Chapter 2 Monetary Arrangements in East Asia

The previous chapter has provided an introduction to this thesis. This short chapter in turn offers a brief background on the monetary arrangements in East Asia and provides some understanding on the rigid exchange rate policies of Hong Kong, Macau, Brunei, and Singapore, related to research question nine, the last research question introduced in Chapter 1.

As depicted in Figure 2.1, this chapter commences with a review on the exchange rate regimes and international cooperation in Section 2.1 which is then followed by a brief account of fixed peg experience in Hong Kong and Macau in Section 2.2 and monetary union experience of Brunei and Singapore in Section 2.3. Section 2.4 concludes.

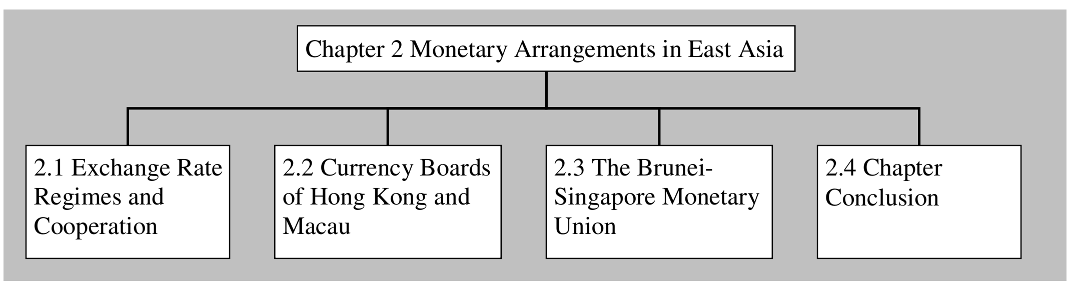

Figure 2.1 Structure of Chapter Two

2.1 Exchange Rate Regimes and Cooperation

Before the Asian crisis, at one extreme Japan had a floating exchange rate although it engaged in substantial intervention to influence the path and rate of change of the yen-dollar rate.[6] At the other extreme, China had a rigidly fixed rate vis-à-vis the US dollar, while Hong Kong had and still has an even stricter regime, a currency board based on the US dollar. Meantime, Singapore and Brunei have been maintaining a bilateral monetary union. As for other ASEAN countries and Korea, most of them described themselves officially as having flexible exchange rates, though numerous studies have shown that most of them pegged their currencies more or less firmly to the dollar, partaking of what McKinnon (McKinnon, 2000, 2005) described as the Asian dollar standard.

During and after the Asian crisis, however most of the ASEAN countries began to do what they had claimed to do before, that is letting their exchange rates fluctuate more freely. Malaysia was the clear exception as it switched to a strict dollar peg backed by imposition of capital controls. In July 2005 however, Malaysia loosened its tie to the dollar on the same day that China revalued its renminbi by 2.1 percent vis-à-vis the dollar and announced that the renminbi price would be guided by a multi-currency basket. The move to more flexible rates was roundly condemned by McKinnon who continues to call for resurrection of the Asian dollar standard.[7] In southern part of Asia, India continued with its de facto dollar peg which has been in place since 1993 (see Patnaik & Shah, 2008).

Currently, the Asia-Pacific region is divided when it comes to exchange rate policies. Table 2.1 shows the de facto classification of exchange rate regimes and monetary policy framework of selected countries from IMF as of July 31, 2006 (IMF, 2006)[8]. The selected counties include the East Asian, the dollarized, and the euroized

[6] Main reference for this section is Kenen and Meade (2008). For a comprehensive exchange rate policy history in Asia, go to http://users.erols.com/kurrency/asia.htm
[7] McKinnon and Schnabl (2004a) have found the return to soft dollar pegging in Asia after the Asian crisis. This is one reason to designate the US dollar as one of the potential monetary anchors for this study. Further justification is discussed Chapter 4.
[8] IMF does not provide information for Taiwan and Macau. Details on them can be found in the respective references given. The regimes given by IMF do not necessarily match those indicated by others. For instance, Patnaik and Shah (2008) have detected a de facto dollar peg for India, which is different from that indicated by IMF.

countries used in this study.

Table 2.1 Exchange rate regimes and monetary policy frameworks

Exchange Rate Regime (Number of countries in the world)	Monetary Policy Framework				
	Exchange rate anchor	Monetary aggregate target	Inflation targeting	IMF-supported or other monetary programs	Others
Exchange arrangements with no separate legal tender (41)	Another currency as legal tender (9)				Euro area (12) Austria Belgium Finland France Germany Greece Ireland Italy Luxembourg Netherlands Portugal Spain
	Ecuador El Salvador[1] Panama				
Currency board arrangements (7)	Brunei Hong Kong				
Fixed peg arrangements (52)	Against a single currency (47)				
	China[2] Macau[3] Vietnam*				
	Against a composite (5)				
Pegged exchange rates within horizontal bands (6)					
Crawling pegs (5)					
Managed floating (no pre-determined path for the exchange rate) (51)	Taiwan[4]	Cambodia Laos	Guatemala* Thailand		India Malaysia Myanmar Singapore
Independently floating (25)		Indonesia	Australia Canada Korea New Zealand Philippines UK		Japan US

Notes:
An asterisk (*) indicates that the regime operating de facto in the country is different from its de jure regime. For Guatemala, it has adopted the US dollar as a legal tender, but it has maintained its own currency in circulation without fixing any parity with the dollar.

1 The printing of new colones, the domestic currency is prohibited but the existing stock of colones will continue to circulate along with the US dollar as legal tender until all colón notes wear out physically.

2 On July 21, 2005, China announced a 2.1 percent revaluation of its yuan against the US dollar and a change in its exchange rate arrangement to allow the value of its renminbi to fluctuate based on market supply and demand with reference to an undisclosed basket of currencies. To permit a greater role for market forces in determining the renminbi exchange rate, steps have been taken since July 2005 to liberalize and develop China foreign exchange markets, including the establishment of an over-the-counter spot foreign exchange market and markets for currency swaps and futures. From end-July 2005 to end-July 2006, the renminbi exchange rate was more flexible but the fluctuation in the yuan-dollar rate was less than the 2 percent range (for a three-month period) used in the IMF's de facto exchange rate classification system as an indicator for a conventional fixed peg arrangement.

3 Officially, Macau adopts a currency board system since 1989 under which its legal tender pataca is fixed to the HK dollar at a middle rate of one HK dollar to 1.03 pataca. Since HK dollar is pegged to the greenback in a currency board regime, the pataca is indirectly linked to the US dollar (Pao, 2003).

4 Following the establishment of the Taipei Foreign Exchange Market in February 1979, a flexible exchange rate system was formally implemented (Taiwan Central Bank, 2007). Since then, the NT dollar rate has been determined by the market. However, when the market is disrupted by seasonal or irregular factors, the central bank would step in.

Amidst the diverse exchange rate policies, there has been cooperation on the monetary side. Monetary collaboration in the region can be dated back to 1967, the year since Brunei and Singapore initiated a successful but little known monetary union

(Ngiam & Yuen, 2001). It began in June 1967, when Brunei, Malaysia, and Singapore established a system of free interchangeability of their currencies. In May 1973 however, Malaysia quit, leaving the monetary union between Brunei and Singapore till today.

Notable collaborative efforts began in the 1990s when the Japanese government decided to promote the international use of yen. In September 1997 having taken the lead in mobilizing financial support for Thailand, Japan proposed the creation of an Asian Monetary Fund (AMF). The proposal however, was strongly opposed by US and IMF and failed to win Chinese support, hence subsided very quickly.

As the need for cross-country surveillance was recognized during the Asian catastrophe, in 1997 the Asia Pacific Economic Cooperation (APEC) sponsored the creation of Manila Framework Group (MFG) for that purpose. However, some Asians viewed the MFG as a foreign body, that is, an agent of the IMF and US.

In 1998, ASEAN responded by organizing its own surveillance mechanism with technical assistance from the Regional Economic Monitoring Unit (REMU) of the ADB. It involves a peer-review process among monetary authorities. Later in 2000, China, Japan, and Korea began to participate in a similar process now known as the ASEAN+3 Economic Policy Review and Dialogue Process. The Process published an agreed communiqué by the finance ministers but was criticized for absence of standardization and for selective disclosures of information.

In 1998 also, ASEAN governments agreed to study the feasibility of a common currency system[9] and in the Asia-Europe Meeting, finance ministers organized a very ambitious study on the feasibility and merits of an Asian monetary union—the Kobe Research Project.

It is obvious that the Asian financial meltdown was the main driver behind the efforts. The Asian countries have drawn lessons from the nature and virulence of the

[9] According to Mundell (2003), a common currency system does not necessarily entail scrapping of national currencies.

crisis and from ways in which IMF and US responded to it. The Asian crisis is believed to have begun in July 1997 when Thailand suffered massive capital outflows which then spread rapidly to other neighboring countries, notably Indonesia before deflected northward to Hong Kong and Korea. To an extent, the Asian crisis also impacted Latin American countries in 1998-99.

Following that, a landmark event for financial cooperation took place in 2000 at the first annual meeting of the finance ministers of the ASEAN+3 countries in Chiang Mai, Thailand, where participants agreed to exchange data on capital flows as a step of an early warning system whilst Japan proposed bilateral credit arrangements now known as the Chiang Mai Initiative (CMI). China, Japan, and Korea agreed in principle to negotiate bilateral swap agreements between themselves as well as with each ASEAN country in which a country seeking financial support can use its national currency to buy US dollars. The agreement between China and Japan allows them to purchase each other's currencies with their own currencies. These agreements involved amounts reaching $3 billion. But then again, they contain two provisions. First, the potential provider of dollars can opt out at its discretion and second, a country cannot draw more than 10 percent of the total amount potentially available unless it has reached or is close to reaching an IMF agreement.

Earlier in 1977, the ASEAN countries had actually created a network of short-term bilateral swap agreements by which each ASEAN country could obtain US dollars in exchange for its own national currency. However, as the amounts involved were small, the swaps were rarely activated and not used at all during the crisis.

There were also other efforts and some have already borne fruit. For instance, the Executives' Meeting of East Asia and Pacific Central Banks (EMEAP) has created two bond funds. The first created in 2003 was a $1 billion fund to be used for buying dollar-denominated bonds issued by Asian governments. The second created in 2004 aims at financing a set of bond funds to invest and trade in local-currency bonds, namely the Pan-Asian Bond Index Fund and eight types of single-country index funds.

Later in 2005 at the Istanbul meeting organized by ADB, the Asian leaders agreed on four objectives: (1) integrating economic surveillance into the CMI with the aim of developing effective regional surveillance capabilities complementary to those of the IMF, (2) clarifying the activation process and adopting a collective decision-making mechanism as a first step toward multilateralism, (3) increasing the size of the bilateral swap agreements, and (4) raising from 10 to 20 percent the amount that a country can draw without having an IMF program. In May 2007, further agreements were reached.

In 2008, ASEAN+3 leaders agreed to create an $80 billion fund to prepare against the global economic crisis (see Esguerra, 2008). The initial agreement called for Korea, Japan, and China to provide 80 percent of the fund or $64 billion and ASEAN members providing the remaining $16 billion. The fund would be fully created by the end of June 2009 and be accompanied by an independent regional financial market surveillance organization.

Besides collaboration on the financial side, there has also been significant progress on trade. Recently in 2009, Korea and ASEAN signed a free trade agreement on merchandise, service, and investment, completing a negotiation process which began in 2005 (United Press International, 2009). Today, ASEAN maintains free trade deals with China, Japan, India, Australia, and New Zealand. Earlier, ASEAN Free Trade Area (AFTA) agreement, a trade bloc agreement supporting local manufacturing in all ASEAN countries was signed in 1992.[10]

Unlike EU, AFTA does not apply a common external tariff on imported goods. Each ASEAN member may impose tariffs on goods entering from outside ASEAN based on its national schedules. However, for goods originating within ASEAN,

[10] For more information on AFTA, visit http://www.aseansec.org/4920.htm

ASEAN members are to apply a tariff rate of 0 to 5 percent (the more recent members of Cambodia, Laos, Myanmar, and Vietnam were given additional time to implement the reduced tariff rates). This arrangement is known as the Common Effective Preferential Tariff (CEPT) scheme.

2.2 Currency Boards of Hong Kong and Macau

By design, a currency board arrangement (CBA) has no discretionary monetary powers and cannot engage in fiduciary issue of money. Its operations are passive and automatic. The sole function of a currency board is to exchange the domestic currency it issues for an anchor currency at a fixed rate.[11]

The Hong Kong Experience

Hong Kong has adopted a linked exchange rate of one kind or another for most of its history as a trading and financial hub. Back in 1863, its government declared the silver dollar—then a kind of international currency to be the legal tender and in 1866 began issuing a HK version of the silver dollar. The silver standard became the basis of HK monetary system until 1935, when during a world silver crisis the HK dollar was taken off the silver standard and linked to the pound sterling at the rate of 16 HK dollars to 1 pound. Banks were required to surrender to the Exchange Fund (EF) all silver bullions held against their banknote issues in exchange for Certificates of Indebtedness (CI). The CIs were the legal backing for the notes issued by the note-issuing banks under what became in effect a CBA.

In 1972, the British decided to float the pound sterling. The HK dollar was then linked briefly to the US dollar, first at the rate of 5.65:1 and then from 1973 at 5.085:1. In 1974, against a weakening US dollar, the HK dollar was allowed to float freely but

[11] The following account of CBA experience of Hong Kong is extracted from Gerlach (2005), and Hong Kong Monetary Authority (HKMA) website while that of Macau is abstracted from Pao (2003) and Jorge, José, Luís, and Luís (2006).

the prevailing monetary policy framework was too rudimentary to replace the external monetary anchor. At the same time, the Sino-British dispute over the future of Hong Kong sparked a confidence crisis. As a result, the HK dollar lost about half of its value and depreciation was made worse by speculative attacks. Following those events, in September 1983, a hard peg to the US dollar at 7.8:1 was established and has remained the same since.

The peg is a currency-based peg in that the exchange of HK dollar for US dollar takes place only between banks and the EF. Because of processing costs, the banks charge a commission fee of 1 percent on each transaction initiated by non-bank customers. Therefore, the exchange rate for bank deposit money varies by 1 percent above and below the above pegged rate.

The peg has made the HK dollar widely acceptable in foreign trade. As a CBA, the regime is presumably based on automatic specie flow. Behind this of course are huge reserves and macroeconomic discipline of the government.

At the onset of the peg, the US dollar was very strong in the foreign exchange markets because of the high US interest rates and the anti-inflation measures taken by the Fed under Paul Volcker during the Reagan era. Due to the peg, HK dollar was undervalued. On several occasions speculators sold US dollars and bought HK dollars. Many times HK dollars were placed into bank deposits in Hong Kong earning close to zero interest. Soon after the peg, the inflation and interest rates in the US started to decline. To support the pegged rate, the HK authorities were forced to hold domestic interest rates close to US rates.

The combined forces of the undervalued HK dollar (at the rate it was initially fixed) and subsequent fall of the interest rates resulted in a booming inflationary economy in Hong Kong. The high inflation and low interest rates on deposits provided a strong incentive to the public to invest in real estate property. As inflation continued, real estate prices rose rapidly. The fixed exchange rate guaranteed that real estate could always sell for more US dollars if the property prices continued to soar, thus creating conditions of continuous inflation. Inflation in Hong Kong eventually converged to the US level, keeping the HK dollar at par with the US dollar.

Later in October 1997, the HK dollar came under strong speculative attack as a result of the contagion effect of the Asian crisis. Since Hong Kong had more than $80 billion in foreign reserves, which is equivalent to 700 percent of its M1 money supply and 45 percent of its M3 money supply, the peg sustained.[12]

The Hong Kong experience illustrates that inflationary pressures may set in if a country begins its peg at an undervalued rate until inflation rates in the country and the monetary anchor country are harmonized.

The Macau Experience

In Macau, its pataca has been the legal tender for almost a century. The pataca had originally been pegging to the Portuguese escudo at a rate of 1 pataca to 5 escudos until 1977, because of the sharp devaluation of the escudo after the Carnation Revolution in Portugal, Macau responded by uncoupling the pataca from the escudo and pegging it to the HK dollar instead. Earlier, until 1935 the pataca had actually been pegged to the HK dollar at par before. The Macau government failed to set the pataca at par with HK dollar twice after the establishment of the official link in 1977.

Despite that, since 1989 the pataca has been pegged at 1.03:1 to the HK dollar under a stricter system, CBA. The prevailing CBA requires the two note-issuing banks, the Bank of China (Macau branch) and the Banco Nacional Ultramarino to deliver HK dollars to the Monetary Authority of Macau (AMCM) in return for the non-interest

[12] In Hong Kong, several measures of money supply are compiled: M1 = currency held by public + demand deposits; M2 = M1 + savings and time deposits with licensed banks + negotiable certificate of deposits (NCDs) issued by licensed banks and held by the public; M3 = M2 + deposits with restricted licensed banks and deposit taking companies + NCDs issued by restricted licensed banks and deposit taking companies and held by the public.

bearing CIs as the backing for the banknote issue. The HK dollar receipts are then counted as part of the official foreign reserves held in the AMCM. Attributable to the CBAs in Macau and Hong Kong, the pataca is indirectly locked to the US dollar at an exchange rate of about 8.03:1. At the end of 2002, the AMCM held foreign reserves equal to almost 15 times of pataca notes and coins in circulation.

With high level of foreign reserves against imports, a virtual absence of sovereign external debt, and narrowing of the Macanese interest rate differential with the US rate, Macanese CBA is stable and has been characterized by a state of low exchange rate volatility since late 1992, with a brief exception of the Asian crisis period. Indeed, the prevailing exchange rate arrangement has served as a major incentive for authorities to follow sound monetary and fiscal policies and there is a consensus at the moment to maintain the existing CBA.

2.3 The Brunei-Singapore Monetary Union

This section briefly describes the experience of an existing two-country monetary union between Brunei and Singapore (MUBS).[13]

Singapore obtained political independence from Malaysia in 1965. The common currency board among Malaysia, Singapore, and Brunei which had been in place was dismantled in 1967 because Singapore wanted separate ownership and management of its currency reserves whilst Malaysia argued for the control of the reserves to be centralized under its newly formed central bank.

Following the currency split, Singapore, Malaysia, and Brunei issued separate currencies linked to the pound sterling as before the dismantled currency board. From 1967 to 1973, the countries had a currency interchangeability arrangement under which the currency of one country was circulated in the other two countries as ‘customary

[13] Key references are Ngiam and Yuen (2001) and Monetary Authority of Singapore website.

tender' and accepted at par with the country's own currency. In 1973, Malaysia opted out from this arrangement while Brunei maintained it with Singapore.

Currently, no officially declared currency union exists among East Asian countries except the one between Brunei and Singapore. It allows the Monetary Authority of Singapore (MAS) to conduct an active exchange rate policy on behalf of both countries by managing the Singapore dollar against an undisclosed basket of currencies.

The primary benefit of MUBS is the stability gained against all other currencies than would otherwise be, largely due to increased liquidity from pooled foreign reserves. The enlarged reserves also helped in warding off currency speculation in 1985 and in the Asian crisis.

MUBS has also facilitated Singapore in retaining its position as the dominant exporter to Brunei, accounting for 35.6 percent of Brunei's total imports in the fourth quarter of 2007.[14] However, since Brunei's oil and gas are traded in dollars, MUBS has not resulted in greater flows of these two commodities to Singapore.

Capital flows have also increased since MUBS. The amount of Bruneian dollar repatriated from Singapore to Brunei had risen steadily from a low of BND29.98 million in 1975 to a record high of BND1113.75 million in 2002.[15] These figures have not included the much larger capital flows undertaken through the banking system by way of book entries. Brunei also uses financial services of Singapore more than other regional financial centers like Hong Kong.

Brunei has also gained by linking itself to Singapore which has been highly credible in maintaining a conservative monetary policy and low inflation. In fact, the average inflation in Brunei had over the years converged to the Singapore level.

However, Bruneian real GDP growth was a modest 1.7 percent in 1967–1997 whereas Singaporean real GDP growth in the same period was a robust 8.3 percent.

[14] Data from DOTS-IMF database.
[15] Data from Brunei Currency Board website: http://www.finance.gov.bn/tt/EDITKKW/bcb/bcb_statistic-.htm, retrieved September 22, 2008.

Meantime, Malaysian growth rate was found to be parallel with the Singaporean rate. Hence, one should not expect GDP growth rates of monetary union members to converge as output growth might have little to do with exchange rate arrangement. Indeed, similar phenomenon can be observed in EMU.

With respect to the costs of monetary union, there has been evidence showing that Brunei and Singapore experience asymmetric demand and supply shocks (e.g. Ngiam & Yuen, 2001). Since Singapore pursues an independent monetary policy regardless, it has little to lose from the arrangement barring serious instability in Brunei. As for Brunei, the costs of losing independent monetary policy could have also been minimal as unemployment is not usually a concern to Brunei which has been very open to immigrant workers; unemployment can be easily eliminated through adjustments in the number of legitimate foreign workers.

2.4 Chapter Conclusion

The chapter has provided a concise background of monetary arrangements in East Asia, focusing on the experiences of some prevailing rigid peg systems which signify that certain forms of fixed exchange rates are feasible to be implemented in this part of the world. The succeeding chapter surveys theoretical and empirical works relevant to this study.