

## Chapter 5

### **Transition from Informal to Formal Foreign Exchange Transactions in Myanmar: Evidence from a Survey of Export Firms**

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#### **Abstract**

As a legacy of the restrictive foreign exchange and trade regulations, Myanmar has a prevalent informal foreign exchange market and informal international funds transfer system. A questionnaire survey of private export firms indicates that those taking loans from banks are more likely to use both the formal and informal channels, while others use only the informal channels. Good relationships with banks and preferential treatment would encourage firms to sell export earnings in the formal channel of the banks. For transition from informal to formal transactions, policy options for the government include providing firms with pecuniary incentives for such transition by increasing the costs of informal transactions through taxation.

#### **1. Introduction**

During the past two decades in Myanmar, a parallel foreign exchange market developed whereby private exporters and importers traded foreign exchange at competitive prices. Formally, the government employed a fixed exchange rate system, and the official exchange rate was pegged to the special drawing right (SDR) of the International Monetary Fund (IMF) at 8.50 Kyat per SDR, which has never been adjusted since 1974. Under this peculiar fixed exchange rate regime, the official rate was applied to the public sector only, and there was no formal channel for the private sector to convert currencies, nor any surrender requirement for export revenues. For the private sector, the parallel market was the only means for currency exchange.

In April 2012, Myanmar changed from the fixed exchange rate system to a managed floating exchange rate system. After abolishing the fixed rate, the Central Bank of Myanmar started to announce the daily reference exchange rates, based on the contract prices of the Central Bank's daily foreign exchange auctions with the authorised dealer banks. These banks were also authorised to sell and buy foreign exchange with retail customers at the prices according to the regulation. The reforms established a formal

channel for the private sector to exchange currencies.

Nonetheless, the informal foreign exchange market has remained pervasive for the past one and a half years. In addition, the Central Bank of Myanmar appears to be following the parallel market rates rather than managing them. Encouraging transition by firms to the formal channel for foreign exchange transactions is a major policy challenge.

In the search for clues about how to tackle this policy challenge, the present paper investigates the behaviour of Myanmar's export firms regarding their currency exchange methods. By means of a questionnaire survey of export firms, this paper aims to identify the determinants of firms' transition to the formal channel.

The empirical analysis sheds some light on the features of the informal foreign exchange market. It is the firms taking bank loans that use both the formal and informal channels, while the others use only the informal channels. It is conjectured that the former firms are in a more favourable position through their relationship with the banks in terms of price negotiation of foreign exchange. Given the fact that the informal channels for currency exchange are often more competitive than the formal system in terms of prices of foreign exchange for ordinary buyers and suppliers, it requires pecuniary incentives to encourage the transition from the informal to the formal channels.

The remainder of this paper is structured as follows. Section 2, outlines the structure of the foreign exchange market, and illustrates the changes, if any, due to the recent policy reforms. Section 3, presents an empirical analysis of the behaviour of export firms when choosing a channel for conversion of export revenues into the local currency. It also draws implications about the transition from informal to formal foreign exchange transactions. Section 4, discusses why it is necessary to curtail informal foreign exchange transactions. Section 5, summarises the analysis and concludes this paper.

## **2. Foreign Exchange Market and the International Fund Transfer System before and after the Reforms**

### **2.1. Before the reforms**

The informal foreign exchange market and the informal fund transfer system are a legacy of the restrictive regulations in the past. Foreign trade was legalised for the private sector in September 1989, but there was no official channel for private firms to convert export revenues into the local currency, the *Kyat*. At the same time, there was no

requirement to surrender the foreign exchange revenues of private exporters<sup>1</sup>; the official exchange rate, which grossly overvalued the Kyat, was only applied to the public sector (Hori and Wong 2013). For more than 20 years, the informal market was the only means for private firms to convert foreign currencies.

It is the regulations as well as the sources and uses of foreign exchange that shape the informal foreign exchange market,<sup>2</sup> and in the case of Myanmar there were three critical regulations regarding foreign exchange and trade. Firstly, the Myanmar Customs did not approve Customs clearance of export goods unless exporters presented to the Customs the evidence of advance payment from a foreign country. However, foreign buyers would not always agree to advance payments.

To circumvent this regulation, Myanmar's exporters often made a dummy payment with their own funds from a foreign country, mostly Singapore, to Myanmar prior to Customs clearance. Some firms established a subsidiary, or a shell company, and opened bank accounts in a third country, while others used the foreign bank accounts of their acquaintances. In both cases, a payment from a foreign buyer was remitted to a bank account in the third country with a deferred payment or letter of credit (L/Cs). The flow of goods and funds in a typical export business is illustrated in Figure 1. In this example, the Myanmar firm exports goods from Myanmar directly to India, whereas the Indian buyer remits payments to the designated bank account in Singapore.

Figure 1

Secondly, the foreign exchange regulation did not permit Myanmar's citizens to hold foreign currency notes, and private exporters were required to receive payments at two State banks, namely the Myanma Investment and Commercial Bank (MICB) and Myanma Foreign Trade Bank (MFTB)<sup>3</sup>, and maintain them as foreign currency deposits (FCDs). Whether a private exporter received payments in Myanmar directly from their foreign buyers, or indirectly via a third country, he had to use a FCD account at the MICB/MFTB. At these State banks, remittances from foreign countries were recorded as export earnings, and 10 percent was deducted as an export tax.<sup>4</sup>

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<sup>1</sup> There had been surrender requirements on export earnings at the official exchange rate, but it was abolished in 1990.

<sup>2</sup> Kiguel and O'Connell (1995) offer a survey of parallel foreign exchange markets in developing countries, and Grosse (1994) provides a detailed account of the parallel market in Jamaica.

<sup>3</sup> For exceptional cases including border trade, exporters were permitted to maintain FCDs at another state bank, Myanma Economic Bank (MEB). MICB had a head office in Yangon, and a branch in Mandalay. MFTB had a head office in Yangon, and had no branch. Thus, the bulk of export revenues were administratively concentrated at three offices of the state banks.

<sup>4</sup> The export tax consisted of an 8 percent commercial tax and a two percent income tax.

Thirdly, imports by the private sector were subject to licensing for each shipment, and import licences were issued on condition that the licence applicants possessed enough tax-deducted export earnings to cover the import bills. This regulation is often called the “Export first and import second” policy. The former government introduced this regulation in July 1997 to cope with the deteriorating balance of payments situation. As a result, formal imports by private importers had to raise FCDs with suitable proof of the export tax payment.

Importantly, the government of Myanmar tolerated domestic account transfers of FCDs,<sup>5</sup> so that private exporters and importers were able to trade FCDs at a competitive price that in effect created a parallel market exchange rate. In this case, an exporter instructed the MICB/MFTB to make an account transfer of a FCD to an importer’s account, and in exchange the importer made payment in Kyat to that exporter. Informal brokers mediated between the buyers and sellers and quoted a price for the FCDs.

These three regulations produced three distinct channels for private exporters to convert export revenues into Kyat. These are illustrated as the first three channels in Figure 2. In this figure, the vertical axis refers to various channels for settlement and currency exchange, and the horizontal axis refers to the transaction nodes, including the bank accounts in a third country. In the first channel, the foreign buyers remitted directly to the MICB/MFTB prior to Customs clearance of export goods in Myanmar. For currency exchange, exporters used account transfers of FCDs at the MICB/MFTB to the importer’s account, and the importers paid Kyat in compensation for the FCDs. Although the export revenues remitted from foreign countries to the MICB/MFTB were taxed at a rate of 10 percent, there was a demand for the export tax-deducted FCDs from importers who needed them to obtain import licences, and thus were willing to pay a premium accordingly.

Figure 2

By the second channel, exporters received payments from foreign buyers at the bank accounts in a third country, such as Singapore, while they made remittances with their own funds from the third country to the MICB/MFTB prior to Customs clearance. Apart from the reason of the foreign buyer’s payment conditions, exporters supposedly used

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<sup>5</sup> Before 2006, domestic account transfers of FCDs were not possible. Thus, the “Export first and import second” policy had constrained trade more seriously. Exporters usually imported goods on behalf of importers, and there were frequent disputes between them regarding payment of taxes and penalties. Finally, the government legalised domestic account transfers of FCDs in 2006.

this channel for under-invoicing exports to partially evade the export tax, too. Exporters received full payment in the third country, whereas they declared only a partial amount to the Myanmar Customs, remitted the partial amount to the MICB/MFTB, and maintained the balance in the third country. As regards currency exchange of FCDs at the MICB/MFTB, the exporters sold them to the importers via domestic account transfers.

By the third channel, exporters converted their export revenues into Kyat without remittances to Myanmar. Myanmar's importers also had bank accounts in a third country, and Myanmar's exporters transferred their deposits in that third country to the Myanmar importers' accounts while the Myanmar importers settled the accounts in Kyat within Myanmar. There were brokers who would match the demand and supply of the foreign exchange balance in the third country. This was a *de facto* offshore foreign exchange market among Myanmar's exporters and importers.<sup>6</sup>

From another point of view, the abovementioned third channel was an informal international fund transfer system. By this channel, Myanmar's exporters could send export earnings to the home country and withdraw in Kyat, while Myanmar's importers could send funds and withdraw foreign exchange in a third country. This is a part of the informal funds transfer system called *hundi* in Myanmar.<sup>7</sup>

From the viewpoint of Myanmar's importers, there were two channels for settlement with foreign suppliers. One was with the FCD account balance at the MICB/MFTB, and this was for formal imports with import licences. Importers usually opened letters of credit (L/Cs) at the MICB/MFTB. The other was with the deposits at banks in a third country for informal imports including smuggling and under-invoicing. For under-invoicing, importers combined two channels; the import amount declared to the Myanmar Customs were paid from the FCDs at the MICB/MFTB, and the balance between the full bill and the under-invoiced bill would be paid from the account in a third country. It can be argued that the account balance in a third country, usually Singapore, facilitated smuggling and under-invoicing.

Furthermore, the U.S. financial sanctions against Myanmar gave a boost to the use of Singaporean bank accounts by Myanmar's firms. In July 2008, the U.S. enacted the Tom Lantos Block Burmese JADE (Junta's Anti-Democratic Efforts) Act that prohibited U.S. financial institutions from providing financial services to the junta and its related parties in Myanmar. Since U.S. dollar-denominated transactions between any banks in the world would involve clearances by U.S. financial institutions, the sanctions made it

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<sup>6</sup> Myanmar's firms refer to this market as the "Away market".

<sup>7</sup> For a summary of informal funds transfer systems, see El Qorchi et al. (2003).

difficult for U.S. dollar-denominated remittances to Myanmar from any country. The bank accounts in Singapore served as a loophole in the U.S. financial sanctions; as long as both the foreign exchange buyers and suppliers had accounts in the same bank in Singapore, they could trade U.S. dollars with account transfers within that bank, which did not technically infringe the U.S. sanctions.

## **2.2. After the reforms**

Since the new government took office in March 2011, there have been several important policy reforms that could affect the structure of the foreign exchange market. As will be shown, however, there has been little change.

Firstly, the Central Bank abolished the fixed exchange rate and moved to a managed floating system in April 2012; the Central Bank initiated foreign exchange auctions with authorised dealer banks, and began announcing the Central Bank reference rate based on the auction's contract prices. Prior to this, the Central Bank had granted foreign exchange dealer licences to 11 private banks in November 2011. These authorised dealer banks are permitted to deal in foreign exchange with customers at prices within the band of  $\pm 0.8$  percent of the Central Bank's reference rate. Accordingly, a formal channel for private firms to convert currencies was established, and this is illustrated as the fifth channel in Figure 2.

Secondly, the "Export first and import second" policy was abolished in April 2012. Importers are no longer required to submit export earnings for import licences. It is possible for importers to raise foreign exchange at the authorised dealer banks for imports. In addition, the export tax was reduced to 2 percent in April 2012.<sup>8</sup> However, controls still remain for exports that require evidence of advance payment from the foreign buyer to be presented before Customs clearance by the Myanmar Customs.

Thirdly, as stated above, private banks were granted foreign exchange dealer licences, which consequently dissolved the monopoly of international banking services by the MICB/MFTB. These two State banks did not sell and buy foreign exchange with retail customers before the reforms. In contrast, the newly authorised dealer banks sell and buy foreign exchange with their customers. Furthermore, most of them are not on the U.S. sanctions list, so that direct remittances in U.S. dollars from foreign countries to Myanmar have been possible without infringing the sanctions.<sup>9</sup> However, the FCDs at the private banks can also be priced and traded informally between exporters and

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<sup>8</sup> The export tax was composed of an 8 percent commercial tax and a 2 percent income tax, payable in foreign currencies. The commercial tax component of the export tax was cut to 5 percent in July 2011, and was abandoned in April 2012

<sup>9</sup> MICB and MFTB are still on the list of the U.S. financial sanctions as of December 2013.

importers, and this is shown as the fourth channel in Figure 2.

Despite these reforms, the bulk of foreign exchange transactions still take place through the existing informal channels. There are several large brokers who quote the price of FCDs at the MICB/MFTB and of those in a third country and match suppliers and buyers. As prices of foreign exchange are freely negotiated, the parallel market rates do not always fall within the band of  $\pm 0.8$  percent of the Central Bank's reference rate. Rather, the Central Bank seems to set the auction contract prices so that they do not diverge from the parallel rates.<sup>10</sup>

One reason for the persistence of the informal channels is their price competitiveness. Table 1 summarises the various prices quoted for the U.S. dollar. In this table, the export earnings rates are the prices of the FCDs deposited at the MICB/MFTB. The export earnings rates and U.S. dollar notes rates are quotes by the informal dealers. The authorised dealer bank rates are the prices in the official channel, which the banks set within the prescribed band from the Central Bank's reference rate; and the rates may differ slightly among the banks. As is evident, the spread between the selling and buying rates is smaller in the informal channels. When the brokers intermediate between the buyers and sellers, their commission is usually one Kyat per one dollar or nearly 0.1 percent. Furthermore, if a transaction's amount is large, the brokers set the commission rate at 0.5 Kyat per U.S. dollar, or even lower.<sup>11</sup> In contrast, the authorised dealer banks usually set the spread at nearly 1 percent. Therefore, it is usually more attractive for both the foreign exchange buyers and suppliers to use the informal channel rather than the formal channel.

Table 1

Why is the informal market so competitive in terms of the spread between the buying and selling rates? Firstly, the brokers do not have to hold stocks of Kyat and U.S. dollars, whereas the banks do. In principle, the brokers themselves do not buy or sell U.S. dollars, but they mediate between the buyers and sellers, so that they do not need to hold liquidity. Secondly, when exporters sell foreign exchange directly to acquainted importers, they can even save the broker's fee. In any case, the transaction costs in the informal market are usually lower than those imposed by the banks.

However, there are occasions when the authorised dealer banks offered private

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<sup>10</sup> With a bi-variate vector auto-regression (VAR) model of first-differenced parallel and central bank reference exchange rates, Kubo (2013) showed that the parallel rate Granger-caused the central bank reference rate whereas the central bank reference rate did not Granger-cause the parallel rate. These results imply that the Central Bank has followed the parallel rate.

<sup>11</sup> Based on interviews with Myanmar's exporters held in Yangon in August 2013.

exporters more favourable buying rates than the parallel market rates. The Central Bank sometimes deliberately set the Central Bank's reference rate higher than the parallel rates in an effort to guide them. This is foreign exchange market intervention. Regardless of its success or failure, such Central Bank intervention sometimes led the banks to set the U.S. dollar buying rate higher than the parallel rate. Figure 3 compares the bank buying rate with the corresponding parallel rate for the period from July 2<sup>nd</sup> 2012 to September 30<sup>th</sup> 2013. This figure shows that an authorised dealer bank offered a more favourable buying rate than the parallel market rate in September 2012. In addition, some banks appear to offer preferential buying rates for foreign exchange to their good customers. Thus, a price conscious private exporter would occasionally prefer the formal channel for currency exchange.

Figure 3

### **3. Empirical Analysis of Exporters' Choices for Foreign Exchange Transactions**

#### **3.1 Data**

A survey was conducted to investigate the behaviour of private exporters when selecting channels for currency exchange and trade settlement. The population of the sample is private exporters listed in the Myanmar Customs data publication for 2012, which compiles export amounts by firms and by products. It must be reminded this database does not cover exports completely, and it does not include any trade via the land borders. In fact, Myanmar's total exports inclusive of the border trade in 2012 were USD 8,888 million,<sup>12</sup> whereas the total exports in this database were USD 5,789 million. The total exports by the private sector in 2012 in this database amounted to USD 2,626 million.

The total number of exporters captured in the Custom's database is only 1,460, of which 32 are the State's enterprises and ministries. We set the threshold for annual exports at USD 100,000. Exporters below this threshold were considered to handle exports as a side business. There were 875 private firms above the threshold. For these firms, their decomposition by major export items and by size is summarized in Table 2. As shown in this table, Myanmar's exports by private firms are highly concentrated in a small number of primary goods such as beans, fishery products, and rice.

Table 2

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<sup>12</sup> From the *Selected Monthly Economic Indicators*, Central Statistical Organization of the Government of Myanmar.



From the population of private exporters with 2012 annual exports above USD 100,000, data was collected from 108 firms by questionnaire surveys in the period from August 2013 through November 2013. The sampling is not at random, but with the consent of the interviewee firms and their availability. We filtered out companies with foreign ownership as their behaviour is not typical, which reduced the sample size by nine.<sup>13</sup> The summary of the survey data is presented in Table 3. In this table, private exporters are categorized into those with annual exports above USD 2 million, and the remainder between USD 2 million and USD 100,000.

Table 3

The survey data confirms the prevalence of informal foreign exchange transactions. More than 60 percent of the exporters surveyed have bank accounts in foreign countries, mostly Singapore, and 77 percent have sold export earnings in the parallel market in the three months prior to the survey interview. Those who have not sold export earnings mostly had import businesses as well and used their export earnings for their own imports. In contrast, the use of the formal channel for currency exchange was quite limited; only 17 percent of the exporters surveyed have opened FCD accounts at Myanmar's private banks; opening such FCD accounts is the prerequisite to sell export earnings in the formal channel. Finally, only three out of the 99 surveyed firms have sold export earnings to Myanmar's private banks.

The differences in the attributes between large and small exporters are not so clear. Compared with smaller exporters, larger ones are more likely to have partners in terms of ownership, and are likely to have bank loans, and less likely to sell export earnings through brokers. However, there is no clear difference in terms of opening FCD accounts at Myanmar's private banks.

### **3.2 Probit analysis on the use of the formal channel**

The determinants on the use of the formal channel for foreign exchange transactions are examined with the Probit model analysis. Ideally, the dependent variable should be the binary variable on the experience of selling export earnings to Myanmar's private banks, which represents the sole formal channel for currency exchange. However, there are only three such cases in the sample, which impedes us using it as the dependent variable in a regression. Instead, the binary variable of whether an exporter has opened a FCD

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<sup>13</sup> These are eight garment factories and one wig factory.

account with Myanmar's private banks is employed as the dependent variable, since it is the precondition for an exporter to sell export earnings in the formal channel.

As for the specification of the regression model, the following variables are included as explanatory variables: logarithm of annual exports, age of firms, a dummy variable for firms taking loans from Myanmar's private banks, a dummy variable for conducting import business, and a dummy variable for firms opening a bank account in a foreign country. Firstly, it is expected that larger exporters are more likely to have opened FCD accounts as they have more human resources to research favourable conditions for their currency exchange. Secondly, those firms that have bank loans would be in a good relationship with the banks and thus are expected to have FCD accounts at these banks. Thirdly, those exporters who combine import business are expected to be less likely to sell export earnings to the banks.

Fourthly, the relationship between having a bank account in a foreign country and a FCD account with Myanmar's private banks is of particular interest. This is relevant to the question whether a firm's choice of receiving export earnings in a foreign country is interlinked with its decision to sell the export earnings in a foreign country. If the coefficient on the dummy variable for possession of a foreign bank account is negative, it implies that a firm's choice on the location of payment receipt and its choice for currency conversion are interlinked. If it is positive, it implies that the two decisions are not interlinked.

Table 4 summarises the results of the estimations. The Probit model is estimated for the full sample and the sub-sample of the firms that have sold export earnings in the past three months. The two estimations yield similar results, and the signs of the coefficients are mostly as expected. The dummy variable for bank loans has a positive sign and it is significant at a 10 percent significance level for the estimation with the sub-sample. As for the dummy variable for possession of a foreign bank account, its coefficient was positive and significant at a 10 percent significance level for the estimation with the full sample. This implies that a firm's decision on the location of payment receipt and on the channel of currency exchange is not interlinked.

Table 4

### **3.3 Discussion**

The empirical analysis indicates that loans from Myanmar's private banks are positively correlated with exporters' opening of FCD accounts at these banks, implying that the good relationship with the banks encourages exporters' transition from the informal to

the formal channel for currency exchange. In fact, the three firms that have sold export earnings to Myanmar's private banks also have loans from these banks.

This, as a whole, implies that exporters use the formal channel for currency exchange according to the cost incentives. If private banks in the formal channel could offer higher buying rates for foreign exchange than those in the informal market, exporters would move to the formal channel. Nonetheless, it is not feasible for private banks to establish a good relationship with all exporters and offer them preferential rates; in fact, Table 3 shows that even for larger exporters, only 40 percent of the firms surveyed have taken loans from Myanmar's private banks.

Given that Myanmar's private banks do not always offer preferential buying rates for all exporters, a policy option for Myanmar's government to encourage transition to the formal channel for currency exchange is to raise the transaction costs of the informal channels by imposing taxes on domestic account transfers of FCDs. As shown in Figure 2, the informal channels for currency exchange involve domestic account transfers of FCDs, so that imposing a tax on them would raise the transaction costs of the informal channels and thus would give impetus to the transition. However, there is a concern that it would also encourage diversion of transactions to the *de facto* off-shore market (Channel 3 in Figure 2). Introduction of a tax on domestic account transfers of FCDs must be accompanied with tighter controls by the Myanmar Customs on smuggling and under-invoicing of exports.

#### **4. Impact of the Informal Foreign Exchange Transactions**

What are the implications of the prevalent informal foreign exchange market on Myanmar's economy? Three issues are considered in order, namely, (i) Cost of currency exchange for export and import firms, (ii) Smuggling and misreporting of trade, and (iii) International reserves and savings mobilization.

##### **4.1 Cost of currency exchange**

In terms of the cost of currency exchange for both the exporters and importers, the informal channels offer more favourable prices than the formal channels; the spread between the selling and buying rates at the authorised dealer banks is usually wider than that the informal brokers.

Once the government imposes a tax on domestic account transfer of FCDs to contain informal transactions, there arises a concern that oligopolistic banks could raise the

spread between the selling and buying rates unnecessarily wide. The regulatory authorities need to monitor the spread level quoted by the banks.

#### **4.2 Smuggling and mis-invoicing of trade**

As discussed in Section 3, smuggling and under-invoicing of imports are the main sources of demand for foreign exchange in the informal market.<sup>14</sup> It is convenient for Myanmar's importers to settle the account for smuggling through informal transactions.

How prevalent are smuggling and mis-invoicing in Myanmar in the first place? With a rather strong assumption that the trade statistics of Myanmar's trading partners are accurate, the magnitude of smuggling and mis-invoicing is estimated by the mirror trade statistics (Myanmar's import (export) data and corresponding export (import) data of the trading partners). In Table 5, the trade data from the Government of Myanmar is compared with the data from the *Direction of Trade Statistics* (DOTS) of the IMF. The DOTS data is considered to be based mostly on the records provided by Myanmar's trading partners.

Table 5

As for Myanmar's exports, Table 5 implies over-invoicing, whereas this is a less likely case considering the export tax in Myanmar. Rather, the import records provided by the trading partners might not be accurate. For example, China is the second largest importer of Myanmar's goods, and China's reported imports from Myanmar always were below Myanmar's reported exports to China.

On the other hand, as for Myanmar's imports, the table indicates a considerable amount of under-invoicing or smuggling. The imports recorded by the Myanmar Customs were just about half of the records provided by Myanmar's trading partners. The data of trade partners' exports to Myanmar should be more reliable than Myanmar's import data since trade partners do not impose taxes on exports to Myanmar. It could be the case that these informal imports are settled using the accounts in a third country such as Singapore. The misreporting of trade makes it difficult for the monetary authorities to fully understand the balance of payments.

#### **4.3 International reserves and savings mobilisation**

The informal foreign exchange market hampers accumulation of foreign exchange reserves by the Central Bank. A part of the export revenues by Myanmar firms is always

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<sup>14</sup> Kubo (2012) discussed in detail the misreporting of trade in Myanmar.

kept at banks in third countries such as Singapore. In addition, even though export revenues are remitted to Myanmar, they are mostly held as FCDs at the State banks. Unless FCDs are converted into Kyat by the banks, they remain as foreign currency liabilities in the banking system, and do not add to the foreign exchange reserves.

Given the dependence on natural resources such as natural gas in its exports, Myanmar needs foreign exchange reserves as liquidity buffers against shocks in the terms of trade. Figure 4 shows the foreign exchange reserves in U.S. dollars and the months of imports. Gross official reserves consist of the Central Bank reserves and reserves at the State banks.<sup>15</sup> While there is no consensus in the literature regarding an adequate level of foreign exchange reserves (IMF 2011), a conventional yardstick for reserve adequacy is three months worth of imports, and Myanmar's reserves fulfil it. However, imports have doubled in four years from USD 7,067 million in 2009 to USD 14,428 in 2012, owing to the relaxation of import controls.<sup>16</sup> Accordingly, the Central Bank needs to accumulate reserves intensively to keep pace with the soaring imports. By hampering the accumulation of foreign exchange reserves, the informal market leaves the Myanmar economy more vulnerable to external shocks.

Figure 4

Analogous to the argument about international reserves, the informal foreign exchange market hampers savings mobilisation for two reasons. One is the financial assets (deposits) of Myanmar's firms kept in third countries. The other is that Myanmar's firms maintain FCDs for transactions in the informal market instead of converting them into local currency deposits. Since foreign currency loans are not yet practiced in Myanmar, banks match the FCDs with foreign currency liquid assets to avoid a currency mismatch in their balance sheets.<sup>17</sup> This has been particularly the case for the MICB/MFTB when they monopolized the international banking operations. The large amount of FCDs in the State banks did not contribute to financial intermediation at all.

Considering the scarce financial assets in Myanmar's banking sector, the magnitude of the loss due to the informal foreign exchange market could be substantial. Figure 5 summarises the scale of the financial sector. A point at issue is how to estimate the amount of FCDs held by Myanmar's banks, not to mention the deposits by Myanmar's

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<sup>15</sup> Transfers of reserves from the State banks to the Central Bank have been underway in the reform process. It is not certain whether the reserves at these banks exclude the FCDs of private firms.

<sup>16</sup> According to the *Direction of Trade Statistics* of IMF.

<sup>17</sup> The foreign exchange regulation to control banks' open position to exchange rate risk is underway.

firms in Singapore. In the official statistics of Myanmar, FCDs are not counted in the broad money. The *International Financial Statistics* of the IMF does not explicitly present the amount of FCDs. Here, the amount of FCDs is estimated on the assumption that the foreign assets of the banking sector are identical with the amount of FCDs in Myanmar's banks; since Myanmar's banks do not take loans from foreign entities, the source of the foreign assets is mostly limited to the FCDs.<sup>18</sup>

### Figure 5

As shown in Figure 5, the broad money (the sum of currency in circulation and Kyat deposits) as a percentage of GDP has been growing, but is still below 40 percent. FCDs overwhelmed the local currency deposits in the period from 2007 through 2009. FCDs reached 72 percent (2007) of the broad money. In addition to the FCDs held by Myanmar's banks, there are financial assets of Myanmar's firms in foreign countries like Singapore, which could potentially rank with the FCDs in Myanmar. The loss in financial intermediation due to the informal foreign exchange market is thus substantial.

There are at least two options to mobilise the foreign currency denominated assets of the informal foreign exchange market. The first and best option is to encourage Myanmar's firms to convert their assets (both the FCDs held by Myanmar's banks and deposits in foreign countries) into local currency denominated assets (Kyat deposits at Myanmar's banks). However, this is easier said than done.

The other option is more controversial, which is to allow Myanmar's banks to lend in foreign currency. This would enable the banks to increase lending using the existing FCDs without incurring the currency mismatch in their balance sheets. Furthermore, foreign currency loans would give room for Myanmar's banks to remunerate FCDs with a higher interest rate, which would in turn stimulate repatriation of the deposits in foreign countries held by Myanmar's firms.

However, such foreign currency loans would continue the use of foreign currency denominated assets in the economy, so-called "Dollarization". It is well known that dollarization imposes adverse effects on the stability of the financial system (Balino et al. 1999).

In terms of dollarization, domestic account transfers of FCDs facilitate the use of FCDs as settlement for domestic commercial transactions. For example, when Firm X purchases goods from Firm Y, Firm X can settle the account with FCDs by a domestic account transfer. This is also a state of dollarization. Thus, domestic account transfers of

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<sup>18</sup> Another source of foreign assets in the banking sector includes foreign direct investments.

FCDs not only facilitate the informal foreign exchange market, but also introduce dollarization. Taxation of domestic account transfers is a remedy for both the formalisation of foreign exchange transactions and the de-dollarization in Myanmar.

## **5. Conclusion**

Despite the recent reforms in the foreign exchange market, informal foreign exchange transactions are still pervasive in Myanmar. Along with a descriptive account about the structure of the foreign exchange market before and after the reforms, this paper presents an empirical analysis on the determinants for transition by Myanmar's private exporters from the informal to the formal channels for currency exchange. The empirical analysis indicates that firms taking loans from Myanmar's private banks move first to the formal channel of currency exchange with banks. It is inferred that cost incentives, such as the banks' offer of preferential buying rates for foreign exchange, would encourage exporters to switch to the formal channel. Rather than forcing banks to offer preferential buying rates for foreign exchange, a policy option for the government of Myanmar could include increasing the transaction costs of informal currency exchange by taxing domestic account transfers of foreign currency deposits.

Although the informal channels for currency exchange are relatively efficient in terms of the transaction costs for individual users, it incurs substantial costs for Myanmar's economy as a whole. The informal foreign exchange market signifies decentralised holdings of foreign exchange. The lower accumulation of foreign exchange reserves would leave the economy more vulnerable to external shocks. In addition, decentralised holdings of foreign exchange are also associated with inactive savings mobilisation. Containing the informal foreign exchange transactions is an important agenda in Myanmar's economic reform.

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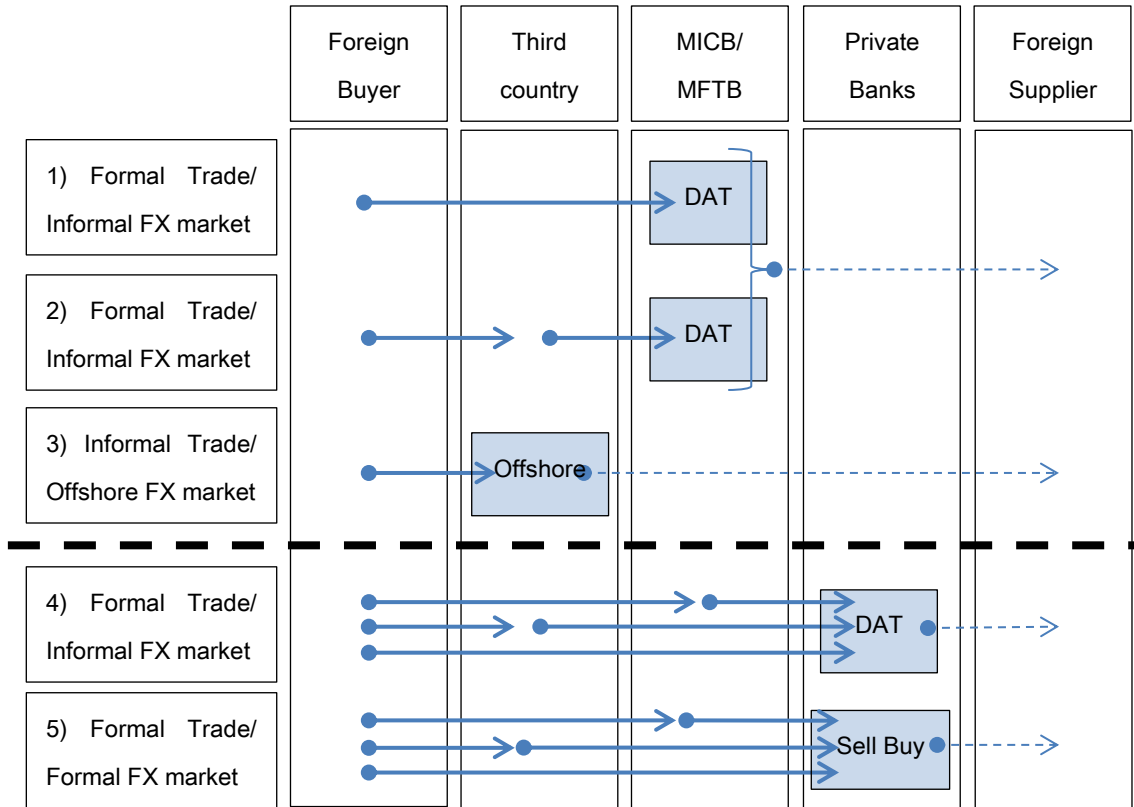


Figure 1  
Trade settlement via a third country



Source: Author

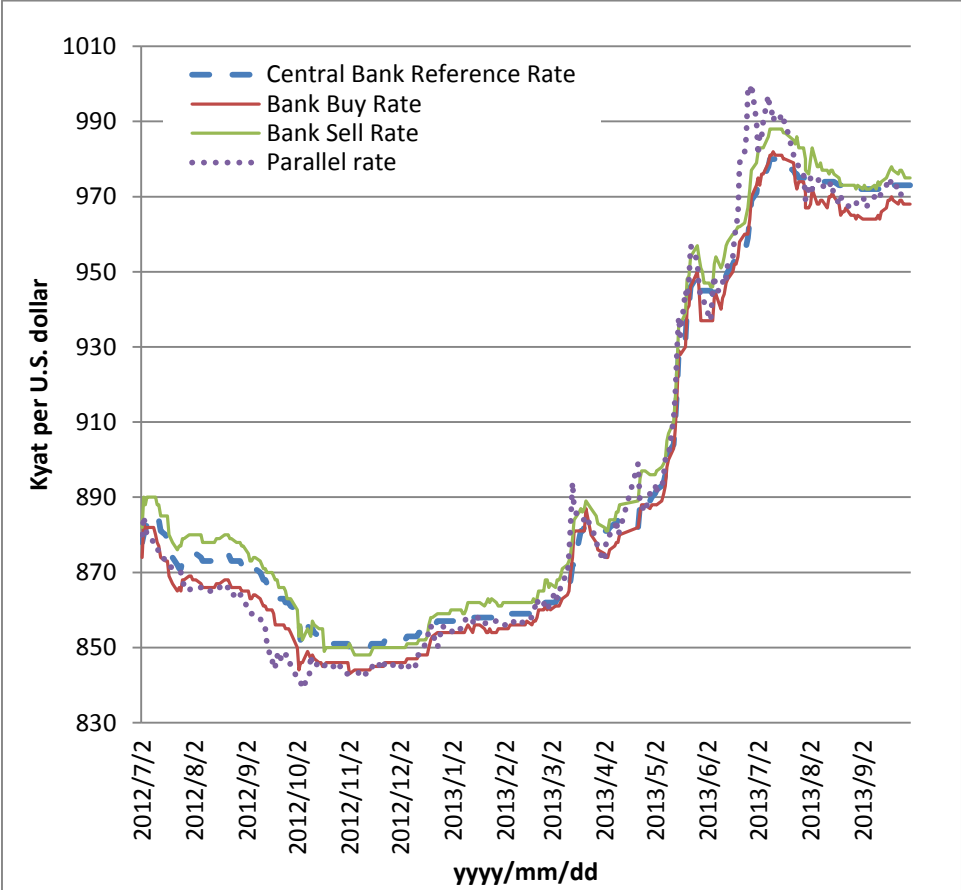
Figure 2  
Channels for trade settlement and currency conversion



Source: Author

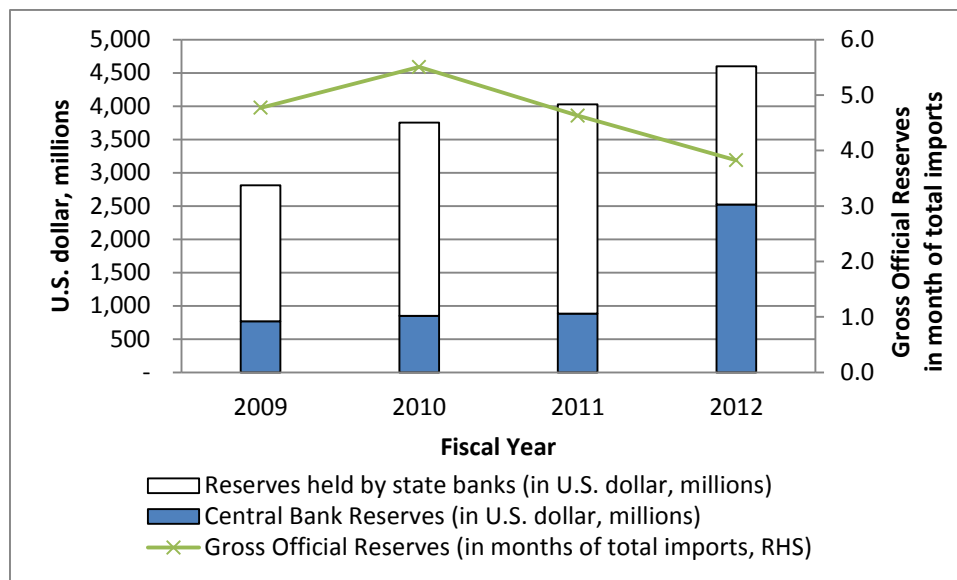
Note: DAT stands for informal trading of foreign exchange between exporters and importers through domestic account transfer. The arrows with bold line refer to transactions of Myanmar exporters, and those with broken line refer to ones of Myanmar importers.

Figure 3  
 Comparison of the bank buying rate with the parallel market rate,  
 July 2<sup>nd</sup> 2012 to September 30<sup>th</sup> 2013



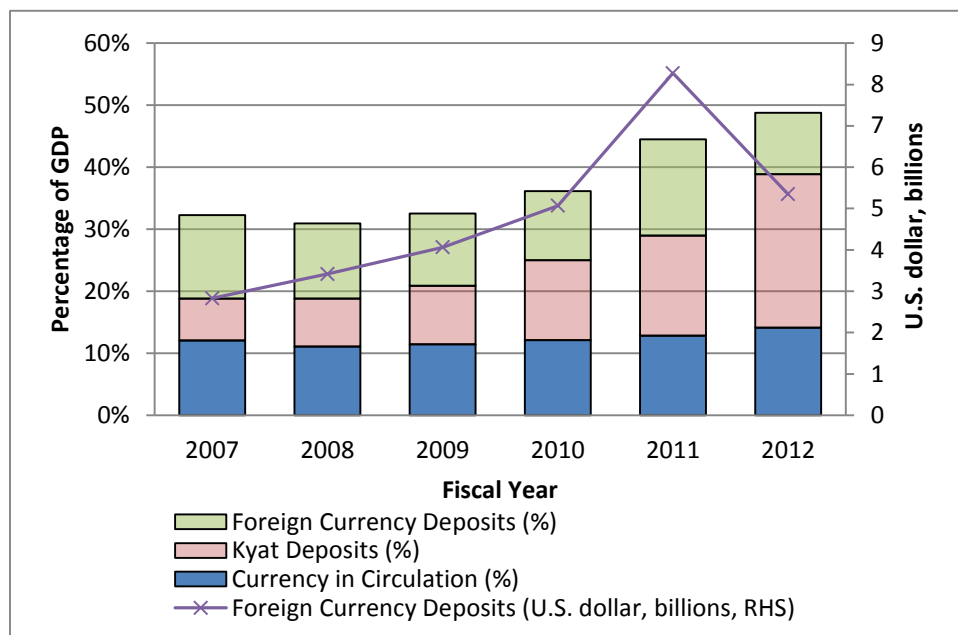
Sources: Survey on parallel exchange rates

Figure 4  
Foreign exchange reserves in Myanmar, 2009-2012



Sources: IMF (2013); IMF, *International Financial Statistics* CD-ROM.

Figure 5  
 Indicators of the financial sector development, Myanmar, 2007-2012



Sources: *International Financial Statistics* CD-ROM, IMF; IMF (2013).

Table 1  
Quoted prices for the U.S. dollar on August 28, 2013

	Dealer buying rate	Dealer selling rate
	<i>Unit: kyat per U.S. dollar</i>	
Export Earnings Rates	967	968
U.S. dollar Notes Rates	967	968
Authorised Dealer Bank Rates	965	974
Central Bank Reference Rate	973	

Source: Informal market dealers in Yangon, Myanmar

Table 2  
Structure of private exporters in 2012

Major Export Items	Total Exports (USD ,000)	Average Export per firm (USD ,000)	Number of Firms		
			Subtotal	Exports above USD 2mil.	Exports below USD 2mil., above 100,000
1 Beans	869,180	3,292	264	101	163
2 Garment and Footware	633,874	5,372	118	76	42
3 Fishery	492,770	2,392	206	58	148
4 Rice	226,247	3,901	58	24	34
5 Rubber	160,302	4,580	35	16	19
6 Mining Products	101,108	4,596	22	3	19
7 Sesame and Other Agri. Products	94,683	1,435	66	13	53
8 Timber and Wood	35,869	732	49	3	46
9 Others	53,391	937	57	5	52
<b>Total</b>	<b>2,667,425</b>		<b>875</b>	<b>299</b>	<b>576</b>

Source: Myanmar Exporters 2012, Myanmar Survey Research, Co., Ltd.

Table 3  
Summary of the survey data

Category	All firms	Above USD 2 mil. Exports	Below USD 2 mil. Exports
Number of firms	99	35	64
Industries:			
Garment	7	4	3
Beans	42	20	22
Fishery products	20	5	15
Rice	6	3	3
Others	24	3	21
Age --% of firms			
Below 10 years	46%	46%	47%
Above 10 years	54%	54%	53%
Ownership --% of firms			
100% family-owned	75%	69%	78%
Have Myanmar partners	25%	31%	22%
Have Kyat bank account--% of firms	89%	89%	89%
Have USD account at Myanmar private banks--% of firms	17%	20%	16%
Take bank loans from Myanmar private banks--% of firms	36%	43%	33%
Have bank account in a foreign country--% of firms	67%	69%	66%
Doing import business--% of firms	49%	51%	48%
Have sold export earnings--% of firms	77%	77%	77%
(Multiple choice)			
To familiar clients	59%	57%	59%
To brokers	45%	40%	48%
To private banks	3%	9%	0%

Source: Survey of export firms 2013



Table 4  
 Probit analysis on the determinants for  
 opening a bank account at Myanmar's private banks

Dependent variable	Have FCD account in private bank (Yes, 1; No, 0)			Have FCD account in private bank (Yes, 1; No, 0)		
Sample	All firms			Firms with sales of export earning in past three months		
	Coefficient	Std. Error	P-value	Coefficient	Std. Error	P-value
Log of annual exports	0.1043	0.1097	0.342	0.0873	0.1263	0.489
Age of firm	-0.0097	0.0254	0.702	-0.0019	0.0305	0.950
Dummy (taking loans from Myanmar bank)	0.4743	0.3206	0.139	0.7168	0.3982	0.072
Dummy (bank account in foreign countries)	0.7659	0.4282	0.074	0.8577	0.5593	0.125
Dummy (doing import business)	-0.1369	0.3344	0.682			
Constant	-1.6179	0.5372	0.003	-2.1513	0.7214	0.003
McFadden R-squared	0.0911			0.1288		
Number of observations	99			76		

Source: Survey of export firms 2013

Table 5  
Mirror statistics of Myanmar's trade, 2008-2012

Fiscal Year	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Imports			(A) - (C)	Exports			(E) - (F)
	DOTS	CSO	<i>of which private</i>		DOTS	CSO	<i>of which private</i>	
	<i>US dollar, million</i>							
2008	6,766	4,543	2,590	2,223	6,090	6,779	2,469	-689
2009	7,976	4,181	2,911	3,794	6,143	7,587	3,091	-1,444
2010	10,703	6,413	4,624	4,290	6,897	8,861	3,499	-1,964
2011	14,661	9,035	6,609	5,626	8,062	9,136	4,072	-1,074
2012	17,610	9,069	7,551	8,541	9,116	8,977	4,411	139

Notes: DOTS refers to IMF's *Direction of Trade Statistics*, and CSO refers to *Selected Monthly Economic Indicators*, Central Statistical Organization, Myanmar. CSO statistics report the disaggregated trade volume by the government and private sectors.

Sources: *Direction of Trade Statistics* CD-ROM, IMF; *Selected Monthly Economic Indicators*, Central Statistical Organization (CSO), Myanmar.