V Implications of High Dollarization for Macroeconomic Policy Design

The question arises as to what are the possible macroeconomic policy options for the Cambodian authorities in the context of very high dollarization. More specifically, the question is whether the authorities would be better off continuing with the present policy stance, trying to de-dollarize the economy, or choosing full dollarization. We first endeavor to shed some light on these options by reviewing the role of commercial banks and of the central government budget. We then explore issues linked to a possible currency board arrangement. Finally, we indicate our preferred course of action.

Dollarization and the Banking System

In spite of notable progress in the last few years (Box 6), the banking system remains undeveloped and financial intermediation is shallow. The progressive establishment of a modern payments system will help to foster financial intermediation. The contemplated financial laws and payments facilities will be neutral with regard to the currency used (riels or dollars) and therefore will have no direct bearing on the issue of dollarization.

The monetary authorities could in principle promote de-dollarization through the banking system. The lack of a lender of last resort, in conjunction with the fact that Cambodia is still a largely cash-based economy, forces banks to hold excessive dollar balances and increases their vulnerability. The first and most dramatic move for de-dollarization would be for the National Bank to provide bank refinancing in riels, for operations conducted in riels, while the monetary authorities would continue to refrain from refinancing banks in dollars. This could entice banks into operations in riels. This would represent an important move away from the National Bank's present policy stance under which de facto no refinancing is available. This initiative could in theory help foster credit operations in riels, and hence de-dollarization, but we would argue that at the current juncture, such a move would be largely ineffective, as other major conditions are yet not ripe for a significant expansion in bank credit (for either riel- or dollar-denominated loans). Banks are likely to continue to shy away from sizable loan operations, as long as they cannot secure adequate collateral. Even if they could, repossessing such collateral remains currently highly uncertain, considering the weaknesses in Cambodia's legislation and judicial system. Accordingly, as long as the inadequacy of loan-guaranty legislation and enforcement has not been effectively addressed, offering refinancing would be ineffective, while it would send out the "wrong" signal from the National Bank at a time when the restructuring of the banking system is still under way and the National Bank is building a track record of encouraging banking discipline.

The second way of promoting de-dollarization through the banking system could be accomplished by rendering operations in riels more attractive security- and cost-wise than operations in dollars. However, under the current situation of almost full dollarization of the banking system, and given the progress toward an efficient, largely electronic payments system that is currency neutral, there seems to be no immediate scope for achieving such a result. Conversely, were the authorities to opt for full dollarization of the economy, the banking system would be able to accommodate such a decision quickly and efficiently.

Another approach to fostering de-dollarization could be the development of financial instruments denominated in riels (e.g., treasury bills). Such instruments would likely need to offer higher yields than deposits with strengthened commercial banks (both in riels and in dollars), as the government will need to build up public confidence. However, we note that deposits in riels already carry higher interest rates than deposits in dollars, as shown in Table 3, yet deposits in riels remain modest compared with deposits in dollars. For treasury bills to become attractive, they would thus need to offer very high remuneration to compensate for both sovereign default and exchange rate risks. This in turn could jeopardize the fragile budget stance. Such instruments would also require the setting up of an active financial market for the sake of liquidity, but such a development can be considered only in the medium

Box 6. Banking Reform in Cambodia

Following the adoption of the *Banking and Financial Institutions Law* in November 1999, the banking system has undergone extensive restructuring. At the start of the process, the banking system consisted of 31 banks: 22 private commercial banks, 7 foreign bank branches, and 2 state-owned banks. As a result of the first phase of a mandatory relicensing procedure in 2000, the National Bank of Cambodia closed four banks in July 2000 and, after carefully evaluating the viability of the remaining banks, it closed another seven banks in December 2000. In March 2001, one bank elected for voluntary liquidation, totaling 12 closed banks. Of these, eight were voluntarily liquidated and four were compelled to go into liquidation. Six banks were fully relicensed, including a specialized state-owned bank, and 13 banks were relicensed conditionally, including another state-owned bank. The banks relicensed conditionally were required to take corrective actions, agreed in memoranda of understanding signed with the National Bank of Cambodia. Typically, these banks had to fulfill a number of prudential requirements, including the injection of supplementary capital to meet the $13 million minimum capital requirement. At the end of 2001, eight additional banks fully paid up their required capital. By the end of March 2002, two more banks met their capital requirement, one bank was voluntarily wound up, one bank was compelled to go into liquidation, and one bank was converted into a specialized bank, with a lower capital requirement. In addition, two specialized banks were created in October 2000 and in March 2001, respectively. Thus, currently 19 banks operate in Cambodia, down from the initial 31 banks.

The use of checks is currently limited to transactions carried out by the government and large entities. A clearinghouse for checks denominated in riel has been in operation since 1995 (see the table). A new impetus was given to check circulation with the opening of a second clearinghouse for checks denominated in dollars on January 2, 2001. The clearing of such checks has been active from the beginning. During 2001, the total value of checks in dollars cleared amounted to $643 million, versus only $285 million for checks cleared in riel during 1995–2001. These figures further illustrate the predominance of dollars in the banking system. Both clearinghouses operate under strict solvency rules, as debit balances at the end of a clearing session need to be paid up entirely by the bank concerned before the end of the day. The National Bank of Cambodia manages and supervises the clearinghouses for a nominal membership fee, but does not assume any risk associated with their operations.

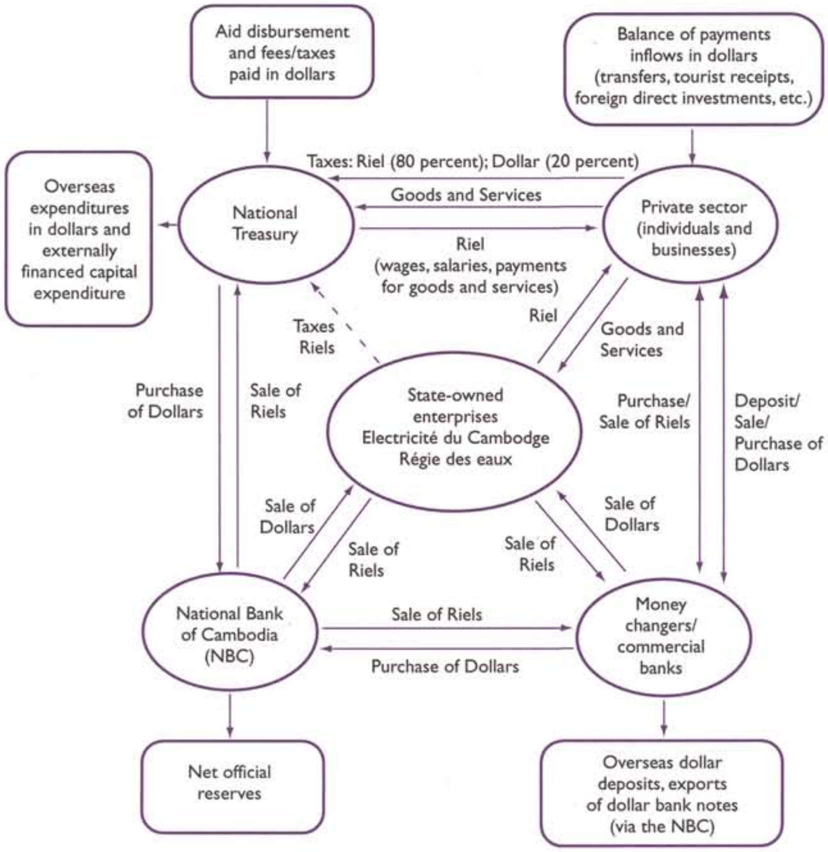
Before setting up the dollar clearinghouse under the aegis of the National Bank of Cambodia, the authorities considered whether this move would promote dollarization further, or merely facilitate inter-bank operations. Since bilateral clearing of such checks between banks had existed for several years, the authorities eventually concluded that making the process more effective would provide efficiency gains while being fairly neutral with regard to the level of existing dollarization. In their opinion, the new dollar clearinghouse buttresses the payments system rather than promotes dollarization. In the near future, another important step for the establishment of a modern payments system will be the adoption of a set of new laws pertaining to the conduct of financial transactions. The *Law on Negotiable Instruments and Payment Transactions*, prepared with technical assistance from the IMF, is in the process of being adopted by the National Assembly. The enactment of this law, coupled with the introduction of enhanced payments facilities, such as electronic payments, electronic correspondent accounts and credit transfers, and the use of credit cards, will contribute to the development of financial services offered by the banking system.

Checks Cleared

Year	Currency	Number of Checks	Total Value of Checks: Billions of riels	Total Value of Checks: Millions of U.S. dollars	Average Value per Check: Millions of riels	Average Value per Check: U.S. dollars
1995	Riel	1,473	183.7	75.0	124.7	50,882
1996	Riel	893	148.6	56.6	166.4	63,414
1997	Riel	692	88.6	30.1	128.0	43,456
1998	Riel	619	60.6	16.2	98.0	26,146
1999	Riel	723	88.5	23.2	122.4	32,098
2000	Riel	1,240	151.3	39.2	122.0	31,635
2001	Riel	1,436	177.2	44.9	140.9	35,682
2001	*Dollar*	*85,007*	*Not applicable*	*642.9*	*Not applicable*	*7,563*

Source: National Bank of Cambodia.

Figure 16. Co-Currency Circulation



Sources: IMF (1997); revised by Authors.

term, as the required legislation is only at an early stage of preparation.

Execution of Budget

Co-currency circulation in Cambodia is fairly complex, as illustrated schematically in Figure 16. On the one hand, foreign currency enters the country mainly through two broad channels: official transfers to government accounts (transiting through the National Bank), and current and capital transactions in the balance of payments, of which some examples are tourism receipts, private transfers, and foreign investment. These inflows mainly fuel cash foreign currency circulation, foreign currency deposits in and outside Cambodia, and official reserves.

On the other hand, the central government budget plays a crucial role in the circulation of riels. On the revenue side, the National Treasury collects taxes in riels (some 97 percent of tax revenue in 2001), including taxes linked to imports (Table 4). Conversely, three-fourths of nontax revenue was paid in dollars, essentially collected by the Foreign Currency Management Unit at the Ministry of Economy and Finance. Official aid and budget support are paid in foreign currency, also collected by the same Unit. Thus, in 2001 about three-fourths of total revenue was collected in riels. On the expenditure side, about 86 percent of current expenditure was paid in riels (mainly in cash, but also in the form of "offsets"), while two-thirds of capital expenditure was disbursed in dollars, owing to the fact that 71 percent of such expenditure was externally financed. In sum,

Table 4. Budget Execution in Foreign Currency
(In percent)

	2000	2001
Revenue		
Total revenue in foreign currency/ total revenue	25.3	23.2
Tax revenue in foreign currency/ tax revenue	4.4	2.6
Nontax revenue in foreign currency/ nontax revenue	65.0	73.5
Expenditure		
Total expenditure in foreign currency/ total expenditure	22.6	25.9
Current expenditure in foreign currency/current expenditure	15.4	14.3
Of which: Salaries paid in foreign currency/salaries	4.0	7.0
Capital expenditure in foreign currency/capital expenditure	43.9	67.4

Source: National Treasury of Cambodia.

about three-fourths of total expenditure was paid in riels in 2001. Riels injected into the economy by the Treasury are used by agents for their domestic needs—chiefly tax payments, payments to two major utility companies in Phnom Penh, and small domestic transactions. Since there has been a current budget surplus and a negative or no domestic financing for the last three years,[20] the Treasury serves as the main engine for circulating riels in the country.[21] The National Bank of Cambodia also injects riels into circulation occasionally by buying dollars in the foreign exchange market, but the amounts concerned are relatively small.

The Treasury has an impact on the level of dollarization. The more it injects riels into the private sector through its expenditure, the more it contributes to the stabilization of dollarization or even to de-dollarization. Conversely, the more the Treasury spends in dollars, the more dollarization is boosted. In this regard, the budgets in 2000 and 2001 show that dollarization of the national budget execution increased notably on the expenditure side. If the government wanted to promote de-dollarization, it should reverse this trend. On the revenue side, the government would need to initiate legislation requiring that all payments to the budget be made in riels. Taxpayers would then have to purchase riels from commercial banks/money changers or from the National Bank of Cambodia, which would result in an increase in riel circulation. Alternatively, the central bank law could be effectively enforced with regard to the relations between the National Bank of Cambodia and the Ministry of Economy and Finance. According to the law (Article 21), government receipts in foreign currency should be immediately sold to the National Bank of Cambodia at the official exchange rate, with the understanding that the National Bank would provide the Treasury with foreign currency against riels on demand to meet foreign expenditure requirements. However, in practice, budget revenue in foreign currency is deposited in the government's accounts at the National Bank of Cambodia and the Foreign Trade Bank in dollar-denominated accounts.[22] These accounts are used for expenditure in foreign currency. On the expenditure side, full budget execution in riels would allow Cambodia to stabilize (or even to reduce) dollarization. However, we note that the size of the budget compared with the economy is relatively small (about 12 percent of GDP), and since the country is highly dollarized, the impact of the budget being entirely executed in domestic currency would, in all likelihood, have a limited impact on the level of dollarization. Yet the shift from three-fourths of a budget executed in riels to a budget entirely executed in riels would be the right step for promoting de-dollarization and could be done progressively but fairly rapidly, without upsetting the current state of economic affairs.

Consideration of a Possible Currency Board Arrangement

A radical move toward de-dollarization and restoration of confidence in the domestic currency in Cambodia could be the adoption of a currency board. A currency board arrangement is the strongest form of a pegged exchange rate system. It is a monetary institution that only issues currency that is fully backed by foreign assets at a fixed exchange rate. The exchange rate is fixed not by policy but by law, and the foreign currency backing rule ensures that the currency board will not exhaust its reserves to maintain the peg. In Cambodia, the natural choice for the "anchor" currency would be the dollar. A currency board arrangement and very high dollarization present some similar features, but differences between them are important. First, dollarization implies the loss of seigniorage for the government,

[20]Excluding exchange rate adjustments and outstanding operations.
[21]Riels in circulation have been relatively stable since end-1999.

[22]They are, however, included in the calculation of official reserves.

Box 7. Currency Board Arrangement Versus National Bank of Cambodia Policies

Some of the differences and similarities between policies of the National Bank of Cambodia and of a possible currency board arrangement are highlighted below.

	"Orthodox" Currency Board Arrangement	*NBC Policies*
Institutional setup	• Independence of the Currency Board • Audited accounts publicly available • Open economy	• NBC is not fully independent, in practice • NBC audited accounts published since 2001 • IMF Article VIII adopted from January 1, 2002; membership in ASEAN; WTO accession well underway
Foreign exchange policy	• Guaranteed peg vis-à-vis an anchor currency • International reserves to back domestic currency in circulation and deposits at the pegged exchange rate • Free convertibility of national currency into anchor currency	• Managed float aiming at a very stable exchange rate vis-à-vis the U.S. dollar • NBC's *net* international reserves were equal to about three times riels in circulation and riel deposits at end-2001 • Limited convertibility for selected state-owned enterprises only, in practice
Monetary policy	• Banks are free to set interest rates • No issuance of Currency Board paper	• Banks are free to set interest rates; the NBC's refinance rate is only used for repayments from the Ministry of Economy and Finance to the NBC • No NBC paper issued (with one recent temporary exception to recapitalize the Foreign Trade Bank)
Relations with the government	• No monetary financing of the budget • No open market operations by the Currency Board, neither in the government bond issue market nor in the secondary market	• No monetary financing of the budget (actually negative financing since 1999) • NBC does not hold or trade any public or private securities or bonds
Relations with commercial banks	• No commercial bank refinancing • No guarantee to the banking system • Strong banking supervision • Services provided for promoting financial intermediation but no guarantee	• No commercial bank refinancing • No NBC guarantee to the banking system, as illustrated by closed banks • NBC banking supervision needs substantial strengthening • Clearinghouse for checks in riels and dollars sponsored by NBC but no risk assumed

whereas a currency board arrangement does not. Second, one of dollarization's key distinguishing features is that it tends to be permanent. In addition to hysteresis, one of the largest benefits claimed from dollarization is its credibility, precisely because it is nearly irreversible. Some authors argue that it is more difficult and costly to reverse dollarization than to modify or abandon a currency board. In many cases, country experience with "orthodox" currency board arrangements has been positive (lower inflation, higher growth, and increased foreign investment) but a number of currency boards had to be abandoned under economic duress, notably in the case of inappropriate fiscal and debt policies, remiss of a pegged exchange rate.

Arguably, Cambodia's recent monetary and exchange policies could be characterized as akin to a *de facto* currency board arrangement. First, although the National Bank of Cambodia does not ensure the parity of the exchange rate, its entire policy stance has been geared toward maintaining the stability of the riel against the dollar. The National Bank of Cambodia has been largely successful in this attempt since mid-1999, as illustrated by Figure 13. Second,

net official reserves presently cover three times the amount of riels in circulation at the current exchange rate.[23] Third, the National Bank of Cambodia refrains from refinancing commercial banks and focuses on enforcing stricter banking regulations—although it lacks a strong banking supervision capacity yet. Finally, the National Bank of Cambodia does not provide advances or financing to the government, and does not trade any public securities (which actually do not exist yet). The National Bank of Cambodia's policies and those normally implemented under an "orthodox" currency board arrangement are compared in Box 7.

Cambodia appears to have fulfilled a number of the necessary conditions for entering into a successful currency board arrangement. The country is a small and open economy—the sum of exports and imports represents 90 percent of GDP—and is well integrated into world trade. Cambodia is a member of the Association of South-East Asian Nations (ASEAN), and accession to the World Trade Organization (WTO) is well under way. In addition, the authorities have a liberal investment law and are in the process of lowering tariff and trade barriers. Moving from very high dollarization toward a currency board arrangement in Cambodia thus could, in principle, be conceivable. This would however require the effective independence of the National Bank of Cambodia (e.g., removing the government representatives from the National Bank of Cambodia's Board); the ability to resist pressure for budget financing in times of uncertainties; and the ability to decide freely on the exchange rate policy. Two possible currency board arrangements could be envisaged: one with a single legal tender—the riel—and the obligation to quote all prices and effectuate all transactions in that currency; or one where there would be two legal tenders, the riel and the dollar.

A successful riel-based currency board arrangement would allow Cambodia to revitalize its marginalized domestic currency, while ensuring continued economic stability. However, adopting a currency board arrangement would represent a drastic shift at a time when it is not an absolute necessity and would not yield any worthy benefit over the current policy mix. Most countries that adopt a rigorous currency board arrangement do so in times of crisis and as a last attempt to bring their economy under control. Cambodia, as described earlier, is far from being in a crisis and has enjoyed economic stability with growth for some time. In addition, the banking system's restructuring is under progress, the financial system remains underdeveloped and fragile, bank supervision is inadequate, and the fiscal position is still weak. Also, the National Bank of Cambodia and the government may not have the capacity to proceed smoothly with all the operational aspects involved in reintroducing the riel on a massive scale and to enforce the exclusive use of the domestic currency. Furthermore, the level of net international reserves, compared with the amount of trade-related transactions and capital flows, is insufficient to offer credible support for an unconditional peg. Finally, such a sweeping policy move could have a negative impact on foreign investors, who appreciate the fact that they can operate entirely in dollars without an exchange rate risk. All these reasons argue against considering a single-currency currency board arrangement in Cambodia, as the benefits under such an arrangement would not exceed those currently enjoyed under the present policy stance, and would entail a major risk in case of rejection by the majority of economic entities. There is a strong possibility that an attempt to enforce a riel-based currency board arrangement administratively would instead lead to an immediate de facto full dollarization.

Considering the current co-currency situation and the liberal approach toward economic regulations prevailing in Cambodia, the second option (i.e., a currency board arrangement with two legal tenders) would be by far the most acceptable. However, we would argue that little additional benefit would be gained by "locking in" the riel into a pegged and irreversible status vis-à-vis the dollar. Most likely, a dual-currency board arrangement in Cambodia would not lead to significant de-dollarization, but would eliminate the possibility of the marginal exchange rate tool provided by the current flexible exchange rate policy.

[23]Some particularly strong currency board arrangement backing rules require foreign currency coverage of deposits in domestic currency in the banking system. Considering the low amount of deposits in riels in Cambodia, even if the coverage had been augmented to include such deposits, net official reserves would still have been equivalent to 2¾ times all riel components of broad money at the end of 2001.