

Menon, Jayant

**Working Paper**

## Dealing with dollarization: What options for the transitional economies of Southeast Asia?

ADB Discussion Paper, No. 63

**Provided in Cooperation with:**

Asian Development Bank Institute (ADBI), Tokyo

*Suggested Citation:* Menon, Jayant (2007) : Dealing with dollarization: What options for the transitional economies of Southeast Asia?, ADB Discussion Paper, No. 63, Asian Development Bank Institute (ADBI), Tokyo

This Version is available at:

<http://hdl.handle.net/10419/53468>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

## **ADB Institute Discussion Paper No. 63**

### **Dealing with Dollarization: What Options for the Transitional Economies of Southeast Asia?**

**Jayant Menon**

**March 2007**

Jayant Menon is Senior Research Fellow at Asian Development Bank Institute (ADBI).

This is a revised version of a paper presented to the ADB workshop on Monetary and Exchange Rate Policies in Selected ASEAN Countries, Ho Chi Minh City, 5-6 February 2007. Comments received from Giovanni Capannelli, Alicia Herero-Garcia, Eric Gerardin, and Alfred Steinharr are gratefully acknowledged, without implicating them in any way in the final product.

The views expressed in this paper are the views of the author/s and do not necessarily reflect the view or policies of ADBI nor Asian Development Bank. Names of countries or economies mentioned are chosen by the author/s, in the exercise of his/her/their academic freedom, and the Institute is in no way responsible for such usage.

## **Abstract**

There is a spectrum of policy options available in dealing with dollarization in the transitional economies of Southeast Asia. These range from official dollarization at one end and enforced de-dollarization at the other. In between lie: currency board arrangements (CBAs), single currency options; and the muddling through approach. Both official dollarization and CBAs are not viable options for these countries. Official dollarization is politically untenable, while implementing a credible CBA is currently beyond the financial capacity of these countries. The single currency option remains somewhat vague in terms of detail, in relation to both design and time frame, and the region is unlikely to meet "optimal currency area" criteria. Lao PDR attempted to enforce dedollarization in 1997, but the result was counter-productive. The muddling through but accelerating reforms approach appears to be the most realistic option. This approach views dollarization not so much as the problem, but rather as a symptom. The causes of the problem emanate from macroeconomic instability, political uncertainty, an underdeveloped financial and monetary system, and weak legal and institutional systems. Addressing these problems directly should eventually remove the symptom in the form of dollarization.

# **Dealing with Dollarization: What Options for the Transitional Economies of Southeast Asia?**

## **1. Introduction**

The transitional economies of Southeast Asia, Cambodia, Lao PDR and Viet Nam are dollarized or multiple currency economies. The share of dollars in currency in circulation is highest in Cambodia, estimated at about 90 percent, and lowest in Viet Nam, estimated at about 25 percent. In Lao PDR, dollars and Thai baht are estimated to constitute more than half the currency in circulation.

Dollarization and the multiple currency phenomenon (MCP) in these countries appear to have more costs than benefits (see Menon 2007a). The costs include the social loss associated with seigniorage, the inability to conduct an independent monetary policy, and the potential ineffectiveness of the exchange rate as an adjustment mechanism. The benefits of dollarization include the discipline imposed on the Government by significantly limiting its capacity to finance spending through inflation tax, and the stability and certainty induced by an effectively fixed exchange rate.

The experiences of Cambodia, Lao PDR and Viet Nam present interesting case studies in relation to the impacts of dollarization and the MCP and ways to address it. In this paper, we draw upon the experiences of countries within and without the region to garner lessons for Cambodia, Lao PDR and Viet Nam in dealing with the MCP. In particular, we present a range of policy options for these countries to consider. There is a spectrum of policy options, ranging from full or official dollarization at one end and enforced de-dollarization at the other. These two options form the extremes and in between them are a number of other choices. These include: currency board arrangements (CBAs), single or regional currency options; and what we call muddling through with accelerated reforms. It should be noted however that for the transitional economies that we are interested in, not all choices are feasible options. In light of this, we focus not only on each option's costs and benefits, but also economic viability and political feasibility in our discussion.

The remainder of the paper is organized in 6 sections. We begin in Section 2 by considering an option that lies at one extreme, official dollarization, and work our way through the other choices. Section 3 considers the merits and de-merits of CBAs, while Section 4 examines single currency options. We then skip to the other extreme in this spectrum to look at whether enforced de-dollarization can work, and draw lessons based upon the experience of Lao PDR when it attempted to do so in 1997. This is the subject of Section 5. The final option is presented in Section 6, and is called muddling through with accelerated reforms. A final section provides a summary of main points.

## **2. Official Dollarization**

A number of Latin American countries have chosen to officially adopt the US dollar as their currency. Examples include Ecuador, El Salvador and Panama. By doing so, these countries have effectively adopted the US Federal Reserve's monetary policy. Although most of these countries have had quite stable inflation rates subsequently, Panama in particular is often hailed as a success story of formal dollarization (see Moreno-Villalez 1999; Bogetic 2000a).

It is often argued that official dollarization by transitional economies can send an important positive signal to foreign investors and the world trading community in general, signifying increased stability and reduced risk. In considering risk, however, it is important to distinguish between currency and country risk. Although official

dollarization may significantly reduce currency risk, the perceptions of country risk may not change much, particularly for transitional economies. Without currency risk however, prices of individual traded goods cannot deviate much from the dollar price in the US market, net of taxes and transaction costs, without creating arbitrage opportunities. The same arbitrage opportunities would ensure that most interest rates, especially long-term mortgage rates, between the officially dollarized economy and the US track each other closely..

Furthermore, unlike the Latin American countries that have chosen official dollarization, the transitional economies in Mekong are not that closely integrated with the US economy. The US has also been unwilling to return seigniorage revenues to countries that formally dollarize. Thus, whatever seigniorage revenues that are currently being earned will be lost under official dollarization.<sup>1</sup> Since the country's central bank is now effectively the US Fed, domestic control over monetary policy and the lender of last resort function is also lost. Needless to say, discretionary exchange rate is also no longer an option.

Thus, on economic grounds, it remains ambiguous as to whether official dollarization is the solution to the MCP in the transitional economies of the Mekong region. The main obstacle standing in the way of official dollarization in the Mekong countries is a political one however. The governments of these countries are unlikely to consider this option as a feasible one because they are politically committed to reversing the MCP, and so are unlikely to go in the opposite direction. In short, official dollarization, irrespective of its merits or demerits, does not appear to be a realistic option for these countries for political reasons.

### **3. Currency Board Arrangement (CBA)**

Although Hong Kong is perhaps the most well-known country whose economy employs a currency board, a number of less well-known, newly-independent transitional economies such as Lithuania, Estonia and Bosnia have implemented currency board-like systems with success, having their local currencies anchored to the euro.<sup>2</sup>

A currency board arrangement (CBA) is close to official dollarization, but there are important differences<sup>3</sup>. First, it is less rigid in that devaluation is possible. Second, it would reinstate seigniorage when official dollarization would remove it completely.

Since a CBA would effectively replace the central bank, the conduct of a discretionary monetary or exchange rate policy and the lender of last resort in the event of a crisis would be effectively lost.<sup>4</sup> In other words, like official dollarization, a CBA would not restore these two functions of a central bank that are compromised under dollarization. Unlike official dollarization however, currency in circulation can be adjusted by accumulating reserves or by changing the reserve-backing ratio.

How feasible is a CBA for Cambodia and Lao PDR? In Cambodia, official reserves cover about three times the amount of riel in circulation at present exchange rates. Although this may sound impressive, the fact remains that most estimates place the share of foreign currency in circulation at between 85 to 95 percent (de Zamarocksy

---

<sup>1</sup> See Menon (2007a) for a detailed discussion of the seigniorage issue.

<sup>2</sup> Argentina had a currency board-like system anchored to the US dollar up until 2002, and many Caribbean states continue to employ a dollar-anchored CBA.

<sup>3</sup> The pioneering work on OCAs is Mundell (1961). A good, general reference on OCAs in the context of the MCP is Willett (2003), and on regional (European) integration is Baldwin and Wyplosz (2004).

<sup>4</sup> Proponents of CBA argue that should it be run efficiently and credibly, the risk of an endogenous crisis would be significantly reduced, thereby reducing the need for a lender of last resort..

and Sa 2002; Menon 1998). Taking the mid-point of these estimates, this implies that the riel constitutes only about 10 percent of currency in circulation. To recoup the foreign currencies in circulation at present would thus require a tripling in the amount of official reserves. Without substantially increasing government borrowings, most of which would have to come from abroad, this appears to be a binding constraint. This constraint is even more binding in Lao PDR with the ratio of official reserves to kip in circulation lower than in Cambodia.<sup>5</sup>

Thus, although CBAs may provide an attractive alternative, either interim or permanent, to the current MCP situation, implementing such an arrangement appears to be beyond the financial capacity of these countries.

#### **4. Single Currency Options**

Apart from important economic and political issues, these are a host of technical issues that need to be considered in assessing the option of introducing a single currency or monetary union.

We begin with the economic issues. The economic aspects relate mainly to the issues associated with optimal currency areas (OCAs). An important issue highlighted by the OCA literature is the susceptibility of the defined region to common external shocks. Unless asymmetric shocks are rare, the OCA literature suggests that the conditions for a successful monetary union based on a single currency arrangement are unlikely to be met.

If the region is subject to frequent asymmetric shocks, then price and wage flexibility will be necessary for the adjustment process to work efficiently. Although there appears to be quite significant labor mobility across countries in the subregion if we take into account estimates of informal or unofficial flows, there is still quite limited price and wage flexibility in the respective economies. This is a result of underdeveloped, incomplete or missing markets for both factors and products, all of which are characteristic of economies in transition. As discussed in Menon (2007a), macroeconomic adjustment to external shocks will require significant price and wage flexibility in the absence of exchange rate policy. Thus, the economic rationale based on OCA would appear to be limited in relation to the subregion, and perhaps even with the broader ASEAN10 definition of region.

Even if the OCA criterion is met, there are a number of technical issues to be considered. In other words, there are a number of ways in which the single currency or monetary union option could be implemented, and the form it takes may matter in the cost-benefit assessment. The various forms include a single currency chosen from within the subregion, the broader region, or indeed from anywhere around the world. If the monetary union is to be based on a currency to be chosen from within the subregion, then it should be one that is more stable and acceptable than the currencies of the constituent countries. Choices appear to be limited.

If it is to be chosen from the broader region, then this could be done by participating in the monetary cooperation agenda of the ASEAN+3 initiative. Although ASEAN+3 has been active in many areas (see Bergsten 2000), progress towards establishing a single regional currency has been cautiously slow.

---

<sup>5</sup> This assumes that the foreign currencies in circulation are held for transaction purposes, or to serve the medium of exchange function. Some share of foreign currencies in circulation may be held to serve the store of value function, given low confidence in the domestic banking system. This share would not have to be recouped in implementing the CBA. Although the precise amount that this share constitutes is unknown, it is unlikely to be substantial enough to alter the conclusion that implementing a CBA in these countries will be financially demanding on governments.

If it is to be chosen from outside the region, then the implications would closely resemble those outlined earlier in Section 2 under official dollarization. Indeed, the main difference between official dollarization and a monetary union that adopts a subregional or regional currency relates to the likelihood of some form of seigniorage sharing arrangement.<sup>6</sup> Another difference between these two relates to monetary sovereignty. While official dollarization implies a complete loss of monetary autonomy, a common currency arrangement does not- constituent countries would still have a seat at the table where joint policy is made. Another option would be the creation of an altogether new currency unit, which would require a new regional central bank to issue and manage it. A seigniorage sharing arrangement would also be possible under this arrangement.

For all of these single currency options, there are difficult measurement issues to be addressed in the implementation phase. To get to that phase however, there are political sensitivities that need to be overcome. Some of these political concerns may prove to be insoluble, however, at least in the short to medium run. The single currency option is often described as a long-term objective for the region, but unfortunately both “region” and “long term” is difficult to define.

## **5. Enforcement Measures**

Can enforcement measures provide a solution to the MCP? In other words, should the government intervene directly in imposing the use of the domestically issued currency as the sole medium of exchange? Is there a short-cut solution here to the MCP that is also completely within the control of governments? The Government of Lao PDR may have thought so when it tried to do this in June 1997. The Bank of the Lao PDR moved to enforce a decree (Decree No. 53 of 7 September 1990) stipulating that only the kip can be used as a medium of exchange in all domestic transactions.

The increased policing of the use of the kip has probably resulted in an increase in its use in domestic transactions. Nevertheless, there is no doubt that the baht and dollar continue to be used in domestic transactions. It is also unclear if this enforcement measure has increased the value share of the kip in the money stock. It is claimed that the enforcement measures were introduced in response to the depreciation of the kip against both the baht and the dollar (and concerns regarding an increase in illegal black-market dealings). Instead of stemming the depreciation, the enforcement measures corresponded with further depreciation of the kip.

Although several factors may have been involved in the depreciation of the kip, it appears that one important factor was the uncertainty associated with, and resultant loss of confidence in, the kip after the enforcement measures were announced. Indeed, the kip was perhaps the only currency that fell in value against the baht when the baht was depreciating against every other currency during the early phase of the Asian financial crisis of 1997.

The depreciation in the value of the kip against the baht and the dollar since the enforcement measures were announced may have more than offset any increase in the volume of kip used in domestic transactions. In other words, the price effect (currency depreciation) may have more than offset the volume effect (increased currency usage). Menon (2007a) estimates that, in the immediate aftermath of the introduction of the enforcement measures, the depreciation of the kip caused its

---

<sup>6</sup> The various forms that seigniorage sharing arrangements can take are discussed in Bogetic (2000b).

share in the money stock to fall from 50 percent to about 30 percent. While kip used to have the highest share in the money stock, the valuation effect from the depreciation reduced it to the smallest share. Due to the massive depreciation of the kip against the US dollar, dollars now had the highest share in the money stock, when they used to have the smallest share. To the extent that the depreciation was caused by the uncertainty introduced by the enforcement measure, the outcome appears to have been counterproductive. To return the share of the kip in the money stock to 50 percent, usage of the kip would have to increase by about 65 percent. It is unlikely that the enforcement measure would have resulted in a 65 percent increase in the usage of the kip.

## **6. Muddling-through but Accelerating Reforms**

The discussion above clearly demonstrates that imposing or forcing the use of the domestically-issued currency is not the answer. The next option that we consider involves the minimum amount of direct intervention, but the maximum amount of indirect changes in terms of policy and reform measures. We call this “Muddling-through but accelerating reforms”, with the ‘muddling through’ reference describing the lack of direct intervention.

The muddling through approach recognizes that the only sustainable move away from the MCP and towards increased usage of domestically-issued currencies must come from increased confidence in the latter. With this approach, the MCP is viewed not so much as the *problem*, but rather as a *symptom*. The problem, or the *cause*, is a lack of confidence in the domestically-issued currencies, whilst the symptom, of the *effect*, is the use of another currency such as the US dollar. The causes of the problem emanate from macroeconomic instability, political uncertainty, an underdeveloped financial and monetary system, and weak legal and institutional systems.

All three countries have experienced periods of macroeconomic instability or crises over the last two decades as a result of either exogenous shocks or endogenous policy choices. Lao PDR, for instance, experience episodes of high and sometimes hyper-, inflation between 1995 and 1999. Using Granger causality tests, de Zamarocksy and Sa (2002) find that these episodes had a significant impact on the surge in dollarization over the period. In Viet Nam on the other hand, they find that high inflation experienced in the early 1990s contributed to the increase in dollarization during that period.

Cambodia was not yet heavily dollarized in 1990- this occurred mainly during the UNTAC period of 1991-93, when dollars poured in to the economy. In Cambodia, the reverse relationship between dollarization and inflation can be observed. While Cambodia experienced high inflation in the very early part of the 1990s as a result of inflationary financing or monetization of the budget deficit, this soon dissipated as the level of dollarization increased exogenously. With respect to exogenous shocks, it is worth noting that the extent of dollarization in all three countries reached its highest levels in the immediate aftermath of the Asian financial crisis.

In short, there is sufficient evidence to point to the link between macroeconomic instability, whether induced endogenously or imposed exogenously, and the MCP in these transitional economies. Restoring macroeconomic stability by addressing persistently high budget and current account deficits, and episodes of high or hyper inflation, will be a necessary part of addressing the MCP. The recent experience of Viet Nam is useful in demonstrating this (more on this later).



Although political uncertainty has not been a significant constraint in either Viet Nam or Lao PDR, it has been a problem in Cambodia in the past. This uncertainty has no doubt contributed to the persistence of very high dollarization in the country. Recent political reforms that have removed the requirement for a two-thirds majority for the formation of a new government suggest that political instability should be much less of a constraint in Cambodia from here on.

An underdeveloped financial and monetary system results in a lack of monetary instruments in the form of local currency-denominated interest-bearing assets. The lack of such assets constrains the store of value function of domestic money. It also limits the capacity of central banks to implement counter-cyclical monetary policy (see Menon 2007b). Financial and banking reforms that facilitate deepening of this sector need to be pursued with greater urgency and commitment in order to address these constraints.

In summary, although most of these problems- macroeconomic instability, political uncertainty, an underdeveloped financial and monetary system, and weak legal and institutional systems- are long-term in nature, they require policy actions and reform measures to be implemented in the short- and medium-term. When these problems are eventually overcome, then the symptom in the form of the MCP will also disappear.

To a certain degree, this is exactly what has been happening in neighboring Viet Nam, where the use of the US dollar as a medium of exchange has diminished as the monetary and institutional systems have developed and matured, and as macroeconomic stability has been restored. With fiscal and current account deficits consistently below 5 percent of GDP, single-digit inflation despite GDP growth being one of the highest in the world, and a doubling of official reserves over the past 3 years, Viet Nam is no longer considered a multi-currency economy. The passing of the Unified Enterprise Law and Common Investment Law by the National Assembly in 2005 has further improved the legal and enabling environment, and official recognition of the contribution of the private sector to economic development is becoming more explicit, reinforcing the rapid transition to a market-based economy. By adopting its own version of muddling through with accelerated reform, Viet Nam has addressed the MCP without incurring costs and presents a worthy model for emulation within the region.

As noted earlier, improving the monetary and financial system, increasing macroeconomic stability, and strengthening institutions, especially legal and administrative ones, are long-term challenges facing the governments of these countries. What can be done to start the process of de-dollarization in the short to medium term? The experience of Lao PDR described in Section 5 clearly shows that trying to enforce the increased use of the domestic currency is not a solution, and can indeed be counter-productive. To the contrary, measures that impose the use of domestic currency should be removed to help reduce the distinctions, whether perceived or real, between the currencies.

In a sense, the best way of reducing the use of foreign currencies is to reduce the *distinctions* between the domestically-issued and foreign currencies. Enforcing the use of the domestic currency is likely to add to the distinctions, or perceived differences, rather than reduce them. If citizens are given the free choice to use kip, riel, dong, baht or dollars for any transaction in the Mekong transitional countries, then the perceived differences between them in each country are likely to slowly diminish over time.

In Cambodia for instance, there appear to be a number of institutional barriers that add to the differences between riel and dollars, and tend to stand in the way of a gradual process of de-dollarizing. These include the preference given to US dollars in the payment of wages to non-public sector workers. The fact that the Labour Law defines the minimum wage in US dollars exemplifies this preference (see Menon 1998). Another example is the fact that international aid organizations and NGOs tend to pay their staff solely in US dollars in Cambodia, when in other countries organizations such as the UN tend to pay a minimum of 30 percent of salaries in the currency of the home country. A useful step in setting up the pre-conditions for de-dollarising would be to remove this favored status of US dollars in the payment of wages. Rules and regulations, whether implicit or explicit, that favor the use of US dollars are just as detrimental as those that impose the use of the riel in terms of the long-run objective of de-dollarising.

Reducing the distinction between the currencies will involve, as a fundamental requirement, the assurance that kip can be converted into dollars freely and in any quantity. With the current situation, where confidence in the kip and riel is low, this policy would effectively limit the government to issuing kip or riel on an almost one-to-one basis with foreign reserves. With the present stock of kip estimated at about 50 percent of currency in circulation in Lao PDR, and riel estimated at about 10 percent, it could be argued that the current situation in these countries already reflects this aspect of convertibility.

Thus, the transition from an economy characterized by the MCP to a kip- or riel-based economy will depend on the willingness of citizens to hold the kip or riel. This willingness will require an assurance of free convertibility initially, and confidence in the value of the domestic currency eventually. We cannot escape the conclusion however that the root causes of the MCP will need to be addressed directly, and that there is no other long-term solution to dealing with its implications.

## **7. Summary and Conclusions**

In this paper, we drew upon the experiences of countries within and without the region to garner lessons for Cambodia, Lao PDR and Viet Nam in dealing with the MCP. In particular, we presented a range of policy options for these countries to consider. There is a spectrum of policy options, ranging from full or official dollarization at one end and enforced de-dollarization at the other. These two options form the extremes and in between them are a number of other choices. These include: currency board arrangements (CBAs), single or regional currency options; and what we call muddling through with accelerated reforms. In assessing each option, we focused not only on costs and benefits, but also economic viability and political feasibility.

Table 1 provides a summary of the various impacts and the economic and political viability of each of the options considered. As a reference point, the second column identifies the desired or optimal outcome in terms of impact.

In our assessment, both official dollarization and CBAs are not viable options for these countries. Official dollarization is politically untenable, while implementing a credible CBA is currently beyond the financial capacity of these countries. The single currency option remains somewhat vague in terms of detail, in relation to both design and time frame. It is also unclear if any kind of feasible permutation in relation to design and country coverage will result in it passing the cost-benefit test, or satisfying the minimum criteria based on OCA. It is also a highly politically charged issue at present. The other end of the spectrum presents a potentially appealing, short-cut remedy in the form of enforced de-dollarization. Lao PDR attempted this in 1997,

and the result was counter-productive. The depreciation of the kip more than offset any increase in the volume of usage as a result of policing measures, leaving its value share in currency in circulation lower than it has ever been.

The final option is our preferred one, and we call it muddling through but accelerating reforms. As the summary in Table 1 shows, this option performs slightly better, on the whole, than the other alternatives in terms of impacts and viability. This approach views the MCP not so much as the *problem*, but rather as a *symptom*. The problem, or the *cause*, is a lack of confidence in the domestically-issued currencies, whilst the symptom, or the *effect*, is the use of another currency such as the US dollar or baht. The causes of the problem emanate from macroeconomic instability, political uncertainty, an underdeveloped financial and monetary system, and weak legal and institutional systems. There is both empirical and anecdotal evidence to support the view that these factors have contributed to the MCP in many countries. We suggest addressing the problems directly, and assume that this will eventually remove the symptom in the form of the MCP. We also argue that Viet Nam's experience with resolving its multi-currency status can be viewed as vindication of this approach.

**TABLE 1**

**Summary of Impacts and Feasibility of Policy Options**

	<i>Optimal Outcome</i>	Official Dollarization	Currency Board Arrangement	Single Currency / Monetary Union	Muddling Through but Accelerating Reforms
Monetary Policy	Yes	No (US Fed)	Limited	Limited	Limited
Exchange Rate Policy	Yes	No	No	Limited	Limited
Lender of Last Resort	Yes	No	No	Yes	No
Interest Premium	<i>Zero</i>	Low	High	None with Union	Medium
Financial Deepening	Yes	Yes	No	Yes	Yes
Seigniorage	Yes	No	Yes	Yes - Sharing	Limited
Inflation Tax	<i>No</i>	No	No	No	Limited
Economic Viability	Yes	Yes	No	Yes	Yes
Political Feasibility	Yes	No	Yes	No (S/T) Maybe (L/T)	Yes

## References

- Baldwin, Richard and Charles Wyplosz. 2004. *The Economics of European Integration*. New York: McGraw Hill.
- Berg, Andrew, and Eduardo Borensztein. 2000. The Pros and Cons of Full Dollarization. *Working Paper 00/50*. Washington, DC: International Monetary Fund.
- Bergsten, Fred. 2000. *Towards a Tripartite World*, Washington, DC: Institute of International Economics.
- Bogetic, Zeljko. 2000a. "Official Dollarization: Current Experiences and Issues", *CATO Journal* 20(2), 179-213.
- Bogetic, Zeljko. 2000b. "Seigniorage Sharing Under Dollarization". *Central Banking* 10(4), 77-87.
- de Zamarocksy, Mario and Sophana Sa. 2002. "Macroeconomic Adjustment in a Highly Dollarized Economy: The Case of Cambodia", *Working Paper 02/92*. Washington, DC: International Monetary Fund.
- Menon, Jayant. 1998. "De-dollarising Cambodia", *Cambodian Development Review* 2(2), 6-9.
- Menon, Jayant. 2007a. "Dollarization and the Multiple Currency Phenomenon in Lao PDR: Costs, Benefits and Policy Options", *Discussion Paper 58*, Tokyo: ADB Institute. Downloadable from:  
<[www.adbi.org/discussion-paper/2007/01/18/2123.dollarization.multiple.currency](http://www.adbi.org/discussion-paper/2007/01/18/2123.dollarization.multiple.currency)>
- Menon, Jayant. 2007b. "Monetary and Exchange Rate Policies in Multiple-Currency Economies", Paper presented to the ADB workshop on Monetary and Exchange Rate Policies in Selected ASEAN Countries, Ho Chi Minh City, 5-6 February.
- Moreno-Villaz, J. 1999. "Lessons from the Monetary Experience of Panama: A Dollarized Economy with Financial Integration", *CATO Journal* 18(3), 421-39.
- Mundell, Robert. 1961. "A Theory of Optimal Currency Areas". *American Economic Review* 51, 657-65.
- Salvatore, Dominic, James Dean, and Thomas Willet (eds.) 2003. *The Dollarization Debate*. Oxford: Oxford University Press.
- Watanabe, Shinichi. 2006. "Dollarization, Remittances and Monetary Policies in Cambodia, Lao PDR and Viet Nam", Tokyo: ADB Institute. Downloadable from:  
<[www.adbi.org/files/2006.05.10.cpp.dollarization.paper.pdf](http://www.adbi.org/files/2006.05.10.cpp.dollarization.paper.pdf)>
- Willet, Thomas. 2003. "The OCA Approach to Exchange Rate Regimes: A Perspective on Recent Developments", in Salvatore, Dominic, James Dean, and Thomas Willet (eds.) 2003. *The Dollarization Debate*. Oxford: Oxford University Press, 154-171.
- Williamson, John. 2003. "Dollarization Does Not Make Sense Everywhere", in Salvatore, Dominic, James Dean, and Thomas Willet (eds.) 2003. *The Dollarization Debate*. Oxford: Oxford University Press, 172-76.