary Policy in Cambodia

Dollarization affects the choice of monetary target, the implementation of monetary policy and the structure of prudential supervision. Currency substitution implies that dollar denominated monetary assets are to be reckoned as part of the money supply while targeting the price level.

Heavily dollarized economies require the central bank to use dollar-denominated instruments in monetary management. However, the effectiveness of the instrument will be affected by the degree of substitutability between dollar-denominated government bonds and dollar assets available outside the home country. The higher the degree of substitutability, the lower the effectiveness of the instrument (IMF,1999). However, this issue is academic for Cambodia at present since neither the government bond market nor the stock market exists in the country.

Within the context of a dollarized economy, the NBC uses interventions in the foreign exchange market as an indirect instrument of monetary policy. Other instruments such as reserve requirements and rediscount rate are notionally available but are not utilized. Targeting the exchange rate is the main instrument of Cambodia's monetary policy.

4.1.1. Intervention in the Foreign Exchange Market

For stabilizing the exchange rate and offsetting temporary disruptive capital inflows and outflows, the NBC engages in the purchase and sale of foreign currencies, mainly the US dollars. For example, in the case of riel depreciation, the NBC would auction US dollars from its international reserves. However, this intervention is only aimed at relieving a temporary pressure on the riel. It is not the policy for NBC to intervene if the riel depreciation occurs due to structural imbalances. The NBC's purchase of riels has two effects. First, it reduces the NBC's holding of international reserves. Second, domestic currency in circulation will fall. This decline in the monetary base, would remove the pressure on the riel to depreciate. In the case of dollar depreciation, the NBC would purchase US dollars (sell the national currency) in the foreign exchange market resulting in an expansion of the monetary base and accumulation of international reserves. For example, in 2007 as a result of higher gold prices and the sale of national currency, Cambodia's international reserves increased from US$1.1 billion to US$1.7 billion.

The intervention in the foreign exchange market, in which the NBC allows the purchase or sale of national currency to have an effect on the monetary base, is an example of "**unsterilized foreign exchange intervention"**. In an unsterilized intervention domestic currency is purchased by selling foreign assets leading to a drop in international reserves, a decrease in the money supply, and an appreciation of domestic currency. Domestic currency could also be sold to purchase foreign assets leading to an increase in international reserves, an increase in money supply, and a depreciation of the national currency.

In contrast, in a **"sterilized intervention"** the central bank does not wish its operations in the foreign exchange market to affect the monetary base. In pursuing this policy it will conduct open market operations to offset the impact of its foreign exchange market operations on the monetary base. For example, in the case of a US$100 million purchase of the riel and a corresponding US$100 million sale of foreign assets in the foreign exchange market, which would decrease the monetary base by US$100 million, the central bank would conduct an open market purchase of US$100 million of government bonds. This would increase the monetary base by US$100 million. The foreign exchange market intervention and the offsetting open market operation leaves the monetary base unchanged. Since there is little scope for open market operations in Cambodia, the foreign exchange market interventions by NBC by and large have an unsterilized effect on the monetary base.

4.1.2. Reserve Requirements

In heavily dollarized economies, foreign currency reserve requirements can play a useful role as automatic liquidity stabilizers (IMF, 1999). Reserve requirements on foreign currency deposits can also be used to automatically sterilize or discourage capital inflows. In general, reserve requirements can be used as a means of sterilizing excess liquidity. For example, a reduction in the reserve requirement decreases the amount of

reserves that banks must hold and therefore banks can make more loans. The larger volume of loans creates money and stimulates the economy.

However the indiscriminate use of reserve requirements could have serious consequences for the financial sector. Unremunerated reserve requirements are equivalent to a tax on the financial sector and can lead to financial disintermediation. Raising reserve requirements would only increase costs to the commercial banks, rather than reduce the liquidity of the banking system, as dollar inflows into the country can still continue, provided that the domestic market interest rates are higher than the overseas rates, the macroeconomic conditions in the country are sound or there are attractive investment opportunities in the country. Reserve requirements within the context of a dollarized economy are therefore used more by the central bank to regulate banks to provide security and stability in the banking system.

4.1.3. Discount Lending

Through its operations trough the discount window, the NBC provides a safety valve for relieving reserve market pressures. By lending funds against acceptable collateral, the central bank provides liquidity to financial institutions, while helping to assure the basic stability of money markets and the banking system. As a discount lending is provided in riel, this monetary instrument has not been used to conduct monetary policy in Cambodia.

4.2. Dollarization and the Exchange Rate Regime in Cambodia

If currency substitution is prevalent, the conventional wisdom is that fixed exchange rates provide a more effective nominal anchor (Calvo and Vegh, 1996). Frequent and unexpected shifts in the use of domestic and foreign money under a currency substitution regime would lead to greater volatility of the exchange rate (IMF, 1999). A variable exchange rate would therefore make it difficult for the monetary authority to control the

money supply. Moreover, domestic money demand will be more sensitive to changes in the expected opportunity cost of holding domestic currency. However in the case of asset substitution, the holding of foreign currency deposits in domestic banks will increase capital mobility. This will strengthen the link among interest rates in foreign currency deposits at home, international interest rates, and domestic currency interest rates. In turn, this would limit the control that the central bank can exert on monetary conditions, such as the level of interest rates on domestic currency. In this regard, a flexible exchange rate management may be the more appropriate regime (IMF, 1999).

Meanwhile, the debate on full dollarization can also be viewed as a debate on the appropriate exchange rate regime. Following the Asian financial crisis, a more flexible exchange regime has been followed by most of the affected economies, except Malaysia. The main reason for this is the experience that an implicit dollar peg was one of the main factors behind the financial crisis. It is argued that a more flexible exchange rate would have discouraged foreign-exchange-denominated borrowing, especially from the nontradeable sector, since the borrowers would face a larger foreign exchange risk.

However, this argument ignores the reality that most economies are already at least partially dollarized—i.e. have existing dollar liabilities (Calvo and Reinhart,1999). Partial dollarization increases the cost of exchange rate volatility, which, in turn, induces the central bank to intervene in the foreign exchange markets to prevent fluctuations in the nominal exchange rate in order to reduce frequent revaluations of business balance sheets. This results in an implicit or soft peg, and induces a moral hazard of incurring more dollarization, creating a vicious circle from which it is difficult to exit.

In order to avoid currency mismatch problems in a fixed exchange rate regime, the option would be full dollarization. This would make the

country less vulnerable to sudden stops in capital flows (Calvo and Reinhart, 1999). Banks would not experience abrupt changes in the value of their assets and liabilities and the currency would not be subject to speculative attacks.

Cambodia had a dual exchange rate regime in the early 1990s. The National Bank of Cambodia (NBC) set an official rate, while the market operates a parallel rate. In the early 2000s the NBC committed to maintain the official rate within a range of +/- 2% of the market rate. The exchange rate regime was unified by 2005, with the official rate merging with the market rate. This current exchange rate regime of Cambodia is characterized as a managed float. The exchange rate is allowed to change daily in response to market forces. Fluctuations in the real and nominal effective exchange rates of the riel are driven by fluctuations in the exchange rate of the US dollars relative to other major currencies. However, the NBC does not allow large changes in the exchange rate to make it easier for companies and individuals to plan the future.

A surplus in the balance of payments should result in national currency appreciation in the absence of counterveiling actions by the NBC. Since unmanaged riel appreciation would not be beneficial to the exporting sector such as garments industry the NBC has often sold the riel in the foreign exchange market and acquired US dollars to increase the international reserves.

On the contrary a deficit in the balance of payments would lead to the depreciation of the riel. This would make foreign goods more expensive for domestic consumers and can stimulate inflation. To stabilize the riel-dollar exchange rate, the central bank would buy the national currency in the foreign exchange market by decreasing the international reserves.

The money market of Cambodia, especially the foreign exchange market, is relatively narrow and under-developed. There are many small-scale foreign exchange operators in Cambodia, especially in Phnom Penh. They also act as informal clearing agents for many traders.

4.3. Financial Liberalization, Capital Account Liberalization and the Exchange Rate Policy

The concept of financial liberalization is broader than capital account liberalization. **Financial liberalization** can be defined as a process of diluting or dismantling regulatory control over the institutional structures, instruments and activities of agents in the segments of the financial sector (Chandrasekhar, 2005). Financial liberalization is characterized by the following:

- Firstly, it involves removing controls on the interest rates and the use by the central bank of market-based mechanisms such as the use of the discount rate or open market operations. Such liberalization encourages competition among financial institutions;

- Secondly, it removes controls on the entry of new financial institutions, both domestic and foreign, to operate on an equal footing;

- Thirdly, it breaks down the regulatory walls separating different sub-sectors of the financial sector, such as banking, merchant banking, asset management, mutual fund, investment banking and insurance, leading to the development of "universal banks";

- Fourthly, it expands the sources of financial instruments allowing the financial institutions to access funds more widely;

- Fifthly, it liberalizes rules governing financial instruments that can be issued and acquired in the financial system;

- Fifthly, it removes the exchange control regime to keep pace with the liberalization of capital flows, with the full convertibility for current account transactions accompanying trade liberalization, complemented by convertibility of the capital account;

- Seventhly, it involves withdrawal of the central bank from the activity of financial intermediation to create a level playing field for all financial institutions. In the case of Cambodia, this involves the privatization of the Foreign Trade Bank;

- Eightly, it eases conditions for the participation of both firms and investors in the stock market by providing freedom in pricing of new issues, by permitting greater freedoms to intermediaries and relaxing conditions for merger and acquisition;

- Finally, strengthening the role of the central bank in supervision and monitoring and shifting the regulatory regime to statutory guidelines with regard to capital adequacy, accounting norms and best practices.

Capital account liberalization is a topic more restrictive than financial liberalization. A capital account liberalization is a decision by the government to move from a closed capital account regime, where capital may not move freely in and out of the country, to an open capital account system in which capital can enter and leave at will. There is an extensive literature on the costs and benefits of capital account liberalization, especially the linkages of capital account liberalization to currency crisis and there are different views on this issue:

- The first view considers the benefits of capital account liberalization, which mainly focus on **Allocative Efficiency**. Liberalizing the capital account facilitates a more efficient international allocation of resources and produces all kinds of beneficial effects. Resources flow from capital-abundant developed countries, where the return to capital is low, to capital-scare developing countries where the return to capital is high. The flow of resources into the developing countries reduces their cost of capital, triggering an increase in investment and growth that raises their standard of living (Fisher, 1997, 2001; Obstfeld, 1998);

- The second view concludes that the **Allocative Efficiency** holds only where there are no distortions to the economy other than barriers to

free capital flows. Because there are many other distortions in developing countries, the critics argue that empirical analysis finds no correlation between the openness of countries' capital accounts and the amount they invest or the rate at which they grow (Rodrik, 1998). Rodrik concludes that the benefits of an open capital account, if indeed they exist, are not readily apparent, but that the costs are manifestly evident in the form of recurrent emerging-market crises.

The experience in Asia also underscores the importance of the proper sequencing of reform. Exchange controls, for example, limited the ability of nonresidents to purchase equities and bonds issued by domestic corporations, as well as residents' ability to borrow directly from international markets. As a result, domestic companies might depend heavily on debt intermediated by, or guaranteed by, domestic financial institutions. With the slowdown in growth and the emergence of financial difficulties in the 1997 during the Asian Financial Crisis, non-performing loans grew rapidly and the banks' spontaneous access to international capital markets collapsed.

Indeed, there are risks involved in tapping international financial markets. Countries therefore should be attentive to them. International capital markets are very sensitive to macroeconomic policies, to the soundness of banking systems, and to economic and political developments. Policymakers should pay much attention to signals of the markets in order to reinforce good policies.

But there are market malfunctions. Capital inflows are uneven. Markets also sometimes overreact to various signals and may trigger capital outflows like in the case of the Asian Financial Crisis in 1997. Therefore, successful capital account liberalization requires a number of conditions:

- Firstly, strong domestic financial system, with improved supervision and high prudential standards;

- Secondly, sound macroeconomic policy framework, monetary and

fiscal policies should be consistent with an exchange rate regime;

- Thirdly, sequencing capital account liberalization, taking into consideration the country's markets and institutions; and

- Finally, transparent operations of the central bank, allowing investors to make informed decisions.

Cambodia has experienced a high degree of capital account liberalization. It was previously suggested that trade liberalization should be combined with exchange rate devaluation in order to ensure that such liberalization would not create immediate balance of payments difficulties. The Cambodian experience, however, has shown that exchange rate stability is more important in promoting garment exports, than exchange rate devaluation. Moreover, in a dollarized economy with capital account liberalization, exchange rate movement is affected by capital inflows, both private and public transfers, as well as movement in Foreign Direct Investment.

Experiences of the Asian Financial Crisis also suggests that, with a liberalized capital account regime, conflicts would emerge between pegged exchange rates and monetary policy autonomy. In short, under a fixed exchange rate and an open capital account regime, the country has to lose control of its monetary policy. This proves that the assertion of the **Impossible Trinity** (also known as the Inconsistent Trinity, Triangle of Impossibility or Unholy Trinity) hypothesis, developed in the 1960s by Robert Mundell and Marcus Fleming, is correct. As suggested by the Impossible Trinity, it is impossible to have all three following conditions met at the same time:

- A fixed exchange rate;

- Free capital movement;

- An independent monetary policy;

Under an open capital account regime, the **Impossible Trinity** asserts that a country has to choose between reducing currency volatility and running a stabilizing monetary policy; it cannot do both.

A country must pick two out of the three foregoing conditions. It can fix its exchange rate without emasculating its central bank, but only by maintaining controls on capital flows (like China today or Malaysia during the financial crisis); it can leave capital movement free and retain monetary autonomy, but only by letting the exchange rate fluctuate (like Britain--or Canada); or it can choose to leave capital account open and stabilize the currency, but only by abandoning any ability to adjust interest rates to fight inflation or recession (like Argentina today, or most of Europe)."

The capital account liberalization can have complicated effects on trade patterns. Capital inflows are dictated by investor's appetite and opportunities opened up to both FDI and portfolio investment. Increased capital inflows can push up the real exchange rate. This requires the central bank's intervention in order to ensure exchange rate stability.

For that reason, within the context of dollarization and capital account liberalization, Cambodia's flexible exchange rate plays an important role in ensuring price stability. As capital can move in and out freely, a flexible exchange rate would reduce gradually pressure for the exchange rate either to appreciate or depreciate. This reduces the risk of a currency crisis and prevents drastic price fluctuations.

NBC's major monetary policy objective is price stabilization through active intervention in the foreign exchange market. This policy has delivered a stable exchange rate, lower riel interest rates and domestic price stability. This is evidenced by moderate inflation of 0.7% between 1998 and 2003, 3.9% in 2004, 5.8% in 2005, 4.7% in 2006 and 5.9% in 2007. The riel has, on average over the last three years depreciated 1%; in 2006 it appreciated approximately 1% against the US dollar. One of the

NBC's long term goals is to increase the use of the riel and reduce dollarization of the economy.

5. Institutional Reforms for an Effective Monetary Policy

5.1. Financial Sector Reform

The reform of Cambodia's financial system, notably the development of the interbank, money and capital markets – the conduit through which monetary policy has an influence on economic activity – would enhance the effectiveness of the monetary transmission mechanism. This requires considerable capacity building in monetary and financial management. Once this institutional capacity is built up it will be possible to shift smoothly to a riel dominated financial system.

5.2. Dedollarization

Lessons learnt internationally from both successful and unsuccessful de-dollarization show that once an economy is highly dollarized, it is hard to reduce dollarization. Administrative attempts to force conversion without first fully restoring confidence in the local currency results in capital flight reduced financial intermediation and will fail. Successful attempts recorded to date have been based on effective disinflation programs built upon a strong exchange rate anchor.

Necessary conditions to ensure increased use of the national currency are:

- Peace, security and stability of political and financial institutions;
- Long-term macroeconomic stability, especially keeping inflation in check; and
- Public confidence in the banking system based on improved capacity, credibility and independence of the banking sector.

To reduce the effects of dollarization the RGC and NBC policy measures have included (i) maintaining the value of the riel through interventions in foreign exchange market; (ii) increasing the proportion of public sector transactions in riel (water, electricity, taxes and government salaries); (iii) increasing the visibility of the currency by regularly replacing old, dirty and worn riel notes and increasing the amount of currency available.

Cambodia has limited capacity to design and conduct monetary policy. It may not be prudent to shift to a dedollarized system at the present time. Should monetary conditions quickly evolve within the region, such as occurred during the Asian Financial Crisis, Cambodia currently has no emergency credit lines in place to defend the riel. The banking sector is vulnerable to shocks. The solvency ratio has decreased from 58 percent in 2001 to 26 percent in 2006 indicating a higher growth in risk weighted assets compared to net worth. All these considerations argue for the continuation of the dollarized economy.

However it is in the long term interest of Cambodia to gain control over monetary policy since it is a potent tool of macroeconomic and development management. With the economy highly dollarized and the ongoing depreciation of the US Dollar against other major currencies Cambodia is exposed to imported inflation and is incurring welfare losses. A key requirement for dedollarization is the development of a market in tradable government securities. The Law on Government Securities and Sub-decrees was recently adopted. The RGC is considering issuing both US Dollar and riel securities with the view to establish a risk free riel rate and allow the development of a forward foreign exchange market.

6. Inflation: Its Causes and Options for Management in Cambodia

6.1. Introduction

Inflation has recently taken the central stage in the political and economic

landscape of Cambodia and indeed the world. Escalating oil and food prices since 2003 have fueled inflation in many parts of the world, especially oil importing countries. The two sources of inflation are interconnected. There is a direct cost push imparted by high oil prices on agricultural input prices. Moreover, high oil prices have encouraged the development of the highly profitable bio-fuels in the agriculture sector. In the competition for resources food production is losing priority to the production of commercial crops including bio-fuels. As a consequence food production has slowed down, resulting in higher food prices.

However rising rice prices will improve the incomes of farmers. Cambodian small scale rice growing farmers for the first time in many decades can now make a decent living from farming due to the high agricultural prices. Since close to 70 per cent of the Cambodian population is rural and the bulk of the poor live in rural areas and are agriculture-dependent, the rise in food prices could help reduce the incidence of poverty, particularly in rural areas. Agriculture value added will also increase probably reversing the secular trend of falling share of agriculture in GDP. However food is a major component of the wage earner's budget in urban areas. A large increase in food prices could mean a substantial fall in his/her real income. Hence high rice prices could result in urban misery. Policy-makers have to balance these two opposite impacts of the food price increase while managing inflation.

6.2. Conceptual Framework

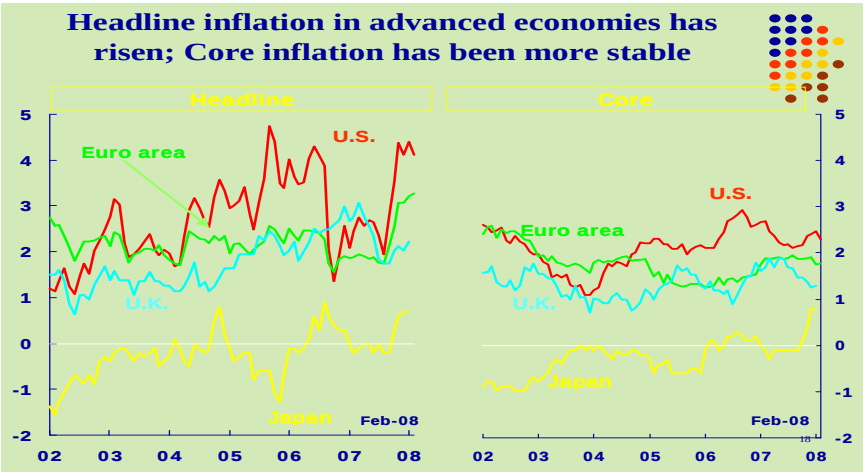
In the literature there are several definitions of inflation. Laidler and Parkin define inflation as "a process of continuously rising prices, or, equivalently, of a continuously falling value of money" (Laidler and Parkin, 1975, p 741). Arthur Okun defines inflation as "a condition of generally rising prices" (Okun, 1970, p. 3). This definition recognizes the long run nature of inflation. Milton Friedman defines inflation as a "steady and sustained increase in the general price level". Friedman also

makes a distinction between inflation which is a phenomenon proceeding more or less at a steady rate, and intermittent increases in prices which occur due to sudden changes in supply and demand (Friedman,1963, p 25). The steady or persistent element of inflation will tend to be incorporated into expectations and, consequently, will be comparatively benign. However, intermittent inflation will be much less benign because it is generally not anticipated. Inflation whether steady or intermittent, results in a loss in the purchasing power of the currency unit. For the factors of production which are unable to adjust their earnings to compensate the price increase, inflation causes a loss in their real incomes and welfare. Inflation is measured as the rate of change of a price index.

6.2.1. Headline Inflation

Economists distinguish between headline inflation and core inflation. Headline inflation is a measure of the total inflation in an economy and is affected by price movements in various market segments which are included in computing the price index such as food or energy. Headline inflation generally refers to the rate of change in the consumer price index (CPI), a measure of the average price of a standard basket of goods and services consumed by a typical family.

Figure 2.1. Headline vs. Core Inflation



Source: International Monetary Fund

Figure 2.1 shows that headline inflation rates can be volatile, often because of substantial movements in oil prices or food prices. However, headline inflation does not show the underlying patterns of inflation. Therefore, the central bank prefers to use core inflation, which excludes volatile items such as food and energy from the consumption basket in formulating monetary policy, especially for the purpose of inflation targeting. Fig.1 shows a much less volatile behavior of core inflation during 2002-2008.

6.2.2. Core Inflation

"*Core inflation measures can help gauge underlying inflation… as they are less volatile than headline inflation. Headline inflation tends to move towards core rates.*"

The concept of core inflation as aggregate price increase excluding food and energy which are characterized by volatile price behavior, was introduced in 1975 by Robert J. Gordon. By excluding the effect of temporary disturbances and shocks that cause prices to surge or decline, core inflation is an indicator of the underlying or steady movement in consumer prices.

Eckstein defines core inflation as "the trend increase of the cost of the factors of production" (Eckstein (1981), p 7), and observed that this notion of core inflation "originates in the long-term expectations of inflation in the minds of households and businesses, in the contractual arrangements which sustain the wage-price momentum, and in the tax system." (p.7). Eckstein distinguished this measure of inflation from inflation resulting from supply shocks and cyclical changes in aggregate demand.

Quah and Vahey (1995, p. 1130), define core inflation "as that component of measured inflation that has no medium- to long-term impact on real output". For this component of inflation to be output neutral over the medium to long term, it must reflect inflationary expectations. The Quah and Vahey definition of core inflation includes

cyclical movements in inflation associated with excess demand pressures, since they comprise a component of inflationary expectations. Core inflation, according to Quah and Vahey, is anticipated, while non-core inflation is unanticipated. Disturbances having only a transient impact on inflation – usually associated with supply disturbances – are outside the definition of core inflation.

When inflation is anticipated by consumers, investors, employees and workers, the prices of all goods and services, as well as wages will be increased at the same rate as inflation. Such perfectly anticipated inflation will neither affect the costs of living, the relative prices nor the output. Thus, if prices are flexible, anticipated inflation will have a neutral impact on output. However, in reality prices are determined by contracts which allow changes in expectations to be realized only after a lag. Hence anticipated inflation may not be fully output neutral in the short term. However, in the long run as expectations will be realized, the original equilibrium in the configuration of outputs and relative prices will be restored.

By contrast, in the case of unanticipated inflation – when the actual inflation differs from the rate expected – economic costs will be incurred due to the redistribution of incomes and wealth. Those whose factor payments exceed the expectations will gain while those whose payments fall short will lose. This in turn will lead to supply adjustments and changes in output. Hence core inflation should have a neutral impact on output in the long run while headline or unanticipated inflation affects output permanently.

Whether the relative price changes are temporary in nature (i.e. as a consequence of seasonal influences on food prices) or long-lived (i.e. as a result of technology changes), unless there is monetary accommodation, rises in some relative prices should be offset in terms of the impact on the aggregate price level by falls in other relative prices. Core inflation can be

viewed as generalized inflation associated with expected inflation and monetary expansion, plus an element to capture the permanent change in relative prices. If the rises in some relative prices are not offset by falls in other relative prices, this must reflect genuine, core inflation.

6.2.3. A typology of Inflation

A great deal of economic literature concerns the question what causes inflation and what effect it has on the economy and public welfare. Keynesian economic theory proposes that inflation is the result of market adjustment when aggregate demand or aggregate supply or both change and is a manifestation of the pressures in the real economy. A fundamental concept in Keynesian analysis is the trade off ***between inflation and unemployment***, called the Phillips curve. This model suggests that there is a trade-off between inflation and unemployment. A low level of unemployment is associated with a high level of inflation. Therefore, some level of inflation could be considered desirable in order to minimize unemployment. Another Keynesian concept is the potential output, a level of GDP, where the economy is at its optimal level of production given institutional and natural constraints. (This level of output corresponds to the Non-Accelerating Inflation Rate of Unemployment, NAIRU, or the "natural" rate of unemployment or the full-employment unemployment rate.) If GDP exceeds its potential (and unemployment is below the NAIRU), the theory says that inflation will accelerate as suppliers increase their prices. If GDP falls below its potential level (and unemployment is above the NAIRU), inflation will decelerate as suppliers attempt to fill excess capacity, cutting prices. In reality, it is difficult to estimate the probable NAIRU for policy-making purposes.

Monetarists assert that ***inflation is a monetary phenomenon***. The quantity theory of money says that the total amount of spending in an economy is primarily determined by the total amount of money in circulation. They posit that as the quantity of money increases, total

spending increases and aggregate demand for consumer goods increases too. For this reason, monetarists believe that the only cause of rising prices in a growing economy (which means that the aggregate supply of consumer goods is increasing) is an increase of the quantity of money in circulation, which is a function of monetary policy. Thus by curbing the growth of money supply inflation can be curbed.

Rational expectations theory holds that economic actors look rationally into the future when trying to maximize their well-being, and do not respond solely to immediate opportunity costs and pressures. The past behavior of prices is a good predictor of the future inflation. A core assertion of rational expectations theory is that actors will seek to neutralize central-bank decisions by acting in ways that fulfill predictions of higher inflation. If inflationary expectations are positive economic actors anticipating tight monetary policy in the future will increase current expenditure which will make the expectations come true. This means that central banks must fight inflation by encouraging economic actors to believe that the economy will continue to expand and the central bank will expand the money supply rather than slow down growth.

Overall, inflation occurs when the aggregate quantity of goods demanded at a given price level is rising more quickly than the aggregate quantity of goods supplied at that price level (Abel, Bernanke et al.). Among the sources of inflation are increases in consumption or investment spending, expansionary fiscal policies, and adverse supply shocks. However, a high rate of money growth is the main source of inflation.

There are three major types of inflation:

Demand-pull inflation: inflation caused by increases in aggregate demand due to increased private and government spending. A surge in the demand for goods and services in general (aggregate demand) is thought to "pull" prices up across the board, especially when aggregate supply is held back by capacity limitations. A major part of demand-pull

theory centers on the supply of money: inflation may be caused by an increase in the quantity of money in circulation relative to the ability of the economy to supply (its potential output). This is most obvious when governments finance unanticipated and unbudgeted crisis-related spending, by resorting to excessive borrowings from the central bank, often leading to hyperinflation. Another cause can be a rapid decline in the demand for money resulting in increased velocity of circulation. However, in recent decades inflation has tended to increase in periods of low economic growth. This phenomenon is called stagflation;

Cost-push inflation or "supply shock inflation" caused by drops in aggregate supply due to increased prices of inputs. The "cost-push" factors like oil, food, monopoly profit-taking, or wages would increase the general level of prices. Producers who incur higher input costs could then pass this on to consumers in the form of increased output prices.

Built-in inflation: induced by adaptive expectations, often linked to the "price/wage spiral" because it involves workers trying to raise their wages to keep up with higher prices (gross wages have to increase above the CPI rate to net to CPI after-tax) and employers passing higher costs on to consumers as higher prices as part of a vicious circle. Built-in inflation reflects events in the past, and so might be seen as hangover inflation.

6.2.4. The Effects of Inflation

Economists view inflation as a serious problem and often refer to it as "inflation tax." Inflation reduces the purchasing power of the cash balances held by the private sector—and is comparable to a wealth tax. This tax imposes economic costs or an "efficiency loss" on the economy, discouraging people and businesses to hold cash balances. This is also known as the "welfare cost of inflation."

Inflation can also have considerable impact on both the revenue and expenditure sides of the budget. On the revenue side, with regard to the taxes on personal income, corporate profits and capital gains, a

progressive rate structure would shift tax burdens from low- to higher-income groups. But the high tax take from labor and capital resulting from inflation would deter productive activities and divert resources to untaxed uses. This is not a healthy fiscal development.

In a high inflation environment, in general the government is required to implement a tight fiscal policy to keep inflation in check. If revenue elasticity is higher than expenditure elasticity, the budget will not be resource constrained. If the reverse were to hold, the budget will be cash strapped. In this situation the government may choose to maintain expenditure but this will be clearly inflationary.

In general, high or unpredictable inflation rates are regarded as undesirable:

Uncertainty about future inflation may discourage investment and saving.

Inflation redistributes income from those on fixed incomes, such as pensioners, and shifts it to those who derive a variable income, for example from wages and profits which are in general inflation-adjusted.

Debtors may be helped by inflation due to reduction of the real value of debt burden.

Inflation redistributes wealth from lenders to borrowers. For example, where the government is a net debtor, as is usually the case, it will reduce this debt redistributing wealth in favor of the government.

In a regime of fixed exchange rates, higher domestic inflation relative to international inflation will discourage exports and encourage imports.

Inflation reduces the demand for money and discourages financial sector development.

Firms must change their prices more frequently, resulting in higher

transaction costs and even higher prices.

Firms that do not adjust their prices will end up with lower prices relative to firms that do adjust them. This will distort economic decisions, since relative prices will not be reflecting relative scarcity of economic goods and services.

Rising inflation sets up a price-wage spiral which is difficult to break.

If hyper inflation comes to prevail, the entire economic mechanism will be in disarray as there will be a flight from monetary instruments to physical assets.

Zero inflation targeting could be punitive for those economic sectors whose prices are sticky upward. These sectors will bear the burden of having to compensate for the price increases in the other sectors in order to realize the target of zero inflation. The relative prices will move against the former in this scenario. With a small degree of generally increasing prices it is easier for relative prices to adjust more smoothly. On the other hand, efforts to attain zero inflation can lead to deflation.

In a situation of positive inflationary expectations, consumers and businesses may choose to make purchases sooner than later. This effect tends to keep an economy active in the short term by encouraging spending and borrowing and in the long term by encouraging investments. But inflation can also reduce the incentive to save. Overall, the effect of inflation on gross capital formation in the long run is ambiguous.

Inflation also provides an incentive for those with savings, to invest rather than keep funds idle. If savings are not invested in instruments which yield a positive real rate of return, the purchasing power of savings will erode due to inflation. Inflation encourages investors to take more systematic risks so that the returns to investment stay ahead of the expected inflation.

Inflation also gives central banks room to maneuver, since their primary tool for controlling the money supply and velocity of circulation is the discount rate at which banks can borrow from the central bank. This rate will have to be above the inflation rate since borrowing at a negative interest rate is generally imprudent. Only with a positive inflation rate will the central bank be able to use the discount rate in the management of monetary policy effectively.

6.3. Measurement of Inflation

Inflation is measured by calculating the percentage change of a price index over a specified time period. Different price indices are used to measure changes in prices that affect different groups of the society. The Consumer Price Index (CPI), GDP Deflator, Producer Price Indices (PPIs), and Commodity Price Indices are the frequently used price indices. CPI and GDP deflator are the two most widely used measures of inflation. The GDP deflator is the most comprehensive indicator for measuring inflation since it includes all the components of GDP. However for policy purposes the CPI is used as the indicator to measure inflation since it includes the sub set of goods and services that directly affects the living standards of the public and is therefore more readily understood by it. In Cambodia, the CPI comprises the set of consumer goods and services determined by the nationwide Socio-Economic Survey conducted every four-five years by the National Institute of Statistics (NIS).

6.3.1. The Consumer Price Index

The Consumer Price Index (CPI) is an index number measuring the level of the average price of consumer goods and services purchased by a typical household. Inflation as measured by the change in CPI is given in Table 2.1.

CPIs are constructed using one of the following three approaches, each involving a slightly different domain of prices: a consumption-based

approach; an expenditure approach based on household outlays; and an expenditure approach based on household acquisitions. For most goods and services represented in the CPI, acquisition, outlays and consumption are virtually coincident, so that in reality, the differences in the approaches are immaterial.

Table 2.1. The Consumer Price Index in Cambodia

Consumer Price Index	*Weights*	*2003*	*2004*	*2005*	*2006*
All items	**100.0**	**1.2%**	**3.9%**	**5.8%**	**4.7%**
Food, beverages & tobacco	**46.4**	1.5%	6.4%	8.6%	6.4%
Clothing and foot-ware	**3.0**	-2.1%	-0.9%	3.7%	3.9%
Housing and utilities	**22.9**	-0.1%	1.3%	2.9%	2.5%
House furnishing and HH operations	**2.7**	-0.1%	-0.7%	-0.6%	2.1%
Medical care	**5.1**	-1.8%	-0.9%	0.0%	1.3%
Transportation and communication	**13.4**	4.9%	9.7%	11.4%	9.1%
Recreation and education	**4.1**	-0.7%	0.6%	0.8%	1.1%
Personal care and effects	**2.3**	0.1%	1.4%	3.0%	4.9%

Source: National Institute of Statistics (Base Year =100)

Two sets of data are needed to construct the CPI: price data and a table of weights. The price data are collected for a sample of goods and services from a sample of sales outlets in a sample of locations for a sample of times. A base year is chosen to start the construction of the index number series. The weights to be used for aggregating the prices into an index are also chosen for the base year.

In Cambodia the weights are based upon expenditure data obtained from a sample of household expenditure budgets in the Cambodian Socio-Economic Survey (CEAS). The index is computed monthly by the National Institute of Statistics (NIS) as a weighted average of sub-indices for different components of consumer expenditure, such as : (i) Food, beverages & tobacco (46.4%); (ii) Clothing and foot-ware (3%); (iii)

Housing and utilities (22.9%); (iv) House furnishing and HH operations (2.7%); (v) Medical care (5.1%); (vi) Transportation and communication (13.4%); (vii) Recreation and education (4.1%); and (viii) Personal care and effects (2.3%). Each of these sub groups is in turn a weighted average of sub-sub-indices within the sub group. The weights in the CPI represent the fraction of expenditure allocated to each good or service by the typical household (using data collected by surveying the households in the base year).

CPI has major drawbacks relating to changes in weights between the base year and the actual year of the construction of the index, the choice of the base year and changes in the relative prices between sub-indices from time to time. Some of the issues connected with the "index number problem" are discussed below.

The weight attached to each class of goods and services is held constant for the computation of the index at any given time. When the pattern of consumption changes drastically, the weights have to be changed and the base year revised.. For example, in the CPI prepared by the NIS, the weights were revised using the CSES 2004. The year 2004 was affected by both floods and drought. Consequently food prices rose and the consumers spent a higher proportion of their income on food. However, in 2007 consumers were active in the real estate and housing markets which experienced sharp price increases. Using the weights determined by the 2004 consumption patterns to calculate inflation in 2007 will be misleading.

Another problem with the CPI is the choice of the base year. If the base year happened to be one in which prices or consumer behavior patterns were unrepresentative or abnormal, the computation of inflation in the subsequent years will be distorted. For example, Cambodia experienced low inflation of 4.7 per cent in 2006, while the inflation rate was 5.8 per cent in 2007. When 2006 is chosen as the base year to calculate inflation in early 2008, the inflation rate was substantially higher at 18 per cent.

The CPI cannot measure the change in the quality of goods and services. There can be different scenarios in this case. The households may consume goods and services of higher quality, but this may not be captured by the CPI. The introduction of new goods and services in the consumption set of households due to the increasing sophistication of the economy poses a similar issue.

The CPI may not be able to capture the changes in relative prices of goods and services in the sub-indices. Higher prices of one sub-group can be compensated by the falling prices of the others. The CPI may not show a decline or increase in the cost of living even though there could be some consumer groups which are severely affected by increases in specific sub indices. Therefore, the analysis of "sectoral inflation" is crucial for understanding the changes in relative prices of goods and services.

The change in methods in constructing price indices from time to time also leads to breaks in the time series of the CPI. For example, the NIS changed the weights and the base price for calculating CPI from January 2008. This introduces a break in the CPI series. Finally, because many of the measures are based on somewhat complicated statistical criteria, using them for communication purposes is difficult.

However despite these shortcomings the CPI remains the most reliable, practical and best understood measure of inflation. It has been widely accepted in most countries as the basis for making inflation-related policy changes such as cost of living compensation for labor.

6.3.2. The CPI Formula

For the compilation of Cambodia's Consumer Price Index (CPI), prices are collected for a sample of 259 items from five markets in Phnom Penh and eight markets in five provincial capitals. Item indices are compiled for Phnom Penh and the provinces separately as geometric average of individual price relatives:

$$I^{m;Area}_{Oct06-Dec06;i} = 100 \times \frac{\prod_{s=1}^{S}\left(\frac{P^{m}_{s;i}}{P^{Oct06}_{s;i}}\right)^{\frac{1}{S}}}{\frac{1}{3}\left[1+\prod_{s=1}^{S}\left(\frac{P^{Nov06}_{s;i}}{P^{Oct06}_{s;i}}\right)^{\frac{1}{S}}+\prod_{s=1}^{S}\left(\frac{P^{Dec06}_{s;i}}{P^{Oct06}_{s;i}}\right)^{\frac{1}{S}}\right]}, \qquad (1)$$

- where $P^{m}_{s;i}$ is the current price of item *i* in outlet *s* and

- $P^{Oct06}_{s;i}$ is the corresponding price in October 2006 (2006 is the base year).

For all Cambodia the item indices are calculated as a weighted average of the Phnom Penh and Provinces indices:

$$I^{m;Cambodia}_{Oct06-Dec06;i} = \frac{V_i^{Phnom\_Penh} I^{m;Phnom\_Penh}_{Oct06-Dec06;i}}{V_i^{Phnom\_Penh}+V_i^{Provinces}} + \frac{V_i^{Provinces} I^{m;Provinces}_{Oct06-Dec06;i}}{V_i^{Phnom\_Penh}+V_i^{Provinces}}, \qquad (2)$$

- where V^{Phnom_Penh} and $V^{Provinces}$ are the consumption values for Phnom Penh and the Provinces respectively (2004 CSES)

Aggregate indices for COICOP categories *c* and the All items index are calculated as weighted averages of item indices per area (All Cambodia, Phnom Penh and Provinces respectively):

$$I^{m;Area}_{Oct06-Dec06;c} = \sum_{i \in c} \frac{W_i^{Area} I^{m;Area}_{Oct06-Dec06;i}}{\sum_{i \in c} W_i^{Area}}, \qquad (3)$$

- where W_i^{Area} are the relative item expenditure weights as derived from the 2004 CSES and adjusted to the October-December 2006 price level. Hence the basic definition of the CPI for month *m* is an index of the

Laspeyres-type where however the quantity *q* weight reference period 2004 precedes the price *p* reference period October-December 2006:

$$I^{m}_{Oct06-Dec06} = \frac{\sum p_m q_{2004}}{\sum p_{Oct06-Dec06} q_{2004}} . \qquad (4)$$

According to the new calculation, the household consumption in Phnom Penh constitutes less than 20 percent of total household consumption in Cambodia.

According to the new CPI the consumer prices in Phnom Penh increased by 14.0% from December 2006 to December 2007. According to the old Phnom Penh index the increase was 10.8%. The 3.2% unit difference between these two estimates of the inflation rate is due primarily to the following reasons:

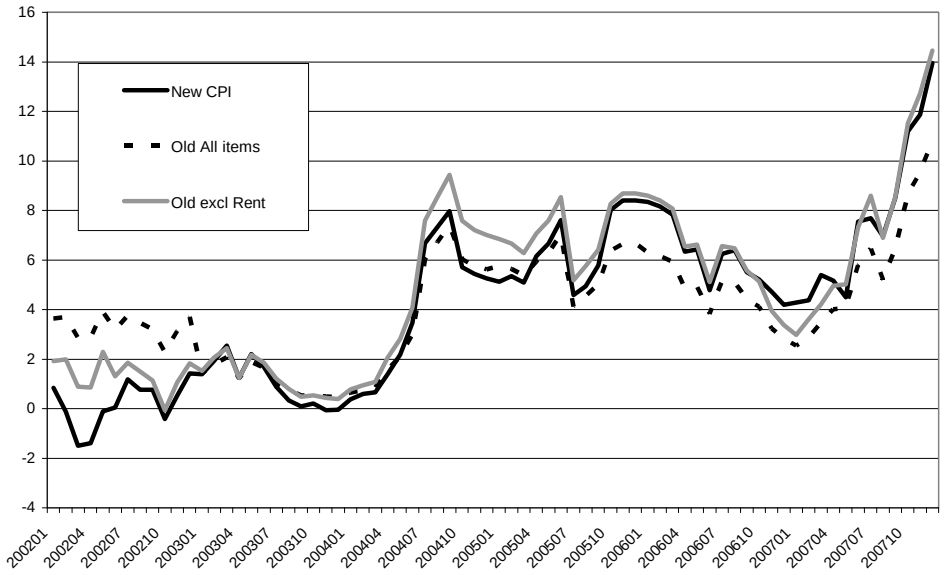
Pork contributes by 2.8% unit to the new index but only 1.9% units to the old one. Pork has shown a sharp price increase during the second half of 2007. The weight for pork is significantly larger in the new index (5.6%) than in the old index (3.7%), and the distribution has shifted towards pork with fat that showed the largest increase – approximately 55%. Therefore the increase has a much larger impact on the new index. Also pork without fat shows a larger increase in the new index compared to the old. This too contributes to the difference.

Fish contributes 2.1% units to the new index and 1.6 to the old. Fish prices have increased 24.4% on the average, which is lower than the 30% which was estimated in the old index, because weights have shifted to fish with relatively lower price increases. However, as the total expenditure weight for fish increased to 9.3% in the new index, compared to 5.4% in the old index, the net effect is an increase of the overall rate of inflation.

Gas (for cooking) is a new item, not included in the old CPI. During 2007, gas prices increased by 55%. This of course influenced the new

index only, contributing by 1.5% units to the overall Phnom Penh inflation rate of 14.0.

Figure 2.2 Phnom Penh CPI rate of change over twelve months



Source: The National Institute of Statistics

The impact from Personal transport equipment is 0.8% unit larger in the new index compared to the old. This is due primarily to the introduction of cars as a new item. Prices for cars increased much more than for other vehicles during 2007.

Depending on relative price change the difference between the inflation rate according to the new CPI and the old varies over time. Since mid 2005 the new index follow the Old index excluding rents quite closely whereas the old All items index shows a lower rate of inflation.

6.3.3 CPI Indicators

The most commonly used indicators are: ***average annual inflation rate***; ***year-on-year inflation*** for a particular month; and ***end-period (last***

quarter) moving average inflation rate. Inflation rate can fluctuate a great deal during the year, reflecting both seasonal price changes and secular changes in supply and demand. The use of the average annual inflation rate will smooth the in-year fluctuations attributable to seasonal factors and help distinguish trend inflation from shocks. But average annual inflation may show the average trend, but may not show the upward or downward direction of inflation. Table 2 gives an illustration of some of these indicators for Cambodia.

Quarterly, end-of-period, and moving average measures of inflation are widely used by the IMF to forecast inflation for the next year. End-of period inflation rate may be lower than the annual average inflation, if inflation is slowing and higher than the annual average, if inflation is accelerating. A 3-month inflation measure is widely used by the Cambodian central bank for inflation targeting. The use of moving averages or 12-month percentage changes reduces volatility in the measurement of inflation, but it also reduces the timeliness of information on core inflation.

Table 2.2. Average and End-of-Period Inflation

	2003	***2004***	***2005***	***2006***	***2007***
Average annual inflation	1.2	3.9	5.8	4.7	5.8
End-of-period inflation	0.5	5.6	6.7	2.8	10.8

Source: The National Institute of Statistics

6.3.4 The Role of CPI in Monetary Policy

The CPI has been used by central banks that have adopted inflation targeting as an instrument of monetary policy, due to both theoretical and practical consideration. From a theoretical perspective, the ultimate concern of monetary policy is to maximize the welfare of the population. As the CPI reflects better the movement in the costs of living than the

GDP deflator, the CPI is a more meaningful measure of the impact of inflation on consumer welfare. The GDP deflator is used mainly to distinguish between nominal and real GDP. Nominal GDP divided by the GDP deflator equals Real GDP.

From a practical perspective, there is a strong case for using the CPI for inflation targeting. For the typical household, the total or headline rate of inflation is what matters. It is headline inflation that measures the rate at which the cost of living is rising. It is headline inflation relative to income growth that determines whether a household's standard of living is rising or falling. CPI is the most commonly used index to measure headline inflation. In view of the resources devoted for its compilation, it is almost always of higher quality and more timely than the other price indices.

For the purpose of calibrating monetary policy, however, the central banks focus on the core rate of inflation: the total excluding food and energy prices. That is because the core is less volatile and a better reflection of the stable interplay of supply and demand in domestic markets. Thus, the core is usually a better gauge of the underlying rate of inflation that will tend to emerge in the absence of supply shocks which are unanticipated and will have to be dealt with post facto.

6.3.5. Calculation of Core Inflation

Core inflation can be calculated by using the following methodologies:

Measures that permanently exclude pre-identified components of the CPI – This is the most common approach used by many countries. Core inflation is calculated by excluding the prices of a fixed, pre-specified set of items, usually food and energy which are volatile or susceptible to supply shocks, from the CPI basket. This approach was chosen for the following reasons: ease of construction; understandability by the general public; easy replication and verification; increased accountability and transparency of measurement; and timeliness. Many countries publish measures of core inflation which systematically exclude

(i.e., by zero weighting) prices of energy and food prices.

Systematic re-weighting of price series – by modifying the normal weighting system in the CPI to systematically down-weight or exclude particular price series that are believed to be primarily determined by supply conditions and up-weight the remaining elements considered to be less prone to supply shocks. The main drawback of the re-weighting approach is that this method may not be reliable over time, especially when the economy is undergoing significant structural change. A major additional problem is that the re-weighting of the CPI sub-components can lead to the resulting measure of core inflation having a different trend than the headline inflation.

The global experience of the past four years poses a challenge to the rationale for focusing on the core. Over that period, crude oil prices have soared, rising from $20 per barrel in early 2002 to around $110 currently. At times, the rise in crude oil prices was related to supply disruptions such as the Iraq war and hurricanes. But predominantly, the upward trend in crude oil prices reflects surging global demands for energy. In any case, the outcome is that headline inflation has far exceeded core inflation for four consecutive years. The issue is whether it is appropriate for the central bank to just focus on the core rate of inflation in such circumstances.

Notwithstanding the concern discussed above, core inflation is used by the central banks to determine whether current movements in consumer prices are short-lived disturbances or are a part of a permanent trend. Such knowledge is crucial for the formulation of monetary policy.

6.4. Global and Regional Inflation- Recent Developments

6.4.1. Experience in the ASEAN+3 Countries

Headline inflation has increased throughout the world in 2004-2007, boosted by the continuing buoyancy of food and energy prices. In the

advanced economies, core inflation has edged upward in recent months despite slowing growth. In the emerging markets, headline inflation has risen more markedly, reflecting both strong demand growth and the greater weight of food and energy in consumption baskets. It is expected that global headline inflation would remain elevated in the first half of 2008, but would ease gradually thereafter as economic activity slows.

Table 2.3. GDP Growth and Inflation in the World

	Real GDP Growth			*CPI Inflation*		
	Year-on-year per cent change			Year-on-year per cent change		
		Projection			Projection	
	2007	2008	2009	2007	2008	2009
World	4.9	3.7	3.8	4.0	4.7	3.7
Advanced economies	2.7	1.3	1.3	2.1	2.6	2.0
United States	2.2	0.5	0.6	2.9	3.0	2.0
Euro area	2.6	1.3	1.1	2.1	2.7	1.9
Japan	2.1	1.4	1.5	0.0	0.6	1.3
Emerging and develop-	7.9	6.7	6.6	6.3	7.4	5.6

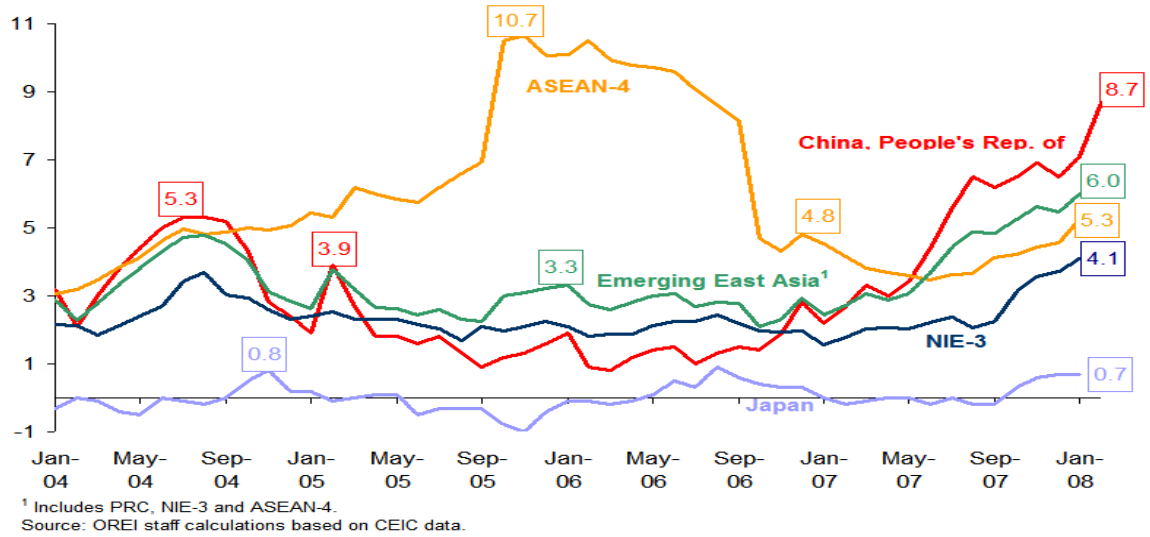
Source: International Monetary Fund

Inflation continues to rise across the ASEAN+3 region, largely due to record high oil and other commodity prices, but also due to strong domestic demand in economies such as China, Singapore, and Viet Nam. In recent months, consumer price inflation has become a concern across the region—a 25-year high in Singapore (6.6%); an 11-year high in China (8.7%) and Viet Nam (15.7%); and a 10-year high in Hong Kong, China (3.8%).

While the initial rise reflected supply-related food price shocks and higher global commodity prices (where allowed to pass through), price increases are now starting to become more broad-based. Core inflation has picked up—particularly in India and the ASEAN-4, reflecting increasing energy

and raw materials prices, with those in Indonesia, Philippines, and Thailand exceeding 5% in February 2008.

Figure 2.3 Regional Inflation (y-o-y, %)



Source: Asian Development Bank

In the NIE-3, particularly Singapore, inflation is also on the upswing. During the first quarter of 2008, the CPI in Vietnam increased by 9.19 per cent over December 2007. Food prices in Vietnam increased by 25.92 per cent; housing and construction materials by 17.94 per cent; and transport and telecommunications by 10.05 per cent. On a year-on-year basis, inflation in the first quarter of 2008 increased by16.38 per cent, compared to the first quarter 2007. Overall, continued robust even if slowing economic growth, relatively tight labor markets, and higher food and energy prices are expected to stoke inflation throughout the region in 2008.

6.4.2. The Causes of Current Episode of Inflation

6.4.2.1 High Oil Prices

Since 2003, oil price has been rising exponentially, from US$22 a barrel to

US$120 a barrel in March 2008, a five-fold increase. It is currently around US$110. Higher oil prices were attributable to the following main reasons (UNDP, 2007):

Stronger demand fuelled by high economic growth in the world. According to the International Energy Agency, during 2002-2005 world oil demand expanded by 7 per cent, to 84 million barrels per day. Much of this growth came from the United States and from Asian developing countries, notably China, which accounted for 30 per cent of total demand growth. This demand surge absorbed much of OPEC's surplus capacity, rendering the oil market more vulnerable to short term supply or demand fluctuations and shocks;

Rising demand for light-oil products, particularly gasoline for transportation and diesel;

Stronger regulation on the quality of petroleum products;

Increases in marginal costs. In the OPEC region, more of the output is coming from smaller oilfields which have higher unit costs, while in the non-OPEC countries more output is coming from the mature basins, which also tend to have higher marginal costs;

Geopolitical factors—tensions and conflicts in some major oil producing regions, especially the Middle East, have raised the probability of supply disruptions; this has added a substantial risk premium to the oil price;

Shrinking buffers—in the past fluctuations in supply and demand have been dampened by three main buffers: surplus production capacity among OPEC members, large oil inventories and surplus refining capacity. All the three buffers have been shrinking. This has made oil prices much more volatile;

Under-investment in exploration and refining—there are shortages in

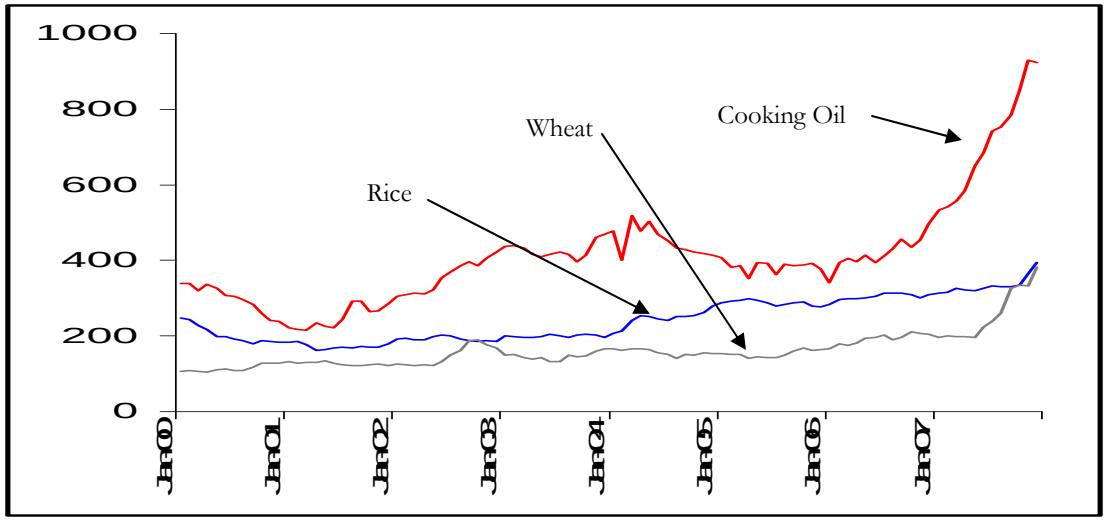
refinery capacity for processing heavy or high-sulphur crudes; and

Depreciation of the US dollar—the pricing of oil is almost entirely in the US dollar. Crude oil contracts are also designated in US dollars. Producers have reacted to the depreciation of the US dollar by increasing the oil price.

6.4.2.2. High Food Prices

Food prices are increasing rapidly worldwide, as demand exceeds the supply capacity, raising a Malthusian specter. Food supplies are becoming a major challenge for the 21st century. In 2007, according to FAO's World Food Index, prices of dairy products rose nearly 80 per cent and grain, 42 per cent. Global food prices rose 35 per cent during the year ending January 2008. The price increase which began at a slow rate in 2002 has been accelerating. During 2002-2007, food prices rose by 65 per cent.

Figure 2.4. World Prices for Selected Food Commodities



Source: Asian Development Bank

Global wheat stocks are at a 30-year low, as a result of bad weather in producing countries and fast growing demand from fast-developing nations. Drought, a declining dollar, a shift of investment into

commodities, use of farm land to grow bio fuel crops, population growth and growing demand from emerging economies such as China have contributed to the widening demand–supply gap for food.

A combination of bad weather in Bangladesh, pests and disease in Vietnam and political problems in Myanmar – until the 1950s the world's top rice exporter – have pushed the rice price close to US$1,000 per tonne. This level has not been seen since the scientific breakthrough of the "green revolution" in the early 1980s boosted yields and dramatically lowered the rice price to below US$400 a tonne. The prices of other agricultural products have risen sympathetically with the rise in food prices. In Vietnam rice export prices have risen from US$500 per tonne in February 2008 to US$700 per tonne in March, up by 72 per cent over 2007. Rice prices are at record levels ranging between US$500-US$800 per tonne in the northern provinces of Vietnam and US$400-US$500 per tonne in southern provinces in late March 2008.

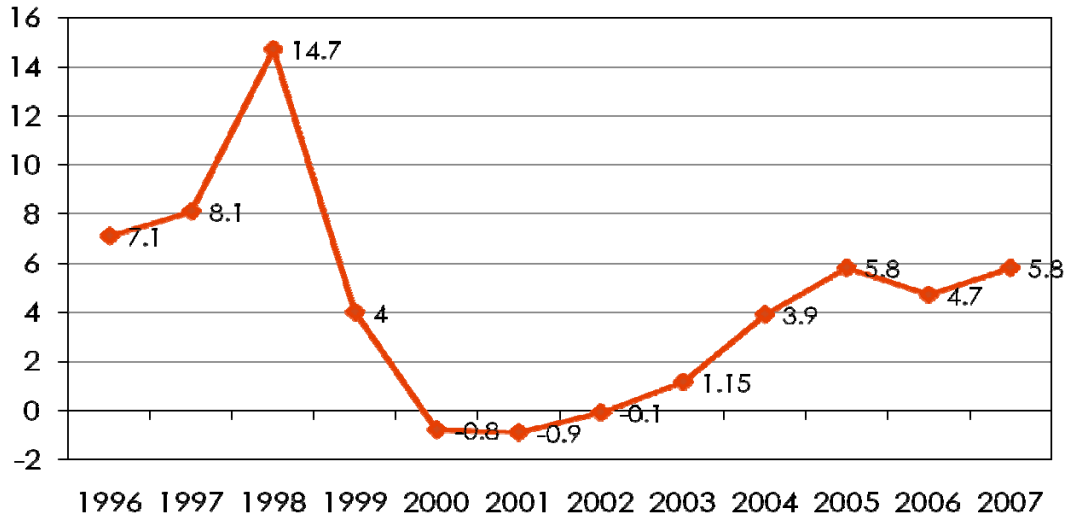
Surging food and oil prices have fuelled inflation amid slowing growth in ASEAN+3 economies, which rely heavily on oil imports. In 2007, the region imported $258.1 billion worth of crude oil comprising nearly 10% of the region's total imports. As food and other commodity prices are at record highs as well, sharply increasing input costs can trigger a wage-price spiral, posing a threat to macroeconomic stability in the regional economies.

Fluctuations in price and shortages in supply of rice could have significant political impacts in the Asian economies. Total world rice trade volume is expected to reach 29.4 million tons in 2008, an increase of 2.1 per cent over 2007. Asia's imports are expected to increase by 7 per cent to 13.5 million tons. The global price of rice has increased sharply since the end of 2007.

6.5. Inflation and its Management in Cambodia

Fig 2.5 shows the behavior of inflation in Cambodia during 2002-2007.

Figure 2.5. Inflation in Cambodia

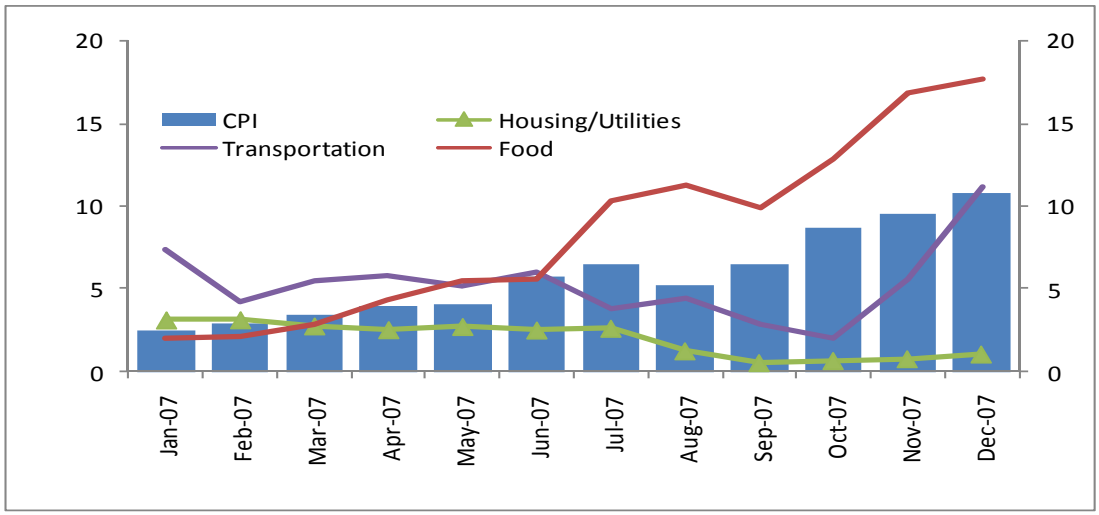


Source: National Institute of Statistics

Inflation (annual average) accelerated from 4.7 per cent in 2006 to 5.8 per cent in 2007. Rapid increase in oil prices, the hike in food prices, Thai baht appreciation and US dollar depreciation contributed to the rising inflation. The retail price of rice increased by 16.8 per cent from 1,410 riel to 1,602 riel per kilo for high quality rice, reflecting supply constraints due to rising rice exports to neighboring countries. The pump price of petrol increased by 10 per cent over 2006, while the prices of diesel increased by 18 per cent. As Cambodia imports the bulk of consumer products from Thailand, Thai baht appreciation also resulted in higher prices for consumer goods.

During 2007, measured by the 12-month change in the CPI, sharp price increases were recorded in all the eight sub-groups, with subgroup of Food, Beverage and Tobacco posting the highest annual increase of 19.7 per cent. The sub-group of Transportation & Telecommunication also contributed significantly to the overall price increase, surging by 13.1 per cent. Other sub-groups increased moderately with Clothing & Footwear increasing by 4.6 per cent, House Furnishing and Household Operation by 5.4 per cent and Medical Care by 5.5 per cent.

Figure 2.6. CPI and Sub-Indices (Y/Y % change)

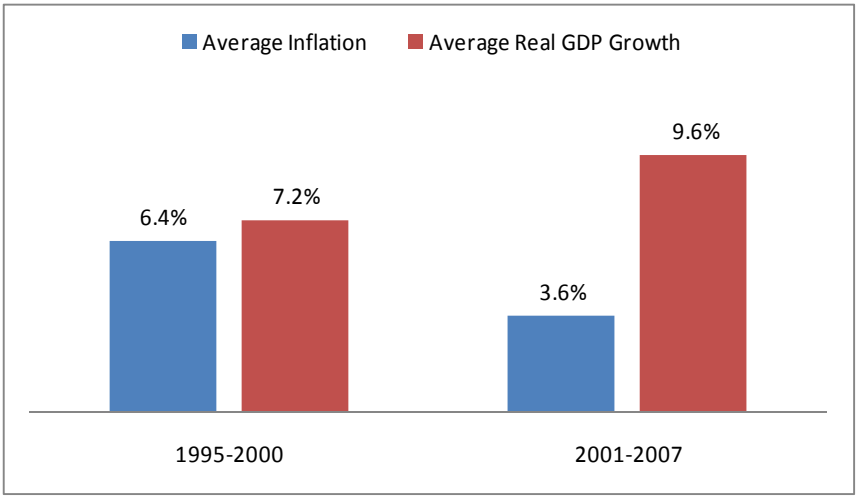


Source: National Institute of Statistics

In the CPI, the major sub groups are Food, Beverages and Tobacco with a weight of 42.7, Housing & Utilities (33.3) and Transportation & Telecommunication (8.7). The increase in the Food, Beverages & Tobacco sub-group index was mainly due to the increase in the prices of rice, fish, meat and fruits. Rice and fish are the main staples of the Cambodian population and their ever escalating prices can have serious social consequences. The government has recently put considerable emphasis on the development of the agricultural sector, while the Central Bank is actively promoting microfinance and bank lending to SMEs.

Despite high oil prices, Cambodia has managed to contain inflation and continued to post robust economic growth. In 2007, even with inflation of 5.8 per cent, Cambodia posted a robust GDP growth of 9.7 per cent. However Cambodia is an oil importer and ever rising oil prices might stifle economic growth eventually. Historically, economic growth seems to be negatively correlated with inflation. For e.g. during 1995-2000, average inflation was a high 6.4 per cent, while economic growth averaged 7.2 per cent. During 2001-2007, inflation averaged a low 3.6 per cent while GDP growth averaged 9.6 per cent.

Figure 2.7. Real GDP Growth and Inflation



Source: International Monetary Fund

6.5.1. Policy Response to Control Inflation

A brief assessment of the various factors which should figure in a comprehensive anti-inflation strategy is given below:

A stable exchange rate is crucial to manage inflation. The exchange rate of the riel has remained stable in the last few years. The level of dollarization seems to have peaked and does not appear to pose a major future inflationary threat, but this could be reversed if there is a loss of confidence flight from the riel;

Increases in the prices of fuels are transmitted to CPI through transportation and production costs. The input-output structure of Cambodia oil market and the transmission mechanisms should be better understood for considering options such as the restructuring of taxes for controlling inflation;

The overall budget deficit would have a significant impact on inflation. However, the tight fiscal policy pursued by the government in recent years as the main instrument of its macroeconomic management strategy,

has virtually eliminated this risk. In view of the critical role of fiscal policy in demand management in the dollarized environment, there can be no relaxation of this strategic approach;

Domestic prices tend to rise during June-October (lean season) and decline during November-December (harvest season). The seasonal impact could be reduced through more investments in market and storage infrastructure;

Cambodia is still vulnerable to weather shocks, although the government has made substantial investments in irrigation. As a long run measure to curb inflation, Cambodia should expand its production base, particularly in agriculture which contributes a large share of the consumption of the poor. The development of technologies which render agriculture less vulnerable to extreme weather conditions and well-planned measures to mitigate or cope with unexpected disasters will be helpful to contain inflation and its adverse impacts;

Finally, a trusted government with a proven track record in macroeconomic management and fighting inflation will help abate inflationary expectations. This will facilitate an orderly transition to a riel based economy which could be then managed by using the standard techniques of monetary policy.

In designing monetary response to inflation, it is important to differentiate between the cyclical factors contributing to inflation and the longer term inflationary expectations. One size fits all is not an efficient approach to designing monetary policy. One of the key aspects of monetary policy design is to understand the structure of the short-run aggregate supply schedule. It is important to distinguish between shifts in the aggregate demand schedule as opposed to shifts in the aggregate supply schedule while calibrating monetary policy to tackle inflation.

In the event of demand induced inflation, monetary policy should aim to encourage the economy to increase capacity utilization around the trend or potential level of output. If inflation is supply induced the response

should aim at regulating aggregate demand. However this might conflict with the objective of economic growth. The central bank should generally formulate policy so as to minimize the variance of output around the trend, even if its main objective is controlling inflation.

Cambodia is a small, open economy and a heavily dollarized economy, with a liberalized capital account and a managed floating exchange rate regime. Therefore, even with a tightening of monetary policy, capital inflows may continue, reflecting investor's appetite for domestic assets and the robust domestic economic outlook. The capital inflows could result in asset price inflation which would exacerbate the current high inflation environment. This requires a prudent economic policy that simultaneously addresses price stability, exchange rate stability and management of capital inflows.

6.5.2. Monetary Policy Response to Inflation

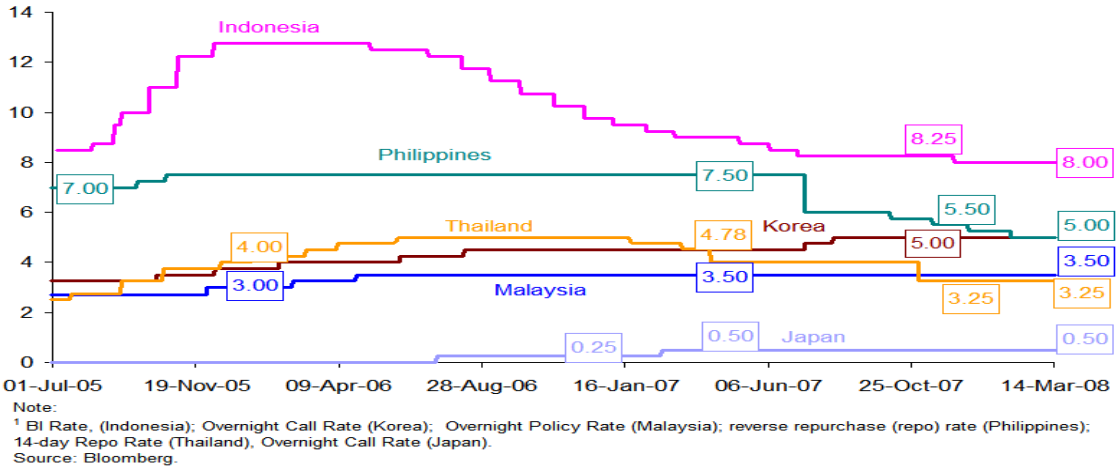
Economic literature provides a discussion of various monetary policy tools to fight inflation.. Monetarists emphasize increasing interest rates as a monetary policy tool to fight inflation. Keynesians emphasize reducing demand in general, often through fiscal policy, using increased taxation or reduced government spending as well as by using monetary policy. Supply -side economists advocate fighting inflation by fixing the exchange rate between the domestic currency and a reference currency. In practice, fighting inflation requires a package of monetary policy, fiscal policy and other policy measures.

Interest Rate Policy - High interest rates and slow growth of the money supply are the traditional ways through which central banks fight or prevent inflation. However, in a dollarized economy like Cambodia, interest rate policy is not effective. In fact Fig. 7 shows that interest rates have not had a major role in fighting rising inflation in the region.

Other monetary policy instruments such as reserve requirements can also be used to achieve a contractionary effect on the money supply. To

strengthen public confidence in the banking system, a crucial determinant of financial sector stability, the central banks should strengthen institutional capacity and promote credibility of the banking sector by improving commercial bank supervision and regulation including on-site inspection. Moreover, the central bank should monitor marked-to-market exposures and funding risks, and formulate plans to strengthen the capital position of banks.

Figure 2.8. Limited role of interest rate in fighting inflation
(Policy Rates, % per annum)

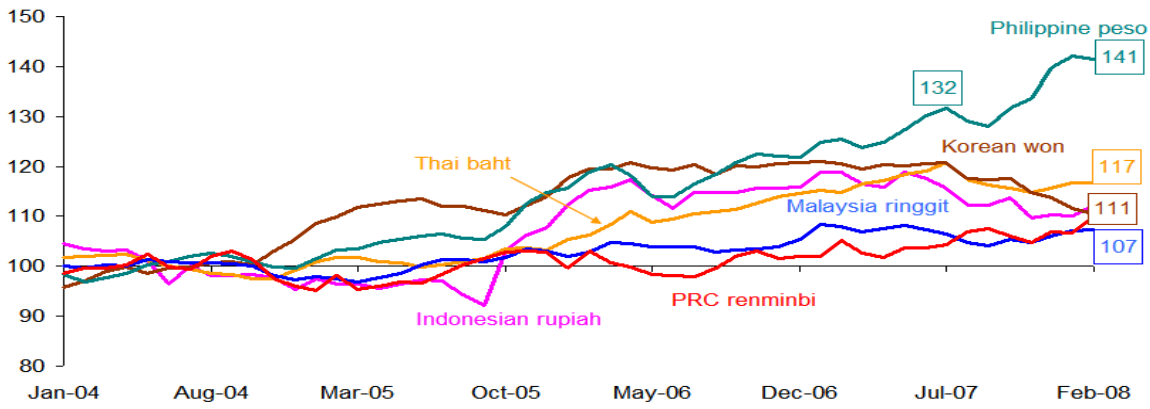


Note:
[1] BI Rate, (Indonesia); Overnight Call Rate (Korea); Overnight Policy Rate (Malaysia); reverse repurchase (repo) rate (Philippines); 14-day Repo Rate (Thailand), Overnight Call Rate (Japan).
Source: Bloomberg.

Source: Asian Development Bank

However, in an environment dominated by cost-push inflation, credit tightening could dampen domestic demand precisely at a time when credit support for sustaining output is critical. Moreover, monetary policy to control inflation may not work, when price pressures are largely external in origin. The risk to lower growth would be greater, however, if an insufficient monetary response allowed cost-driven price hikes to feed even higher inflation expectations, thus leading to a vicious wage-price spiral. Taking timely and preemptive action in times of price volatility is critical to curb inflationary expectations and to maintain policy credibility, thus ensuring economic activity continues at a sustained pace with stable prices.

Figure 2.9. Real Effective Exchange Rate (broad indexes, 2004=100)



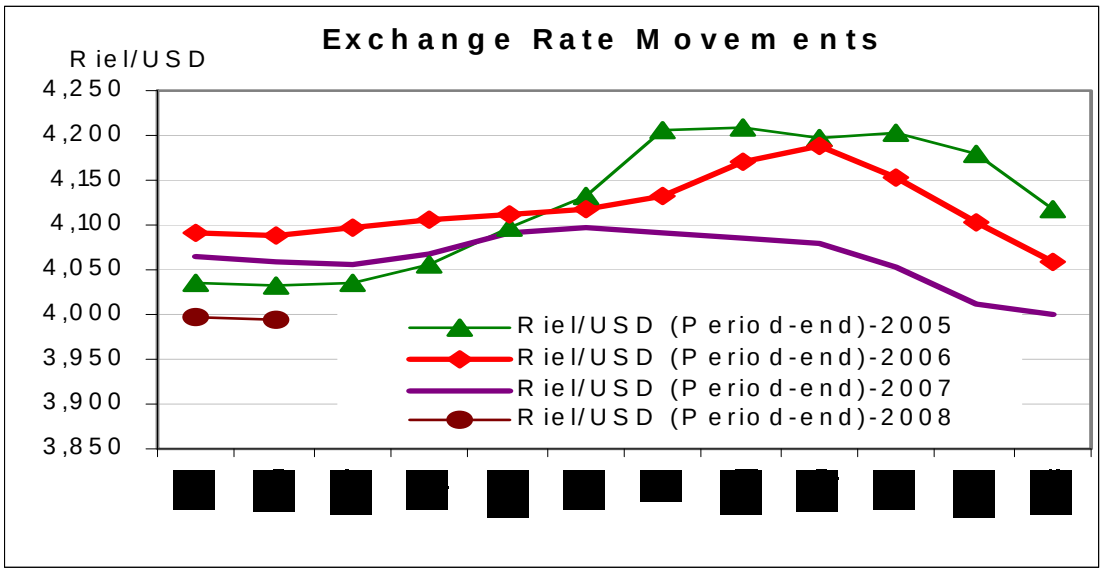
[1] Weighted average of a basket of 51 bilateral exchange rates adjusted by relative consumer prices. The weights are derived from manufacturing trade flows. An increase is an appreciation.
Source: Bank for International Settlements.

Source: Asian Development Bank

Exchange Rate Policy – Exchange rate policy plays an important role in a small, open economy, especially a dollarized economy. Fighting inflation requires the nominal exchange rate to appreciate relative to the real effective exchange rate. Appreciating currencies will also help to dampen inflation pressures through lowering import costs. Exchange rate policy is crucial for countries like Cambodia and Singapore, which rely heavily on exchange rate policy as an effective monetary policy instrument;

Maintaining an exchange rate and monetary policy stance through sterilization is extremely costly in light of the recent surge in private capital flows. However, without such sterilization, unrestrained capital inflows will feed rapid currency appreciation, excessive liquidity growth, and asset price bubbles. The widening gap between the domestic and US interest rates will continue to encourage capital inflows. Some economies in the region have introduced capital controls in order to gain control over monetary policy. However, capital controls could erode investor confidence and should be used with utmost care and restraint;

Figure 2.10. Exchange Rate Movements in Cambodia



Source: National Bank of Cambodia

Nurturing more efficient and diversified financial markets would not only help channel capital into productive use, but would also enable a more effective management of capital flows and foreign exchange reserves. Deepening financial systems and implementing market reforms are crucial, if long-term, ways to build financial stability. Measures to develop deeper, more broad-based and transparent financial markets need to be accelerated to allocate financial resources more efficiently and to strengthen the resilience of the domestic financial system to withstand shocks from the ever present threat of herd behavior of international investors.

6.5.3. Fiscal Police Response to Inflation

Given the limited role of monetary policy in Cambodia's dollarized economy, fiscal policy provides the government with a potent tool to fight inflation. The conservative fiscal stance in the last few years has contributed substantially to managing inflation. The following aspects of Cambodia's fiscal policy have important implications for fighting inflation:

Prudent fiscal policies during 2004-2007 as part of the Public Financial Management Reform Program (PFMRP) and robust economic growth have resulted in increased revenue and streamlined expenditures. This has created a fiscal space that could be used to combat any serious growth slowdown from the threat of inflation. The fiscal reforms have also put in place a system of automatic stabilizers. Should economic growth slowdown, automatic fiscal stabilizers are expected to engage mitigating the impact on the corporate sector and allowing the economy to rapidly recover from the slowdown;

The fiscal stance emphasizes the balanced budget approach. ***On the revenue side***, slower growth could result in revenue shortfalls. A temporary reduction in import tariffs for the most sensitive consumer goods could be implemented to reduce the fiscal burdens on poor households. This measure would also result in revenue loss to the budget. ***On the expenditure side***, accommodative actions could be taken as early as in the 2008 budget taking care to ensure that social and economic expenditures targeting the vulnerable groups are protected and uneconomic and wasteful expenditures avoided. Increased subsidies provided for power generation and foregone revenue from the taxation of oil imports can continue to mitigate the impact of imported inflation.

6.5.4. Managing the Inflationary Impact of High Oil Prices

Increases in oil prices are inflationary for all oil importing countries as they permeate the entire input-output structure. The inflationary impact is particularly severe for Cambodia in view of the high energy intensity of its production structure and has to be carefully managed. For Cambodia this has involved:

1. Limiting the "pass-through" of global high oil prices to domestic prices (Box 1);

2. Subsidizing power generation to prevent the transmission of high oil prices into high energy costs.

Table 2.4. Taxes on Petroleum Products

Types of Taxes	Tax Calculation
1– Gasoline -Tax base: -Import Tax -Additional Tax -Excise Tax -VAT -Taxes payable	 CIF = 309 USD/T (1T=1390L) CD = 309 × 35% = 108.15USD AT = 1390L × 0.02USD = 27.80USD ST =(309USD+108.15USD+27.80)×33.33%= 148.30USD VAT= (309+108.15+27.80+148.3+3.80)×10% = 59.71USD Total = 343.96USD
2- Kerosene -Tax base: -Import Tax -Excise Tax -VAT -Taxes payable	 CIF = 230 USD/T (1T=1250L) CD = 2030× 7% = 16.10USD ST = (230USD+16.10USD)×10% = 24.61USD VAT = (230+16.10+24.61+3.80)×10% = 27.45USD Total = 68.16USD
3- Diesel Oil -Tax base: -Import Tax -Additional Tax -Excise Tax -VAT -Taxes payable	 CIF = 267 USD/T (1T=1190L) CD = 267 × 35% = 40.05USD AT = 1190L × 0.04USD = 47.60USD ST = (267USD+40.05USD+47.60)×4.35% = 15.43USD VAT = (267+40.05+47.60+15.43+3.80)×10% = 37.39USD Total = 140.47USD
4- Fuel Oil -Tax base: -Import Tax -VAT -Taxes payable	 CIF = 129 USD/T (1T=1050L) CD = 129USD × 7% = 9.03USD VAT = (129+9.03+3.80)×10% = 14.18USD Total = 23.21USD Gas and lubricants are also subject to the above taxation procedures.

Source: MEF

The government provided a subsidy of US$170 million to oil consumers in 2007 in foregone tax revenue. In 2008, the foregone tax revenue is expected to amount to US$240 million. The 'pass-through' of global oil prices to domestic prices is being moderated by basing the taxes payable on the administrative price of US$302 per ton. In 2007, importers paid a tax of US$344 per ton for gasoline based on the administrative price of US$302, even though the market price of oil increased to more than US$1,000 per ton. In order to limit the impact of high oil prices on poor people, the government has imposed low taxes on kerosene imports (7 per cent for Import Duties, compared to 35 per cent for gasoline, 10 per cent for Excise Tax, compared to 33.33 per cent for gasoline). There is no Additional Tax imposed on kerosene import. Table 4 provides the formulas used for calculating taxes on petroleum products in 2007.

In order to mitigate the impact of high oil prices on the cost of power, during1999-2007, the government provided a subsidy of US$ 37.5 million to the State-Owned power utility Electricity of Cambodia (EDC). The scale of the subsidy rose sharply in 2005-2007. In 2008, in anticipation of higher oil prices, the government has planned to scale up the subsidy to US$41 million.

6.5. 4 Administrative Measures

Subsidies and price control are the most common administrative measures used to control inflation. But administrative price-fixing and subsidies can alleviate the symptom of high market prices but do not provide a lasting solution to the basic problem of imbalance between demand and supply. If at all, administrative measures and subsidies should be implemented only temporarily, with identified targets to minimize market distortions. If for e.g. subsidies on food and oil are considered permanent, there will be no incentive to restructure the economy which is the only lasting solution for correcting the imbalance. Moreover, food and energy subsidies would erode the fiscal space for stimulating a slowing economy and reduce investment expenditure.

In the medium to long-run, administrative controls would prevent the economy to readjust and create serious economic distortions. For example, artificially fixed low food prices would discourage farmers to produce more, thus creating more shortages and generating additional inflationary pressures.

Wage control or "incomes policy" is another technique of administering prices. While this tool may be adopted to cut the wage-price spiral, it is a draconian measure and a disincentive to work, with disastrous social consequences. This tool is generally not effective in a market economy which works on the price mechanism and is rarely considered as a policy option in managing inflation.

6.5.5. Conserving Energy and Diversifying the Sources of Energy

Since international oil markets are likely to stay tight in the future, Cambodia as an oil importer should consider energy conservation by (i) reducing subsidies and bringing local prices in line with global prices to eliminate wasteful, low-value uses; (ii) avoiding distorting and possibly ineffective administrative price controls; (iii) introducing taxes and providing market incentives to promote energy efficiency; and (iv) fostering competitive energy markets that reward private sector innovation.

Higher oil prices have encouraged the production of alternative energy sources. Cambodia is involved in the market for bio fuels. There is a strong correlation between the prices of bio fuels and oil. As oil prices escalate, so do the prices of bio fuels. In 2007 and 2008 the prices of maize and cassava went up as a result of increased demand for these products for export. This fuelled a general increase in agricultural prices as all agricultural prices tend to move in unison. Farmers have generally benefited from this development. Bio fuel production is attractive from a commercial perspective. But it could cut into food production and result in a zero sum game.

Cambodia's power generation relies mainly on diesel-fired and heavy oil-fired power plants. To shield the power consumer from the high power tariffs this oil dependence of power generation implies, the government has promoted the diversification of energy sources by encouraging investments in hydro-power and coal-fired power plants, as well as by importing electricity from Thailand and Vietnam. The government has also promoted investments in the national power grid since grid supplied power is cheaper than the power generated by stand alone gensets. The objective is to reduce gradually the electricity tariff to about 11 cents per kWh by 2011. The use of alternative sources of energy such as solar energy and bio-mass energy, agricultural wastes, such as bagasse, rice husk and wood waste is also being encouraged.

6.5.6 An Action Program to fight Rising Inflationary Pressures

In response to the spurt in inflation, the government has taken the following measures:

Temporarily ration rice to the urban poor. This measure has arrested the panic and brought down the retail price of rice from US$1,000 to US$500 per ton;

Release additional funds of US$10 million to stockpile rice;

Impose a two-month ban on rice exports in order to conserve rice supplies.

Other measures that could be considered include a tax on rice exports. Such fiscal measure would be in line with WTO rules, while non-tax measures, such as export licenses and temporary export bans are seen as being in contravention of the WTO approved trade regime. However, imposition of such a tax is generally not popular with the farmers.

The current high inflation environment stirs policy debate on the logic of persisting with the dollarized economy. Dollarization has meant losing control over monetary policy. But since 95-97 per cent of bank transactions are designated in US dollars switching to a riel based monetary system at this sensitive juncture is not a viable option. The current inflation has been generated by both cost-push and demand-pull pressures. Since Cambodia imports a large volume of consumer goods, pegging the riel to the US dollar makes it vulnerable to externally induced inflation. However, pegging riel to the US dollar allows the Central Bank to accumulate international reserves and maintain export competitiveness but at the cost of adding to domestic liquidity and the demand pull. Allowing the riel to appreciate gradually could be seen as a policy option to control inflation. But many Cambodian workers and employees receive salaries in US dollars. Eroding the purchasing power of people receiving wages in US dollars may also not be acceptable.. A trade-off, therefore,

has to be considered in the social welfare function between pegging the riel to the US dollar and allowing the riel to appreciate against US dollar.

Measures to control inflation should consider a package of monetary and fiscal policies and administrative controls aimed at reducing costs and curbing aggregate demand. Policies to increase supply of agricultural products would also be crucial to reduce inflationary pressures.

Monetary Policy – Increase the reserves requirement for commercial banks from the current 8 per cent to say 11 per cent and even higher could slow down the expansion of credit to the private sector, which rose sharply during 2005-2007. This will have an indirect, contractionary impact on broad money (M2). As Cambodia is an open, liberalized capital account regime, increasing reserve requirements will not stop capital inflows. Broad money may continue to expand, but commercial banks would be faced with the prospect of having to deposit increasing amount of non-interest bearing reserves with the NBC. The resulting higher cost of bank intermediation would discourage financial sector development.

Exchange Rate Policy – Allowing the riel to appreciate slowly would make imports less expensive in riel terms, but this does not address the fundamental issue that the inflation is fuelled by US dollar depreciation and the increase in oil and food prices. The winners will include people who earn in riel and purchase imports. The losers would include earners in US dollars including exporters and those who hold US dollars. They would find that except while purchasing goods imported from the US their purchasing power has diminished. Since the majority of Cambodians hold US dollars as their main saving instrument, this measure may not be palatable. However, riel appreciation may encourage economic agents to switch to the riel and speed up de-dollarization;

Fiscal policy – Maintain fiscal consolidation, through measures to boost revenue collection, temporarily allow tariff exemptions on inflation-sensitive products, provide subsidies for power generation, and keep

expenditure under check by targeting spending on social and economic sectors and curbing wasteful expenditures.

Administrative measures – should be implemented only temporarily, with identified targets to minimize distortions created in markets and realizing that increased expenditures on food and energy subsidies would erode the fiscal space for stimulating the economy and reduce investment expenditure;

Continued strengthening of the financial sector – this should include the improved onsite audit of financial institutions to ensure that they are not in breach of prudential norms. Care should be taken to prevent banks from fueling asset price bubbles, particularly through speculative real estate financing.

In conclusion, higher prices encourage higher outputs and are not necessarily bad. The challenge is to manage the rise in prices so that it provides an incentive to producers but does not subject the consumers to serious welfare losses. However when there are capacity constraints adding to aggregate demand will only be inflationary. In the long run it is addition to capacity that can generate increased output. Inflation could also occur during economic stagnation. The conduct of monetary policy, therefore, should be based on an analysis of the cost-push and demand-pull factors underlying inflation.

The current episode of inflation can be considered as an outcome of a combination of cost-push and demand-pull factors. Relying only on tightening the monetary policy may not yield the expected results since it does not address the cost push factors and could trigger an economic slowdown. However, a certain degree of tightening monetary policy would be appropriate to cool the current level of excessive aggregate demand. Supply side adjustments are the long run solution to inflation. Deeper and more comprehensive structural reforms should be undertaken to build an environment more conducive to business

investment. These include diversifying the economic base and export markets, establishing a resilient and robust financial sector, implementing comprehensive structural reforms to improve efficiency and competitiveness, eliminating unnecessary regulatory barriers, providing private sector incentives, encouraging corporate governance and market discipline, creating a level playing field across sectors, and fostering competition to upgrade institutional capacity.

Part III
Fiscal Management

1. Introduction

The macroeconomic effects of government expenditures, taxation and debt are of great importance and have to be carefully managed. Fiscal policy affects aggregate demand, the distribution of wealth, and the economy's capacity to produce goods and services. In the short run, changes in spending or taxation can alter both the magnitude and the pattern of demand for goods and services. Over the long run, fiscal policy affects the allocation of resources and productive capacity of an economy through its influence on the returns to factors of production, the investment in technology and development of human capital, and the allocation of capital spending. Tax rates, through their effects on the net returns to labor, saving and investment, also influence the supply of factors and the choice of production techniques.

There are two broad views in macroeconomics of the ability of fiscal policy to stabilize or affect economic activity.

- The first view sees the economy operating at its potential output and quickly returning to full capacity equilibrium whenever disturbances displace it from full employment. Thus, changes in fiscal policy have little potential for stabilizing the economy;

- The second view sees market failures causing the economy to adjust with more difficulty to economic disturbances. Such failures include lack of anticipation of market demand, particularly future demand for goods and services. In the absence of this information producers would reduce hiring and capital investment. Fiscal policy

can help smooth the impact of such disturbances by providing offsets through incentives and public investment.

Overall how the economy reacts to fiscal policy depends on whether it is operating at full employment or below full capacity.

2. Fiscal Policy: A Conceptual Framework

Fiscal policy refers to government policy that attempts to influence the direction of the economy through changes in government spending or taxes. Fiscal policy can be contrasted with the other main type of economic policy, monetary policy, which attempts to stabilize the economy by manipulating interest rates and the supply of money.

Fiscal policy can also be defined as the mechanics of prudent fiscal behavior of the State. Adam Smith referred to this principle as, "What is prudence in the conduct of every private family can scarcely be folly in that of a great kingdom." (cited in Premchand, 1983). Fiscal policy provides the vehicle for the State to exercise its fiduciary responsibilities.

Modern fiscal policy is based on the theories of British economist John Maynard Keynes, propounded in the General Theory of Employment, Interest and Money. Keynes was mainly concerned with providing a diagnosis of the Great Depression of the 1930s and ways to revive the capitalist economies affected by the crisis. According to Keynesian economics governments can influence aggregate demand by increasing or decreasing tax levels and public spending. By using a mixture of monetary and fiscal policies, governments are able to pull up consumption and investment and generate employment in an underperforming economy. Even though much of what Keynes wrote applied to developed western economies the analytical frame work which he used to analyze aggregate demand has a great deal of validity for developing economies as well.

Fiscal policy can be defined as the use of taxes, government spending, and public debt operations to influence the economic activities of the country in desired ways. It is concerned with the allocation of resources between the public and private sectors and their use for achieving stability and growth. (Premchand, 1983)**.**

Fiscal policy impacts on employment, price stability, savings, investment and the balance of payments. Discussions of fiscal policy usually focus on the effect of the government budget on such macroeconomic variables as GNP, employment and inflation. In particular, changes in the level and composition of taxation and government spending can impact on the following macroeconomic variables:

- Aggregate demand and the level of economic activity;
- The pattern of resource allocation;
- The distribution of income.

The three possible stances of fiscal policy are neutral, expansionary and contractionary:

- ***A neutral stance of fiscal policy*** implies a balanced budget where G = T (Government spending = Tax revenue). Government spending is fully funded by tax revenue and overall the budget outcome has a neutral effect on the level of economic activity.

- ***An expansionary stance of fiscal policy*** involves a net increase in government spending (G > T) through a rise in government spending or a fall in taxation revenue or a combination of the two. This will lead to a larger budget deficit or a smaller budget surplus depending on the previous budget situation. Expansionary fiscal policy is usually associated with a budget deficit.

- ***Contractionary fiscal policy*** (G < T) occurs when net government spending is reduced either through higher tax revenue or reduced government spending or a combination of the two. This would lead to a lower budget deficit or a larger surplus compared with the previous budget. Contractionary fiscal policy is usually associated with a budget surplus.

3. The Goals of Fiscal Policy

The main goal of fiscal policy is the **pursuit of stabilization**, which involves budgetary planning and a dynamic assessment of budget implementation and impact. **Management of aggregate demand** is a short-term function of fiscal policy. Fiscal policy is used to stimulate demand, thus ensuring a market for goods and services which are produced, while encouraging the appropriate use of labor and capital to increase employment. In development context, another goal of fiscal policy is to increase the flows of savings to the government sector for financing development expenditure and for providing infrastructure to **promote economic growth**. Fiscal policy should therefore aim at stability in a growing economy.

A third goal of fiscal policy is to ensure **equitable distribution of income** among different sections of the population. Although using fiscal policy alone will not reduce inequalities stemming from government policies and market driven economic development, in conjunction with other social policies and reforms, it can help improve equity in the economic system. As a minimum fiscal policy should aim to reduce regional and sectoral disparities.

4. The Economic Effects of Fiscal Policy

The ***three main instruments*** of fiscal policy are ***government spending, taxation, and borrowing.*** A comprehensive formulation of fiscal policy requires the identification of various aspects of public finance including budget formulation and execution, the tax systems, their incidence and shifting, and public financial management.

4.1. Fiscal Policy and Aggregate Demand

Fiscal policy in developed countries is usually associated with aggregate demand management in order to regulate economic activity and reduce unemployment. Fiscal policy is used to minimize the cyclical impact of business cycles in developed economies by reducing the fluctuations in demand. In a recession when demand is weak, the government can run an expansionary fiscal policy, thus helping to restore output to its normal level and to put unemployed workers and capital to work. During a boom, when inflation is perceived to be the more urgent problem than unemployment, the government can run a budget surplus, helping to slow down the economy. Thus a countercyclical fiscal policy would result in a budget that is balanced on average.

A fiscal expansion occurs through two channels:

- First, the government increases purchases but keeps taxes the same;
- Second, the government cuts taxes or increases transfer payments raising people's disposable income which in turn will increase consumption;

The first impact of a fiscal expansion is to raise the demand for goods and services. This greater demand leads to increases in both output and prices. The degree to which higher demand increases output and prices depends on the shape of the aggregate supply curve and the state of the business cycle. If the aggregate supply curve has turned vertical on reaching the potential output level, an increase in aggregate demand will be inflationary with little output response. The aggregate supply curve is likely to be

flatter when the economy is in recession, with unused productive capacity and unemployed workers. An increases in demand in this situation will lead mostly to higher output without changing the price level much.

Paradoxically the expansionary impact of a budget deficit could be offset by the contractionary impact of a rise in interest rates due to the financing of the deficit. Funds for financing the deficit should come from public borrowing (such as by the issue of government bonds), overseas borrowing or the printing of new money. When government funds the deficit with public market borrowings an increase in interest rates across the market would occur due to the crowding out effect and the tightening of credit conditions. This will have a contractionary impact on investment and consumption. Higher interest rates will encourage saving, and discourage investment and consumption. Thus the two impacts of the budget deficit could run in opposite directions and no clear *a priori* conclusion can be drawn as to which of the two impacts will ultimately prove stronger.

When an expansionary fiscal policy is implemented by way of decrease in taxes, or increased consumption, it leads to increase in aggregate demand; however, an unchecked spiral in aggregate demand will lead to inflation. Hence, checks need to be kept in place. Another problem is the unpredictable time lag between the implementation of the policy, and visible effect of the implemented policy seen in the economy

Fiscal policy also changes the composition of aggregate demand. When the government finances the budget deficit it withdraws resources from the private sector and redeploys them resulting in an implicit reallocation of resources in the economy. The efficiency and welfare implications of such reallocation are not entirely clear

In an open economy, fiscal policy also affects the exchange rate and the trade balance. In the case of a fiscal expansion, the rise in interest rates due to government borrowing attracts foreign capital inflows. Foreigners

bid up the price of the foreign currency causing an exchange rate appreciation. This appreciation makes imported goods cheaper and exports more expensive abroad, leading to a decline of the trade balance. Foreigners sell more to the country than they buy from it, and in return acquire ownership of assets in the country. The current account weakening is compensated by capital account strengthening. This reasoning is at the heart of Chenery's two gap model where the investment-savings gap is equal to the current account deficit.

Classical and Keynesian economists have different views about the effect of tax changes on aggregate demand. Classical economists assume that lump-sum tax changes do not affect total national saving and thus have no impact on the IS curve or the aggregate demand. They reject validity of attempts to smooth business cycles by fiscal policy or by any other means.

Keynesians view that a cut in taxes is likely to stimulate consumption due to higher disposable income and reduce national saving. This is considered desirable when aggregate demand is weak in a recession. A similar effect can be achieved by simply increasing public expenditure. The consumption multiplier will yield an output expansion provided there is idle capacity. However development economists have pointed out that when there is no idle capacity simply raising public expenditure will be inflationary. ,

Even Keynesians admit that the use of fiscal policy as a stabilization tool is difficult:

- First, a significant problem is lack of flexibility in applying fiscal tools. The budget is a political instrument and has many purposes besides macroeconomic stabilization (for e.g. security, poverty reduction, social development etc). Government spending is committed some years in advance. Expanding or contracting spending for macroeconomic stabilization purposes is difficult.

Taxes are easier to change than spending, but the tax laws also have many different objectives;

- Second, there are long time lags between the decision to apply a fiscal tool and the actual implementation of the tool due to the slow -moving political process by which fiscal policy is made. By the time an antirecessionary fiscal measure is put in place the recession might already be over.

One way to avoid the problems of inflexibility and long lags in fiscal policy is to build **automatic stabilizers** into the budget. Automatic stabilizers are provisions in the budget that cause government spending to rise or taxes to fall automatically – without legislative action – countercyclical to economic activity. In an expansion taxes will rise and expenditure decline while in a recession the opposite fiscal changes will occur.

An example of an automatic fiscal stabilizer is unemployment security. The government spends more on unemployment benefits during recessions (when the unemployment rate is high) and less during expansion. The income tax system could also incorporate important automatic stabilizes. For e.g. when the economy is booming tax collection will be high and in a recession tax collection will lag. This pro-cyclical tax performance will help to smooth disposable income, saving and consumption over the business cycle.

A fall out of automatic stabilizers is that budget deficit will tend to increase in recessions and fall during booms. While the tax adjustment will take place quickly the expenditure adjustment will take place only with a lag. For e.g. in a boom tax collection will outpace any expenditure increase which the higher tax collection could encourage. This will result in lowering the deficit.

The trade off between inflation and employment in the classical Phillips curve hypothesis is implicit in fiscal policy design and implementation.

For example, stimulating a stagnant economy runs the risk of igniting inflation. This is because as economic activity gets accelerated with fiscal stimulus it soon runs into capacity constraints resulting in inflation. The search for NAIRU or non inflationary rate of unemployment lies at the heart of fiscal policy design in market economies

When an economy has slowed down, unemployment levels are up, consumer spending is down and businesses are not making profits. In these circumstances the government can pump prime the economy by increasing disposable income in the hands of the public. Pump priming of the economy can be achieved by several instruments including government purchases of goods and services and reducing personal taxation. As consumption and investment pick up from the fiscal stimulus unemployment will fall. However once full employment is reached any further increase in aggregate demand from fiscal policy intervention will be inflationary. For this reason, fine tuning the economy through fiscal policy alone can be difficult, if not improbable. If not closely monitored, fiscal stimulus can lose its productive role and infect the economy with inflation.

When inflationary pressures are building up the economy needs to slow down. In such a situation, a government can increase taxes and drain the excess demand from the economy. Government spending could also be lowered to reduce demand pressure. If this deflationary policy is not carefully fine tuned the economy could spiral out of control and descend into a period of declining employment and incomes.

Fiscal policy also changes the burden of future taxes. When the government runs an expansionary fiscal policy, which is not grant financed from foreign sources, it adds to the stock of public debt. Because the government will have to pay interest on this debt and repay it in future years, expansionary fiscal policy today imposes an additional burden on future taxpayers. Just as taxes can be used to redistribute income between

different classes of society, the government can run surpluses or deficits in order to redistribute fiscal burden between generations.

Some economists have argued that this effect of fiscal policy on future taxes will lead consumers to change their saving behavior. Recognizing that a tax cut today means higher taxes in the future, people will simply save the value of the tax cut they receive now in order to pay future taxes. The extreme of this argument, an example of the principle of Ricardian Equivalence, holds that tax cuts will have no effect on national saving, since changes in private saving will offset changes in government saving. But if consumers decide to spend some of the extra disposable income they receive from a tax cut, which is at the core of the Keynesian consumption function hypothesis, the Ricardian Equivalence will not hold; a tax cut will lower national saving and raise aggregate demand. The experience of the eighties, when private saving fell rather than rose in response to tax cuts, argues against the Ricardian Equivalence hypothesis.

4.2. Fiscal Policy and Macro Stabilization

Since automatic stabilizers are ineffective or insufficient fiscal tools for smoothing the business cycle some economists recommend changes in fiscal policy in response to economic conditions—discretionary fiscal policy—as a way to moderate business cycle swings There are differing views on the use of discretionary fiscal policy as a tool for macroeconomic stabilization. Since the early 1960s, there was a prevailing wisdom that discretionary stabilization policy was effective and desirable for taming the business cycle, and the fiscal policy was the most important tool to smooth the business cycle. However, theoretical and recent empirical evidence does not strongly support this view. Long lags in the formulation and implementation of appropriate stabilization policies are inevitable particularly when the policy instrument is government purchases. If economists forecast this lag well, then the lag would not matter. Absent reliable forecasts, attempts to use discretionary fiscal policy to counteract business cycle fluctuations are likely to do more harm

than good. Therefore, from the point of view shortening the lag between policy design and implementation changes in taxes and transfers are considered more effective fiscal instruments for stabilization. However, changes to taxes and transfers should be targeted to groups which will likely increase their consumption spending from the stimulus. If the stimulus benefits groups with low propensity to consume it will not have the desired multiplier impact on aggregate demand. Expansion of unemployment benefits is an example of a fiscal policy that is well targeted for increasing consumption.

The case for using discretionary fiscal policy to stabilize business cycles is further weakened by the fact that another tool, monetary policy, is far more agile than fiscal policy. However the criticism of indeterminate lag between policy implementation and its impact applies to this tool also.

Policies to temporarily stimulate aggregate demand, such as a temporary cut in sales-tax rates can create an incentive for customers to purchase durable goods earlier than otherwise. Similarly a temporary investment tax credit can provide the incentive for firms to advance their new investment projects. Discretionary fiscal policy can play an important stabilization role under extraordinary circumstances such as when a recession is unusually long or deep or when short-run nominal interest rates approach zero rendering monetary policy ineffective. Fiscal policy can be helpful in stimulating aggregate demand and output in the short run even though its long term impacts are less clear.

In general fiscal stimulus can be expected to increase the budget deficit and public debt. If the public believes that any tax increases needed to finance the debt will occur only in the distant future, then savings will fall now and the tax burden will be shifted to future generations. Fiscal stimulus aimed at increasing consumption will be effective in this scenario. If the public believes that the repayment burden will not be shifted to future generations the stimulus is not likely to achieve the intended increase in consumption.

Fiscal policy's ability to affect the level of output wears off over time. Higher aggregate demand due to a fiscal stimulus, for example, eventually shows up only in higher prices and very little additional output as economic agents adjust to the stimulus. In the long run the availability of factors of production (capital, labor, and technology) determines the capacity of the market to meet demand. Output can not be indefinitely increased by merely jacking up the demand function. These factors of production determine an underlying "natural rate of growth" of output, around which business cycles and macroeconomic policies can cause only temporary fluctuations. A sustained attempt to keep output above its natural rate by means of aggregate demand policies will only result in ever-accelerating inflation.

The fact that output returns to its natural rate in the long run is not the end of the story. In addition to moving output in the short run, fiscal policy can change the natural rate, and ironically, the long-run effects of fiscal policy tend to be the opposite of the short-run effects. Expansionary fiscal policy will lead to higher output today but will lower the natural rate of output below what it would have been in the future. Similarly, contractionary fiscal policy, though dampening the level of output in the short run, will lead to higher output in the future.

Fiscal policy affects the level of output in the long run because it affects the country's saving rate. The country's total saving is composed of two parts—private saving (by individuals and corporations) and government saving (which is the same as the budget surplus). A fiscal expansion entails a decrease in government saving. Lower saving means, in turn, that the country will either invest less in new plant and equipment or increase the amount that it borrows from abroad, both of which result in reducing resources available for investment which will tend to reduce the natural rate of growth in the long term. Increased indebtedness to foreigners means that a higher fraction of a country's output will have to be sent abroad in the future rather than being consumed at home.

4.3. Incentive Effects of Fiscal Policy

Apart from the impact on aggregate demand and on saving, fiscal policy also affects the incentive structure in the economy. Taxing an activity tends to discourage that activity. A high marginal tax rate on income reduces people's incentive to earn income. By reducing the level of taxation, or even by keeping the average rate the same but reducing the marginal tax rates and increasing the allowed deductions, the government can improve incentives and increase output. The supply-side economists argue that reductions in tax rates would have a large positive effect on the amount of labor supplied, and thus on output. Incentive effects of taxes also play a role on the demand side. Policies such as the investment tax credit, for example, can have a substantial impact on the demand for capital goods.

The greatest obstacle to the effective use of fiscal policy, both in relation to the stabilization function and to promote growth, is that changes in fiscal policy are often necessarily bundled with other changes that please or displease various constituencies. A road is all the more likely to be built if it can be packaged as part of countercyclical fiscal policy. The same is true for a tax cut for some favored constituency. This naturally leads to an institutional enthusiasm for expansionary policies during recessions that are not matched by acceptance of contractionary policies during booms. In addition, the benefits from an expansionary policy are felt immediately, whereas its costs—higher future taxes and lower economic growth—are postponed until a later date. The problem of designing a good fiscal policy in the face of such obstacles is, in the final analysis, not economic, but political.

4.3.1. Effects of a Tax Cut on Consumer Spending

Lower taxes increase households' disposable income, allowing consumers to increase their spending. The consequences of the tax cut depend on the

way households make their decisions regarding present and future savings and on prevailing macroeconomic conditions. The perception whether the tax cut is temporary or permanent will influence how the consumers respond.

A temporary cut when the economy is at full employment will alter households' lifetime disposable income relatively little, and so might have little effect on consumption. Then the tax cut will be reflected as a rise in household savings. If the tax cut is perceived to be permanent, the households will adjust to the increase in their lifetime disposable income and will likely increase their consumption.

However, a tax cut will reduce the government's spending or will increase the fiscal deficit. Even if the tax cut is long-lasting, future taxes will need to be higher in order to retire the extra public debt which could result from the tax cut. In this case, households will not feel that their disposable income has risen, because they have completely internalized the increase in public debt arising from the tax cut, treating it as personal debt. But some consumers driven only by their present income level and living from paycheck to paycheck will likely increase their spending.

Consumption can increase more significantly when the economy is not at full employment and if the tax cut is seen as an instance of a continuing fiscal policy that stabilizes economic activity. Consumers will plan for an improvement in their incomes as the economy moves towards the peak of the business cycle and will therefore increase consumption thereby accelerating economic recovery.

4.3.2. Effects on Interest Rates, Capital Formation, and International Capital Flows

An increase in budget deficit resulting from a tax cut will increase the public debt if it is domestically financed. This raises issues concerning the

long-run effects of the tax cut on interest rates, capital investment, and future economic welfare.

Fiscal policies that increase public debt will result in future higher taxes, but if the debt is created for investing in human and physical capital, future government revenues will also increase alongside faster growth of output Policies that absorb slack resources or foster investment might reduce government saving, as reflected in a larger budget deficit, but in a dynamic sense they will increase national saving from the higher income. The increase in the deficit could be also externally financed. Whatever the source of financing, if the additional debt that is created fails to raise income and investment, the repayment of the debt in future will be problematic.

When the economy is at full employment and a tax cut today is expected to be offset by a tax increase in the future, lower taxes will not necessarily increase consumption spending. In this extreme case, the increase in government's deficit will be matched by an increase in private saving. As a

Tax : is a compulsory financial contribution imposed by the State without leaving the government with a service liability to the assesses. Taxes are collected to finance public expenditures.

Direct taxes: are those which are imposed and collected from individuals, households or firms that are meant to bear the burden. Direct taxes are collected from physical persons as well as from the profit and capital gains of corporations. Corporations are also subject to payroll tax.

Indirect taxes: are taxes which are imposed at a given point in the system but are shifted to another entity by the agent who bears the initial tax incidence. Indirect taxes are levied on sale and production of goods and services and include VAT, export taxes, import duties, etc.

Charges : are paid by the public for services rendered by the government and are collected from the beneficiary only if such services are provided.

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result, Ricardian Equivalence will prevail and national saving, interest rates, and investment will be much the same as if there had been no change in fiscal policy.

If consumers choose to spend much of their additional disposable income while the economy is already at full employment, personal saving will not rise sufficiently to offset the drop in public saving. In this case interest rates will rise and investment spending will decline, unless business saving (resulting from higher profits from the additional consumption spending) or capital inflows from abroad increase sufficiently to make up the difference.

If the economy is not at full employment, national income might expand as a result of the tax cut, yielding higher tax receipts and national saving in a dynamic sense. In either case, a tax cut that increases the return on capital can increase business saving and attract inflow of foreign saving sufficient to maintain total investment.

If, however, fiscal policy depresses investment, then both the capital stock and economic output will be lower in the future. The lower capital stock will tend to be accompanied by real interest rates that are higher.

If capital flows from abroad increase sufficiently to offset any drop in domestic saving resulting from a change in fiscal policy, then investment need not fall. In this case, the current account deficit, which is equal to the quantity of capital inflows from abroad, will increase at least enough to offset the increase in the budget deficit less the induced increase in private saving. A corollary of this development is that the domestic currency will appreciate to accommodate the higher current account deficit.

When the deficit is financed by foreign borrowings, the future levels in capital stock and real output will not fall, but future domestic consumption will be reduced because an increased share of the return to capital will accrue to foreign nationals – unless the fiscal policy fosters a

more efficient utilization of the stock of capital, greater capital formation or higher returns on capital to compensate for the outflow.

5. Fiscal Policy Instruments in Cambodia

Fiscal policy is used as an integral part of socio-economic policies in Cambodia in order to attain sustainable economic growth. Fiscal policy also plays a dominant role in a dollarized economy like Cambodia, due to the importance of public financial operations, lack of efficient monetary policy instruments, the under-developed financial markets and the existence of non-monetized sectors in the economy. Fiscal policy in Cambodia has the following defining characteristics:

- As Cambodia does not experience business cycles, ***the main objective of fiscal policy is to break the structural bottlenecks of the economy to support economic take-off,*** by making appropriate structural adjustments in the economy;

- ***Fiscal policy puts more emphasis on the implementation of the National Strategic Development Plan***, a five-year socio-economic development plan, which aims at the expansion of productive capacity through financing of projects with high social and economic returns;

- ***Fiscal policy is aimed at mobilizing domestic revenues, ensuring effective allocation of budget resources among competing priorities and promoting healthy public financial practices in general.*** The financing of growth in public expenditures require continued efforts toward raising more revenue, currently at 12% of GDP. Revenue mobilization policy should be implemented within the context of the Public Financial Management (PFM) reform program;

- ***Fiscal policy has been used to minimize exchange rate fluctuations.*** In a small and open economy like Cambodia, exchange rate fluctuations can be reduced by ensuring orderly budget disbursements that would not drastically increase the volume of riel-denominated money supply in the economy at any given time. This fiscal policy instrument can be used in conjunction with monetary policy instrument such as the foreign currency operations (purchase or sale of dollars) to stabilize the exchange rate;

- ***Fiscal policy has also been used to counteract inflationary pressures .*** By reducing exchange rate fluctuations, price stability can be achieved, as many consumption goods in Cambodia are imported. However, inflationary pressures in Cambodia can occur because of variations in agricultural yields and seasonal fluctuations of prices for agricultural products, reflecting weather conditions, variability of supply during the post-harvest period and developments in regional markets for agricultural products. To smooth out agricultural prices, the Royal Cambodian Government provides credit lines to the rice mills to increase the rice stock. This fiscal instrument used in conjunction with other policy instruments, such as increase investment in processing facilities and ensuring fair competition among traders and middlemen by improving road conditions and enhancing trade facilitation contributes to stabilizing agricultural prices;

- ***Sound debt management is one of the main fiscal policy instruments in Cambodia.*** If higher expenditure results in larger fiscal deficits, then the issue of sustainable expenditure coincides with the issue of a sustainable fiscal deficit. Sustainability of the fiscal deficit rests on the impact of the associated financing, be it borrowing from domestic sources or foreign borrowing. A major exercise is to determine how much of foreign financing is appropriate within the envisaged fiscal framework to ensure debt

sustainability. This should be decided in light of the assessment of the potential growth of the economy, revenue collection efforts and the outcome of the restructuring of Cambodia's old debt to two major creditors, the United States and Russia;

- ***Fiscal policy has been formulated and implemented in line with the RGC Strategic Framework for Decentralization and De-concentration.*** Fiscal policy has been implemented to support the decentralization initiative to devolve some revenue and as well as expenditure responsibilities to the provinces, districts and communes.

5.1. Expenditure Policy: A Conceptual Framework

Public expenditure is one of many forms of government intervention designed to compensate for the failure of competitive markets and to secure distributional equity (Chu and Hemming, 1991). Market failure occurs because: (i) markets do not exist for all goods; (ii) there are externalities – prices do not reflect social costs and benefits associated with production and consumption of the good or service; (iii) the existence of **natural monopoly**. The phenomenon of market failure is associated with the provision of public goods (for which market prices are inappropriate) and collective goods (which are characterized by externalities), the emergence of natural monopolies (where the production function is characterized by increasing returns) and the need for social insurance (arising from information asymmetries). The inability of the free market to generate a socially optimal distribution of income and welfare can also be regarded as a market failure.

Public expenditure is motivated by economic, social and political objectives. Such government intervention is designed to ensure **Pareto optimality** in resource allocation in a competitive economy such that : (i) inputs cannot be reallocated to yield a higher output of one good without reducing the output of another good, and (ii) total output cannot be

reallocated to generate a higher level of welfare for one consumer without reducing the welfare of another consumer (Chu and Hemming, 1991). Pareto optimality in public expenditure requires that marginal social cost of publc expenditure equals marginal social benefit.

Substantial government expenditure is allocated for the production of public goods. Public goods can be classified as pure and impure.

A pure public good can be defined as follows (Rosen, 2005):

- Once it is provided, the additional resource cost of another person consuming the good is zero – **non-rivalry and indivisibility in consumption**;

- To prevent anyone from consuming the good is very expensive or impossible – **non-excludability in consumption**. (In contrast, a private good like pizza is rival and excludable.)

Examples of pure public goods are few and include public health services, defense, air pollution abatement, flood control, weather forecasting, and lighthouses. The consumption of impure public goods is to some extent rival and excludable.

However, there are many goods called **collective goods** which have partial characteristics of public goods. These goods exhibit externalities in consumption or production but are rival in consumption. For these goods exclusion is possible, but some of the benefits or costs associated with their provision accrue to or are borne by other individuals or by society as well. Although the private sector can provide goods and services characterized by externalities, the quantity provided will not correspond to the socially desirable level. As a consequence, government action is needed to help society approach the socially optimal level of output. Public goods, such as education, vaccination, waste disposal, and certain types of transportation exhibit externalities of this type. The desired social

optimum level of production of these goods can be achieved by subsidizing their production and consumption from the budget.

Natural monopoly occurs when one firm dominates an industry because it faces a continuously decreasing average cost of production curve. It can always expand capacity at a cost lower than that at which a new firm can create the same additional capacity. In that case, setting prices equal to marginal cost will result in losses, since marginal cost will be always below average cost. If the society is to benefit from the lower price and higher output than a profit-maximizing private monopolist, either the private producer must be paid a subsidy, or the public sector must take over the industry and bear its losses directly. Examples of decreasing-cost industries include gas, electricity, water utilities, telecommunications and mass transportation, all of which are characterized by extensive networks that would be costly and inefficient for competing suppliers to replicate. Public provision of these goods and services is rational.

In light of the above considerations budget expenditures are designed to serve a number of policy objectives:

- **Provision of public goods**, i.e. to ensure that the socially optimal levels of output are attained and thus fulfill the allocative function of budget policy;

- **Adjustment of the distribution of income and wealth** to ensure conformity with what society considers a "fair" or "just" state of distribution, i.e. the distribution function;

- The use of budget policy as a means of **maintaining high employment**, a reasonable degree of **price level stability**, and an appropriate rate of **economic growth**, with impacts on trade and on the balance of payments, i.e. the stabilization function.

However, the selection of a combination of expenditure policy objectives can be complex. According to Premchand, three impacts of the budget are crucial:

- First, budgeting involves the identification and measurement of the impact of the budgetary operations on the economy, and of the economy on the budget, and the relationship of these operations to the overall fiscal policy objectives.;

- Second, the objectives of fiscal policy can be attained through a mix of fiscal instruments including taxes, expenditures, and the provision of credit;

- Third, the fiscal policy objectives are served by direct government operations including other levels of government, namely the provincial and communal levels, as well as through the public enterprises.

Public goods, externalities, natural monopoly and the need for social insurance provide the government with an **allocative role**. Market failure can create conditions that depart from a first-best optimum. Thus, to move the economy to a new optimum, the government must use taxes, subsidies and regulatory controls which themselves may be distortionary. Thus fiscal policy may succeed in achieving the **second best** solution.

The government also plays an important role in the **redistribution of income**. The conditions for Pareto optimum require that the initial distribution of income and welfare is fair. As this condition can not be met in reality the core of government redistribution policy is to provide public health, education, housing and other social services. However, policies directed toward improving resource allocation and measures aimed at redistributing income bear an efficiency cost.

The level and composition of public expenditure can also have implications for macroeconomic stability. Reforming public financial

management, therefore, can become critical for ensuring sustainable growth by promoting domestic saving, productive investment and the efficiency of resource allocation.

The impact of expenditure policy on the distribution of income is referred to as **expenditure incidence**. The government influences income distribution through taxation as well as its expenditure policy.

Any government program sets off **a chain of price changes** that affect the incomes of people both in their role as consumers of goods and suppliers of inputs. A spending program that raises the relative prices of goods makes those who consume them worse off. Similarly, a program that raises the relative price of a factor improves the welfare of those who supply them. However, it is difficult to confidently predict the price changes generated by a particular policy.

An increase in public expenditure matched by an equivalent increase in taxation leaves the fiscal deficit unchanged. According to the **balanced budget multiplier** principle this will nevertheless have a positive impact on aggregate demand and output. In a closed economy, aggregate income will rise by an amount exactly equal to the expenditure increase; in an open economy, the income increase will be lower as part of the increase in expenditure leaks out of the economy through imports.

The expansionary consequences of balanced budget expenditure increases on output are likely to be limited. In particular, aggregate supply may fail to keep pace with aggregate demand if there are capacity constraints or the additional taxation needed for meeting the expenditure results is a disincentive to work and save.

5.2. National Budget and Its Financing

The focus of ***budgeting is on attaining the operational and allocative efficiency of resources*** within the public sector and is influenced by the goals of fiscal policy. The budget serves therefore as the political and

financial program of the government and is an important tool to fulfill the four main financial functions of the State, namely: (i) resource mobilization; (ii) resource allocation; (iii) income distribution; and (iv) macroeconomic stabilization.

5.2.1. Budget Principles

The budget is based on the following principles: annual budget; single budget; universality; specificity and equilibrium;

- **Annual budget** – The Financial Act provides for and authorizes every year a total of budget revenues and outlays. The budget year in Cambodia commences on 1st January and ends on the 31st December ;

- **Single budget** – This principle entails two implications: it requires that the total amount of budget revenues and expenditures be submitted every year to the National Assembly for approval ; and these revenues and outlays should be submitted at the same time to ensure the equilibrium of different aspects of the budgets;

- **Universality** – there are two implications of this principle: it is prohibited to offset the budget expenditures from the revenues and it is prohibited to earmark revenues for only specific expenditures. Revenues should be recorded totally without offsetting the expenditure i.e. the total amount of revenues is used to finance the total amount of expenditures.

- **Specificity** – Both expenditures and revenues should be presented separately in the budget in accordance with the budget nomenclature required by the National Assembly;

- **Equilibrium** – This principle requires that budget expenditures, revenues and financing should be presented according to the prescribed format of economic and financial classification..

Cambodia's national budget consists of the central government budget – divided into the budget of the central administration and provincial administration; the budgets of the municipal and provincial governments; and the commune budget. The line Ministers, who act as the Chief Financial Officers of the sectoral ministry budget, delegate budget management authority for their provincial administration to the provincial governors, who then act as the delegated Chief Financial Officer for the budget of the provincial departments. The provincial governor acts as the Chief Financial Officer for the provincial government budget as well as the delegated Chief Financial Officer for the provincial department budget.

5.2.2. Budget Classification

Budget outlays are divided into current expenditures and capital expenditures. Current expenditures consist of a number of categories of expenditures: (i) government service outlays; (ii) financial charges (interest payment); (iii) public interventions (grants, contributions and subsidies to institutions, contribution to international organizations); and (iv) sundry outlays (subsidies to provincial budget, subsidies to the commune budget, contingency etc). Capital expenditures consist of: (i) debt repayment; (ii) locally financed investment expenditures and (iii) externally financed expenditures. Locally financed investment expenditures consist of purchase of fixed assets (vehicles, machinery and equipment and buildings); and construction (infrastructure).

The chart of accounts provides accounting codes for the functional and sub-functional classification of expenditure and for public bodies. Budget classification describes how the budget is organized and the budget structure. The objectives of budget classification are as follows:

- ***to map budgets to public bodies and their programs, sub-agencies, sub-programs and projects***. Through the standard

budget categories and codes, the current and capital expenditure can be consistently presented and linked.

- ***to promote accountability through the cost center concept*** by accurately mapping budgets to the organizational components of public bodies; and

- ***to specify the source of finance*** by items for the sub-agency and project budget categories. There are four possible sources of financing: treasury, retained revenue, external assistance and external loan.

A. Functional Classification

The functional classification of current budget expenditures categorizes expenditures in terms of the purpose for which the transactions are undertaken, such as administrative, economic, social and general purposes, personal services; goods and services; traveling; maintenance; contracted services etc.. The functional classification can also be presented in terms of programs or broad objectives of expenditure. Functional classification is used to determine the allocation of resources by government to promote various activities and objectives and broadly corresponds to a sectoral classification, i.e. education, health, transport, etc.

B. Economic Classification

Government expenditures can be classified by the **economic nature** of the transaction. It is generally seen as a measure of the economic effects of government operations in terms of payments to the different factors of production.

A well-designed line-item budgeting is the basis for the economic classification. In a line item system, expenditures are listed according to objects of expenditure, or the "line item". These line items are quite detailed, specifying how much expenditure is allowed for a particular

ministry or provincial department on: (1) Personal services, which consist of emoluments (salaries and wage); allowances and benefits; and pension contributions; (2) Goods and Services, consisting of office supplies, medical supplies, education supplies, food, fuel and lubricants; (3) Traveling and official entertainment services; (4) Maintenance and repair services; (5) Contracted services consisting of electricity charges, telecommunication charges, water and other utilities, rent, fees and charges.

The objective of line-item budgeting is to prevent overspending and to ensure budget discipline. The budget specifies the line item ceilings to ensure that the line ministries and agencies do not spend in excess of their allocations. The Ministry of Economy and Finance, through the financial controllers, has established detailed procedures to monitor and control the spending. The transfer of budget allocations from one line ministry to another requires National Assembly's approval. The transfer of allocations between the budget chapters of the same ministry needs the Prime Minister's approval, while *virement* within the chapters requires the approval of the Minister of Economy and Finance.

The weakness of the line-item budgeting, however, is that: (i) the efficiency and effectiveness of spending is not taken into account; (ii) micro-management of budget implementation undermines the long-term goals of government strategy and policies; and (iii) there is tight ex ante control of the detailed expenditure items and absence of a performance assessment of the line ministries and agencies.

5.2.3. Budget Allocation by Programs

In order to remedy the deficiencies of the line-item budget system, since 2006 the Ministry of Economy and Finance has started introducing the concept of program budgeting in a phased manner, as part of its Public Financial Reform Program. The Priority Action Program (PAP) on program budgeting was introduced initially for the Ministry of Education,

Youth and Sport and the Ministry of Health, then extended to other ministries, such as Agriculture and Rural Development.

Program budgeting focuses explicitly on budgetary choices among competing policies. Policy objectives are treated as variables of the program. **Budget allocations are grouped into programs, which serve as a resource allocation system**. Program budgeting attempts to link program costs with the results of public programs.

The central element of program budgeting is that each line Ministry is required to prepare a sectoral strategy and policies to achieve the strategy. A program is used as a public policy objective along with the steps necessary to attain it. The budget is classified into programs, rather than along organizational lines. Program budgeting requires that program objectives stretch beyond a single fiscal year. Programs are divided into sub-programs which group similar activities. Sub-programs are divided into projects – one or more activities that have a specific objective or objectives and a definable output and outcome.

The current PFM reform program tries to link program budgeting to performance. The line ministries are required to integrate information about their activities into the budget process so that budget decisions can be based on the relationship between government activities and their costs. The current reform indicates a shift from budgeting based on expenditure control to budgeting based on management concerns and performance. Program budgeting provides the tool to base budget allocations against performance in delivering the budgeted outputs.

5.2.4. Expenditure Categories

The wage bill of government employees (civil servants, security and military personnel) represents a large share of current budget expenditure. Fringe benefits include spouse and dependents' allowances, pensions, transportation allowances, telephone allowances etc. Therefore, wage and

employment policy in the public sector has a significant impact on the total expenditure.

Operations and maintenance (O&M) expenditures also constitute a large share of current expenditure. O&M spending is designed to ensure the delivery of services to the public, such as the provision of health education, food, office supplies, fuel and lubricants, payment of electricity charges, telecommunication charges, water and other utilities, rent, fees and other charges and to keep the infrastructure in a serviceable condition, such as routine and periodic maintenance of road and irrigation facilities.

The government also provides **subsidies** as a means of redistributing income and offsetting market failure. The two main categories of subsidies provided by the RGC are subsidy on imported petroleum products (in the form of delayed adjustment of imported fuel prices in the order of US$200 million a year) and subsidy on electricity (in the order of US$20 million a year).

The benefits provided by government through social insurance are called **entitlements**, because people are entitled to the benefits under the social insurance contract. Entitlements can take the form of payments of money or in-kind transfers of health care, education, housing or food. Education and health-care entitlements are a source of beneficial externalities, through a more educated and healthier population. Education and health care at the same time provide private benefits and could be therefore subjected to some cost recovery.

Expenditure on interest payments and debt amortization has increased in importance in recent years, as payment of interest after the expiry of the gestation period and repayments on the earlier-contracted concessional loans have become due.

Government expenditure can take the form of **in-kind transfers**, such as the provision of food, housing and medical care. Unlike pure public

goods, in-kind transfers are not consumed by everyone. In-kind transfers are attractive politically because they help not only the beneficiary but also the producers of the concerned commodity or service.

Inter-governmental transfers i.e. transfers to provincial government budget and commune budget are the largest transfers in the budget. Grant from one level of government (the National Budget) to another (Provincial or Commune Budget) is the main method of changing fiscal resources within the budget system. Grants play an important role in local public finance in Cambodia. A grant's structure influences its economic impact. There are two types of grants: conditional and unconditional.

Conditional (categorical) grants define the purposes for which the recipient can use the funds, i.e. the funds are earmarked for specific purposes. The rules for spending the money are often spelled out in detail.

Unconditional grants are lump sum grants given by the central government to the provincial government budget or the commune budget.

Transfers to public enterprises account for a tiny share of government expenditure, in the form of financial support to unprofitable public enterprise (for e.g. the Royal Cambodian Railways and Cambodia Electricity Corporation) and interest payments of government bonds used to capitalize insurance companies.

Public investment expenditure accounts for a large share of total expenditure (about 5% of GDP), reflecting the government's commitment to provide adequate infrastructure. Sound expenditure decisions require detailed information regarding the merits of alternative projects. Project evaluation involves determination of the ways in which the most efficient use can be made of scarce resources. The issue is how to determine the composition of the budget or how to allocate a total of given funds among alternative projects to achieve maximum efficiency and welfare.

6. Macroeconomic Implications of Trade and Investment Liberalization

6.1. Conceptual Framework of Trade Liberalization

There is an extensive literature on the impact of trade liberalization on trade flows and balance of payments. It indicates that in the initial stage of trade liberalization, balance of payments is likely to get worsen, because the rise in imports that typically follows liberalization tends to occur faster than the export supply response (Palanivel, 2005). Trade and investment liberalization can have significant impacts on public finance, macroeconomic indicators, balance of payments, employment and poverty. For many developing countries, trade taxes constitute a major source of revenue. Thus, the effects of trade liberalization on the State budget depend on its direct impact on customs revenue as well as the economy's reaction to variations in relative prices. Literature indicates that it will depend directly on the size of the tariff cut, the response of imports to the tax change, the components of the reform package, and the relative importance of import tariffs as a source of government revenue.

At the same time, trade liberalization would enhance economic performance, as a result of technological transfers associated with trade and investment liberalization and increased efficiency resulting from competition.

As in the case of Cambodia, trade liberalization entails the change in economic structure, allowing the economy to focus on sectors with comparative advantages, reflecting the country's resource endowments, infrastructures and overseas markets. For example, trade liberalization in Cambodia has been associated with the increase in the share of industry as a result of the development of the garment industry for exports to the US and the European Union, the decline in the share of agriculture in GDP and the increase in the share of services, such as tourism, financial services and trade. Thus, trade liberalization may result in the change in the employment market. Liberalizing the agricultural markets would lead to specialization, but also to the decline in some agricultural products that

the country does not have strong competitiveness. For example, while Cambodia continues to export many agricultural products, such as rice, soja beans, mung beans, cassava, maize, to the neighboring countries, most of vegetables for domestic consumption are now imported from Vietnam and Thailand. To be efficient, trade liberalization, therefore, should be accompanied by labor market reform and government program to enhance sectoral competitiveness in order to reduce the social impacts of trade liberalization.

Trade liberalization takes the form of rationalizing tariff structure to make it more simple, reducing tariff barriers, eliminating quantitative restrictions and non-tariff barriers, simplifying import procedures, removing export subsidies and introducing exchange rate policy reform.

The experience in Cambodia, nevertheless, has shown that international trade and Foreign Direct Investment (FDI) can become engines of growth and development. It noteworthy that economic expansion in Cambodia has been fuelled by export growth, tourism, construction activities and agricultural production. Thus, trade and investment liberalization has major macroeconomic implications. High growth rate has been associated with export-led economic growth. At the same time, the high rates of growth are matched by high import growth. Trade deficits are financed by capital inflows in the form of private transfer, development assistance and concessional loans. Rodrik (2002) emphasized that increased global integration has been the outcome of the growth and development process, rather than precondition for it. As a country achieves higher degrees of economic diversification and development, it is able to engage more in the global process. Indeed, trade openness does not necessarily generate higher growth.

It should be noted that changes in trade policies can also significantly alter the development content of macroeconomic policies (Ghosh, 2002). Trade policy can have an impact on fiscal policy, through revenue collection and expenditure management. Tariff reduction can adversely affect tax revenue collection. Moreover, trade policy can also affect monetary policy. Experiences in many countries show that real exchange

rate depreciation can promote more exports. In turn, monetary policy and financial liberalization can help improve trade.

Trade liberalization can also result in import liberalization. Liberalization of consumer goods can, in turn, erode domestic production. This can have severe impact on employment creation. On the other hand, liberalization of capital goods imports can have positive effects on the growth of the manufacturing sector.

The principal goal of Cambodia's foreign economic policy is to expand and strengthen economic ties and international cooperation through the integration of the Cambodian economy into the regional and world economy. This goal is designed to utilize the advantages of international division of labor to promote economic development and improve the welfare of the population.

Since the late 1980s and especially in the early 1990s Cambodia has embarked on trade liberalization and integration. The private sector was enabled to establish trading companies with a maximum foreign participation of 49 percent. Since 1993, the general licensing for most goods has been eliminated when registered companies undertake such trade.

6.2. Changes in Tariff Policy

Most non-tariff barriers (NTBs) to trade have been eliminated. Those that remain is import licensing for pharmaceuticals. Exports of wood products are subject to annual export quotas and non-automatic licensing. Owing to its low customs duties, Cambodia has become a hub for transit trade in the region, especially with Vietnam. However, re-exports to Viet Nam have experienced a gradual decline since 1996 with Viet Nam's own opening up to the world.

Table 3.1. Cambodia's Tariff Rate Structures

Tariff bands	**1997**		**2000**		**2001**	
%	*Number*	*Share,%*	*Number*	*Share,%*	*Number*	*Share,%*
0	107	2.1	290	4.3	297	4.4
3	7	0.1	9	0.1		
7	2,112	40.7	2,731	40.0	2,758	40.4
10	14	0.3	14	0.2		
15	1,184	22.8	1,861	27.3	1,936	28.4
20	46	0.9	68	1.0		
30			4	0.1		
35	1,575	30.4	1,569	23.0	1,832	26.9
40			8	0.1		
50	133	2.6	256	3.8		
90			6	0.1		
120			6	0.1		
Total	**5,186**	**100.0**	**6,823**	**100.0**	**6,823**	**100.0**
Average Tariffs						
Unweighted Average		18.4		17.3 (13.6)		16.5 (11.9)
Import-Weighted Average		15.9		15.4		14.2**a**
Effective Tariff		n.a.		10.8 (12.4)		n.a.

A. *Figures in parenthesis are standard deviations, which measure the dispersion of tariff rates. The Effective tariff rate is the ratio of revenue from tariffs over the value of imports. Import weighted average tariff rate for 2001 is calculated using year 2000 import data.*

Sources: Customs Department and Ministry of Economy and Finance.

Cambodia underwent substantial trade liberalization through drastic reduction in tariffs, but increasing excise taxes in order to avoid revenue reduction. The purpose of trade liberalization was to stimulate exports and to prepare for economic integration within the ASEAN framework and to prepare for membership in the WTO. Tariff reduction has had positive impacts on aggregate economic activity and employment, through the development of the garment industry.

In April 2001, the number of tariff bands was reduced from 12 to four with the maximum rate falling from 120 to 35 percent. Tariff rate reductions covered several major finished goods as well as some intermediate goods and raw materials.

For example, tariffs on completely built up passenger cars fell from the range of 40-120 percent to only 35 per cent; spare parts (from 50 to 35 per cent); tobacco products (from 50 to 35 per cent); and alcoholic beverages such as wines and distilled beverages (from 50 to 35 per cent).

However, these changes have had a minor impact on the overall tariff structure since only a small percentage (3.8 per cent) of tariff lines had rates above 35 per cent in 2000. For example, the percentage of tariff lines duty free or subject to the minimum 7 per cent tariff rate only increased from 44.3 per cent in 2000, to 44.8 per cent in 2001 and the percentage of tariff lines with tariff rates 15 per cent or less only increased from 71.6 per cent to 73.2 per cent.

As a result of the above-mentioned tariff reforms, the average tariff rate fell only slightly from 17.3 per cent to 16.5 per cent indicating that tariffs, on average, still remain high. A standard deviation of 11.9 per cent indicates that there is still a large dispersion of tariff rates.

The Government reduced the unweighted average tariff rate to below 15 per cent in 2003. As a rule of thumb, the fewer the number of rates, the narrower the range of rates, and the lower the average rate, the less costly

the tariff structure will be to the economy in terms of misallocation of resources.

Almost half of all tax revenue is from border taxes. Tariff rate reductions on the many high revenue yielding imported excisable items (such as petroleum and petroleum products, autos, motorcycles, beverages and cigarettes), have raised concerns that the tariff changes may result in a drop in government fiscal revenues. As a compensatory measure for the tariff changes, the government increased excise tax rates on these major products. As a result, the average applied rate of taxes on imports (import duty plus excise tax) virtually remained unchanged at 18 per cent between 2000 and 2001.

The advantage of shifting away from tariffs to excise taxes as a revenue raising measure is that it avoids the negative effects of high tariffs on domestic resource allocation, since an excise tax applies equally to domestically produced goods and imports.

Still, a fifth of all imports are subject to the highest tariff rate of 35 per cent. The tariff peaks (35 per cent) protect several semi processed goods and consumer goods such as processed meat and dairy sectors, processed vegetables and fruits, wheat flour; beverages and tobacco; garments and footwear; plywood and jewelry. All major 'excisable goods' are included in this band for revenue raising purposes.

Based on import data for 2000, the import weighted average tariff rate fell from 15.4 per cent in 2000 to 14.2 percent in 2001. These statistics do not take into account the extensive use of tariff concessions in connection with investment and export incentive schemes.

In addition to the customs duty, two indirect taxes are levied on the value of imports: excise tax and value added tax (VAT). Overall, Cambodia generates almost 80 per cent of its tax revenue from taxes on imports, of which indirect taxes represent approximately 51 per cent of total taxes on imports in 2000.

Table 3.2. Cambodia's Tariff Structures

Tariff Band	Tariff Lines	Imports
	%	%
0	4.4	8.1
7	40.4	45.6
15	28.4	25.9
35	26.9	20.4

Source: MEF

Excise taxes are levied on five product groups: beverages (including mineral water), tobacco, passenger vehicles, motorcycles, and petroleum products. The VAT is a uniform 10 per cent rate. With few exceptions, both taxes are levied on imports at the same rates and conditions as on domestically traded goods. Exporters are zero VAT rated for imported materials used for producing exportable goods.

6.3. Adjustment Costs of Tariff Reform

A final issue relates to the adjustment costs of tariff policy reform. Countries that have liberalized their trade policy regimes have experienced varying short-term adjustment costs. In particular, countries that had in the past made extensive use of tariff and NTBs to protect their inefficient industrial bases typically experience the greatest adjustment costs. Often these costs included temporary, but high unemployment as inefficient sectors restructure and resources move to uses that are more productive.

However, Cambodia did not face the same short-term adjustment costs that some other countries experienced when they liberalized their trade structures. The reason is that, despite the inherent distortions in Cambodia's tariff structure, Cambodia does not have an inefficient industrial sector built around high tariffs. For many activities, remaining

high tariff rates either are redundant, because little domestic activity is undertaken in these sectors or because smuggling of goods keeps domestic prices close to world prices.

Most of the rapid growth in the industrial sector has been driven by export-oriented sectors, notably garments and more recently, footwear. Instead, further tariff reform will produce greater benefits in the medium term. A low, uniform rate would signal to investors that Cambodia wishes to be a platform for investment in activities where Cambodia has a comparative advantage. This should attract new Foreign Direct Investment (FDI) into these sectors.

A low, uniform tariff rate would allow investors to source raw materials at world prices (or close to them) and this ensures that producers supplying the domestic market (including SMEs) will not be disadvantaged vis à vis imports; this in turn encourages development of competitive import competing industries.

Trade liberalization is also closely related to resource mobilization and investment strategies.

7. Fiscal Policy Implementation and Reform in Cambodia

Since 1998, the Government has significantly improved the alignment of resources with its developmental objectives by increasing allocations for priority sectors, notably education and health. Government-executed spending on the priority sectors increased from 1.4 percent of GDP in 1998 to 3.2 percent in 2001. Furthermore, as indicated in the National Poverty Reduction Strategy (NPRS) the Royal Government of Cambodia (RGC) intends to continue this strategy, with ambitious targets for growth in priority sector spending. The reallocation to the priority sectors was financed through increased growth and revenues, and reduced expenditures in defense and security.

There are considerable sectoral differences in the effectiveness of expenditures in improving social welfare outcomes which suggests uneven capacity withn the government in expenditure management. In education the steady progress made since 1999 in expanding educational opportunities is reflected in increasing total enrolment. There have also been significant achievements in the health sector, including a decline in the incidence of some communicable diseases and expansion of physical coverage of the public health system. However, the general acces to the public to heath services needs to improve. Access to health services remains low and uneven, and the imbalances in the incidence of spending need rectification. In the roads sector, though a start has been made on reconstruction and rehabilitation, the state of the rural road network remains poor. Significant increases in maintenance expenditure are required. In the agricultural sector the lack of both clear sector policy and input-output information makes evaluation of impact difficult.

Recent experience suggests that in order to reach stated poverty reduction goals, it will be necessary to improve the effectiveness of spending by linking it more closely to priority outcomes. Increased effectiveness can be attained by improving the pro-poor targeting of resources through more tightly targted sector plans and budgets. Public expenditure and financial management have thus emerged as the first priority of the reform program. Without expenditure management reform, the impact of further improvements in expenditure policy will be limited.

The RGC has placed public expenditure and financial management reform squarely on its development and poverty reduction agendas. Recent initiatives have built on a previous round of reforms, launched after the promulgation of the Budget System Law in 1993, which established the institutional architecture for budgeting, planning and budget execution. Priority was given to the development of systems that guaranteed budgetary discipline, through a process of expenditure commitment, control and centralized payments system. These reforms achieved their objective in delivering—with the exception of a period of

fiscal instability following the disturbances of 1998—budgetary restraint, reflected in current balances of over 1.2 percent of GDP in each the last four years. They have also been instrumental in increasing expenditures on the priority sectors of education; health; agriculture; and rural development, while reducing spending on defense and security.

It has become increasingly apparent, however, that weaknesses in the public expenditure and financial management system not only involve high costs in terms of allocative and operational efficiency, but also create unacceptably high levels of fiduciary risk to public funds. The cash-based payments system has emerged as a major constraint. Increasingly, budget execution has suffered from delays and an unpredictable release of funds due to cash constraints, undermining operational planning, and leading to the build-up of arrears. The system is plagued by gate-keeping and deficient accounting and reporting systems, thus leading to a weak control environment and increasing opportunities for corruption. Indeed, in comparative perspective, Cambodia's system ranks below average (as compared to the low income countries assessed by a joint World Bank-IMF diagnostic tool).

Improving the management of external assistance to ensure greater alignment with government priorities is also critical, given the sheer volume of external assistance in total Government expenditure. The bulk of this assistance has been channeled off-budget, both in the sense that resource allocations are not reflected in the Government's budget documents and that funds are not disbursed through Treasury. Lack of information and the absence of effective instruments to guide the allocation of external financing seriously undermine the integrity and effectiveness of the budgetary system. At present, it is impossible to assess the impact of external project financing on overall resource allocations, let alone its implications for future sustainability of the newly created assets through the provision of adequate operation and maintenance costs. There is a risk that the proliferation of donor-financed projects—by

financing investments that are only tangentially related to ministries' development strategies— has led to policy drift in some instances.

To achieve the political goals of the second term of the RGC, and in particular to build the foundation for sustainable development; poverty reduction; and the integration of Cambodia into the region and the world, Samdech Prime Minister Hun Sen set out a **"Triangular Strategy"** focusing on: (i) ensuring peace, stability, and security for the nation and citizen; (ii) integrating Cambodia into the regional and international community; (iii) developing the country based on the implementation of the first two strategies. Based on the triangular strategy, four concrete reform programs were developed and implemented, including: (i) military reform, especially demobilization program; (ii) administrative reform, focusing on enhancing public services; (iii) juridical system reform aiming at strengthening democracy, improving and strengthening rules of law, and respecting human right, and economic reform for ensuring macroeconomic stability and boosting long term sustainable growth.

The Ministry of Economy and Finance has played an important role in implementing the triangular strategy, especially in economic and public financial reform which has contributed significantly to strengthening governance, ensuring macroeconomic stability, strengthening banking and financial systems, implementing fiscal reform, improving state property management, increasing investment in physical and social infrastructure sectors, promoting private sector development and human resource development. In the area of public financial management, the Ministry of Economy and Finance has launched four important programs of reform including (i) customs administration and policy, (ii) tax administration and policy, (iii) treasury operation reform, and (iv) budget formulation and execution reform.

Reforms in customs management include: wide dissemination of the streamlined custom rules and regulations; the preparation of a new customs law; the automation of customs valuation; strengthening

administration and good governance in the customs and excise department; strengthening discipline, incentives and training for customs officials; continuing to strengthen pre-shipment inspection capacity; streamlining and improving reporting procedures and controls; improving legal framework, procedures, and institutional structure in accordance with international standards especially the implementation of customs tariffs and codes which determine new import and export procedures; implementing anti-smuggling measures; and training of ASEAN customs officials to strengthen institutional capacity.

Specific tax reforms included: expanding VAT coverage; expanding the tax base (i.e. salary and profit taxes); improving the legal framework and tax collection procedures; tax arrears collection enforcement; strengthening the VAT return mechanism; continued expansion of the Real Regime to additional provinces; increasing the number of tax officials through selection and training officials within the Ministry of Economy and Finance; and strengthening the compliance capacity of the tax department through training in auditing skills.

Specific treasury operations improvements include: centralization of government accounts; strengthening cash management through establishment of the cash management committee; improving the chart of accounts and accounting procedures; developing a system for managing and eliminating arrears; establishing accounting system for commune-sangkats; and training and capacity strengthening of treasury officials.

In the fourth area, which is closely related to the third, key reform measures include: the implementation of the Priority Action Plan (PAP) which is a pilot for program budgeting; expanding and strengthening the implementation of public procurement procedures; fiscal decentralization and strengthening state property management; introduction of a medium term expenditure framework; de-concentration of financial control; and the training officials in executing and managing the implementation of budget. This has improved the alignment of resources with policy

objectives and helped channel funds to operational units, but their impact has been muted by liquidity constraints and concerns over the adequacy of control arrangements.

However, the RG has recognized that the public financial management system in Cambodia is still weak and good governance in managing public finance is still a major concern of the RG. In this context, it is necessary to continue promoting the implementation of a deeper, systematic, and comprehensive public financial management reform program.

The **"Rectangular Strategies for Growth, Employment, Equity and Efficiency in Cambodia"** set out by Samdech Prime Minister Hun Sen as an economic policy agenda of the RGC and approved by the third legislature of the National Assembly in 2004 has reemphasized the necessity to continue improving the public financial management system in Cambodia.

Under the Rectangular Strategy the Ministry of Economy and Finance has embarked on a systematic review and evaluation of the state of the administration's public financial management system by drawing upon on all available information incuding assessment reports, analytical and evaluation reports, as well as other related reports in the area of public financial management, and experience from RGC's reform programs, especially the Strengthening Economic and Financial Management program, also known as the Technical Cooperation Assistance Program (TCAP), and the Integrated Fiduciary Assessment and Public Expenditure Review (IFAPER) which were the technical cooperation programs supported by many donor agencies and countries. The important goal of this initiative is to develop a comprehensive public financial management reform program with a clear long-term vision; and a stage-by-stage program with clear and realistic action plans for each stage toward achieving the vision endorsed by the RGC.

These efforts have been recognized and strongly supported by our development partners, including bilateral partners and international agencies, through a common agreement on adopting a "Sector Wide Approach (SWAp)" as the modality for the preparation and implementation of this important and comprehensive public financial management reform program. The SWAp identifies the actions and activities needed to achieve the program objectives and the responsibilities of the various stakeholders including the donors to carry these out.

With the strong support of international development partners, the RGC has prepared a public financial management vision document which will serve as a guide for the stage by stage implementation of a comprehensive and systematic public financial reform program which will be completed in 2015. The most important improvement of this reform program over the earlier ones is that this program was constructed with a clear structure and a realistic action plan developed stage by stage with strategies to build institutional capacity and human resources, including the provision of equipment and other necessary supports as well as appropriate technology.

In accord with the NPRS, the RGC has reformulated its public financial management (PFM) improvement and reform strategy. To give clear direction to the strategy, the long term objective of PFM reform progam is the adoption of generally accepted best international standards in public financial management practice. The reform strategy involves transforming the traditional cash-based budget system into one which provides for the proper management of all government assets and resources. This will involve the eventual introduction of generally accepted standards for accrual accounting.

The aim is to enhance the standards of management and accountability in the mobilization of all government current and capital resources and improve effectiveness and efficiency in the use of resources in the implementation of NPRS and other priority programs.

When the PFM reform program is completed as envisaged, Cambodia's public financial system will incorporate the following characteristics:

- Legal separation of functions and fiscal powers between the national, provincial and local levels, yet within a unified budget system that covers all government offices, functions, programs and projects.

- A consistent plan and program framework across all sectors, with budget transactions classified on administrative, economic, and functional or programmatic bases which identifies poverty-related spending and which supports a general orientation of public expenditure management towards the achievement of policy results.

- An operational Medium Term Expenditure Framework (MTEF) which governs multi-year programming.

- A budget that covers all aspects of government operations, including longer term budget financing and debt management planning, and resource plans which include all of the government sector's financial, fixed and other assets with its liabilities.

- A budget formulation process that has an impact on the composition, incentives, size, training, deployment and other staffing implications of the government's policies and programs. The budget system will also ensure that post-budget supplementary expenditure requirements are fully financed.

- The acquisition, deployment, use and disposal of all government assets and resources, including human resources, will be open, competitive, apolitical, non-discriminatory and transparent. The government will establish and enforce clear rules that promote the principle of value for money for the procurement of goods and services, including privatization, contracting out government

services and management processes to the private sector, and the recruitment, deployment and promotion of officials.

- Prompt, clear and well publicized government response to problems which emerge during the course of budget implementation. Monthly up-to-date reports will be made public on the progress of budget implementation, including a comprehensive mid-year review. The finance ministry will recommend remedial action to the government if the implementation plan is threatened, for example, by revenue flows underperforming or an unexpected need arising for additional expenditure.

- Computerized, comprehensive and integrated financial and budget management information and accounting system will be in place to facilitate prompt, regular reporting on financial transactions by government agencies, and reconciliation of fiscal data with government bank accounts, suspense accounts and advances.

- The finance ministry will set the standards for internal audit, and guide and monitor, financial management in line ministries and other spending agencies.

- Each ministry and spending agency will establish an internal audit committee to: (i) direct the preparation and management of an annual internal audit plan and (ii) carry out oversight and support audits. This will be supplemented by a timely and independent external audit.

- The National Audit Authority will provide audit reports which are disclosed to the public, and the government will act promptly on recommendations made in the audit reports.

- The PFM system will be designed to seek performance, both in the use of public resources and in the achievement of policy results

through sound public finance management. It will seek maximum value for money over time from the use of government resources. Good performance will be rewarded and offences detected and prosecuted.

7.1. The Operating Sub-Systems of the Desired Public Finance System

In order to build the public finance system that has the characteristics as described in the previous section, the system must be made up of several operational sub-systems. These operating subsystems are the: (a) accounting and transaction processing systems, (b) budgeting systems, (c) revenue systems, and (d) access systems. All four sub-systems have to be consistent with each other, and are inter-related. A brief description of the main features of these operating subsystems is as follows:

- **Accounting and transaction processing systems:**

    1. Consistent approach to accounting across Government as a whole based initially on accounting for cash payments made within the fiscal year;

    2. Future considerations to be given to possible change to accounting on an accrual basis relating to the consumption of resources in a year - staff inputs, goods and services;

    3. Empowerment of budget holders to implement transactions, unhindered, in accordance with budget (as revised during the year). Greater reliance on post payment review and internal audit rather than pre-payment scrutiny by MEF;

    4. Separate capture and control of information about commitments entered in to, but not yet liquidated.

- **Budgeting systems:**

    1. Annual budgets of all budget holders set in context of realistic multi-year estimates published alongside them;

    2. Roll-over of multi-year estimates so that second year in one cycle becomes starting point for the budget in the next cycle;

    3. Comprehensive in that all significant deployments of public resources, however financed, are captured;

    4. Encompasses program based analysis of resource deployment and monitoring of the use of resources;

    5. Decentralized and conveys both authority and responsibility to budget implementers.

- **Resource mobilization systems:** (Tax and non tax revenue, external assistance and debt financing)

    1. Effective use of revenue raising capacity in Cambodia through balanced approach to use of taxation (direct and indirect), levy of user charges to the public and other financing sources available to the public sector (including external assistance and external and domestic borrowing);

    2. Ensure full compliance with the prevailing laws and regulations (including the Law on Taxation, Customs Law and Law on Investment) and prudent and transparent management of external assistance and debt financing, whilst minimizing cost to the taxpayer and to the Royal Government, and optimizing the amount of revenue available for the Royal Government to implement its policies through public expenditure programs;

- **Access systems:**

    1. Common access of all budget implementers to the same accurate and reliable data on a timely basis based on integrated use of modern IT;

    2. Open to scrutiny by all interested parties, inside and outside of Government, to view performance compared to budget based on a clear and transparent data trail;

    3. An effective system of both external and internal audit in which audit supports rather than hinders management to make effective use of resources.

The Royal Government is in the process of developing a monitoring and evaluation sub-system to enable regular monitoring and assessment of the public financial management system. The key features of the targeted vision of PFM reform program are consistent with international standards and best practices, which will cover the following aspects:

- **Budget Realism:** The budget is realistic and implemented as intended in a predictable manner (e.g. composition of expenditures compared to approved budget, actual amount of funds received by service delivery units etc.);

- **Comprehensive, Policy-based Budget:** The budget captures all relevant fiscal transactions, and is prepared in an orderly, predictable way with due regard to government policy (e.g. single budget process - calendar and circular - fully coordinating budgeting for investment and recurrent expenditures, budget ceilings informed by government's relative spending priorities defined at political level);

- **Fiscal Management:** Aggregate fiscal position and risk are monitored and managed (e.g. few or no expenditure arrears, adequate system for management of domestic and foreign debt);

- **Information:** Adequate fiscal, revenue and expenditure records and information are produced, maintained and disseminated to meet decision-making, control requirements and management purposes (e.g. budget reports, with classification allowing comparison with budgets, are made available in a timely manner say after the month/ quarter end; regular, high quality reconciliations of bank accounts);

- **Control:** Effective control and stewardship is exercised in the use of public funds (e.g. effective internal audit system; public procurement system based on clear, consistent and enforced rules; payroll records and nominal rolls linked through computerized system to which MEF has access);

- **Accountability and Transparency:** Effective external financial accountability and transparency arrangements are in place (e.g. communities have regular access to information on budgets allocated to and funds received by service delivery units; external audit covers all major public sector entities and a full range of financial audit);

- **Clarity and accountability:** Clear legal and institutional frameworks for functional and spending responsibilities across government levels, and for budget holders' management accountability (e.g. Program managers have maximum possible flexibility in selection, mobilization and use of resources to achieve program objectives accompanied by a system of accountability to deliver the results. Accountability to national assembly and people for use of resources is transferred to line ministries, which are also publicly accountable for program performance);

- **Value for money:** in use of public resources (e.g. negotiated decrease in price of items procured regularly by the government; unifying procurement by different agencies to obtain discounts associated with larger purchases);

- **Responsiveness:** of fiscal and budget management (e.g. institutionalized mid-year review of budget performance feeding into implementation during the first half of the second budget year and preparation of subsequent budget);

- **Professionalism:** in the civil service and incentive systems (e.g. build a core group of technical experts).

7.2. Long term sequenced strategy

The reform program will progress in four stages: Stage One: comprises short term action plans including all necessary activities for achieving Platform One, plus activities with long lead times and necessary for later Platforms; Stages Two and Three: Medium term, planned for towards the end of Stage One, when Platform One objectives are within sight; and Stage Four: Long term while well on the way to achieving the vision.

- **Platform 1 - More credible budget:** In the first instance, the Royal Government will strive to achieve a position in which the budget becomes more credible as an instrument of strategic and day to day management of public resources, because it delivers a reliable and predictable resource to individual budget managers. This entails that the budget reflects mobilization of all significant public resources and their deployment. It thereby enables steps in subsequent stages to hold budget managers more accountable for the proper, efficient and effective use of resources;

- **Platform 2 – Effective financial accountability:** Having secured compliance with budget practices established in Platform 1 and eliminated inappropriate practices by budget stakeholders, the Royal Government will turn on tightening the accountability of the

budget stakeholders and for rewarding good practice. This will require initial improvements in internal control and accountability systems at all levels. It will focus on the monitoring of resources by providing better data, effective discipline, and greater internal transparency;

- **Platform 3 – The RGC's policy agenda becomes fully affordable and prioritized:** From the base established in previous stages, by which the budget is now established as a credible instrument for policy implementation, the Royal Government will focus on developing techniques and capacities for analyzing the budgetary impact of policies and for connecting policy priorities and service targets to budget planning and implementation, thereby assuring that government polices are fully affordable and prioritized. This will enable greater accountability for program performance;

- **Platform 4 – RGC managers become fully accountable for program performance:** Having reinforced the stability, soundness and policy orientation of budget planning and management practices, the Royal Government will start to hold budget managers accountable and rewarding them for achieving agreed objectives and standards of performance. Processes of accountability and review for both financial and performance management will be fully integrated, resulting in greater external transparency and more effective feedback from implementation into policy formulation.

Achieving the vision of Public Financial Management will require long term government commitment and willingness to plan and devote resources, financial and human over the long haul. In addition, the success of the Public Financial Management reform program depends on progress made in other key pillars of good governance including Legal and Judicial Reform and Civil Service Reform, and active participation of

Development Partners including donor community, private sector, civil society, and all levels of government officials.

The government has given high priority to the timely and orderly implementation of the PFM reform program since it is required for the effective and efficient use of the scarce public financial resources, so crucial to the achievement of the ultimate goals of enhancing growth, employment, equity, and efficiency of the Rectangular Strategy.

7.3. Components of the PFM Reform

The PFM Reform Project has the following components:

7.3.1. Budget and Treasury Operations Reform

This component will support the modernization of Treasury management to improve budget execution and control, including establishing a Financial Management Information System (FMIS). Sub-components include: (i) mapping current budget process in detail (from budget release to commitment and to payment) and developing transition plan for new streamlined processes; (ii) increasing payments to and from Government through the banking system in terms of tax collections and Government payments to civil servants and contractors; (iii) designing and implementing measures to improve budget discipline by limiting accumulation of payment arrears; (iv) obtaining technical guidance on quality assessment of FMIS system framework and procedures, with an emphasis on streamlining and improving the transparency of key business processes before computerization commences; (v) obtaining technical advice on appropriate policy, system design, and content, taking into account capacity and technology constraints and including a program of phased roll-out; (vi) IT system software and hardware, including testing and quality assurance; (vii) building sustainable capacity in the Ministry of Economy and Finance (MEF) for operating the FMIS and use the reports that it will generate; and (viii) training and capacity development in line agencies as appropriate to allow use of system generated information.

This component would also require working with line ministries, which are at different stages of readiness to implement the reforms.

7.3.2. Procurement

This component will support the development of improved arrangements for processing of procurement actions, in order to improve transparency, economy, and efficiency, streamline spending processes, and accelerate fiscal de-concentration. It will also facilitate implementation of the revised procurement procedures resulting from expected improvements in the legislative and regulatory framework for procurement, including use of the procurement manual and harmonized standard bidding documents that are currently under development. Sub-components include: (i) revising procurement processing arrangements in light of new budget transaction processes, (ii) assisting with the drafting of a sovereign procurement law, (iii) decentralizing procurement to line ministries and provinces, and (iv) appropriate capacity building, which will also include training of procuring entities, contractors, and suppliers for implementing the improved procurement procedures. This component would also require working with line ministries, which are at different stages of readiness to implement the reforms.

7.3.3. Tax Administration Reform

This component will support modernization of the Tax Department through capacity development based on institutional and organizational reform. Measures are likely to focus on the headquarters office. As an initial step the project would review the Tax Department's reform program. Such a review would also provide an opportunity to build greater ownership through staff participation and to consult taxpayers on issues of concern. Attention would be paid to the incentives faced by staff in the institutional and organizational milieu in which they operate. Sub-components include: (i) reform of the organizational structure to a functional structure, (ii) development and implementation of a capacity development program for the Tax Department, and (iii) improved service

delivery focusing on enhanced taxpayer registration and taxpayer account management, improved audit and coverage, and enhanced taxpayer services, and (iv) development of mechanisms to improve transparency and accountability, including possibly the establishment of a taxpayer ombudsman function and a private sector oversight board.

7.3.4. Merit-based Pay and Employment Initiative (MBPI)

An innovative—and necessary—feature of the project will assist the RGC to pilot civil service reform in the context of the PFM reform program. Both the RGC and its DPs acknowledge that addressing the incentive problem, which consists both of the lack of meritocratic management and extremely low pay levels, is a prerequisite for reform and longer term capacity development. The lack of adequate incentives, and the lack of a meritocratic management framework, means that many civil servants are tardy and, if they do turn up for work, are ill-motivated to carry out their official duties. Previous attempts to reform the PFM system have floundered due to the lack of a mechanism to address the pay and employment problem. The MBPI reflects an agreement between MEF, the Council for Administrative Reform, and DPs to pilot a pay and employment reform program in MEF. Core elements of the MBPI include: (i) funding from DPs (on a declining basis) and the RGC (on an increasing basis) for increased remuneration for selected staff; (ii) selection and management of staff for the MBPI based on merit and performance; (iii) payment through the payroll; (iv) parallel work on functional analysis leading to a rightsizing exercise; (v) complementary work on human resource management reform, including setting up an establishment register; and (vi) agreement to phase out salary supplements.

7.3.5. Strengthening the Budget Oversight Capacity of the National Assembly

This component would assist the Finance and Banking Committee (FBC), including through a more informed understanding and review of the budget law, to hold the RGC to a higher standard of accountability. Thus

far, the FBC has had very limited influence on the budget. This component would assist the FBC to better analyze and monitor the implementation of the budget law, thus playing a greater role in budget decision making and in overseeing the use of public funds. To this end, a capacity development program specifically targeting the FBC would be developed. Such a program would be tailored to meet the needs of the FBC and its staff members and would concentrate on a set of activities designed to strengthen the Committee's oversight capacity, through local, regional, and international budget-related events and workshops, study tours, and the development of relevant study guides/tools. The program would address such topics as: (i) the National Assembly and the budget cycle, (ii) budget review and oversight, (iii) the role of National Assembly in measuring the impact of public expenditures, and (iv) transparency and participation in the budget process.

7.3.6. Change Management

This component will provide support for education and advocacy about the project, including for extensive consultation with relevant stakeholders in MEF and line ministries, capacity development to design and implement a transparent and participatory change management process, and a communications strategy. Given the sensitivities likely to be roiled with such a significant and important overall of key business practices in MEF and eventually the line ministries, serious attention to a change management strategy will be critical to the project's success.

7.3.7. Capacity development

MEF's Consolidated Action Plan recognizes, at a broad level, the need for a combination of technical and capacity building activities in support of achieving each of the platforms for long-term reform of public financial management. Activities foreshadowed to support achievement of Platform 1 (and later platforms) include broadly-described capacity building, motivational and organization measures. However, much more work needs to be done, especially regarding the activities needed to

support Platform 1. There is a risk that capacity development activities get sidelined by complex technical activities. There is also a risk that the Economics and Finance Institute (EFI) will not be able to implement the capacity development program. Mitigation measures include: the planned motivational and organizational measures, and rapid movement on both the capacity development plan for Platform 1 and an institutional assessment of EFI.

7.4. Program Budgeting

This section explains the purpose and benefits of program budgeting and provides an overview of the organization and content of the Guidelines for the Preparation of Program Budget (Guidelines),

7.4.1. Definition of a program

A program is a group of sub-programs and activities with one clear objective that produces at least one outcome and a group of outputs. Performance indicators provide a monitoring mechanism for measuring and reporting on outcomes and outputs at program and sub-program levels. The costs, both capital and recurrent, of the activities are included in the program budget thereby making the program budget an integrated budget.

7.4.2. Budget-policy link

A sound relationship needs to exist between the policy making process and the budget process because the budget is an instrument of economic and fiscal policy and a policy statement, as it sets relative levels of spending for different activities. The budget process takes into account policies already formulated and is the main instrument to make them operational. The strength of the budget-policy link is therefore very important regarding the way strategies to achieve national and sectoral policies get implemented.

7.4.3. Benefits of program budgeting

Program budgets strengthen the budget-policy link. Linking the budget to policy objectives through programs helps focus attention on why a particular expenditure is being incurred and what it is meant to achieve and provides a basis for holding managers accountable for results.

Program budgets provide a means for reallocating resources from past policy objectives to new policy objectives. The concept is simple. Identify the key outcomes and outputs that are required if a policy objective is to be realized, then identify the activities that will produce the outputs to obtain the outcomes in the most cost efficient and effective manner. By regularly evaluating programs performance, resources can be reallocated within and between programs on the basis of results achieved (i.e. outcomes and outputs).

Traditional line item incremental budgeting cannot achieve this purpose because it simply records what the money was spent on. It does not link expenditure on inputs to outputs and outcomes that achieve policy objectives. As a result, it encourages an incremental approach to future funding based on what was spent in the past without examining the results of previous spending.

The program budget provides a better way to consider what should be funded, the level of funds to be applied and the policy impact of the funds provided. It represents a substantial change in the traditional line item way that budgets are prepared, approved, monitored and reported on.

The use of program budgeting establishes the basis for continuous improvement of:

- Budget planning through better linking of the budget to policy objectives;

- Budget execution by enabling clearer lines of accountability to be developed;

- Budget monitoring and reporting by linking program implementation to the reporting of actual achievement against expected results.

7.4.4. Steps in Program Budgeting

A. Developing the program

Provides guidance on how to develop the program and sub-programs structure, which covers identifying and agreeing to the objectives, outcomes, outputs and activities. Also, provided is a checklist of questions in order to assess whether the programs sub-programs structure and the objectives, outcomes, outputs and activities are appropriate.

B. Costing the programs

Provides guidance on how to cost program inputs and provides a checklist of questions in order to assess whether the costs identified are appropriate.

C. Selecting program performance indicators

Provides guidance on types of performance indicators that might be selected to monitor progress and achievement of the program and provides a checklist of questions in order to assess whether the performance indicators selected are appropriate.

D. Monitoring and reporting of the program

Provides guidance on the performance monitoring and reporting of program implementation and specifies program reporting requirements to Budget Department including report formats.

7.4.5. Developing the program

Section 1 provides guidance on how to derive from the sector policy that a particular Ministry supports, appropriate programs each of which comprises a group of sub-programs and activities with one clear objective. Guidance is also given on how to identify and agree on program outcomes, outputs and activities.

A. Liking Programs to Sectoral Strategies

Program design starts with determining the purpose of the proposed program. This requires a sound understanding and knowledge of the National Strategic Development Plan 2006-2010 (NSDP), as this document presents the vision, goals, sectoral policies and objectives that the activities of Ministries is intended to support. The NSDP also provides the framework for the annual review and setting of policy priorities during the strategic planning phase of budget preparation, which is articulated in the Budget Strategy Plan (BSP) prepared by each Ministry. This process is shown in Table 3.3.

Table 3.3. Budget Preparation Process and Output

Budget Calendar	Process	Output
Strategic Planning Phase	Review of Ministry performance, setting of objectives to be achieved and the means to achieve them including expected results and indication of the current and capital resources to be utilized and revenues to be collected for coming budget year and two outer years	Budget Strategy Plan
Budget Estimates Phase	Detailed budget estimates prepared	Program Budgets and non-program budgets
Budget Finalization and Approval Phase	Final decisions on the budget informed by the strategic analysis developed during the budget preparation process and annual budget approved	Annual Budget Law approved

The Cambodia model for strategic planning emphasizes results oriented performance of Ministries, programs and sub-programs. The BSP is meant to establish strategic direction, identify strategic issues, define expected results, facilitate resource allocation, aid decision-makers in monitoring performance and provide a framework and support for Ministry's budget requests.

Budget Strategic Plan is a strategic plan prepared by all ministries during the Strategic Planning Phase of budget preparation. It will include review of performance, the policy objectives to be achieved in the coming budget year and the means to achieve them, including expected results and a broad assessment of the current and capital resources to be utilized and revenues to be collected in the coming budget year and the next two years.

The Budget Department Ministry of Economy and Finance has issued guidelines on the preparation of the Budget Strategy Plan. These guidelines are updated and issued together with the budget circular governing the strategic planning phase of budget preparation.

The BSPs of each Ministry links the preparation of their budgets to sectoral policies. This provides the basis for the development of appropriate programs because each program is derived from the sectoral policy framework within which ministries operate. Moreover, each program is tied to one clear objective. Chart 1 illustrates this process.

The NSDP is the high level planning document, so that its policy priorities drive annual budget preparation. The policy priorities of the NSDP are translated into sectoral and ministries budgetary ceilings through the BSP.

The BSP is the linking mechanism between the NSDP, which sets out the priority areas of public services and specifies target outputs and accomplishments, and the annual budget, which provides the available resources to carry out the activities required to obtain NSDP targets.

The BSP provides the basis for the development of Ministry programs that support specific sector policies. By being policy oriented a program is specific to NSDP and it is this policy linkage through the program objective that provides the justification for the program. Similarly, sub-program objectives are defined within the program objective and provide the justification for sub-programs.

The BSP process culminates in the decision to retain, eliminate, or modify a program or sub-program based on findings contained in the Ministries self assessments of their performance (i.e. BSPs). This helps structure the budget and budget allocations in relation to policy objectives and provides a basis for a budget and financial system that links a program's policy objective and achievements with meaningful planning and accountability.

B. Development of the program-sub-programs structure

Having prepared the BSP, the next step is to determine what to do in terms of preparing a detailed program budget. Table 3.4 provides a framework and reference and sets out the scope of the work to be accomplished.

Table 3.4: Program, Sub-Program and Activity

Item	Definition	Explanation
Program	Group of sub-programs and activities with one clear objective	Produce at least one outcome and a group of outputs
Sub-program	Group of activities with one clear objective within the program objective	Produce at least one output and possibly one outcome
Activity	Group of actions with one clear objective	Must produce one output

Table 3.4 can be used to guide formulation of the program beginning with identification of the program- sub-programs structure.

Program budgeting is an ongoing process. There are seven key elements that need to be reflected in a good program-sub-programs structure.

1. The program structure should reflect and communicate the mission of the Ministry. The mission of the Ministry is why it exists and this is given in its statutory authorization, which defines it in law as a legal entity and provides it with a purpose that it is obligated to meet.

2. The program structure should reflect and communicate the policy objectives of the Ministry. The program structure must also be maintained and adopted, as required, to reflect new policies to ensure that alignment between the plans (NSDP/BSP) and budgets continue in the years ahead.

3. The program structure must be Ministry specific, so that it is designed only within the scope of a particular Ministry's mandate in order to ensure accountability. When programs are conducted jointly by more than one Ministry responsibility is also divided, so that specific outcomes, outputs and activities are difficult to assign to individual Ministries and costing becomes more complex.

4. Each Ministry is limited to five programs. Limiting the number of programs makes it easier to understand what the Ministry is trying to achieve.

5. A program may have a number of distinct components that will make it difficult to develop meaningful measures for the program as a whole. In this case, the program will need to be sub-divided into a number of sub-programs. When two or more "programs" are part of a larger program they should, be treated as sub-programs for

results based budgeting. There is no limited on the number of sub-programs

6. However, any level below a sub-program is too much detail. Therefore, program hierarchies are limited to just two tiers: the program level and the sub-program level. This limitation is because the level of detail necessary to manage Ministry performance internally is not necessarily the level of detail that is desired externally. Too much detail that is not aligned to the program structure blurs its intended message of performance. Decision-makers have reams of information before them and limited time to understand the larger picture of government performance and whether Ministries are achieving the missions they were formed to achieve. As such, sub-sub- programs are not acceptable in the program hierarchy.

7. The name of the program and its sub-programs should be self explanatory. This means that these names should convey to the reader unfamiliar with the Ministry what issue the program is trying to address. The aim is to show that the program and sub-programs proposed to be undertaken will both effect a change in intended program beneficiaries or in the public condition that the program and sub-programs were formed by mission and policy to address.

7.5. Tax Policy

Taxes are compulsory imposts, while charges and borrowing involve voluntary transactions. As taxes are used to finance public goods, the benefits from tax-financed goods and services are available to the entire Cambodian population. As stated earlier, the government influences income distribution through taxation as well as its expenditure policy. Taxes and charges are withdrawn from the private sector, while the government does not have a specific service liability to the tax payee. The economic incidence of a tax is the change in the distribution of private

real income induced by a tax. The tax system changes the distribution of income among capital owners, labor and landlords. The major issue in the analysis of incidence of a tax is the way it affects relative prices.

Taxes also affect incomes and result in excess burdens by changing economic behavior and lead the economy away from Pareto optimality. Because a tax distorts economic decisions, it creates an **excess burden** – a loss of welfare above and beyond what could be attributed to the tax revenue collected. Excess burden is sometimes referred to as welfare cost or deadweight loss. An efficient tax minimizes efficiency losses incurred through the excess burden of taxation while collecting the specified amount of tax revenue (Hillman, 2004). The solution for efficient taxation is known as the Ramsey rule, named for the British scholar Frank Ramsey who derived the rule in 1927. The **Ramsey rule** *states that to minimize total excess burden, tax rates should be set so that the percentage reduction in the quantity demanded of each commodity is the same* (Rosen, 2005).

The government has at its disposal a wide range of instruments with which it can influence the distribution and redistribution of income. One of the main fiscal policy instruments is taxation. The approach to measuring the redistributive impact of the tax policy is the analysis of tax incidence. The main conclusion is that income taxes are normally progressive i.e. the proportion of total income paid in tax increases with total income while consumption taxes are generally regressive –i.e. the share of taxation declines with total income.

7.5.1. Revenue Mobilization Measures

Since 1999 fiscal policy and management has been central to the reform efforts. The critical element of the strategy was to increase revenue to meet expenditure needs. As a result, government revenue strengthened from 8.3 percent of GDP in 1998 to a projected 11.9 percent in 2004. The increase in revenue was mostly due to growth in the tax base. The replacement of the turnover tax and consumption tax on imports with a

10 percent value added tax (VAT) in 1999 also contributed positively to the revenue increase. At the same time, the VAT enhanced the efficiency of the tax system by simplifying the tax structure, widening the coverage, and reducing cascading. Overall, improvements to tax policy have contributed to the higher tax performance.

The progress in customs and tax administration and non-tax policy and administration has been limited. Customs administration efforts focused on ensuring a more efficient use of pre-shipment inspection services, and increased transparency to reduce hidden costs in customs procedures. Anti-smuggling operations were strengthened through enhanced inter-agency cooperation and the establishment of anti-smuggling units in key border provinces. In the area of tax administration a large taxpayer unit was set up in 2001 and the system of tax payments through banks was introduced for large and medium taxpayers. The Tax Department recently introduced a number of tax revenue-enhancing administrative measures, such as: improved auditing, strengthened arrears management, strengthened enforcement actions (e.g., seizures of delinquent taxpayer bank and treasury accounts, cessation of import-export operations, rejection of import permits, etc.), and improved taxpayer registration. As a result of these steps, a systematic collection of tax arrears has commenced. However, the recent experience suggests that limitations of administrative capacity, legal framework and regulations and human resources, are constraining the efforts to improve tax and non-tax revenue collection. The core concern is the delay in re-organizing the tax department along functional lines, an inadequate number of professional tax and customs collectors, and the poor incentive structure throughout the revenue collection system.

Three areas have been identified as priority areas for implementing tax reform namely **(i) Change process, (ii) Tax policy, and (iii) Tax administration**. The activities under each of these areas are briefly described below.

Change process includes establishing a formalized and transparent approach to the reform process through the use of an Organizational Technology Framework and identifying the essential elements; providing the linkage between all the essential elements as they are interdependent; establishing the Departmental vision and communicate that vision within and outside the Department; conducting a review of the current Tax Department's functional roles and responsibilities and providing advice and assistance in taking appropriate action to establish formal roles and responsibilities of Headquarters, Regional or Provincial Offices and District Offices (the functional model).

Tax policy reform involves identifying and rectifying anomalies in the tax laws and recommend changes based on the need for modernizing the tax policy linked to fiscal direction and policy of the central government with regard to tax regime including tax on profits for the Assessment Regime, tax on salaries, local taxation, value added tax, turnover tax, excise, and tax policy analysis.

Tax administration reform involves improving headquarters' management capacity; implementing the Real Regime in the five main regional offices; establishing a solid management information system with appropriate data to meet the needs of the MEF, head office, and the field or district offices; developing an operational procedures manual for all levels of tax administration and setting performance standards at the divisional and individual staff level; establishing the Large Taxpayer Unit (LTU) and Medium Taxpayer Unit (MTU) in Phnom Penh to improve administration of the largest taxpayers; establishing a system of monthly statistical reports; ensuring that the Real Regime covers all large and medium sized business by dividing Real Regime Unit into a Large Taxpayer Unit and a Medium Taxpayer Unit with an integrated administration of all taxes and organized along functional lines; implementing the Real Regime in the remaining provinces in the medium term; establishing formal audit manuals and procedures and a modern management information system for the audit operation, developing an

audit strategy that provides for a broader coverage of taxpayers and utilizes new selection techniques based on risk analysis; and ensuring information on importations from registered/non-registered taxpayers is received from the Customs Department.

Detailed new organizational structure and recommendations with draft Prakas have been prepared and are undergoing review by the management team. Communication strategies and recommendations regarding taxpayer services have been proposed and discussed. Based on the proposed new roles and responsibilities, the change process in the LTU and MTU will continue to move foreword. The policy on tax regime and 90 percent of the laws, sub decrees and Prakas have been reviewed to identify anomalies and revised laws approved by the National Assembly. An unambiguous depreciation schedule based on the needs of all stakeholders has been established and the method of taxing dividends has been revised as it is a priority with Law on Investment and Amended Law on Investment. The minimum tax threshold has been reviewed and it is agreed not to change it at this time. However the review of double taxation agreements is behind schedule.

7.5.2. Cambodia's Fiscal Regime

Cambodia's fiscal regime varies according to a particular taxpayer's regime: the Real Regime and the Assessment Regime.

A. The Real Regime

The Real Regime, based on self-assessment, allows the taxpayers to determine the tax base and pay taxes without supervision of the preparation of the income tax return by the Tax Department. Under the Real Regime the taxpayers after preparing the tax returns should submit them to the Tax Department. The Tax Department will review the tax returns to ensure that the declared tax payments have been correctly prepared in accordance with the current tax legislation and the self assessed tax is appropriate and paid.

The Real Regime is applied to companies involved in imports, exports and project contractors with the following turnover thresholds:

- 500 million riel for companies supplying goods ;
- 250 million riel for companies supplying services ; and
- 125 million riel for companies signing contracts with the government.

At the end of 2005, there were 42,019 companies.in Cambodia. Of these 2,933 were small, medium and large companies which filed tax returns with the Tax Department. They comprise: 2,411 medium enterprises, 522 small entreprises. 11 provinces and municipalities have implemented the Real Regime: Phnom Penh, Kandal, Batambang, Siem Reap, Kampong Cham, Sihanouk Ville, Koh Kong, Banteay Meanchey, Kampong Speu, Svay Rieng et Kampong Chhnang. Revenues from companies subjected to the Real Regime accounted for 80% of the total revenues of the Tax Department.

B. Assessment Regime

The Assessment Regime is applied to companies which fall below the prescribed thresholds for the Real Regime and are mostly involved in micro scale activities. There were 39,086 companies in this category. Revenues collected from companies under the Assessment Regime accounted for 20% of the total revenues of the Tax Department. In this system the Tax Department itself prepares the returns based on the accounts submitted by the assesses. It is obvious that the system will be costly to administer.

The Box below describes the various categories of fiscal revenue as they are understood in Cambodia.

Taxes and Charges

6.5.2. Destinations and Categories of Taxes :

Taxes may be classified based on the economic agent, which bears them as follows:

- those imposed in the factor or in the product markets;
- those imposed on the buyers and sellers in the market;
- those imposed on households or firms;

Considering major types of taxes, a distinction can be drawn between:

- Personal taxes which are based on the taxpayer's personal ability to pay and in rem taxes or tax on transactions and activities such as purchases, sales, or the holding of property;
- Direct and indirect taxes;
- Positive and negative taxes.

The Direct taxes in Cambodia are:

- Tax on profit;
- Tax on salaries ; and
- Tax on property rental.

There are 6 categories of **indirect taxes** in Cambodia:

- Turn over tax ;
- Value Added Tax;
- Excise taxes on certain products and imported goods;
- Tax on motor vehicle;
- Registration tax ;
- Import duties.

Transfer or grant payments by government may be viewed as negative taxes, as transfers return revenue to entities while taxes mobilize revenues from them. For example, social security benefits might be considered as a negative income tax and subsidies to business might be viewed as negative business taxes.

The following taxes finance the State Budget:

- Tax on salaries,
- Tax on profits,
- Tax on property rental,
- VAT
- Excise tax,
- Les droits de régie,

The following taxes finance the Budgets of Provincial Governments and the Communes:

- Tax on unused land,
- Registration tax,
- Patent tax,
- Slaughter tax,
- Tax on motor vehicle,
- Tax on alcohol.

The main characteristics of a good tax structure are as follows (Musgrave, 2004):

- Revenue yield should be adequate;
- The distribution of the tax burden should be equitable;
- What matters is not only the impact point, but the final resting place of the tax;
- Taxes should be chosen so as to minimize interference with economic decisions in efficient markets. "Excess burdens" should be minimized;
- The tax structure should facilitate the use of fiscal policy for stabilization and growth objectives;
- The tax system should permit fair and non-arbitrary administration and it should be understandable to the taxpayer;
- Administration and compliance costs should be as low as is compatible with the other objectives.

7.5.3. Description of taxes levied in Cambodia

1. Taxes Collected for the State Budget:

A. Taxes on income, profits, and capital gains

1.1. Tax on salaries – a monthly tax on income from salaries (including remuneration, bonuses, overtime compensations, and fringe benefits), withheld at source. The tax applies to all salaries received in Cambodia provided that the employer is a Cambodian resident, and to salaries received abroad by Cambodian nationals. The employer or the enterprise employing the individual liable for the tax is required by law to withhold 20 per cent of the taxable income at source and remit it to the Treasury.

Exempted from the tax on salaries are: (i) salaries of diplomatic and other foreign officials, such as international organization representatives, (ii) actual refunds on professional expenses, (iii) layoff compensation

provided under the Labor Law, (iv) additional remuneration with social characteristics provided under the Labor Law, (v) uniform and professional equipment provided by employers, and (vi) travel expense allowance.

Deductions of CR 75,000 from the tax base per month are allowed for each minor dependent child and a spouse without occupation. The tax schedule is as follows:

Table 3.5. Income Tax Rates

Monthly income	**Tax rates**
From 0-500,000 riels	0%
from 500,00-1,250,000 riels	5%
from 1,250,000-8,500,000 riels	10%
from 8,500,001 -12,500,000 riels	15%
More than 12,500,000 riels	20%

1.2 Tax on profits (Corporation income tax)– a monthly tax on the profits of businesses, including interest, rent and royalty received, and capital gains from the sale of assets. An enterprise under the Real Regime system is subject to accounts based profit taxes. Under the Assessment Regime system taxable income is proxied by estimated turnover.

The Tax on Profit is payable by a resident company on income from Cambodian sources and from foreign sources. For a non-resident company , this tax is assessed on income from Cambodian sources only.

The taxable enterprise must file the Tax on Profit annual return in the form prescribed by the tax administration no later than 3 months after the end of the tax year which is the same as the calendar year. On a monthly basis, the enterprise must file a monthly tax return and pay the prepayment for the tax on profit at the rate of 1 % of the turnover (inclusive of all taxes except for VAT) realized in the month by the 15th

of the following month. This prepayment is deductible against the tax on profit calculated at the annual settlement of the tax.

Exemption from the tax include (i) the income of the Royal Government and institutions of the Royal Government, (ii) the income of religious, charitable, scientific, literary or educational organizations, (iii) the income of labor organizations, chambers of commerce, industry or agriculture, and (iv) the profit from the sale of agricultural produce. In addition, under the Law on Investment, exemptions can be granted by the Council for the Development of Cambodia (CDC) to investing enterprises for up to 8 years, commencing from the year the investment project first becomes profitable.

Deductions allowed from the tax include: (i) interest expenses, (ii) depreciation of tangible, and intangible property, and natural resources, and (iii) charitable contributions. Carry forward of losses in future returns is also allowed.

For the corporation, the tax rates on the annual profit are as follows:

For entities other than corporations subjected to the profit tax, the rates applied are as follows: (i) CR 0 - 6,000,000, 0 percent; (ii) CR 6,000,001 - 15,000,000, 5 percent; (iii) CR 15,000,001- 102,000,000, 10 percent; (iv) CR 102,000,001 150,000,000 , 15 percent; and (v) 150,000,000 and higher, 20 percent.

1.2.1. Additional Profit Tax on Dividend Distributions

The additional profit tax on dividend distributions is determined as follows:

1. An additional profit tax of 20 per cent on:

- distribution of retained earnings or annual profit after tax, if an enterprise is distributing retained earnings or profits that were subject to a tax rate of 0%; and

- any other distribution, except for those mentioned in paragraph 2 and paragraph 3 below as well as for any repayment of capital.

2. An additional profit tax shall be paid at the rate of 11/91 upon distribution of retained earnings or annual profit after tax, if an enterprise is distributing retained earnings or profits that were subject to a tax rate of 9%.

3. Additional profit tax shall not be paid on the distribution of retained earnings or annual profit after tax, if an enterprise is distributing retained earnings or annual profit that were subject to the maximum rate of 20%, or the rate of 30%.

4. If an enterprise receives a dividend from another enterprise that has paid tax, it shall record the amount of that dividend into a dividend account. When that enterprise subsequently distributes dividends to its shareholders the amounts distributed which are taken out of the dividend account shall not be subject to additional profit tax on dividend distribution.

Table 3.6. Tax Rates for Companies of the Real Regime

20 percent for the profit realized by a legal entity.
30 percent for profit realized under an oil or natural gas production sharing contract and the exploitation of natural resources including timber, ore, gold, and precious stones.
9 percent for the profit of a qualified investment project approved by CDC for a 5 year transitional period commencing from the tax year after the date of the promulgation of the Law on the Amendment of the Law on Investment.
0 percent for the profit of qualified investment projects during the tax exemption period as determined by CDC.

5. Any distribution of retained earnings or annual profit after tax is deemed to be made in the following order:

- first out of retained earnings or annual profit after tax of which the profit tax is paid at the rate of 20%, or the rate of 30%;
- subsequently out of retained earnings or annual profit after tax of which the profit tax is paid at the rate of 9%;
- and lastly, out of retained earnings or annual profit on which the profit tax is paid at the rate of 0%.

6. An enterprise shall submit a tax return on the additional profit tax on dividend distribution, and pay the tax to the tax administration in the form as specified by the tax administration by the 15th day of the month following the month of the dividend distribution.

7. An enterprise distributing dividends is required to notify the dividend recipient in the form specified by the tax administration that the additional profit tax on dividend distribution has been paid at the time of distribution.

8. For the purposes of payment of personal income tax, a person who receives dividends can show the the notification issued under paragraph 7 as the authority for not including these dividends in his taxable income.

1.2.2. Withholding Taxes

1. Any resident taxpayer carrying on business and who makes any payment in cash or in kind to a resident taxpayer shall withhold, and pay as tax, an amount according to the below mentioned rates for the specified transactions described therein which are applied to the amount paid before withholding the tax:

A. 15 percent on:

- income received by a physical person for the performance of services including management, consulting, and similar services;

- royalties for intangibles and interests in minerals, and interest paid by a resident taxpayer carrying on business other than domestic banks and saving institutions, to a resident taxpayer.

B. 10 percent on the income from the rental of movable and immovable property.

C. 6 percent on interest paid by a domestic bank or savings institution to a resident taxpayer having a fixed term deposit account.

D. 4 percent on interest paid by a domestic bank or saving institution to a resident taxpayer having saving accounts other than a fixed fixed term deposit..

The withholding tax does not apply to interest paid to a domestic bank or savings institution and to the payment of tax exempt income.

2. Any resident taxpayer carrying on business and who makes any of the following payments to a non-resident taxpayer shall withhold, and pay as tax, an amount equal to 14 percent of the amount paid:

A. interest;

B. royalties, rent, and other income related to the use of property;

C. compensation for management or technical services;

D. dividends.

The taxpayers may carry forward their losses for up to five years. The carry-back of losses is not permitted. There is no provision for consolidated filing or group loss relief.

1.2.3. Transfer Pricing

Article 18 of the Law on Taxation provides the Cambodian authorities with wide powers to redistribute income and deductions between parties under "common ownership", in order to prevent avoidance or evasion of taxes through transfer pricing. Common ownership income is taxed at the rate of 20%.

1.3. Minimum Tax

The Minimum Tax is a separate and distinct tax applicable to all enterprises except enterprises that have been designated as investment enterprises under the Law on Investment. The Minimum Tax is imposed at the rate of 1 percent of the annual turnover inclusive of all taxes except VAT, and is payable at the time of the annual settlement of the tax on profit. The minimum tax may be reduced by the annual tax on profit that is actually paid.

1.4. Capital gains tax

Double taxation of corporate profits can be avoided by providing tax credits to individuals receiving the beneft of the profits distributed by corporations that have already paid the profit tax. In the absence of such personal tax credits for corporate profit distributions, there are incentives not to distribute corporate profits as dividends but to keep the profits within the company for further investment so to avoid personal taxes. The profits not distributed to shareholders are added to the capital value of the firm and are available as means of financing investment that is tax-free. By retaining rather than paying out profits to shareholders, the corporation provides individual shareholders with the benefit of a capital gain.

A capital gains tax, however, imposes tax obligations when an individual sells the assets or shares of the firm. The capital gain tax is applied at a flat rate.

B. Property and Wealth Taxes

Property and wealth taxes may be imposed on pieces of property (payable by owner) and thus be of itemized in rem type; or they may be imposed on the combined property holdings of a person, or on his net worth, thus being in the nature of a personal tax. The argument for wealth taxation may be made on both benefit and ability-to-pay grounds. In Cambodia, property taxation is in the form of the tax on property rental.

1.5. Tax on property rental – Businesses (other than those under the Real Regime) renting out land, buildings, certain equipment, storage facilities etc. are liable to tax on property rental. The tax is levied at 10% of the relevant rental fee. This tax is imposed directly on the properties' owners but not withheld from the rental payment made by the enterprises under the Real Regime (see earlier discussion on withholding taxes). Property owners whose monthly income from rent is below 500,000 riel are exempted.

C. Consumption Taxes

Sales taxes like income taxes in are imposed on cash flows generated in the production of current output. While income taxes are imposed on the net income received by households. Sales taxes are imposed on the sales of business firms. Sales taxes differ from the income tax in that they are in rem rather than personal taxes.

1.6. Value Added Tax (VAT) – Value added tax, is applicable to Real Regime taxpayers who are making supplies of goods (other than land or money) and/or services. It is levied on the taxable supply of goods and services, extending through all stages of importation, production and distribution. The virtue of VAT compared to a sales tax is that the VAT does not depend on the structure of ownership of productive activities. A

sales tax would be paid every time a market transaction took place on the full value of the product.

Under the VAT system, "output tax" is collected from customers by the VAT taxable person, by adding VAT to the amount charged. However, the taxable person also pays "input tax" to his suppliers on purchases made. The taxable person pays the net tax after deducting from the output tax, the input tax paid to his suppliers. In theory, the tax is ultimately borne by the consumer or a business outside the VAT system.

The term taxable supply means:

1. The supply of goods or services by a taxable person in the Kingdom of Cambodia. The taxable person is any taxpayer under the Real Regime and others as specified by regulations;

2. The appropriation of goods for his own use by a taxable person;

3. The making of gift or supply at below cost of goods or services by a taxable person;

4. The import of goods into the customs territory of the Kingdom of Cambodia.

For the purpose of VAT the taxable value shall be determined as follows:

1. The taxable value for any supply shall be the price of the goods or services the supplier charges the customers. The taxable value includes any charges of transportation and other items payable to the supplier with respect to the supply, including any specific tax but excluding VAT.

2. When the payment for a taxable supply involves any consideration other than money for the direct or indirect benefit of the seller, this

consideration shall be included in the taxable value at its fair market value.

3. The taxable value for imported goods is calculated as CIF + Customs duties + Excise tax if any + Other Chargeable Fees. If there is no such value, the fair market value shall be applicable.

Exempted from the VAT are: (i) public postal service, (ii) hospital, clinic, medical and dental services, and the sale of medical and dental goods, (iii) public transportation service, (iv) insurance service, (v) primary financial service, (vi) the import of goods for personal use exempted from customs duties, (vii) non-profit activities in the public interest, (viii) the import of goods for or by foreign diplomats and consular missions, international organizations and agencies of technical cooperation of other governments for use in the exercise of their official functions.

The schedule of VAT rates is as follows:

- 0% - This rate applies only to goods exported from the Kingdom of Cambodia and services consumed outside Cambodia. Exports include international transportation of passengers and goods.

- 10% -This standard rate applies to all supplies other than exports and non-taxable supplies.

A taxable person must file the monthly VAT return in the form prescribed by the tax administration by the 20th of the month following the month that the supplies have been made. In the calculation of the tax payable in a tax period, credit is allowed to the taxable person for the tax payable in respect of: (i) all taxable supplies made to that person during the tax period, (ii) all imports of goods by that person during the tax period. The credit is only allowed if the supply or import is for use in the production of the taxable supplies of the taxable person. The offset allowed for VAT paid on inputs is not allowed for : (i) purchases or imports of automobiles, unless the taxable person is in the business of

dealing in, or hiring such automobiles, (ii) entertainment, amusement and recreation expenses unless the taxable person is in the business of providing entertainment, amusement and recreation, (iii) purchases of petroleum products for use as road fuel unless the taxable person is in the business of supplying petroleum products.

1.7. Turnover tax – A monthly tax on business turnover, is applied on any person subject to the Assessment Regime. Agricultural products sold by primary producers (but not by traders); and mobile traders and small permanent establishments, as determined by the Minister of Economy and Finance, and enterprises operating under the Law on Investment are also subjected to this tax levied at a uniform rate of 2 per cent.

1.8. Specific Tax on Certain Merchandise and Services or Excise tax – a tax levied on selected products, both locally produced and imported, and services. The excise tax payment on cigarettes is ensured by affixing stamps.

The goods subject to the specific tax on certain merchandise and services are:

- cars (30%);
- spare parts (20%); and
- motorcycles and spare parts (10%);
- petroleum products (20%);
- soft drinks, alcoholic drinks (10%);
- beer (20%).

The following services are also subject to services tax:

- entertainment services (10%),

- transport by air of passengers, and telephone services (10%).

1.9. Import Duties – an import tax is a tax on domestic sales of foreign imports. Therefore, an import tax is a discriminatory tax that makes foreign goods more expensive than domestically produced goods.

A general tariff (based on the Harmonized System classification) has been levied on all imports. There are essentially four rate categories: (i) 0 percent; (ii) 7 percent for essential goods and basic raw materials; (ii) 15 percent for intermediate goods and machinery and equipment; and (iii) 35 percent for most consumer goods and building materials. Gold and silver coins are subject to a nominal rate of 0.3 percent.

All rates are ad valorem and duties are levied on c.i.f. basis, except for petroleum products, chemical fertilizers for which values for duty purposes are determined by the Minister of Economy and Finance. Exempted from import duties are: (i) imports for projects and investments approved by the CDC, on approval at the time of import; (ii) insecticides, pesticides, and agricultural machinery (excluding tractors); and (iii) imports of embassies, international organizations providing humanitarian aid, and projects financed through bilateral grants and aid.

The schedule of import duties on petroleum products is as follows: (i) Gasoline: 35 percent of the prescribed value of $320 per ton; (ii) Diesel: 20 percent of the prescribed value of $275 per ton.

2. Taxes for provincial and municipal budget

2.1. Tax on unused land - tax levied on land in specified cities and areas where there is no construction or with construction but not in use. The tax is calculated at the rate of 2% of the land value which is evaluated by the Commission for the Evaluation of Unused Land, on 30 June every year. The first 1,200 sq. meters of land is free of tax. The owner of the land is required to pay the tax by 30 September each year.

2.2. Registration tax (Taxes on property transfer) - Certain documents relating to the establishment, dissolution or merger of a business or the transfer of title of certain assets (such as land, building, motor vehicles and ships) are subject to Registration Tax. The tax is generally levied at 4% of the transfer value.

Transfers of property ordered by the State are exempted, as are government transfers, public utilities, and charitable organizations. The sale of motor vehicles is also exempted if the seller is subject to the turnover tax or the profits tax.

2.3. Patent tax – an annual registration or license fee levied on all businesses, industries, and services (for both Real Regime and Assessment Regime taxpayers). The base is the previous year's turnover, or estimated turnover. New businesses are taxed on the basis of a provisional estimate. Farmers and family run businesses are exempted. The Patent Tax Certificate must be displayed at the business premises. The taxpayers must file the Patent Tax return and pay this tax by the end of March every year.

For business and industries, the patent tax is levied according to annual turnover as follows: (i) CR- 0 7,500,000, CR 15,000; (ii) CR 7,500,00-112,500,000, CR 21,000; (iii) CR 12,500,001-25,000,000, CR 27,000; (iv) CR 25,000,001 -30,000,000, CR 40,000,000; (v) CR 30,000,001-37,500,000, CR 60,000,000; (vi) CR 37,500,001-50,000,000, CR 90,000,000; (vii) CR 50,000,001- 62,000,000, CR 140,000; (viii) CR 62,000,001-75,000,000, CR 180,000; (ix) CR 75,000,001-100 million, CR 240,000, (x) CR 100,000,001 -1 billion (max.), 0. 1 percent of turnover.

For services, the patent tax is levied according to annual turnover as follows: (i) CR 0- 3,000,000, CR 15,000; (ii) CR 3,000,001- 5,000,000, CR 2 1,000; (iii) CR 5,000,001-10,000,000, CR 27,000; (iv) CR 10,000,001-12,000,000, CR 40,000,000; (v) CR 12,000,001- 15,500,000, CR 60,000,000; (vi) CR 15,000,001 -20,000,000, CR 90,000,000; (vii) CR 20,000,001-24,800,000, CR 140,000; (viii) CR 24,800,001-30,000,000, CR

180,000; (ix) CR 30,000,001- 40,000,000, CR 240,000, (x) CR 40,000,001-400,000,000 (max.), 0.25 percent of turnover.

2.4. Tax for Public lighting

The Tax for Public Lighting is an indirect tax with the rate of 3% to be imposed on all alcoholic drinks and cigarettes. The person who supplies these products is responsible for the payment of this tax to the tax administration.

2.5. Slaughter tax - Tax levied on slaughterhouses based on the value of the livestock that is slaughtered. Exempted from slaughter tax are livestock (i) slaughtered for celebrating national traditional festivals, (ii) slaughtered for research uses, and (iii) killed in accident. A uniform rate of 3 percent of the set price for each animal is levied.

2.6. Motor vehicle tax – An annual tax on automobiles and boats is levied as follows.

Lorry: 160,000 riel

Motor car:

- up to 9 horsepower 37,500 & 50,000 riel

- 9-12 horsepower 50,000 & 75,000 riel

- over 12 horsepower 87,500 & 125,000 riel

Motorcycles 3,000-7,500 riel

Small power boat 5,000 riel

Cargo ship (over 2,000 tons) 1,200,000 riel

Sea-going fishing boat (over 500 horsepower) 300,000 riel

2.7. Stamp tax – Tax payable in the form of stamps affixed to certain official documents and certain advertising hoardings. Tax rates vary according to such factors as the location of the hoarding, illumination and the language used (foreign or Cambodian).

3. User Charges

User fees collected from public who voluntarily wish to use certain types of public services which are rival and excludable. Charges or user fees require the government's ability to exclude from the benefit of the service rendered those who do not pay, as for example excluding users from a toll road if they do not pay.

User charges can sometimes involve taxes on commodities and services used by a particular segment of the consuming public. For e.g. a tax on gasoline is a tax on use of roads. A tax on automobiles is a tax on the option to use the road. User charges could be involuntary if the government collects charges for a service regardless of whether it is used by the payer of the user fee. For e.g. if government were to decide to finance compulsory schooling through user charges , they would in effect be a tax, because of the absence of the option of not paying the fee on the ground that the payer does not wish to use the service.

The case against user prices is that a public service should be financed through progressive taxation and not through a regressive user charge. For example, from an equity point of view the school or the health center should be financed through progressive taxation rather than through user fees. Ultimately the education of a child should not depend on the willingness or ability of the parents to pay user fees. The children should not be excluded from schooling because of parents' income or choice not to school the child.

However, user fees can be a practical response to ineffective or inability of government to finance the provision of quality public services due to inadequate revenue mobilization capacity. For e.g. the public system of

education may deliver quality of education lower than what the community wants. In these cases user charges may be collected to deliver the desired quality of education to the community which is willing to pay for it.

7.6. Fiscal Policy Implications of Petroleum Revenue

Fiscal policy should be consistent with achieving macroeconomic objectives such as macroeconomic stability and efficient allocation of resources. Fiscal policy can play an important role in managing short-term fluctuations in petroleum revenue in order to enhance macroeconomic management and promote national savings consistent with sustainable growth.

The crucial fiscal challenges in administering oil revenues are:

- ***Petroleum revenue stream is uncertain and volatile***
- ***Petroleum revenue will eventually will dry up*** and its management will need to provide for intergenerational equity
- Uneven level of petroleum revenue for the government coffers, due to fluctuations in oil prices;

7.6.1. Avoiding Resource Curse

Large petroleum revenues can affect the exchange rate through changes in disposable income, wealth effects, pro cyclical government spending on non-tradables, and short-run monetary disequilibrium. Fiscal policy can play a role in addressing these issues by smoothing out spending on non-tradables. In addition to fiscal policy, monetary policy instrument can be used to prevent exchange rate appreciation through foreign currency operation, i.e. the purchase of dollars in order to boost international reserves.

Strengthening institutional capacity to manage oil and gas revenue is crucial to avoid resource curse. Without having a strong in-house capacity to evaluate project expenditures, there is the risk that a portion of the increased revenues could be invested in projects which generate either negative or sub-optimal levels of benefits. Therefore, the RGC has given high priority to build stronger internal analytical capacity and systems to improve the allocation of capital investment. In this regard, the RGC is undertaking a variety of reforms including the all-important Program for Financial Management (PFM) which is specifically designed to ensure a credible budget, improve the efficiency and accountability of public revenues and expenditure decisions, move towards a results-oriented budget. The implementation of PFM will provide a strong foundation for ensuring the best results from future natural resource revenue. Analytical capacity should be strengthened within the government to enable key decision makers to carefully evaluate and compare various investment proposals to allocate the fund resources for the social and economic benefits to Cambodia.

7.6.2 The Dutch Disease

Development experience during the last few decades shows that most mineral exporters, especially oil exporters, have done less well than resource-poor countries, even though they had the advantage of the windfall mineral export revenues. Countries such as Malaysia have avoided this situation by focusing on non-mineral activities and using the windfall revenues to build infrastructure rather than expand consumption.

Many theorists have attributed the problem of "resource curse" to: (i) the Dutch disease; (ii) poor governance; and (iii) the damaging effects of volatility of resource flows and the world prices of primary commodities such as minerals..

In the **Dutch disease** an oil boom leads to a contraction in domestic manufacturing, from falling exports and rising imports as the result of

exchange rate appreciation. The increase in resource-based revenue (for example oil revenue), generates a greater capacity to import but also increases the demand for all goods including nontradables, which cannot be imported but must be produced locally. This requires the economy to move resources out of the tradable sector, i.e. manufacturing, to expand the production of nontradables such as construction and services (Corden, 1982; Corden and Neary, 1982).

The resource curse can also be explained by the abundance of the natural resource which makes the economy specialize in the natural resource sector, a sector not prone to increasing returns to scale as the manufacturing sector (Matsuyama, 1992). As a consequence the economy is unable to expand output at declining cost and is eventually rendered a high cost economy.

Moreover, with the focus on oil and gas industry, entrepreneurs find it more profitable to be engaged in activities related to the oil and gas sector, rather than strive to produce more wealth and diversify the economy. Thus, the economic structure of the country tends to become increasingly unproductive, centered on the oil and gas sector (Davis and others, 2003). The oversupply of resources also tends to result in poor choice of projects resulting in wasteful and uneconomic investments eventually leading to project failure.

Case Study: The Symptom of a Dutch Disease in Azerbaijan

Azerbaijan's oil production amounted to 1 million barrels per day. Oil production was in 2007.

- Economic growth of 25 per cent in 2007, driven by the petroleum sector, which grew by 24 per cent;
- Over-valued exchange rate;
- High inflation (16% in 2007);

- Loss of competitiveness in the non-tradable sector;
- Stagnation of the agricultural sector;
- Heavy investment in infrastructures led to the booming of the construction activities and cost push inflations;

The **volatility** of oil prices is carried over to the fiscal regime. International experience suggests that volatility of petroleum revenue can also have a negative impact on economic growth, investment, income distribution, poverty reduction and the society's educational attainment. Volatility can be destabilizing for budget expenditure, the real effective exchange rate and real output. Thus, by reducing the volatility of public spending the government would ensure macroeconomic stability.

Designing an appropriate fiscal regime is of crucial importance for Cambodia in developing the oil and gas sector. Therefore, in developing tax and non-tax instruments of fiscal policy, the Royal Government of Cambodia must weigh carefully the fiscal regime effects on investment in the oil and gas sector. The right balance of the fiscal regime where the incentives for investment and revenue mobilization are harmoniously blended can create a win-win situation for both government and the petroleum companies, allowing both sides to have a balanced sharing of risk and reward.

The RGC can collect revenue from oil and gas sector through both production-based and profit-based instruments. Production-based instruments can ensure that the government receives a minimum payment for its mineral resources, while profit-based instruments allow the government not only to share in the upside of highly profitable projects along with an increase in the government's share of the project risk.

6.6.3. Royalties

Royalties, as a production-based instrument, allow the government to secure a minimum payment as soon as production commences. Royalties

are designed in a straight-forward manner and easy to administer. Royalties in Cambodia are set in the Production Sharing Agreement (PSA) at the rate of 12.5 percent. Royalties can be either specific levies, based on the volume of oil and gas extracted, or ad valorem levies, based on the value of oil and gas extracted. Ad valorem royalties are levied on the basis of the sales price or the f.o.b. export price.

Royalties are to ensure that the government receives a fair share of revenue from natural resources. However, high royalties may discourage investors from developing marginal reserves and lead to early abandonment of oil and gas wells.

The disadvantage of royalties for investors is that they are usually not allowed as a foreign tax credit against the home country's income tax liablity.

7.6.4. Production Sharing Agreement

Under a Production Sharing Contract (PSC), the ownership of the resource remains with the state, and the petroleum company is contracted to extract and develop the resource in return for the share of the production. After royalty payment to the government (12.5 percent), the remaining oil production is split between cost and profit oil. The PSC divides the remaining oil, after the payment of royalties, into "Petroleum Cost" – at the rate of 90 percent to allow cost recovery by the investor and "Profit Oil", at the rate of 10 percent. The high proportion of cost oil allows the company to recover the exploration and development costs quickly. Where a cap is imposed on the deduction of costs in any operating year and the Petroleum Costs are above this limit, the cap will have a similar economic impact as a royalty, allowing the government to receive revenue as soon as production commences.

The "**Petroleum Costs**" are defined as all costs and expenditures incurred in the course of or relating to petroleum operations. They include all costs which are:

1. Incurred by Contractor in accordance with generally accepted accounting procedures of the international oil industry and consistent with the contractor's normal accounting methods and procedures;

2. Otherwise permitted under the country's petroleum regulations;

"Petroleum Costs" can be classified as follows:

A. Exploration Costs – all direct costs and allocated indirect expenditures incurred for exploration operations including associated abandonment costs;

B. Development Costs – (i) all direct and allocated indirect expenditures incurred in respect of development operations including associated abandonment costs; (ii) financing costs incurred by the contractor in respect of the funding of development costs;

C. **Production Costs** - all direct and allocated indirect expenditures incurred in respect of production operations;

D. **General and Administrative Costs** – (i) all management, administrative and general costs incurred in the contractor's representative office and field offices in Cambodia including, supervisory, accounting, legal, technical and employee relations services; (ii) all management, administrative and general costs incurred outside Cambodia by the contractor and its affiliates, and applicable to petroleum operations in Cambodia including supervisory, accounting, legal, technical and employee relations services; (iii) all general costs incurred outside Cambodia for the purpose of petroleum operations together with internal assistance from financial, office and personal services;

E. **Overhead Costs** – the costs incurred by the contractor for services of a general nature applicable to petroleum operations and are charged as a percentage of the Petroleum Costs as indicated below.

Table 3.7. Allocation of Overhead Costs

Annual Petroleum Costs	Overhead Cost
Up to $1,000,000	10%
$1,000,000 to $5,000,000	5%
$5,000,000 to $20,000,000	3%
Over $20,000,000	2%

However, the following costs and expenses are excluded from Petroleum Cost:

a. Costs and expenses not related to Petroleum Operations in the contract area;

b. Income tax and penalties paid in Cambodia or in foreign countries;

c. Losses which are recovered through insurance or any contract of indemnity;

d. Expenditures of personal nature, gifts and donations other than those approved in writing by CNPA;

e. Foreign exchange gains and losses;

f. Fees paid to CNPA or government;

The "Profit Oil" is divided between the government and the contractor according to the following arrangement:

Table 3.8. Net Oil Sharing

Net Oil Production	Contractor's Alloca-	Government's Alloca-
Up to 1-10,000 BBL	58%	42%
Portion in excess of	53%	47%
Portion in excess of	48%	52%
Portion in excess of	38%	62%

The total daily production of Net Gas will be shared between contractor 65%, and government 35%. Unrecovered costs in any year are carried forward to subsequent years. Interest expense is not a recoverable cost.

Although the PSA is a balanced document which aims at a fair distribution of petroleum revenues between the government and the contractor, difficulties can sometimes arise from the determination of allowable costs. Moreover, the ex ante agreement may become inappropriate as the actual profitability of a project becomes known during operation.

Many countries have moved away from the production sharing approach based on the rate of daily production by adopting the production sharing on the basis of: (i) the "R-Factor" or payback ratio; and (ii) sharing according contractor's achieved rates of return. The rationale is that, under these two methods, sharing adjusts automatically to variations in petroleum prices, costs or volume of production. They are risk-reducing for contractor and should result in higher overall shares for the government in the long run.

The R-Factor Method

The R-Factor method determines the contractor's and government's shares of profit oil according to a progressive scale rising with the ratio of contractor's cumulative receipts to cumulative costs less interest, or the R-Factor. The R-Factor method allocates a higher proportion of share to the

contractor when the overall project profitability (measured by the R-Factor) is lower. Under the R Factor method:

- Contractor's receipts equal recovered Petroleum Cost plus contractor's share of profit oil;
- Contractor's costs equal Petroleum Cost (as defined earlier);

The schedule of the profit oil share of the contractor is as follows:

Table 3.9. R-Factor Method of Net Oil Sharing

R-Factor	Contractor's share of profit oil
– 1.0	95%
- 1.3	90%
1.3 – 1.6	85%
1.6 – 2.0	60%
2.0 – 3.0	30%
3.0 -	10%

The Rate of Return (ROR) Method

The rate of return (ROR) method determines the contractor's and government's shares of profit petroleum according to a scale of the achieved IRR on the contractor's historical cash flows over the project life. The schedule of the contractor's share of profit oil in the ROR method is shown in Table 3.10.

During the first years of the PSA, the contractors will have to recover heavy capital investment in the exploration, development and production of oil and gas. As production increases, the Rate of Return for the company will increase, allowing the government to increase the profit oil share.

Table 3.10. IRR Method of Net Oil Sharing

Achieved IRR	Contractor's share of profit oil
– 10	95%
10 – 15	70%
15 – 20	50%
20 – 25	40%
25 – 30	20%
30 -	10%

Table 3.11. Azerbaijan's Revenue Sharing under the PSA

Rate of Returbn	Contractor's Allocation	Government's Allocation
ROR < 16%	70%	30%
16% < ROR < 22%	50%	50%
ROR > 22%	20%	80%

7.6.5. Petroleum Taxation

a. Tax on Profits

Petroleum company profits are taxed at 30 per cent compared with the standard rate of 20 per cent. To protect the tax base, the Law on Taxation places limits on the use of debt financing to limit "income stripping" through the payment of interest abroad.

b. Withholding Tax

The 14-percent withholding tax is imposed on certain payments to foreign persons, including interest payments and payment for "management and technical services" applies to petroleum companies.

c. Value-Added Tax (VAT)

The 10 per cent Value-Added Tax (VAT) applies to domestic petroleum sale. Exports are zero-rated. A petroleum company is eligible for VAT refunds when VAT on inputs exceeds VAT on sales. In this regard, the Tax Department may refund excess input VAT on a monthly basis to exporters.

d. Minimum Tax

The minimum tax of 1 per cent on turnover is applicable to Real Regime petroleum companies. However, it is payable only if it exceeds the tax on profit.

In practice, the taxpayer is obliged to make a monthly prepayment of the tax on profit at the rate of 1 percent of turnover for the month. The accounts are settled at the end of the year. However under double taxation agreements normally the minimum tax does not qualify for foreign tax credit. The other difficulty in imposing the minimum tax on a petroleum company is that during the early years of operations, it will make heavy losses due to the heavy capital investments. A minimum tax will be onerous for a new start up company.

7.6.6. Issues in Petroleum Tax Administration

a. Ring-fencing

Ring-fencing of tax accounts is designed to check tax avidance by the petroleum company by limiting or isolating the income and tax allowed deductions for different activities, or different projects, undertaken by the same taxpayer. Cambodia ring-fences the individual contract area. This means that expenses incurred in undertaking petroleum operations in a contract area may be deducted only against the gross income from these operations. Any excess of allowed deductions over income can be carried forward to the next tax year. However, under the Law on Taxation, there

is only a five year limit on the period for carrying forward losses. Under the ring fencing arrangement losses are carried forward indefinitely. Many other countries ring-fence oil and gas activities or projects.

Ring-fencing is important as: (i) its absence can postpone tax revenue because a company that undertakes a series of projects will be able to deduct exploration or development expenditures from each new project against the income of projects that are already generating taxable income; and (ii) as an oil and gas production field matures, the absence of ring-fencing may discriminate against new entrants that have no income against which to deduct exploration or development expenditure.

Ring-fencing can become complex if a project incorporates extraction, processing, and transportation activities. If the oil and gas tax regime is more onerous than the standard tax regime, the taxpayer would seek to have certain project-related activities treated as downstream activities outside the ring-fence. If they are allowed to be so treated the taxpayer through transfer pricing pay attempt to shift profits to the more lightly taxed downstream activities.

b. Transfer Pricing

Through **transfer pricing**, a taxpayer seeks to minimize income and maximize deductible expenditures through transactions between related parties. To limit abusive transfer pricing between related companies, the Tax Department should have the power to adjust income and expenses where under- or over-pricing between related companies has resulted in a lowering of taxable profit. Tax avoidance techniques include:

- The provision by related parties of highly leveraged debt finance at above-market interest rates. In particular, if the petroleum profit tax is above the standard tax rate, there may be an incentive to establish a domestic shell firm that will on-lend financing capital from related parties to the oil company giving rise to a higher interest deduction on the earnings of the petroleum company. The interest earnings

will show up as income of the finance company and will be taxed but the tax will be at the lower rate.

- Claiming excessive management fees, deduction for headquarters costs, or consultancy charges paid to related parties;

- The provision of capital goods and machinery in leasing arrangements at above-market costs charged by a related-party lessor;

c. Fiscal Stability Clause

The assurance of revenue stability to the contractor is an important investment incentive, given the long-term, large-scale, and up-front nature of oil and gas investment. Any future changes in the tax rules (change in laws), or introduction of new laws which materially increases the financial burden of the contractor, would require amending the PSA to take account of such changes.

7.6.7. Other Non-Tax Payments

a. Surface Rental

Table 3.11. Surface Rental Rates

Annual Surface Rental	Rates
For exploration area during stage 1 of the exploration period	$10 per square kilometer
For exploration area during stage 2 and 3 of the exploration period	$20 per square kilometer
For exploration area during any additional extension of exploration period	$40 per square kilometer
For a production area	$500 per square kilometer

The contractor pays the annual surface rental for areas within the contract area at the above rates.

Contractor also pays signature bonus and other fees and charges for services and social development funds to the government. The surface

rental fee, bonuses and charges assure up-front revenue for the government and may encourage the petroleum companies to explore and develop contract areas more rapidly so that the surface rental costs could be quickly covered.

b. Transit Fees

The contractor pays the transit fees for transporting the gas through the pipelines.

7.7. Fiscal Policy Implications of Petroleum Revenue

7.7.1. Managing Petroleum Revenue

The most effective way for Cambodia to minimize the risk of Dutch Disease and maximize social and economic development impact from the oil revenue could be as follows:

- Invest a substantial share of future oil and gas revenues in rural areas – especially human resource development, through much improved basic education, health and water sanitation and in rural infrastructure, especially rural electrification, roads, and irrigation;

- As more than 60% of the population depends on agriculture, the government can spend oil and gas revenue on the much-needed rural infrastructure such as irrigation systems, roads, electricity and water supply. Empirical studies have established the strong positive correlation between rural investments and equity indicators. Petroleum revenue can be invested in projects that will have positive long-term financial and economic returns thereby helping Cambodia to achieve its long-term economic development goal, including employment generation. Increased investment in rural areas can also ensure social justice and equitable development. The rural based human capital and infrastructure investments will also

support greater economic diversification, generating jobs and incomes in rural areas, and sustaining healthy economic growth rates over the long- term. At the same time, returns from the investment of oil revenue can be used to gradually increase government officials' salary, who are currently underpaid resulting in low staff morale and productivity. All these will contribute to social stability.

- Oil and Gas discovery may lead to cheaper energy cost. Cheaper domestic energy costs (oil and gas price) will inevitably make domestic producers more competitive in the region. Strong domestic economy will likely create more jobs and income for Cambodian people.

- Oil revenues can improve Cambodian's BOP position leading to an enhanced macro-economic environment which may attract more domestic and foreign investors and result in more job creation;

- Part of the oil revenues can be spent on advancing education; obvious priorities might include primary and secondary education (including scholarships abroad), healthcare, irrigation and rural infrastructure projects and the promotion of non-farm livelihoods. The RGC can earmark the oil revenue for certain types of high-priority public spending. Theses priorities should be funded according to their economic benefits as evaluated by skilled professionals.

- Set aside oil resources for pension payments and other allocations for extending social health insurance and social safety nets to population.

- Oil revenue can be invested in the tourism sector which will have spill over effect on other tourism related services and activities.

- Revenue from oil and gas can be used to set up a fund to encourage SMEs as well as to support Public Private Partnership (PPP) initiatives.

In general petroleum revenue should be managed according to the following principles (CEF, 2006):

1. Maintain sustainable fiscal policies in national budgeting;

2. Revenue from oil and gas should be managed in a Petroleum Fund in a manner that is transparent and accountable;

3. Expenditures from the Petroleum Fund should be invested in human and physical capital, rather than consumption, so as to help achieve the CMDGs;

4. Decisions must be made as to how to balance long-term and current needs and the rate of spending from the Petroleum Fund; and

5. Funds invested by the Petroleum Fund should be conservatively and professionally managed offshore.

7.7.2. Petroleum Fund – A Conceptual Framework

The **Petroleum Fund** is a mechanism to ensure a prudent and fiscal policy by: (i) preventing the "**Dutch disease**"; (ii) counteracting real exchange rate appreciation; (iii) smoothing out oil revenue volatility; (iv) preventing government spending fluctuations; (v) enhancing governance and transparency; and (vi) providing a long-term savings vehicle through the accumulation of financial assets.

The institutional arrangements for the fund can be as follows:

- **Virtual fund** – is an accounting design, in which there is no separate institutional structure for the management of the fund, and

all revenues and expenditures are on-budget. The oil revenue could be held in the government's main account or in a separate government account through a special accounting arrangement. Restrictions will be placed on the drawing down of the fund's resources for expenditure. Any drawdown of deposits from the fund would appear as deficit financing. The assets would be managed like government assets. There would be no earmarking of the fund's resource for certain items of expenditure. Expenditure would be incurred by the line ministries and agencies according to the budget allocations approved by the National Assembly. This design would be consistent with transparent policy decisions, accountability, and control of expenditures through normal budget procedures, supported by the standard accounting, reporting and auditing procedures. A virtual fund could strengthen political accountability and support for saving nonrenewable resource revenues. It could also help to strengthen the incorporation of sound economic principles within the budget process.

- **Oil resources are spent on specific earmarked items in the budget** – Under this approach, transfer to and from the fund's account could be for financing explicit line items in the budget. All revenues would be included in the budget, and the amount that is to be saved in the fund would be shown as a transfer to the fund. If there is a drawdown from the fund, it would be shown in the budget as a transfer, and all spending would be through standard appropriation. This approach preserves the unity of the budget, without the restrictive rules implicit in the virtual fund. The resources transferred to the budget could be earmarked for particular expenditures. However, earmarking would result in resource being placed outside the allocative budget process and might lead to inefficient expenditure and the misuse of resource.

The Petroleum Fund can take many forms:

- **Stabilization funds** – a mechanism designed to reduce the impact of volatile revenue on the government and the economy. Its objectives can also include supporting fiscal discipline and providing greater transparency in the spending of revenue. Budget revenue can be made predictable and stable by transferring the uncertainty and volatility to the fund;

- **Contingent stabilization funds** – in the form of price – or revenue-contingent funds. Such funds are aimed at accumulating resources when the resource price or revenue is "high" (exceeding some upper threshold) and to pay out when the price or revenue is "low" (falling below a lower threshold). These funds allow budgetary spending to be insulated from changes in the resource price. Contingent rules may determine that resources should be deposited in the fund if the export price or revenue exceeds some reference value. The accumulation of assets in the fund may be subject to a cap determining the fund's maximum size, particularly if the main objective is short-run stabilization;

- **Savings funds** – is used to create a store of wealth for future generations. Savings funds rely on non-contingent rules, which stipulate that some pre-specified share of resource revenues be deposited in the fund independently of the resource market and overall fiscal developments. Savings funds may also have stabilization objectives, as withdrawals are allowed to finance the budget during resource price downturns, recessions, or catastrophic events;

- **Financing funds** – is designed to finance the overall budget deficit. The Norwegian State Petroleum Fund operates as a financing fund. Under this arrangement, the budget is required to transfer to the fund net oil revenues. The fund finances the budget's non-oil deficit through a transfer. If the budget is running an overall surplus, the budget balance is transferred to the fund; if

the budget is in deficit, the latter is financed by the fund. The assets held in the account may be managed according to separate investment guidelines. A financing fund provides an explicit and transparent link between fiscal policy and assets accumulation. An increase in expenditure would automatically lead to lower deposits into the fund or greater withdrawal from the fund.

Case Study: Azerbaijan's State Oil Fund

Azerbaijan signed 25 Production Sharing Agreement (PSA) with foreign oil companies. Two PSA will provide US$200 billion in projected revenue; 10 PSA were closed; and 13 PSA outstanding. Under this PSA arrangements, the government receives around 75-78 per cent in revenue.

The Azerbaijan's State Oil Fund was established in 1999 as a separate legal entity, with three major goals: (i) sterilize considerable petroleum revenues by holding them in overseas bank account; (ii) accumulate and save the money for future generation; and (iii) spend the money to meet the needs of the current generation. It is ranked 7th among the 32 Sovereign Fund worldwide, behind the US, Norway, Australia, Canada and Timor Leste.

The size of the Oil Fund was US$2.5 billion in 2007 and is expected to increase to US$30 billion by 2011. The revenue stream is projected to equal US$200 billion in the next fifteen years. The oil revenues are kept in government accounts outside of the country.

Revenue of the Oil Fund:

- Government's share in the PSA;
- Transit fees levied on gas pipelines;
- Acreage fees or surface rental fees;
- Signature bonus;

- Export tax levied on the volume of oil produced by the national oil companies, with the rate of 75 per cent of the value of oil exceeding US$50 dollar per baril;

The oil revenue is invested in fixed income assets overseas, with a small proportion invested in equities. The Azerbaijan Government is reviewing investment policy to allow for increased investment in equities and alternative portfolio.

50 per cent of revenue is kept in US dollars, 40 in Euro, 5 per cent in English Pound and the remaining 5 per cent in one of the three currencies. This allows the Oil Fund to be currency neutral, as the depreciation of US dollars would be offseted by appreciation of other currencies. However, the shares are reviewed from time to time.

Expenditure of the Oil Fund

Criteria for spending:

- Macroeconomic variables, such as inflation;
- Long-term sustainability – Net Present Value of projected revenue streams for the next 20 years based on proven reserves;
- Ceilings for spending;

The expenditure focused on projects of national importance – social spending to improve the livelihoods of Internally Displaced People and expenditure to promote economic development by investing in infrastructures, such as roads, power plants, water supply, pipelines, railroads, irrigation facilities etc.;

The budget of the Oil Fund is part of the **Consolidated Budget** – *National Budget, the Budget of the Oil Fund and the Pension Fund* – which is submitted annually to the Parliament for approval. The expenditures

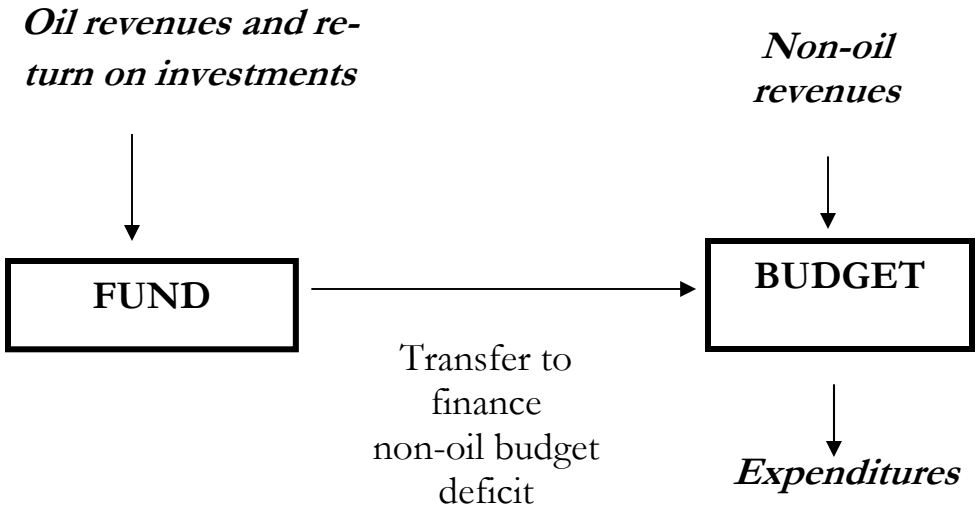
consist of two parts: investment outlays earmarked in the budget and direct transfer to the budget to finance budget deficit.

The State Oil Fund also established the Azerbaijan Investment Agency with a capital of US$100 million.

7.7.3. Proposal for the structure of a Cambodian Petroleum Fund

The Cambodian Petroleum Fund (CPF) should be integrated within the budget process in a coherent manner, thus allowing the government to maintain a unified control of fiscal policy and avoid problems in expenditure coordination. The integration of the fund and the budget avoids the emergence of two "budgets", i.e. the traditional budget and the expenditure program financed by the fund. It also allows spending decisions to be made within the budget process and the expenditure to be included in the budget in a comprehensive way.

Chart 3.1. The Fund Mechanism



The accumulation of assets in the Petroleum Fund should reflect actual budget surpluses. Running a non oil budget surplus is therefore the only way a government can accumulate financial assets on a net basis.

If the fund is set up with an allocation rule that is not linked to actual surpluses, the accumulation of assets in the fund will not reflect actual budget savings but only windfall gain from exploiting a natural resource. With a fund that is not earmarked for any specific purpose, there is more flexibility in fiscal policy, and more room to maneuver when coping with the effects of unexpected shortfalls in future revenue.

The interaction between the Petroleum Fund and the budget is illustrated in Chart 1. The Fund's income is the government net revenues from petroleum activities and the return on Fund investments. The use of expected real return on the Petroleum Fund ensures that the benefits from the asset are transferred to future generations.

The Fund expenditure consists of an annual transfer to the Treasury corresponding to the amount of petroleum revenues used in the budget, to cover non-oil deficit. Experiences from other countries show that excessive use of petroleum revenues can result in the "Dutch disease" and unemployment, thus requiring substantial restructuring costs. In this regard, it is important to strike a right balance between baseline growth and crowding-out scenarios. Skancke (2003) pointed out that the use of annual expected real return on the Petroleum Fund to finance the budget is an attractive option for several reasons:

- It is a simple rule, which is easy to communicate;
- It provides a reference for the budget process;
- It guarantees sustainability of fiscal policy under oil revenue volatility;
- It provides a commonsense solution to inter-generational distribution question.

A Petroleum Fund Law or Regulation should be adopted to assign the responsibility for the management of the Cambodian Petroleum

Fund. The CPF should be established based on the principle of professionalism, accountability and transparency.

Asset management and long-term investment strategies would be needed to be defined for the fund, including prudential investment rules targeting desired levels of risk, liquidity, and return. The fund's financial operations should be designed to avoid disrupting financial markets and macroeconomic stability. The strategy should reflect a portfolio of activities of the government which the fund will support. The fund's short -term asset operations should be coordinated with the government's external debt management, cash management and financial assets. A performance system should be established for the management of the CPF.

Decisions on the investment of petroleum fund resources are crucial for fiscal and monetary policies. An appropriate amount of the fund's resources might be used to undertake investment in physical infrastructure and other high priority socioeconomic expenditures. Such investments will enhance Cambodia's competitiveness and promote growth of the non -resource sector. In this regard, the assurance of project quality is of utmost importance. The investment decisions should be made within the budget framework and the funds should not be allowed to be used for off budget capital expenditure.

The fund's accumulated resources should be invested abroad to avoid resource curse. Investing the fund resources in domestic nongovernmental financial assets would transmit resource revenue volatility to the economy. In downturns, the liquidation of domestic financial assets (such as domestic deposits) could have a contractionary effect on the economy, unless offset by open market operations. Investment in domestic financial assets and monetization of fund's flows during upturn could fuel aggregate demand.

The fund should not invest in the government's domestic or foreign liabilities as part of its asset allocation. This would amount to the government issuing debt to itself. The fund should not be permitted to borrow or to lend. For the transparent and effective conduct of fiscal policy, it is best for borrowing and lending decisions to be centralized at the Ministry of Economy and Finance. The fund's capital should not be used as collateral for government borrowing.

The CPF will require professional management. If competent investment professionals are not available in Cambodia, the RGC should hire international professional firms to assist in the management of the petroleum fund portfolio. Investment decisions should be left to professionals subject to supervision by a technical team of the government and should be guided by objective investment criteria.

Asset management guidelines should be adopted to govern the allocation of the fund's resources, reflecting desired risk-return combination, the proportions to be invested in various types of assets, the geographical mix of assets, and the desired currency composition of the portfolio. Actual investment of the fund resources should be managed by professional fund managers.

Investment Guidelines should be developed to ensure transparent risk management. The guidelines should establish equity portion; regional distribution of investment; investment areas; maximum ownership share in any one company; benchmark portfolio for bonds and equities; and duration of the fixed-income portfolio.

If it is decided to manage the fund within Cambodia its assets should be managed by the Ministry of Economy and Finance and held in the Single Treasury Account (TSA) at the National Bank of Cambodia (NBC). A Board consisting of government representatives and experts should be established to manage the fund. Clear allocation of responsibilities is important to ensure accountability.

The Petroleum Fund could be a deposit account, owned by the government and denominated in US dollars, held at the NBC. The NBC should provide detailed reports on the management of the CPF, describing how the Fund is managed, where the resources are invested, and providing details on the total return and management costs.

7.7.4. Extractive Industry Transparency Initiative

The recent confirmed discovery of oil in the gulf of Cambodia has sparked a lot of debates on the management of the oil revenue. Many development partners have suggested the Royal Government of Cambodia (RGC) to adopt the Extractive Industry Transparency Initiative (EITI). The RGC has decided to form a sub-working group under the Public Finance Management (PFM) Technical Working Group (TWG), which is called EITI Working Group in order to explore the principles and implementation issues of EITI and provide recommendation to the government on the endorsement of the Extractive Industry Transparency Initiative (EITI). To help this EITI Working Group to understand more on issues related to EITI, this paper will answer all questions that have been formed in the EITI Working Group's TORs.

The Extractive Industries Transparency Initiative (EITI) is a coalition of governments, companies, civil society groups, investors and international organizations. EITI aims to strengthen good governance by improving transparency and accountability in the extractives industry. This is achieved through the process of verification and publication of company payments and government revenue from oil, gas and mining. In short, the whole process involves the comparison of money paid by companies and money received by governments, and the publication of the findings.

To date, 29 resource-rich countries have signed up to EITI, including most recently Norway. Only 15 are pre-validated as "candidate countries" while the EITI Secretariat awaits additional information from 9 other countries. Eight countries have issued one or more EITI reports:

Azerbaijan, Cameroon, Gabon, Ghana, Guinea, the Kyrgyz Republic, Mauritania and Nigeria.

The governance structure of EITI comprises the EITI Board, the International EITI Secretariat, the EITI Conference, International Financial Institutions/Donors.

- The EITI Board – is the most influential body in key decision-making and of the Initiative. The board is led by an elected Chair. The current chairman is Prof. Peter Eigen.

- The International EITI Secretariat – is the first point of contact for all organizations involved and interested in the EITI. The operation of this Secretariat is funded by supporting countries and certain members of the EITI Board.

- The EITI Conference – is held every two years and the major gathering of all stakeholders involved in the initiative. This conference provides opportunity to all participants to exchange views and experience on EITI implementation, to reach a consensus on major issues, and to elect new members of the EITI Board.

- International Financial Institutions/Donors – the World Bank, the IMF, and the African Development Bank are observers on the EITI Board. Among bilaterals, the UK, Germany, the Netherlands and Norway have been particularly supportive of the initiative.

Implementing EITI in Cambodia is seen as an effective and efficient way to ensure transparency and fight corruption. Specific benefits to Cambodia from the implementation of EITI are as follows:

- ***For the RGC:*** EITI would be a very powerful signal sent to our people, the companies and the international community on our commitment to strengthen transparency in the sector, maximize

revenue flows to the budget, and use the revenues well. Since EITI represents an international standard backed a variety of governments and international stakeholders, its endorsement demonstrate that the government is committed to greater transparency, accountability, and good governance, and promotes economic and political stability. The greater transparency can also result in more efficient revenue and tax collection because EITI increase scrutiny over payments and revenues.

- ***For companies and investors***: Joining in EITI program indicates the company's commitment to transparency, which in turn will enhance the company's reputation and improve staff satisfaction. Several of the firms with investment in Cambodia, including Chevron, have joined the EITI at the corporate level (or even are EITI Board members). Also, transparency facilitates companies' financial reporting. Firms also benefit from the EITI through a better investment climate because oil and mining companies perceive the implementing countries as *less risky,* and because that perception results in companies requiring lower *rates of return* – it means higher share of the resource rent for the country.

- ***For civil society:*** Knowing the exact amount paid to government agencies, people have adequate information to judge the government on its use of the revenue in public expenditure programs. This will make the debate about the use of oil, gas and mining revenues grounded in reality. Civil society could also benefit from improved relationships and greater influence with companies and the government, increased opportunities to build and strengthen networks with investors and international organizations and enhanced governance.

With all stakeholders are in place, the process of reconciliation can be done as follows:

- EITI Working Group sends letters to instruct the companies about the expected report and its deadline.

- The EITI Committee compiles its reports from the data that various RGC agencies report (item 2, above).

- Copies of the oil and mining company reports submitted to the administration shall be sent to the EITI Working Group, *but only after* the EITI Report has been prepared by the administrator.

- The administrator shall analyze and create reports of the consistency of the EITI Committee and the aggregate Companies' reports.

- Administrator's findings will be submitted to the EITI Working Group within 30 days after submission . This report may not be released until such time as all inconsistencies have been resolved (or the EITI Working Group has agreed to not resolve them but make them public). All such inconsistencies and the manner in which they were resolved or not will be reflected in the Report

- The EITI Working Group shall develop, agree, draft and publish a joint press release regarding the EITI Committee Report and the administrator's report to accompany the publication of the two reports which are released together.

- The EITI Working Group shall hold an additional conference if all the parties agree there is a need for special discussions following the publication of the first reports. The EITI Working Group will re-discuss working on the mechanism of the publicly disclosure of the individual or aggregated reports after submission of the reports covering 2007 and first six month of the year 2008.

Case Study: Azerbaijan EITI Implementation

Every report is reconciled by an administrator, which is selected from the proper bidding process. There is a committee, which comprises of 2 persons from the government, 2 persons from the civil society and 2 persons from the private companies, to oversee the administrator selection process. There are two criteria for the bidding, technical and financial criteria.

The role of the administrator *is only to reconcile* on the reports submitted by the government and private companies. *It is not an auditing process, but rather a reconciliation of different reported numbers and its certification*.

The fee for the reconciliation by the administrator ranges from the 30,000 USD to 60,000 USD. The fee of the bi-annual report is paid by the government and the fee for the annual report is paid by the private companies. BP, which is the major private oil company, has paid the reconciliation fee and then charge to other smaller oil companies based on the percent share in the total oil market.

From the government's side, the report is prepared by the State Oil Fund, while the companies' reports are prepared by the State Oil Companies and private oil companies.

There are always discrepancies in the submitted reports due to the lack of understanding, using different measures and accounting system (cash or accrual). It takes the administrator about a week to complete the reconciliation and explain the differences in reported numbers.

7.8. Managing the fiscal deficit

Managing the fiscal deficit throws up many macroecomic implications. Budget expenditures need not equal revenues. If the revenues exceed budget expenditure, there is a budget surplus. If the budget expenditures exceed revenues, there is a budget deficit.

Deficit = expenditures – revenues (tax revenues and non-tax revenues)

The standard or total budget deficit answers the question: How much does the government currently have to borrow to pay for its expenditures? The deficit during any year is the number of additional resources that the government must borrow during the year.

There is a second deficit concept, the primary budget deficit, which excludes net interest from budget expenditures. It answers the question: Can the government afford its current expenditures? If the primary deficit is zero, the government is collecting just enough tax and non-tax revenue to pay for its expenditures. Net interest payments are ignored in the primary deficit because they represent not current program costs, but costs of past expenditures financed by government borrowing.

Primary deficit = expenditures – net interest – revenues; or

Primary deficit = total deficit – net interest.

The financing of budget deficits could be accomplished in one of the three ways or a combination of the three (Premchand, 1983):

- **By borrowing from the central bank by issuing ways and means bills or mobilizing advances.** However, financing budget deficit by printing more money would lead to rapid expansion of money supply and high inflation and will be destabilizing in a highly dollarized economy;

- **By borrowing from the public or from abroad using government bonds.** A fiscal deficit is often funded by issuing government securities like government bonds or treasury bills. These pay interest, either for a fixed period or indefinitely. If the interest and capital repayments are too large a nation may default on its debts, usually to foreign debtors. Budget deficit in Cambodia is only financed by concesssional loans and grants. This form of

financing is to ensure debt sustainability and macroeconomic stability over the long run;

- **Through the balanced budget multiplier mechanism** by maintaining the budget deficit constant and by financing the increase in expenditure through taxation. The increase in income from the balanced budget multiplier will provide the increase in revenue through buoyancy to offset the deficit.

Borrowing involves the government's promise to repay at a future date and pay interest in the meanwhile. When a government borrows from the public by selling bonds, it commits to pay interest over time to bondholders and to repay the value of the bond. The government will require future taxes or will be required to borrow again. Bond financing of government spending is therefore deferred taxation. Equivalence between tax and bond financing is restored, if older generations make compensating income or wealth transfers to younger generation, or in particular to their children. This is an example of Ricardian equivalence.

According to the **debt neutrality (or Ricardian equivalence) hypothesis**, borrowing is no more than deferred taxation, and insofar as the private sector recognizes this, it will adjust its consumption/ savings behavior accordingly and the financial impact of borrowing will be reduced to that of the equivalent amount of taxation.

The Ricardian equivalence occurs when members of an older generation voluntarily neutralize the inter-generational effects of the government decision to use bond financing. Voluntary income or wealth transfers are made to compensate younger generations for the future taxes they will need to pay to finance interest and redemptions of government bonds. Ricardian equivalence requires that adequate wealth be available that can be transferred between generations.

The high budget deficits financed by borrowing from the domestic banking system contribute to excess demand and rising prices at home

which spill over to the external sector through the appreciation of the domestic currency. As costs and prices rise relative to foreign prices, export and import sectors will contract and the balance of payments will deteriorate inducing further foreign financing or borrowing.

However, in the case of borrowing from the central bank, the resulting money creation will lead to a higher price level which will require holders of money balances to increase their nominal money holdings to preserve their real balances. This phenomenon is referred to as **inflation tax**.

The budget deficit can be financed by increased borrowing from the commercial banking sector. However, the elasticity of savings with respect to interest rates is usually small, making it difficult to raise voluntary savings substantially in the short run by raising interest rates. As a consequence, any mobilization of commercial bank resources for deficit financing will mean adjustment in the private sector's savings-investment gap by **crowding out of private investment**.

If there are limits to the extent to which higher public expenditure can be financed by domestic saving, the only alternative is to rely on foreign saving, or an increase in the external current account deficit. The link between the public sector deficit and the external current account deficit is strong The link between fiscal deficit and current account deficit can be influenced by policy choices; in particular, the monetary policy that accompanies a fiscal expansion can, through its effect on the interest rate and the exchange rate, moderate the resulting impact on the external current account deficit.

Since there is a close link between the fiscal and external deficits, external debt management is crucial to ensure sustainability of fiscal deficit. As debt increases, interest rates will rise and growth will be depressed. If there is an upper limit to the debt burden, deficits and debt above this limit will ultimately have to be financed through the inflation tax and that the required inflation rate could be unacceptably high.

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