5

Monetary and Exchange Rate Policy in a Postconflict Environment

Ron van Rooden and Louis Dicks-Mireaux

At the end of 2001, Afghanistan's financial system had largely ceased to exist. The country had become almost entirely cash based. Banks had essentially stopped functioning during the Taliban years and whatever financial infrastructure had survived the many years of conflict was in a very poor condition. What remained was the informal hawala system that people could use to exchange and transfer money.[1] Confidence in the national currency, the Afghani, was low, because it had lost much of its value following years of high inflation. Moreover, the Afghan central bank, Da Afghanistan Bank (DAB), had little or no control over the issuance of currency. At least three versions of the national currency were circulating in the country. First, there was the official Afghani, which had been issued prior to the Taliban rule and which the Taliban had continued to issue from the remaining stocks in the vaults of the central bank. In addition, duplicates of the official banknotes had been put into circulation during the Taliban years by the then internationally recognized government in exile, which had ordered reruns of earlier issued series from the country's regular printer and had issued these in the northern parts of the country. By using the same serial numbers as used in earlier years, the government in exile ensured that the new notes could not be distinguished from those already in circulation. Furthermore, two warlords had issued their own counterfeit versions of the official currency. While these counterfeits were very similar to the official currency, they did have some distinguishing features and were typically traded at a discount in the Kabul money markets. Reflecting the limited confidence in the national currency, foreign currencies were also widely used, including the U.S. dollar and the currencies of neighboring countries. Foreign currencies were used especially for larger transactions and as store of value.

Against this background, the new government that came to office in late 2001 faced a number of key questions in the area of monetary policy. To help facilitate recovery and economic growth, an adequate degree of financial stability would need to be established. The question was how best to achieve this as quickly as possible. One of the most important and pressing issues in this regard was whether to temporarily adopt a foreign currency as legal tender or whether to introduce a new national currency. Under the latter option, which would take time to implement, a plan would need to be devised for the interim period prior to completion. Also, under the latter option, the central bank would need to have a framework to conduct monetary policy. What would be the objectives and intermediate targets of monetary policy? Would it be better to fix the exchange rate or to let it float? In the absence of a functioning banking system, which instruments could be used to

[1] See Chapter 6 for a description of the state of the financial system in Afghanistan in 2001 and its development thereafter.

implement monetary policy? This chapter discusses these issues, the various options that were open to the authorities, and the choices they have made, as well as the actual conduct of monetary and exchange rate policy during 2002–03.

Choice of Currency

It was clear that financial stability could not be achieved under the prevailing circumstances, with little or no control over the issuance of money. In addition, donors were looking for reasonable assurances that the effectiveness of their assistance would not be eroded by high inflation. Thus, one of the first critical economic issues facing the new government was the choice of currency that would serve as legal tender. From the outset, the authorities indicated their desire to introduce a new national currency as soon as possible. IMF staff, however, recommended that the introduction of a new currency be considered at a somewhat later stage because of technical considerations, as the design and printing would take time and, more importantly, because of the need to establish sound and credible financial policies and an adequate institutional and legal framework to support the value of the new currency. Several options could be considered for the interim period, ranging from adopting a stable foreign currency as legal tender to the continued use of the existing Afghani, leading up to the introduction of the new currency.

One possible option for the interim period was a full dollarization until the new Afghani could be successfully launched. The temporary use of a stable foreign currency would have provided immediate monetary stability as well as time to establish credibility and build up the necessary capacity at DAB. Full dollarization, however, would have entailed an up-front redemption of all existing Afghanis, which would have required considerable organization. Moreover, this approach would have been expensive, requiring significant additional donor assistance. Also, full dollarization might have been potentially difficult to reverse.

An alternative option, recommended by IMF staff that was based on pragmatic economic and technical grounds, was to use a foreign currency to conduct government transactions until the new currency could be introduced. Meanwhile, the public would have been free to use any mutually agreed-upon currency for any transaction and to hold any currency. Existing Afghanis would have continued to circulate until redemption by the new currency took place, within a floating exchange rate regime, but the central bank would not issue more Afghanis. The government would have announced its commitment to redeem existing Afghanis for the new currency at a rate that would be determined later. The risk of counterfeits would have remained, but would have had less impact. This approach would have imposed a substantial degree of transparency and discipline on both fiscal and monetary policy, thus contributing to financial stability.

The authorities, however, decided to continue to use the existing Afghani and to introduce a new currency as soon as if was technically possible. The authorities viewed the Afghani as an important symbol of sovereignty and unity and were concerned that even a partial and temporary dollarization would be difficult to reverse. While the authorities recognized the risks posed by the various counterfeits to financial stability, they believed that these risks had diminished. This view was based on information received from at least some of the printers regarding volumes of earlier issued series of Afghanis printed so far, and their assurances that such printing had stopped. Also, it was discovered that the Taliban, while in government, had started preparations for the introduction of a new currency and had signed a contract with a reputable banknote printer. Some work had already been done, including preliminary designs of various denominations. However, this agreement had been put on hold because of the UN embargo; but with the sanctions lifted, this allowed for a significant shortening of the technical lead-time needed to launch the new currency. As the value of the old Afghani had been eroded by inflation—the largest denomination (Af 10,000) was worth about $0.25 and people had to carry around large bundles of cash for anything other than the smallest of transactions—one new Afghani would replace 1,000 old ones.

The introduction of the new currency was a crucial step in the authorities' efforts to establish financial stability and create an environment that was conducive to restoring sustainable economic growth in Afghanistan. The plan for the introduction of the new currency was made public on September 4, 2002, and the conversion process started on October 7, 2002. Replacing all banknotes in a postconflict country such as Afghanistan within a fairly short period posed tremendous logistical challenges (details of the currency conversion are provided in Box 5.1). Nevertheless, the authorities, assisted by the international community, managed to complete the changeover

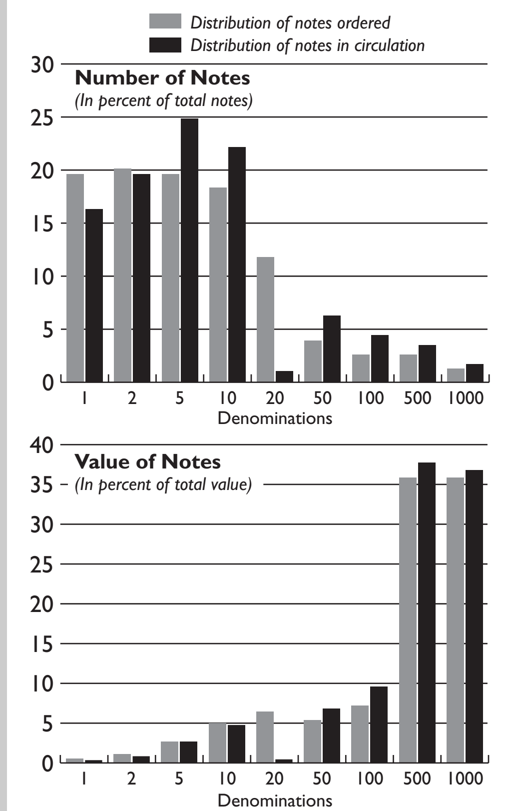
Box 5.1. Introducing the New Currency

The introduction of the new currency was a difficult task. Afghanistan is a rugged country slightly larger than France, with a population of about 22 million, that had been ravaged by over 20 years of armed conflict. Roads were in a very poor condition, there was little or no secure ground transportation between major cities, and there was a lack of communication facilities. To reach all holders of the old currency within a limited period of time posed enormous logistical challenges. To address these vast challenges, a steering committee was formed, which comprised senior officials from the central bank and the Ministry of Finance (MoF), and was assisted by international experts from the IMF, USAID, the Bundesbank, and the UN. Planning for the exchange started in earnest in the early summer of 2002 with the formation of a task force, comprising mainly senior officials from the central bank and several international advisors.

The first stages included the ordering, printing, and delivery of the new banknotes. DAB contracted the printing of the new currency in denominations of Af 1, 2, 5, 10, 20, 50, 100, 500, and 1,000 to two reputable banknote printers, building upon the work that had already been done for the Taliban regime. The new notes included several advanced security features to deter future counterfeiting. It was difficult to determine how many new banknotes would be needed. The authorities only had a crude estimate of the existing number of old notes in circulation. Including the various counterfeits, the face value of the old Afghanis in circulation was initially estimated at about Af 16 trillion. For political reasons, it was decided that two types of unofficial notes would be eligible for conversion, but at a 50 percent discount (close to the actual discount at which these counterfeits traded in the Kabul money market). Taking this discount into account, the total value of old Afghanis to be exchanged was estimated at about Af 13 trillion. The authorities realized, however, that running out of new banknotes before all old ones would be converted would fatally undermine the public's confidence in the new currency. Because of this, and to be able to accommodate an increase in money demand at least in the first year following the new currency's introduction, the authorities ordered a total value of the new notes of Af 27.9 billion (with 1 new Afghani replacing 1,000 old ones), equivalent to almost 800 million notes or about 500 tons. The first deliveries were received in August 2002 and the last shipments arrived in January 2003. The five smallest denominations make up almost 90 percent of the total volume of notes ordered, but only 15 percent of the total value (see the figure).

The first problem to overcome was the extremely poor condition of DAB's regional facilities. DAB had 89 branches, but most of them did not meet even the most basic requirements in terms of secure vaults and office space. With assistance from international donors, DAB urgently set out to refurbish or construct a minimum of one currency distribution facility in each province. The country was divided into seven regions, each the responsibility of an area manager. In addition to Kabul, the regions were Kunduz, Mazar-i-Sharif, Herat, Kandahar, Jalalabad, and Gardez. Each region had a number of exchange points, depending on estimates of population size and levels of economic activity. All in all, 47 exchange points were established where the public could exchange their old notes for new ones. An exchange point consisted of one to five units, with each unit having seven windows: five windows to take in the old currency and two to give out the new currency. With communication still difficult,

Afghanistan: Currency Denominations, 2003[1]



Source: Da Afghanistan Bank.
[1]Data reflect the situation on May 21, 2003.

Box 5.1 *(concluded)*

the success of the whole program depended significantly on the work of the area managers and exchange point managers, who often had to act on their own to deal with problems in their regions. Some 2,500 local staff were selected to carry out the operation. Staff were selected from the most experienced and skilled personnel in the banking sector. In order to motivate staff and to establish reliable operations, staff were paid considerably more than the $30–$40 a month that a bank employee would normally earn. In addition, the UN and USAID provided international observers to oversee the process, notably the destruction of old notes.

Transportation was another obstacle to tackle. The 500 tons of new currency had to be delivered to exchange points throughout the country, with almost half of this to be transported to the provinces. Ground transport for the more distant locations was ruled out for security reasons. Air transport was seen as the best approach, but the facilities available were very limited. The bulk of the need for air transport was met by two helicopters and one airplane, an Antonov 32, provided by USAID, who also set up an air operations unit that handled the scheduling and coordination of flights (all flights required clearance from the regional military air command and a two-day advance notification). The Afghan Air Force provided some assistance, particularly in the early stages of the conversion period, when difficulties in obtaining aircraft and crews that were willing to operate in Afghanistan led to delays in the arrival of the helicopters and the airplane.

Adequate security was yet another requirement, with security needed at all stages: from the delivery of the new currency to the destruction of the old currency. The government, together with DAB, provided all the security during the currency conversion process. The governor and deputy governors of DAB visited the governors and local commanders in the provinces to ensure their cooperation. It is notable that there were no major security problems or serious violations of procedures during the entire three-month exchange period.

The introduction of the new currency was made public on September 4, 2002, by President Karzai. This was followed by a broad public information campaign to ensure that most, if not all, Afghans would be aware of the conversion. With large parts of the population being illiterate and with hardly anyone owning a television, the campaign relied mainly on radio broadcasts and dissemination by word of mouth, through speeches, village meetings, and so on. Also, a large number of posters were distributed, depicting the new notes and specifying their main security features. The conversion process started on October 7, 2002, and was initially set to last two months, ending on December 4, 2002. The authorities opted for a relatively short changeover period to limit the risk of new counterfeit printing. A currency decree was issued to enable and regulate the implementation of the currency conversion.

During the first two weeks of the exchange period, only the money changers would be allowed to exchange their old notes. This way DAB aimed to collect large volumes of old notes early on. In order to be able to handle the large volumes that were expected to be exchanged this way, a sampling procedure was agreed on with the money changers,

successfully on January 2, 2003. Moreover, they managed to do so much earlier than many had thought possible and without any major incidents. There was no last-minute rush or queues during the last days of the exchange period, nor were there any late shows after the closing of the exchange points. The exchange rate of the Afghani remained broadly stable following the completion of the conversion process, reflecting not only sound financial policies but also the population's confidence in the new currency.

Preconditions for a Successful Monetary Policy

The authorities' decision to introduce a new currency and to continue to use the existing Afghani in the interim created the need to rapidly develop capacity at the central bank to ensure that it would be able to conduct monetary policy. DAB's capacity to perform key central bank functions was extremely weak. The central bank was little more than an empty shell, with ample staff but virtually none that had any knowledge of modern monetary policy and banking, no computers, no recent balance sheet, and little or no communication with its many branches in the provinces. The IMF and several other donors, notably USAID, assisted DAB in its efforts to quickly build adequate capacity.

The authorities decided that the primary objective of monetary policy should be to achieve and maintain price stability and, thus, to restore confidence in the (new) national currency. Furthermore, whereby only 10 percent of the total amount presented was verified to make sure that the count was correct, the denominations were correct, and the notes were indeed eligible for exchange. If the sample count found, for example, 2 percent to be incorrect, this proportion would be discounted from the entire amount that a money changer was presenting.

Demand from the general public to exchange their old banknotes was such, however, that the exchange was opened to the general public before the first two weeks were over. Thus, almost all of the exchange points in the major cities opened in the first two weeks. Many exchange points in the provinces had delays in opening, not only because of delays in the arrival of air transport but also because many exchange points were simply not yet operational until two to three weeks after their planned opening on October 21. In November, uncertainty grew among the general public about whether everyone would be able to convert their old notes into new ones on time. As a result, the exchange rate started to depreciate sharply. To ease these pressures, DAB announced in mid-November that the conversion period would be extended by one month to January 2, 2003. Following this announcement, the exchange rate quickly returned to levels close to those at the start of the exchange.

In the initial period, large denomination banknotes of 1,000, 500, 100, and 50 Afghanis dominated the exchange, reflecting the early and active role of money changers. This also meant that the weight of banknotes, relative to their value, was much less than in the last month of the exchange, when primarily low denomination banknotes (1, 2, 5, and 10 Afghanis) were exchanged. Old official notes worth Af 13.9 trillion were exchanged during the conversion process for new notes, plus Af 3.3 trillion in unofficial notes at a 50 percent discount. Thus, new notes worth Af 15.6 billion were issued in exchange. An additional Af 2 trillion in old official notes were absorbed through the foreign exchange auctions during the conversion period. All in all, some Af 19 trillion in old notes were collected, equivalent to some 5 billion banknotes or over 2,000 tons, almost 20 percent more than the estimated face value of banknotes based on the information received from the printing companies. This difference may reflect inaccurate or incomplete information received from the printers, "last-minute" printing of counterfeits, or round-tripping of old notes during the currency conversion process. To address the problem of round-tripping, initially old banknotes were to be invalidated, using punchers and drills, and to be subsequently destroyed, using shredders. However, this approach quickly proved to be ineffective because the arrival of equipment was delayed and, once it arrived, had a tendency to break down. The solution to the destruction problem was to use incineration as the principal method. Difficulties in transportation and security meant that the best approach was to incinerate the notes locally. The construction of ovens was relatively simple and inexpensive. Also, ovens did not require electricity, which was not available in many exchange points. A schedule was established for the weekly or two-weekly destruction of the old banknotes, with both international and national observers present to assure the integrity of the process. The exchange ended quietly on January 2, 2003.

to ensure that monetary policy could be successful in achieving low inflation, the authorities recognized that the following three main preconditions would need to be met:

- DAB would need to have full jurisdiction and control over the printing, delivery, and issuance of the domestic currency. To achieve this, as noted above, the authorities pressed ahead forcefully with the introduction of the new currency.
- DAB would need to be independent from any other authority in the pursuit of its objectives and the performance of its tasks. DAB should neither seek nor take instructions from any other authority. The authorities requested the IMF to assist in preparing new central bank and banking laws to this effect. Draft laws were discussed at a seminar held in Delhi in December 2002 and were adopted in September 2003. The new legislation granted DAB autonomy and paved the way for establishing a modern banking sector.[2]
- The government would need to maintain strict fiscal discipline. In particular, DAB should refrain from financing the government budget, any government agency, or any government-owned enterprise to break with the previous practice of automatic and unlimited overdraft financing

[2]See Chapter 6 for a discussion of these laws.

that had resulted in high inflation and a sizable depreciation of the exchange rate. Adopting a simple and straightforward rule to this effect would signal an unambiguous commitment to fiscal discipline. The authorities therefore included in the 2002/03 budget decree a provision that prohibited the government from taking recourse to central bank financing. This provision was repeated in the 2003/04 budget.

The next step was to define the appropriate framework for monetary policy. What would be the intermediate target for monetary policy? A first step in this regard was to determine the appropriate exchange rate regime for Afghanistan.

Fixed or Flexible: Choosing the Exchange Rate Regime

In choosing an exchange rate regime, a country has to trade off the advantages of more exchange rate stability against the advantages of more flexibility. Two big advantages of fixing the exchange rate for a country are (1) it reduces transaction costs and exchange rate risk, which can discourage trade and investment, and (2) it provides a credible nominal anchor for monetary policy. The big advantage of a floating exchange rate regime, on the other hand, is the ability to pursue an independent monetary policy. Moreover, a floating regime enhances a country's ability to absorb external and real shocks. Several countries choose something in between rigid fixity and free-floating, although many argue that intermediate regimes are no longer tenable because of the increasing integration of financial markets.[3]

In deciding the exchange rate regime for Afghanistan's new currency, the authorities took into account a number of relevant characteristics of the Afghan economy. Some of these characteristics favored a fixed rate regime; others favored flexibility. Not all these characteristics would necessarily be permanent; some may change over time. This may have a bearing on the choice of exchange rate regime in the future. The characteristics that favored exchange rate stability included

- *Openness:* Afghanistan is a relatively small and open economy. Trade would benefit from exchange rate stability.
- *Inflation pass-through:* The openness of the economy is reflected by the strong and rapid pass-through of exchange rate movements into consumer prices. Fixing the exchange rate could be a simple and straightforward way to stabilize prices.
- *Nominal anchor:* Afghanistan has a history of high and variable inflation, and the economy is highly dollarized. A fixed exchange rate would provide a clear nominal anchor for monetary policy. Acceptance and use of the new currency would be greater if its exchange rate were to remain fairly stable. If the exchange rate would continue to be highly volatile and the currency would again lose its value, dollarization could be expected to increase further.
- *Credibility:* The capacity to implement economic policies, in particular, at the central bank, was at the outset weak, favoring simple, fixed rules. A currency board, for example, is simple to administer as it does not require a full-fledged central bank.

The characteristics that favored flexibility included

- *Structural change:* Afghanistan's economy is undergoing large structural changes and the equilibrium exchange rate will change as a result. Thus, there would be a considerable risk of an exchange rate misalignment in a fixed regime. The reconstruction phase would likely be accompanied by large foreign exchange inflows, both from donors and repatriation of funds by Afghanis, which may cause the real exchange rate to appreciate. A more practical matter is that in present-day Afghanistan, it would be very difficult to get a firm idea as to what the appropriate exchange rate level would be in a fixed regime, not least because of the lack of reliable data (see Box 5.2).
- *Vulnerability:* Afghanistan was (and will remain) vulnerable to shocks, both external and domestic, and both real and financial. These shocks include inter alia trade shocks, droughts, earthquakes, and political tensions. Under a fixed regime, labor and product markets would need to have a high degree of flexibility to absorb such shocks. While these markets could be expected to have considerable flexibility, the question would remain whether it would be desirable to

[3]See Frankel (1999).

Box 5.2. What Is the Right Exchange Rate Level?

Since the collapse of the Taliban regime there have been significant changes in Afghanistan's economy, including its trading patterns. The exchange rate has meanwhile fluctuated widely. Is it possible to make a judgment about the appropriate "equilibrium" level of the exchange rate for the Afghani? The equilibrium real exchange rate (or nominal rate after adjusting for inflation differentials) would be the rate that would be consistent with a sustainable current account position, without the need for major changes in international reserves or shift in macroeconomic policies.[1]

Information typically used to assess the appropriateness of the exchange rate level is notably lacking for Afghanistan. There is no sensible base year against which to compare the current level of the real exchange rate. There have been huge changes in the pattern and composition of trade in the past 20 years and consequently a base year during this period would not be relevant to Afghanistan's current circumstances. Moreover, there is very little information available on indicators used to assess competitiveness, such as growth rates of export and import volumes; the pattern of trade, relative price, and wage costs vis-à-vis trading partners and competitor countries; and the level of foreign exchange reserves.

A few partial indicators of international competitiveness are available. Most of Afghanistan's own exports—that is, excluding re-exports—are to India and Pakistan. These and other countries in the region are likely to be Afghanistan's competitors in its export markets (agriculture and light manufacturing). For imports, the major sources appear to be Pakistan, Korea, Japan, the Islamic Republic of Iran, and, since 2002, the United States; for the Islamic Republic of Iran and Pakistan, available import data possibly include goods in transit from other countries. Most of the imports are likely to be goods (e.g., cars, refrigerators, and televisions) that Afghanistan does not produce. Imports from neighboring countries, however, are more likely to compete with domestic substitutes, such as agricultural goods and construction materials. As regards competitiveness, in Pakistan, Afghanistan's largest bilateral partner, civil servants in the lower grades are paid, including food and transport allowances, the equivalent of about \$38 a month compared with \$35 in Afghanistan. However, compared with Pakistan, data suggest that, in Afghanistan, wages for unskilled labor in the private sector are substantially higher; in early 2003, wages for unskilled labor paid by foreign companies and agencies were typically about \$100 per month. A comparison of inflation rates and nominal exchange rate movements in 2001, 2002, and the first half of 2003 suggests that Afghanistan has become less competitive vis-à-vis most nearby countries in the region. This reflects the large appreciation of the Afghani against the U.S. dollar in late 2001 and a higher rate of inflation. In addition, productivity is probably higher in neighboring countries than in Afghanistan because the years of conflict resulted in low levels of investment and a destruction of much of its infrastructure. In the case of transit trade, the damage to roads has contributed to higher transport costs, slow traffic movement, and greater damage to goods.

Looking ahead, there may be a so-called Dutch Disease effect that could put upward pressure on the equilibrium real exchange rate. Official external financial assistance is expected to rise and remain at a high level relative to the size of Afghanistan's economy for at least the next few years, before settling to lower levels. The composition of aid is expected to shift from humanitarian aid, with a high import content, to infrastructure and project aid, with a lower import and higher domestic content, and have a positive impact on the production capacity of the economy. There will also be a continued reflux of refugees that will contribute to increased domestic spending. The resulting increase in domestic spending on nontraded goods would lead to a rise in the relative price of nontraded to traded goods (the real exchange rate) and a shift of resources from the traded goods sector to the nontraded goods sector. However, there are also several factors that could offset these effects. The economy is operating at a low level and given the existing underutilization of capacity, including labor and the return of refugees, domestic production could rise rapidly in response to increased demand and reduce upward pressures on the price of nontraded goods. Also, as the reconstruction effort moves forward, supply bottlenecks could be eased, productivity could rise, and some costs could decline (e.g., transportation), all of which would dampen increases in domestic prices and improve competitiveness. Moreover, given the large share of transit trade in Afghanistan's trade, a decline in transshipment costs would significantly improve the attractiveness of Afghanistan as a transit route.

[1]The real exchange rate can be defined as $RER = ePD/PF$, where PD is the domestic price level, PF the level of foreign prices, and e is the nominal exchange rate (measured in units of foreign currency per unit of domestic currency). The prices used are typically those of imports and exports, or tradable and nontradable goods.

let these markets absorb these shocks rather than to let the exchange rate adjust.

- *Fiscal discipline not guaranteed:* The government had no track record in terms of underlying economic policies. The viability and credibility of a firmly fixed rate, such as in a currency board arrangement, would depend on the credibility of supporting policies. But the authorities' commitment to fiscal discipline had not yet been put fully to the test.
- *Lack of an obvious anchor currency:* Should Afghanistan peg to the U.S. dollar or the currency of one of the neighboring countries? Fixing the rate against the U.S. dollar might result in a real appreciation against neighboring countries, adversely affecting Afghanistan's competitiveness. On the other hand, fixing the rate against the currencies of neighboring countries could adversely affect exchange rate stability against "hard" currencies, which might undermine the Afghani as a savings medium.

The Afghan authorities decided that, despite the advantages of a fixed rate regime (such as a currency board), on balance Afghanistan's existing economic conditions favored a floating exchange rate regime, at least for the near term. The risks associated with a fixed peg or currency board arrangement were considered too large in the prevailing circumstances. Defense of an unsustainable exchange rate would run the risk of a quick depletion of the country's foreign exchange reserves. However, as the economy progresses beyond the early structural changes inherent in the reconstruction process, the choice of exchange rate regime could be revisited.

While ruling out a fixed peg, the authorities still saw benefits in maintaining a degree of exchange rate stability. In particular, a degree of stability was considered important to instill confidence in the new currency. Therefore, following the introduction and float of the new currency in early 2003, DAB aimed to limit exchange rate volatility and to keep the exchange rate within a range. This range, however, was neither firmly set nor announced and DAB did not intend to resist persistent exchange rate pressures, should these emerge, and thereby risk losing foreign exchange reserves. This exchange rate regime could therefore be described more accurately as a de facto (lightly) managed float, that is, an intermediate regime somewhere between a pure float and a firmly fixed rate.

Formulating a Monetary Program

Within the context of Afghanistan's floating exchange rate regime, IMF staff assisted DAB in developing an indicative quantified monetary program, aimed at achieving low inflation. The program aimed to control the domestic money supply as an intermediate target. The ability to target inflation through the domestic currency supply was complicated, however, by the widespread use of foreign currencies. Inflation was likely to be influenced by changes in the stock of foreign currency holdings as well as the supply of Afghanis. The effects of changes in the stock of foreign currency holdings on inflation and the exchange rate depended in part on what the foreign exchange is used for—savings or daily transactions. However, there was little information on the size of foreign currency holdings in Afghanistan or on their use (for savings or transactions).

In the absence of a functioning banking system, the domestic money supply was limited to the stock of domestic currency in circulation. Also, without any new central bank financing of the government, changes in the amount of currency in circulation were primarily driven by changes in DAB's net foreign asset position. In practice, this largely reflected the government converting the donor assistance it receives to finance the budget at DAB into Afghanis, thereby increasing DAB's foreign assets. Without any action from DAB and given the size of budgetary assistance, these foreign exchange inflows would have implied a doubling or more of the domestic money supply within one year, which would undoubtedly have resulted in a renewed erosion of the value of the Afghani. To prevent this, an instrument to sterilize the monetary expansion was needed. However, without a functioning banking system or money market, the only market-based instrument that could be developed quickly was selling foreign exchange through foreign exchange auctions. IMF staff provided extensive assistance to DAB to establish and improve these auctions (see Box 5.3), with the informal money traders acting as participants in these auctions.

The formulation of a monetary program for Afghanistan was complicated by the substantial uncertainties that surround the country's overall economic prospects and economic relationships. Inflation could be affected by factors beyond the central bank's control, including supply shocks,

Box 5.3. Foreign Exchange Auctions

With IMF staff assistance, DAB began undertaking foreign exchange auctions in May 2002. These auctions were open to all licensed money changers. Initially, only the larger money changers participated, but as money changers became more familiar with the auctions, the number of participants soon increased from about 10–20 in May–June 2002 to 30–60 after July 2002. In the first half of 2003, the number of participants was usually in the range of 50–80, with a few money changers in the provinces also participating. DAB has progressively taken measures to improve the transparency and operation of the auctions. These measures included public announcements of the auctions in advance in local newspapers and on radio, the announcement of successful bids at the auction in the presence of the participants, and a clear explanation of auction procedures and any changes to be introduced at the outset of auctions. The mechanics of the auctions also became more efficient and were systematically applied. For example, on several occasions, money changers who had made successful bids did not settle. To discourage this behavior, DAB began prohibiting these money changers from participating in the auctions on a temporary basis and declared that repeated offenses would result in a permanent ban on participation ("three strikes and you are out"). Subsequently, in April 2003, those wishing to participate in auctions were required to make in advance a non-interest-bearing Afghani cash deposit equivalent to $10,000 with DAB. Failure to settle a successful bid would risk forfeiture of the deposit. This requirement and forfeiture were later formalized in new regulations for the auctions that were issued in early 2004.

The modalities of the auction were adjusted over time. Beginning in November 2002, sealed advance bids were used as the starting point by the auctioneer—the governor or deputy governor of DAB—to offer a selling price for U.S. dollars to participants in an auction session where all bidders are invited. Under this system, the auction closes when the auctioneer and participants agree on a mutually acceptable single clearing exchange rate. The auctioneer, however, reserves the right not to sell.

The amounts auctioned were linked to the overall monetary program. Auctions were held on a fairly regular basis at one- to two-week intervals. The amounts sold per auction were on average about $2 million for the first six months and afterward in the range of $5–$10 million. In 2002/03, a total of $135 million was sold through the auctions and in 2003/04, $155 million was sold.

fluctuations in the international prices of imports, and political events. Given these large uncertainties, the monetary program needed to be based on cautious assumptions regarding the strength of the economic recovery and the demand for the domestic currency. In addition, it was clear that the target should not be pursued too rigidly, but that DAB would need to monitor developments closely and, if necessary, adjust the monetary program when needed to remain consistent with its inflation objective. In this regard, movements in the exchange rate, which is the only economic indicator that is readily available, could provide an early signal of changes in the relative demand for the domestic currency that may warrant a tightening or loosening of monetary policy.

A further, more practical, complication in formulating a monetary program was the lack of reliable data (at least prior to the introduction of the new currency) for the stock of Afghanis in circulation and, more generally, the absence of a balance sheet for the central bank. Estimates of the outstanding stock of Afghanis were based on information obtained from the banknote printer who had printed the official Afghani and another printer who had printed one of the counterfeit versions. By combining the estimate of the amount of currency in circulation with estimates of DAB's foreign assets that had so far been identified, plus an estimate of the government overdrafts that had been accumulated over the years and for which some records were found, a very crudely estimated balance sheet could be put together for DAB (Table 5.1). This estimate was used as a basis for the monetary program. The program was updated regularly as new information became available, particularly following the completion of the currency conversion when the stock of currency in circulation could finally be determined accurately.

A first indicative monetary program was formulated in April 2002 for the year 2002/03. The program targeted a 12-month inflation rate of somewhat below 20 percent by March 2003. Assuming economic growth in the order of 10 percent and a modest strengthening of money demand, the monetary program for 2002/03 aimed to limit money

TABLE 5.1
Monetary Developments (Da Afghanistan Bank)

	2001/02 Estimates		2002/03 Estimates					2003/04 Estimates			
	December 21	March 20	June 21	September 22	September 22	December 21	March 20	June 21	September 22	December 21	March 20
	(In millions of new Afghanis, unless indicated otherwise)										
Net foreign assets[1]	...	10,727	12,567	12,436	...	17,951	19,602	24,031	26,158	32,653	33,607
Foreign exchange reserves[2, 3]	...	11,053	12,893	12,762	...	18,392	19,602	24,031	26,158	32,653	33,607
Gold	...	6,674	6,674	6,674	...	9,030	9,030	9,030	9,030	9,030	9,030
Other	...	4,379	6,219	6,087	...	9,362	10,572	15,001	17,128	23,623	24,577
Foreign liabilities	...	–326	–326	–326	...	–441	0	0	0	0	0
Net domestic assets	...	3,041	2,038	2,268	...	1,196	1,074	–3,691	–3,056	–6,286	–4,466
Domestic assets	...	14,525	14,857	14,376	...	15,084	14,450	10,541	11,344	8,301	7,138
Net claims on general government	14,577	14,525	14,857	14,376	...	15,084	14,450	10,541	11,344	8,301	7,138
Net claims on government before 2002/03 (SY 1381)[4, 5]	14,577	14,525	14,951	14,951	...	14,951	14,951	14,951	14,951	14,951	14,951
Net claims on government after 2002/03 (SY 1381/1382)[5, 6]	0	0	–93	–574	...	133	–501	–4,410	–3,607	–6,650	–7,813
Claims on nonbank public institutions	...	0	0	0	...	0	0	0	0	0	0
Claims on deposit money banks	...	0	0	0	...	0	0	0	0	0	0
Other items net[3]	...	–11,483	–12,819	–12,108	...	–13,888	–13,376	–14,232	–14,400	–14,587	–11,604
Reserve money	13,475	13,769	14,606	14,704	18,384	19,146	20,676	20,340	23,102	26,367	29,140
Afghanis in circulation[7]	13,475	13,769	14,606	14,704	18,384	19,146	20,676	20,340	23,102	26,367	29,140
Banknotes and coins issued	13,509	13,809	14,718	14,718	...	19,831	21,302	21,302	23,302	27,392	29,726
less cash holdings	34	40	112	14	...	684	626	962	200	1,025	586
Bank reserves	0	0	0	0	...	0	0	0	0	0	0
	(In percent, unless indicated otherwise)										
Memorandum items											
Reserve money growth (quarterly)	...	2.2	6.1	0.7	...	4.1	8.0	–1.6	13.6	14.1	10.5
Reserve money growth (annual)[8]	...	...	...	...	...	...	20.1	...	...	...	40.9
Gross international reserves (millions of U.S. dollars)	...	325.1	379.2	375.3	...	399.8	426.1	522.4	568.7	709.9	730.6
Inflation (quarterly; Kabul)	–36.8	25.2	1.6	18.3	...	31.9	–4.0	2.0	2.6	6.0	–0.6
Inflation (12-month; Kabul)	...	–43.4	–35.3	–4.9	...	98.5	52.3	52.9	32.6	6.6	10.3

Source: All figures are IMF staff estimates based on available data from Da Afghanistan Bank and the Central Statistics Office.
[1]Foreign currency amounts converted into Afghani at an exchange rate of Af 34 = $1 until September 2002; thereafter at a rate of Af 46 = $1; gold valued at $279 per ounce.
[2]Increases reflect (net) flows plus recovered accounts abroad.
[3]In Q3 2002/03 (SY 1381), includes payment by DAB of $16 million in costs for the new currency.
[4]Changes in Q1 2002/03 (SY 1381) reflect expenditures made and revenues booked for the 2001/02 (SY 1380) budget.
[5]Accounts 600100, 701101, and 731001 corrected for reallocation of 2002/03 (SY 1381) revenues to 2001/02 (SY 1380) for funding of 2001/02 (SY 1380) wage expenditures.
[6]Including disbursed AIAF, ARTF, and LOTFA funds (accounts 701102 and 731002).
[7]September 22, 2002, stock of currency in circulation calculated as January 21, 2003, stock of new Afghanis in circulation minus net issuance of new Afghanis during October 7, 2002–January 21, 2003, plus net withdrawal of old Afghanis (divided by 1,000) during September 23, 2002–January 21, 2003.
[8]Annual percentage increase in 2002/03 (SY 1381) calculated by multiplying quarterly percentage changes.

growth to less than 30 percent. A similar program was formulated in early 2003 for 2003/04, with only slightly different parameters. The 2003/04 program targeted a 12-month inflation rate of about 15 percent by March 2004 and aimed to limit money growth again to 30 percent.[4]

Monetary and Exchange Rate Developments in 2002–04

Monetary developments in 2002 and 2003 suggested that a fairly close relationship exists between domestic money growth, exchange rate movements, and the rate of inflation. Developments, particularly in 2002, also showed that the exchange rate was very susceptible to rumors and political uncertainty and, furthermore, that the pass-through of exchange rate movements into prices was very strong and almost immediate.

During 2002/03, currency in circulation grew by an estimated 20 percent, significantly less than the almost 30 percent targeted in the original monetary program (in the fall of 2002, the target was reduced to 24 percent).[5] The rate of monetary expansion varied widely from quarter to quarter, reflecting both the volatility of money demand, as well as more practical constraints, such as the availability of sufficient volume of the old banknotes prior to the introduction of the new currency. The increase in money demand during the year was entirely met by an accumulation of foreign reserves at the central bank; the government adhered to the no-overdraft rule and ended the fiscal year with a surplus. DAB's reserves increased by an estimated $100 million in 2002/03. At the end of 2002/03, DAB's stock of foreign exchange reserves was estimated at $426 million.[6] This level of reserves would appear to have been adequate in the context of the prevailing exchange rate regime as a cushion against negative shocks, as well as backing for the national currency.[7] (See Box 5.4.)

Monetary developments in 2002/03 demonstrated the difficulty of predicting money demand in Afghanistan. The economy is estimated to have grown in real terms by almost 30 percent in 2002/03, while the overall price level, measured year-on-year, increased by 5 percent. This suggests that money demand may have actually weakened in relation to nominal GDP in 2002/03, instead of strengthening as had been assumed when formulating the program. This underscores the uncertainties surrounding even the most basic economic relationships in a post-conflict situation and the need, therefore, to make cautious assumptions, to remain pragmatic, and to be willing to make adjustments as one goes along, taking into account all available information.

After a period of sharp volatility in 2002, the exchange rate of the Afghani proved remarkably stable during 2003. The exchange rate strengthened dramatically in late 2001, during the collapse of the Taliban regime, appreciating from (old) Af 70,000–80,000 per U.S. dollar to about Af 25,000 per U.S. dollar in early 2002 (Figure 5.1). The exchange rate depreciated slowly in line with inflation to about Af 40,000 per U.S. dollar in August 2002. In the late summer and early fall of 2002, however, uncertainty about the introduction of the new currency and logistical problems during the first weeks of the conversion period caused the exchange rate to fall to over Af 70,000 per U.S. dollar in early November. People had become increasingly nervous about whether they would be able to convert their old notes into new ones in time; initially, the changeover period was planned to last only eight weeks. DAB had also temporarily suspended its foreign exchange auctions after the start of the exchange because it lacked qualified staff to handle both operations at the same time. The sharp depreciation of the Afghani was passed through quickly to local prices, which increased by a cumulative 60 percent during September–November 2002. To ease the exchange rate pressures, DAB resumed foreign exchange auctions in mid-November and announced an extension of the banknote exchange period until January 2, 2003. The Afghani immediately strengthened and eventually stabilized at about (new) Af 46 per U.S. dollar in January. With the strengthening of the Afghani consumer prices came down as well, although somewhat less than the appreciation of the Afghani.

With the completion of the currency conversion in January 2003, DAB achieved full control over the

[4]The staff-monitored program (SMP) for the year 2004/05 also included an indicative monetary program.

[5]Due to the break in series—because of the introduction of the new currency—the annual growth rate is calculated by multiplying estimated quarterly growth rates.

[6]Including $196 million of gold valued at $279 per ounce.

[7]These reserves covered approximately three months of imports (excluding re-exports, donor-financed exports, and smuggled goods) and were roughly equal in value (at the prevailing exchange rate) to the amount of currency in circulation.

Box 5.4. Considerations on the Level of Foreign Exchange Reserves

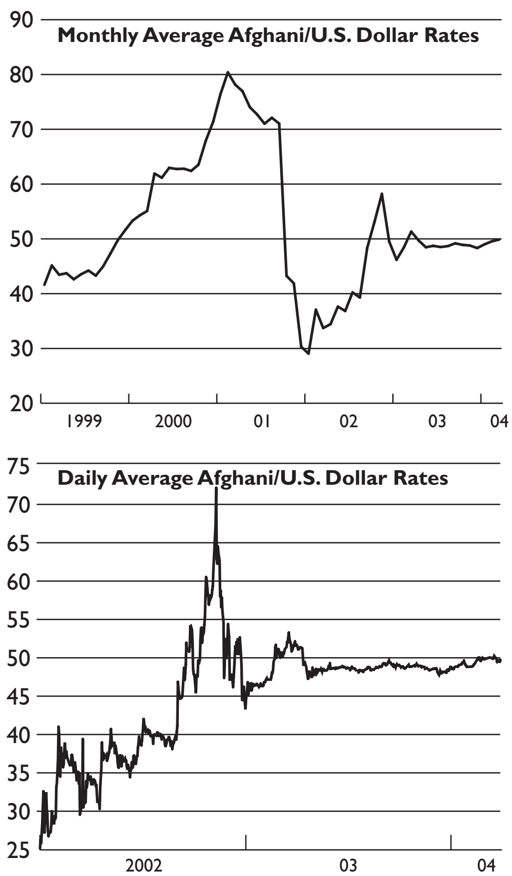
The level of external reserves held at the beginning of 2002 by DAB was uncertain. The only identified assets were those held (frozen) with the Federal Reserve Bank of New York and a few other banks, which amounted to about $250 million, including $196 million in gold. Since then, the level of identified reserves has steadily increased as more assets have been located, primarily at banks in Europe, and because of inflows of donor funds to finance the budget. As of end-August 2003, DAB's foreign exchange reserves were estimated at $556 million ($600 million with gold valued at market prices). DAB is continuing to contact foreign banks to clarify the size and status of its foreign assets. As a more reliable estimate of DAB's reserves emerged and the authorities established a framework for macroeconomic and exchange rate policy, the question of what would be an adequate level of external reserves needed to be addressed.

Criteria to assess the adequacy of reserves can generally be related to the trade account or the capital account of the balance of payments. It should be recognized that, when applying any criteria, the adequacy of reserves is a dynamic concept: as the circumstances of a country change over time, so will the desirable amount of reserves. For the moment, Afghanistan has little or no access to international capital markets and thus would have to rely more on its own resources (reserves) than on international borrowing to smooth adjustments to shocks. The potential for such shocks in Afghanistan is large and is thus a key factor in determining reserve goals. Donor assistance, either in the form of lending or grants, could be available, but access to these would be at the discretion of the donor and may not be available quickly enough to offset the immediate impact of a shock.

When using a trade-based measure one looks at how many months of imports a country can finance with its reserves. Conversely, it shows how rapidly a country or its exchange rate might need to adjust to an external shock. Three months of imports coverage is often used as a rule of thumb to assess reserve adequacy. Reserves are generally considered low if they cover less than three months of imports. As noted in Chapter 2, the availability of reliable trade data is limited for Afghanistan. However, based on available data and estimates, the stock of reserves held by DAB at end-August 2003 was estimated to cover some three months of imports, excluding re-exports; imports exempt from duties that are largely externally financed, for example, by donors; and smuggled goods. Thus, the level of reserves could be considered to be just sufficient, although a higher level of reserves would be warranted, given the country's vulnerability to various shocks and its limited access to capital markets, to provide a crucial cushion. Also, the recovery and reconstruction of the economy could be expected to generate a rapidly rising level of own imports, and thus a higher level of desired reserves. The resumption of debt service payments would also have a bearing on the adequacy of reserves.

A capital-account-based measure captures the potential for capital flight by residents. Typically, such a measure relates the level of reserves to relevant monetary aggregates, often the monetary base, and is relevant especially for countries with a (quasi) pegged exchange rate, weak banking systems, and an unstable money demand or a history of high inflation. Afghanistan has a history of high inflation that resulted in low confidence in the Afghani and the widespread use of foreign currencies. While confidence in the national currency has improved with the introduction of the new currency, the potential for large shifts between the Afghani and foreign currencies still exists and points to using a monetary aggregate–based measure in assessing the adequacy of reserves. In the absence of a functioning banking system, the relevant monetary aggregate is the stock of domestic currency in circulation; as and when the banking sector is reestablished, the relevant monetary aggregate could be expanded to include bank deposits in domestic currency. In August 2003, currency in circulation amounted to Af 22.4 billion, equivalent to $456 million at the prevailing exchange rate. This measure suggests that Afghanistan's level of foreign exchange reserves was more than adequate. Again, with economic growth resuming and confidence in the national currency strengthening, money demand can be expected to increase, requiring additional reserves. But as long as the government refrains from central bank financing of the budget and there is limited use of a central bank discount window by commercial banks, any increase in the demand for the domestic currency would be met by an inflow of foreign exchange reserves.

Figure 5.1. Exchange Rates[1]



Source: Da Afghanistan Bank.
[1]In new Afghanis; last observation: March 31, 2004.

printing and issuance of the national currency and it was now able to determine accurately the amount of currency in circulation.[8] While monetary policy continued to be restrained during 2003/04, the rate of monetary expansion accelerated somewhat by comparison to 2002/03. Currency in circulation grew by an estimated 41 percent in 2003/04, exceeding the 30 percent increase envisaged under the indicative monetary program. Money demand continued to be met entirely by the accumulation of foreign exchange reserves at DAB (which reached over $700 million by late-March 2004), while the government continued to adhere to the no-overdraft rule. As a result of these sound monetary (and fiscal) policies, inflation remained low in 2003/04, with an average monthly rate of inflation of less than 1 percent. Moreover, in the absence of any major shocks, exchange rate stability was established with the exchange rate fluctuating around Af 49 per U.S. dollar.

Reference

Frankel, Jeffrey A., 1999, "No Single Currency Regime Is Right for All Countries or at All Times," NBER Working Paper No. 7338 (Cambridge, Massachusetts: National Bureau of Economic Research), September.

[8]The amount of currency in circulation could be calculated simply as the amount of currency delivered by the printer, less the amounts remaining in DAB's vaults. But little or no information was available on a timely basis on amounts held in the vaults of DAB's branches. Until adequate communications have been established with the branches, currency that may be held there must be assumed to be in circulation.