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Transition from black to official markets for foreign exchange in Myanmar

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Abstract

We address the puzzle why the black market for foreign exchange thrives in Myanmar despite the successful unification of multiple exchange rates. A closer look at the black market reveals that its enduring competitiveness stems from its lower transaction costs. A question arising from this observation is how the official market, namely banks, can compete with and replace the black market. Our empirical analysis based on an original questionnaire survey of private export firms regarding their choices of currency trading modes suggests that banks can attract exporters by exploiting the economies of scope between currency trading and lending.

Keywords: Myanmar, exchange rate unification, black market for foreign exchange, economies of scope in banking

JEL classification: O24, O53, E26

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Transition from Black to Official Markets for Foreign Exchange in Myanmar

1. Introduction

Black (or informal or parallel) markets for foreign exchange are a widespread phenomenon in developing countries. The literature points out two spectra of policies that give rise to the black markets. One is exchange rate regimes whereby authorities target the exchange rate to a specific level or band, leading to excess demand for foreign exchange and rationing in the official market (Kiguel and O'Connell 1995). The other is restrictions on foreign trade transactions and capital controls, bringing in demand for illegal imports and investments and pertinent illegal trading of foreign exchange (Agenor and Haque 1996). These policies bring about the distortions characterised by the black market premium, i.e., the percentage by which the black market exchange rate exceeds the official exchange rate.

For policy reforms to eliminate these distortions associated with foreign exchange black markets, unification of exchange rates is often set as an intermediate target. Kiguel and O'Connell (1995) document that reforms in exchange rate regimes eliminated the black market premium in several developing countries. However, existing studies rarely refer to the consequences of the black markets after such reforms.

Unification of exchange rates does not always coincide with dissolution of the black market for foreign exchange, which is particularly the case for Myanmar. In April 2012, bold reforms were implemented to the exchange rate regime and the restrictions on international trade in Myanmar; authorities abolished the peg of the Myanmar kyat, the legal tender of the country, to the Special Drawing Right (SDR) of the International Monetary Fund (IMF), and introduced a managed float as well as liberalised trade transactions. While the reforms largely eliminated the black market premium, the selling and buying of foreign exchange outside the banking system has persisted.

The black market for foreign exchange hampers accumulation of international reserves, even if it does not impose distortions on the economy as long as exchange rates are unified. Participants in the black market maintain foreign exchange in their possession. Such decentralised holdings of foreign exchange prevent from accumulation of a country's official reserves. As for Myanmar, considering the country's dependence on natural resource exports and vulnerability to external shocks, the IMF (2013, 8) assesses that the appropriate coverage of international reserves is five to six months of imports, whereas the actual coverage is three to four months of imports. In general,

international reserves play a role in buffering external shocks. Furthermore, international reserves serve as collateral when the country seeks official sources of external financing. From the viewpoint of international reserves, transferring foreign currency trading from outside the banking sector to the official market is a challenge for Myanmar.

A closer look at the black market in Myanmar reveals that its lower transaction costs in terms of narrow bid-ask spreads attract both sellers and buyers. During two and a half decades of the peculiar fixed exchange rate regime, the banking sector had not traded foreign exchange with private firms. As a result, a large pool of buyers and sellers emerged in the black market that have traded foreign currency mutually outside the banking system, which has made it easy to find counterparties for foreign currency trading as well as reduced the transaction costs.

A research question arising from these observations is how the banks can compete with and replace the black market. As the reform has paved the way for Myanmar's private banks to engage in foreign exchange trading, several exporters started to sell their export earnings to the banks. To see how exporters choose modes for currency conversion, we conducted a questionnaire survey of exporters. In particular, we empirically investigate how the relationship between exporters and banks affects the exporters' choices of currency trading modes.

The preliminary empirical results based on the questionnaire survey suggest that the firms taking domestic currency loans from banks are more ready to engage in foreign exchange trading with banks, implying the possibility of economies of scope in the banking business between currency trading and lending operations. The economies of scope could yield a means for the banks to compete with the black market.

The remainder of this paper is organised as follows. In Section 2, we review the related literature and present three dimensions of the black market for foreign exchange. We discuss that the elimination of the premium between the official and black market exchange rates does not necessarily coincide with the elimination of the black market. In Section 3, we overview the structure of Myanmar's foreign exchange market before and after the April 2012 reforms, and illustrate that the enduring competitiveness of the black market stems from its lower transaction cost. In Section 4, we present preliminary empirical results of the survey of private exporters regarding their choices of currency trading modes and discuss that banks can attract exporters by exploiting economies of scope between currency trading and lending. In Section 5, we summarise the analysis and conclude this paper.

2. Review of the Related Literature

The existing literature illustrates that the black (or informal or parallel) market for foreign exchange emerges as a result of two spectra of policies. One is exchange rate arrangements, whereby authorities target the exchange rate to a specific level or band (Kiguel and O'Connell 1995). When the official exchange rate overvalues the domestic currency vis-à-vis foreign currencies, excess demand would arise for foreign exchange in the official market. Authorities then need to restrict access to the official market, which in turn leads to the emergence of the black market wherein foreign exchange is traded at a premium. To maintain the supply of foreign exchange in the official market, authorities need to tighten the surrender requirements on export earnings; otherwise, exporters would channel their export earnings to the black market for higher returns until the exchange rates in two markets equilibrate. As the premium on the black market exchange rate rises, the tighter are the controls that authorities need to implement.[1]

The other policy area involves restrictions on foreign trade transactions and capital controls (Agenor and Haque 1996). There are several components in this category of policies. One is the controls on imports by quotas, and another is high tariffs and taxes on imports. Yet another is capital controls that restrict domestic residents' holdings of foreign assets. To circumvent these restrictions, domestic residents turn to the black market, whereby they raise foreign exchange to settle payments for illegal purchases of restricted foreign goods and foreign assets.

These two strands of policies are sometimes implemented simultaneously in some developing countries and transition economies, which necessitate comprehensive reforms to unify exchange rates. China in the 1980s and the early 1990s serves as a good example. China initiated foreign exchange policy reforms in 1981 to transform the administrative allocation of foreign exchange to a dual-exchange-rate system with a partial market mechanism, and in January 1994, the official exchange rates were unified and a managed float was introduced (Mehran et al. 1996; Huang and Wang 2004). Regardless of this unification of official rates, foreign exchange trading in the black market was widespread both throughout and after the reform periods. Ding (1998) documents that the black market fulfilled demand for capital flight, especially to Hong Kong, as well as demand for smuggling imports, and that informal brokers matched the demand and supply of foreign exchange. Phylaktis and Girardin (2001) show that the black market premium did not fall below 10 percent until China deregulated regulations

[1] A typical case is Jamaica, as studied by Grosse (1994).

on foreign trade and capital controls towards accession to the World Trade Organization.

Whatever is the root cause of the black market for foreign exchange, illegal trade is the primary source and use of foreign exchange in the black market. Exporters seeking to obtain a higher return from their sales of foreign exchange use illegal trade such as under-invoicing and smuggling to channel their export earnings to the black market.[2] [3] Furthermore, when importers' access to the official foreign exchange market is restricted, they resort to illegal imports using foreign exchange raised in the black market.

According to the empirical study by Buehn and Eichler (2011), while the illegal trade and the pertinent foreign currency transactions in the black market are typically motivated by the black market premium, we need to look at the deterrents to black market transactions such as the risk of detection and costs of punishment. Their empirical study suggests that high financial penalties effectively act as a deterrent to illegal trade, thus, are the pertinent black market transactions of foreign exchange.

Apart from policies concerning exchange rate and those concerning the uses and sources of foreign exchange, an additional dimension of black markets is shaped by the regulation as to permission for foreign exchange trading. It is illegal for buyers and sellers to engage in foreign exchange trading with those not having an authorised dealer licence. Banks are the most common authorised dealers, who operate under regulations allowing them to sell and buy foreign currency only for (from) legitimate use (source). Foreign exchange trading with unauthorised parties can be motivated by the black market premium and illegal sources and uses of foreign exchange. Conversely, market participants might prefer the black market for other reasons, in particular a lower transaction cost and a narrower bid-ask spread compared with the official market. For example, when authorities issue foreign exchange dealer licences to a small number of banks, they many seek oligopolistic rents in currency trading by setting a wide bid-ask spread, which in turn give rise to currency trading outside banks.

Table 1 summarises three dimensions of the black market for foreign exchange. The black market transactions motivated by the black market premium (1st dimension) and

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[2] Trade mis-invoicing is a common vehicle for illegal trade (Patnaik, Gupta, and Shah 2012). Exporters can under-report to the Customs the value of exports, and the deviation between the true value and reported value can be retained and sold in the black market for foreign exchange. Importers can seek to partially circumvent the high tariff and tax on imports by under-reporting to the Customs the value of imports. For the reported amount, they can settle the payment with foreign exchange from the official market; for the unreported amount, they have to raise foreign exchange in the black market.

[3] Apart from the mis-invoicing of the exports of legal goods, illegal exports include smuggling of illegal goods such as narcotics. Narcotics smuggling was the main source of the foreign exchange in Colombia's black market for foreign exchange (Grosse 1992).

illegal sources and uses of foreign exchange (2nd dimension) should always combine the third dimension of unauthorised trading counterpart. This is because authorised dealers do not sell and buy foreign exchange for (from) illegal use (source) nor at prices outside the regulated band.

[Table 1 near here]

In contract, the black market comprising unauthorised trading counterpart may not combine the other two dimensions when foreign exchange for (from) legitimate use (source) is traded at prices within the ask-bid spreads of the official market. Such black market transactions are usually cash-based, for small amounts, including overseas travel expenditures of residents. Nonetheless, depending on foreign exchange regulations, such transactions can take place between exporters and importers for large amount transactions, which appear to be the case in Myanmar.

The literature of the microstructure of foreign exchange market[4] sheds some light on bid-ask spreads. The literature usually focuses on changes in spreads over time, not on the differences in the spreads between markets.[5] It is well proven that the spreads of a certain foreign exchange market expand along with the volatility of the exchange rate. Glassman (1987) accounts how the bid-ask spreads reflect the costs of the immediacy (liquidity) service of foreign exchange dealers, which consist of the overhead, the inventory costs of foreign exchange, and the risk premium of the open position associated with the inventory.

In light of this literature, the narrow spreads of the black market can be associated with its market structure. If matched by informal brokers who do not need to maintain own inventory of liquidities, buyers and sellers of foreign exchange can economise on the dealer charges in terms of the bid-ask spreads. In sharp contrast with foreign exchange dealer banks in other countries that obtain considerable profits from currency trading with retail customers (exporters and importers),[6] banks in the countries with a black market face adverse conditions for currency trading.

[4] See Sarno and Taylor (2001) for a survey of this literature.

[5] Few studies have examined the differences in spreads across countries. Melvin and Tan (1996) show that the currency market of higher country risk has a larger spread. However, their study only focuses at spreads in the official exchange rates and does not include black markets.

[6] Ammer and Brunner (1994) show that the major banks in the United States obtained 20 percent of their profits from foreign currency trading with retail customers, whereas their taking open positions in foreign currency was not a significant source of profits.

3. Myanmar's Black Market for Foreign Exchange and the April 2012 Reforms

In Myanmar, as the black market for foreign exchange is a legacy of the past exchange rate regime and restrictions on international trade transactions, we first review how these policies shaped the black market prior to the reforms in April 2012. We then summarise the reforms and illustrate the current status of the black and official markets for foreign exchange.

3.1 Before the April 2012 Reforms

In September 1988, Myanmar started to transition from a variant of a centrally planned economy to a market-based economy. However, the transition was incomplete as central control of foreign exchange allocation in the state sector was maintained just as in the previous centrally planned regime; in principle, export proceeds of state economic enterprises (SEEs) were surrendered to the state budget and were rationed under strict import controls within the ministerial departments and SEEs.[7] The official exchange rate had been pegged to the SDR at 8.51 kyat per SDR, which was applied for fiscal accounting of such administrative allocation of foreign exchange (IMF 2012).

In the private sector, foreign trade was legalised in 1988 as part of the transition to a market-based economy. Initially, private exporters were required to surrender 40 percent of their export revenues at the official exchange rate, which overvalued the kyat, and they were entitled to retain only 60 percent of export revenues. As early as 1989, the surrender requirement was abolished, and authorities introduced an explicit tax on exports.[8]

Despite the legalisation of international trade, no official facility existed for private exporters and importers to convert foreign currencies to the domestic currency, the kyat, or vice-versa. The state banks, namely the Myanma Foreign Trade Bank (MFTB) and Myanma Investment and Commercial Bank (MICB),[9] offered international banking services including current international payments and transfers. However, they did not engage in foreign exchange trading with private firms. The MFTB specialised in international settlement operations and had no operations in the domestic currency.

[7] For details of the problem in budgetary operations, see Kubo (2013).

[8] The export tax consisted of an 8 percent commercial tax and a 2 percent income tax. See Myat Thein (2004) for details of Myanmar's foreign exchange management in the earlier period.

[9] The MFTB had a head office in Yangon but had no branches. The MICB had a head office in Yangon, and a branch in Mandalay. Thus, the bulk of export proceeds of the private sector were administratively concentrated at the state banks' three offices. For exceptional cases including the international trade via land borders, international banking services were provided by another state bank, the Myanma Economic Bank (MEB), which had branches in the border areas.

While the MICB had operations in the domestic currency as well as foreign currencies, it lacked the managerial capacity to set foreign exchange buying and selling rates in the face of the rigid overvalued official exchange rate.

As a result, private firms had no choice but to turn to the black market for currency conversion. Initially, a common mode of trading export revenues was for private exporters to import goods on behalf of importers, and then receive payments from the importers from their domestic currency revenues. Frequent disputes arose between the buyers and sellers in this trading method regarding payments of import taxes and penalties arising from misconduct in customs clearance of imports. To provide a remedy for the problem, authorities tolerated domestic account transfers of export-earning foreign currency deposits (FCD) around 2006. Consequently, exporters sold official export earnings to importers by account transfers of foreign currency deposits. From the regulatory viewpoint, such foreign exchange trading was illegal, though tolerated.

While the official exchange rate grossly overvalued the kyat against foreign currencies, its impact on the private firms was modest. The kyat's official peg to the SDR had not been adjusted since 1974, while the kyat had depreciated chronically in the black market due to Myanmar's high inflation. In September 2007, the kyat depreciated to 1,300 kyat per US dollar in the black market, whereas the official rate was 5.6303 kyat per US dollar. However, no surrender requirement on the private sector's export proceeds had existed since 1989[10] or foreign exchange allocation to private importers at the official exchange rate, so that the official exchange rate was largely irrelevant to the private sector.

Apart from the official peg of the kyat, two notable administrative controls were imposed on foreign exchange and international trade in the private sector. First, domestic residents were prohibited from holding foreign currency cash, and private exporters were required to receive payments at one of the two state banks, the MFTB and MICB, and maintain them as FCD. At these banks, 10 percent of export proceeds were deducted as an export tax. While firms were permitted to maintain export revenues after tax as FCD and use them for imports or conduct domestic account transfers later, they were prohibited from withdrawing FCD in either foreign currency notes or domestic currency notes.

Second, private sector imports had been subject to licensing for each shipment. In July 1997, authorities tightened the issuance of import licences by mandating the licence applicants to submit export-earning FCD in the full amount of their import bills.

[10] Some exceptional cases exist where private firms were forced to sell foreign exchange to the state at the exchange rate designated by the authorities.

This requirement to use only export-earning FCD for imports was referred to as the “export-first and import-second” policy.

These administrative controls on the private sector led to the emergence of two segments in the black market for foreign exchange. One segment was for export-earning FCD which could be used for imports through the official channel, and the other segment was for other sources of foreign exchange that could not be used for official imports but only for illegal imports. As for the segment of black market for export-earning FCD, as mentioned earlier, authorities tolerated domestic account transfers of FCD, which facilitated transactions in the black market. When exporters sold FCD to importers, the former instructed the state banks to make an account transfer of the FCD to the latter’s accounts, and in exchange the latter made payment in the kyat to the former. Furthermore, export-earning FCD traded in the black market could be used for imports though the official channel, so that FCD trading in the black market was not necessarily motivated by illegal trade.

In general, when authorities restrict sources and uses of foreign exchange, it leads to segmentation of the foreign exchange market and multiple exchange rates (Canales-Kriljenko 2004). This is particularly the case in Myanmar. Figure 1 shows the black market price trends in the kyat of two types of dollar-denominated assets, namely export-earning FCD and US dollar notes. The figure illustrates that the export-earning FCD was usually priced with a premium over the US dollar notes. Nevertheless, some periods existed in which the FCD was priced lower than the US dollar notes. The price disparity was due to the lack of arbitrage between FCD and US dollar note markets. Thus, in addition to the segmentation between the official and black markets for foreign exchange, the black market was further segmented by the restrictions in Myanmar.

[Figure 1 near here]

In terms of actual practices of transactions in the black market for foreign exchange, two modes of trading existed regardless of the segments for export-earning FCD and for others. One mode was that informal brokers mediated between buyers and sellers and quoted prices for foreign exchange. Usually, a broker would not buy or sell foreign exchange on his/her own account, but introduce a buyer to a seller and vice versa and warrant the contract between two parties, taking a small commission from both. Major brokers quoted buying and selling rates and disseminated their price information widely.[11]

[11] Such quoted prices are disseminated by short message services of mobile phones to subscribers,

The other mode was that a buyer and seller would directly negotiate the price of foreign exchange between themselves, referring to brokers' quoted prices. In some cases, exporters and importers initiated foreign exchange trading via mediation by brokers and then entered into direct trading once they built mutual trust. With direct trading, buyers and sellers could save the brokers commission, but at the price of bearing the risk of contract delinquency themselves.

In summary, due to the peculiar exchange rate regime that focused on foreign exchange administration in the state sector at the rigid official exchange rate, the black market had been the only means for currency conversion in the private sector. Furthermore, the restrictions on foreign exchange and trade brought about further segmentation within the foreign exchange black market. On the other hand, authorities tolerated trading of export-earning FCD in the black market and permitted imports through the official channel using FCD raised in the black market.

3.2 After the April 2012 Reforms

Since the new government took office in March 2011, reforms have been made to the exchange rate regime and the restrictions on international trade. In the state sector, however, while the administrative exchange rate for fiscal accounting was devalued from the one pegged to the SDR to the level close to the black market rate, central administrative allocation of foreign exchange budget has remained. As the state sector does not yet participate in the black or official foreign exchange market, the following analysis focuses on the private sector.

As for the exchange rate regime, in April 2012, the Central Bank abolished the official peg of the kyat to the SDR and introduced a managed float. Now the Central Bank conducts daily foreign exchange auctions and announces the daily reference rate, which is determined in the auctions. The Central Bank reference rate constitutes the new official rate. The auction is two-way, and the Central Bank calls for bids and offers of foreign exchange from authorised dealer banks.

In November 2011, the Central Bank granted foreign exchange dealer licences to 11 local private banks with an aim to incorporate black market transactions into the official market.[12] In July 2012, foreign exchange dealer licences were activated, which allowed the authorised dealer banks to undertake international banking operations such as current international payments and transfers, accept FCD, and deal in foreign exchange with customers at prices within a range of $\pm$ 0.8 percent of the Central Bank's

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and local newspapers publish these quotes.

[12] In August 2012, the Central Bank granted licences to three more local private banks.

reference rate. This paved the way for banks to engage in foreign currency trading.

We can summarise the architecture of the official foreign exchange market comprising retail and wholesale transactions. For the retail market, exporters and importers can trade foreign exchange with authorised dealer banks. The foreign exchange auction is the wholesale market that allows authorised dealer banks to adjust their foreign exchange inventories. The auction also offers a means for the Central Bank to intervene in the market to smooth fluctuations in exchange rates.

As for reforms concerning restrictions on international trade, authorities lifted the “export-first and import-second” policy by the end of April 2012. Importers were no longer required to submit export-earnings FCD to obtain an import licence. The banks began to accept orders from importers for current international payments using foreign exchange of any sources.

The reforms to the exchange rate regime and international trade restrictions affected exchange rates trends drastically. First, Figure 1 in the previous subsection clearly shows that the black market rate for export-earning FCD converged to the black market rate for US dollar notes in May 2012. Second, in Figure 2 below which illustrates the trends of the Central Bank reference rate and the black market rate for US dollar notes, we can see that the Central Bank reference rate has mostly merged with the black market rate. Thus, we can conclude that the reforms have mostly unified the official and black market exchange rates and dissolved the segmentation of the black market.

[Figure 2 near here]

However, transactions in the official foreign exchange market, both retail and wholesale, have remained sluggish. Table 2 provides some metrics of official market activity in comparison with the size of international trade by the private sector in 2014. Customer dealings of authorised dealer banks include both banks’ selling and buying of foreign exchange with exporters and importers. Thus, if all exporters sell their export revenues to the banks and all importers buy foreign exchange from the banks, the ratio of customer dealing turnover to private exports should be two. Due to data unavailability, we had to compare the trade data and the official market turnover data in different periods. The ratio of the monthly average customer dealings of banks to private exports was low at 0.25, implying widespread transactions outside the official market.

[Table 2 near here]

Why is the black market for foreign exchange so widespread? One reason could be the price competitiveness. Table 3 compares the black market rates for US dollar with the official market rates. In this table, the export earnings rates are the black market rate for export-earning FCD. The export earnings rates and US dollar notes rates are quotes by an informal dealer in the black market. The authorised dealer bank rates are the official market prices, which a bank sets within the prescribed range from the Central Bank's reference rate; the rates may differ slightly between banks. The spreads between selling and buying rates are smaller in the black market. When informal brokers intermediate between the buyers and sellers, their commission is usually one kyat per dollar, or nearly 0.1 percent. Furthermore, if the transaction amount is large, they set the commission rate at 0.5 kyat per dollar, or even lower.[13] In contrast, the authorised dealer banks usually set the spreads at nearly 1 percent. Therefore, it is more attractive for both the foreign exchange buyers and suppliers to transact through the black market.

[Table 3 near here]

The sustained absence of an official channel for foreign exchange trading led to the emergence of competitive informal brokers and a large pool of firms trading foreign exchange outside the banking sector. These have been conducive to efficient matching of foreign exchange supply and demand in the black market.

To contain black market trading of FCD, one policy option is to regulate domestic account transfers of FCD between the accounts of exporters and importers. At present, authorities tolerate these domestic account transfers and regulate the banks to charge $2 for transfers between accounts within a bank, and $3 for transfers between accounts at different banks. Such low charges for domestic account transfers facilitate trading of FCD between exporters and importers. Regulating banks to raise the charges for domestic account transfer would to some extent encourage exporters to sell FCD to the banks where the exporters maintain deposits. However, as a potential side effect of such a regulatory change, an increase in transaction costs of trading FCD would push official exports into illegal exports. When changing the regulation on domestic account transfers of FCD, authorities need to supervise banks not to excessively exploit buyers and sellers in their foreign exchange retail transactions.

In summary, the foreign exchange and trade regulations reforms succeeded in eliminating the disparities among various exchange rates, thus moving towards

[13] Based on interviews with Myanmar's exporters held in Yangon in August 2013.

exchange rate unification. However, the reforms are rather a necessary condition, but not the sufficient condition to transfer all foreign exchange trading from the black to official markets. Given the small pecuniary transaction cost, trading foreign exchange outside the banking sector remains prevalent.

4. Empirical Analysis of Exporters' Choices of Foreign Exchange Trading Modes

4.1 Data

We conducted a survey of Myanmar private exporters to investigate how they choose modes for conversion of their export proceeds into the domestic currency. We held the survey in Yangon, the commercial capital of the country, in the period from August 2013 through November 2013. By the time we started the survey, it was only for one year that authorised dealer banks had been able to operate foreign currency dealing with customers. Furthermore, the state banks (MFTB and MICB) had hardly undertaken foreign currency dealings with private firms.

The sample of the survey comprised private exporters listed in the *2012 Export Statistics of Myanmar* by Myanmar Survey Research (MSR 2013), which compiled export amounts by firms and products from the raw data of the Myanmar Customs for the 2012 calendar year. It must be recognised this database does not cover Myanmar's exports completely; in particular it does not include any trade via land borders.[14] Total exports in this database were $5,789 million, whereas the country's total exports inclusive of land border trade were $8,888 million according to other official statistics.[15] Furthermore, while SEEs are small in number, they include the largest exporters of natural resources. The sum of exports for the top three SEEs, namely Myanma Oil and Gas Enterprise, Myanma Timber Enterprise, and Myanma Gems Enterprise, amounted to $3,038 million in this database. Total exports by the private sector in this database amounted to $2,698 million.

The total number of exporters captured in the database is 1,460, of which 1,428 are private firms. We set a threshold for annual exports at $100,000 and exclude exporters below this threshold from the sample since they are considered to handle exports as a minor business.[16] A total of 875 private firms were above the threshold, which account for 98.9 percent of the total private exports in the database. Table 4 presents these firms'

[14] Trade by land has been principally administrated by the Department of Border Trade under the Ministry of Commerce.

[15] From the *Selected Monthly Economic Indicators*.

[16] For example, they include shipments of imported machines for repair in foreign countries.

decomposition by major export items and by size. 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 4 near here]

Out of the population of private exporters with annual exports above $100,000 in 2012, we collected answers to the structured questionnaire from 99 firms. We first divided the population by annual export amount lager than $2 million or less and selected the sample firms from each stratified group proportionately.[17] Although our sample does not necessarily represent the population and the sample size is small, it covers 11.3 percent of the entire population of private exporters above the threshold.

We present a summary of the survey data in Table 5. In this table, we sort firms into larger firms with annual exports above $2 million and the remainder, who have exports between $2 million and $100,000. The survey questionnaire covered the general attributes of firms, relationship with banks, import business, and disposal of export revenues.

[Table 5 near here]

The survey results clearly confirm the prevalence of the black market for foreign exchange. A full 77 percent of surveyed firms sold export earnings in the black market during the three months prior to the survey interview. Those who did not sell export earnings include firms that had import businesses and used export proceeds for their own imports. Conversely, only three firms had sold export earnings to the banks, all of whom were large firms.

The black market contained two transaction modes; one is to sell export earnings directly to familiar clients and the other is to sell them through intermediation by informal brokers. A large number of firms, regardless of their export size, used both modes. No distinct difference emerged between users of these two modes.

Regarding firms' relationships with banks, only 17 percent of firms surveyed have opened FCD accounts at Myanmar's private banks. At the time of the survey, having an FCD account at a private bank was a prerequisite for exporters to be able to sell their

[17] We filtered out companies with foreign ownership from the sample as they were small in number and concentrated in the garment and footwear industry. Thus, the sample firms were those under local ownership, either family or partners.

export proceeds in the official market since the state banks did not purchase foreign currency. During the survey, some firms reported that the private banks were soliciting them to open FCD accounts. No clear difference emerged between larger firms and the others in terms of having opened FCD accounts at Myanmar's private banks.

Eleven percent of firms surveyed did not have a bank account in the domestic currency. This is plausible considering Myanmar's cash-based economy. These firms kept cash vaults in their offices rather than depositing cash in banks. Conversely, all the surveyed firms had an FCD account with a state bank, either MFTB or MICB, or both, as such accounts were required for the official export procedure before the entry of private banks into international banking services.

Regarding loans from Myanmar's private banks, 36 percent of firms had taken out loans at the time of the survey. In general, private credit is extremely scarce in Myanmar[18]; credit advanced to the private sector as a percentage of Gross Domestic Product (GDP) in 2012 was 10.2 percent, which was the lowest in Southeast Asia (IMF 2014). The gap in the proportion of firms taking loans was relatively high between large firms and small and medium firms. This implies that banks were more likely to approach and grant loans to larger exporters compared to small and medium exporters. Furthermore, all three firms that sold export earnings had bank loans.

4.2 Probit Analysis on the Use of the Official Market

We examine the determinants on choices of modes for currency trading using a Probit model analysis. Ideally, the dependent variable should be a binary variable of experience with selling export earnings to Myanmar's private banks or not. However, there are only three such cases in the sample, which impedes using this as the dependent variable in a regression. Instead, we employ the binary variable of whether an exporter had a FCD account with Myanmar's private banks as the dependent variable, since such an account was a prerequisite for an exporter to sell export proceeds to the banks.

We include the following variables as explanatory variables in the specification of the regression model: logarithm of annual exports, age of firms, a dummy variable for firms taking domestic currency loans from Myanmar's private banks, a dummy variable for conducting import business and an industry dummy variable for exporters of fishery products.

The dummy variable for firms taking loans in domestic currency from Myanmar's private banks is of particular interest. We consider banks' economies of scope between lending and currency trading, which differs from how economies of scope are captured

[18] See Turnell (2014) for the background of underdeveloped financial intermediation in Myanmar.

in the literature on banks (e.g., Clark 1988). We treat economies of scope as follows: from the banks' viewpoint, exporters who sell a large amount of export proceeds can be considered creditworthy. By lending to these exporters, banks can save some of the screening and monitoring costs of lending. Given these savings in screening and monitoring costs, banks can then offer a higher buying rate of foreign exchange to exporters in order to compete with the narrow spreads of the black market. A positive sign on the coefficient of this dummy variable is interpreted as the presence of economies of scope between lending and foreign exchange trading.

As for other control variables, first, it is expected that larger exporters are more likely to have opened FCD accounts as they have more human resources for financial management. Second, those exporters who also import are expected to be less likely to sell export earnings to the banks as they use them on their own.

Table 6 summarises the estimation result. The dummy variable for bank loans has a positive sign, which is significant at a 10 percent significance level. Exporters' taking domestic currency loans from Myanmar's private banks are positively correlated with their having opened FCD accounts at these banks. Other control variables are not statistically significant. The log of annual exports has the expected positive sign. As for the dummy variable for conducting import business, its insignificance might be related to the fact that the dependent variable in the regression is the dummy variable for having opened FCD account at private banks rather than the dummy variable for selling FCD to private banks.[19]

[Table 6 near here]

To check the robustness of the above-mentioned result, we estimate the same equation using the sub-sample of the firms that have sold export earnings to any parties through either official or black markets in the past three months. The dummy variable for bank loans retains its positive sign, which is significant at a 10 percent significance level.

We can interpret these results as preliminary evidence supporting the hypothesis that the exporters' relationship with banks is linked with their use of banks for conversion of export revenues into the domestic currency. The empirical results are in line with the

[19] We performed another Probit regression where the dependent variable is the dummy variable for sales in any modes and the independent variable is the dummy variable for conducting import business. The dummy variable for conducting import business has a significant negative sign, indicating that those firms having an import business were less likely to sell export earnings to any party.

strategy of private banks to offer to buy export proceeds at a preferential rate in exchange for their taking loans from the bank. In fact, the three firms that sold export earnings to the private banks also had loans from these banks. Based on the empirical results, we can infer that economies of scope in the banking business would facilitate the growth in foreign exchange trading in the official market.

5. Conclusion

Despite recent reforms to both the exchange rate regime and restrictions on international trade, the black market for foreign exchange is still prevalent among private exporters and importers in Myanmar. The abolition of the official peg of the Myanmar kyat to the SDR and the introduction of a managed float, along with the lifting of tight controls on imports referred to as the “export-first and import-second” policy, have mostly eliminated the segmentation of the black market and largely unified the official and black market exchange rates. Nonetheless, most of private exporters and importers still avoid the official bank-based foreign exchange market.

A closer look at the black market reveals that pecuniary transaction costs are lower in the black market than in the official market. The absence of an official facility of foreign exchange trading for the private sector over the past two and a half decades had led to the emergence of a large pool of private firms trading foreign exchange mutually as well as efficient informal brokers, which has kept the transaction costs in the black market lower than those of the banks in the official market.

Although the black market for foreign exchange is efficient in terms of narrow bid-ask spreads for individual users, it imposes substantial costs on Myanmar’s economy as a whole. The black market signifies decentralised holdings of foreign exchange, hampering accumulation of international reserves that could serve as a buffer against external shocks as well as collateral when the country seeks official sources of external financing.

Our empirical analysis of private exporters’ choices of foreign exchange trading modes implies that firms taking domestic currency loans from Myanmar’s private banks are more ready to trade export earnings with banks. It is inferred that banks can compete with the black market’s narrow bid-ask spreads by exploiting economies of scope between lending and foreign exchange trading. A policy implication from the empirical analysis is that enhancing financial intermediation would also facilitate the transition from black to official markets for foreign exchange. This is a more efficient solution

than tightening regulations on black market transactions and domestic account transfers of FCD, which could have side effects of pushing official exports into illegal trade.

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Table 1.
Three dimensions of black market for foreign exchange

	Dimension	Official Market	Black Market
(1)	Price of foreign exchange	Within restricted range	With premium over official rate
(2)	Sources and uses of foreign exchange	Legal sources and uses	Illegal sources and uses
(3)	Trading counterpart of foreign exchange	Authorised dealers	Unauthorised buyers/sellers

Source: Author.

Table 2.
Formal trading of foreign exchange and private sector international trade, January 2014 – December 2014

	Monthly average US dollar, million	Ratio to private exports
Wholesale		
Auction turnover 1/	165.3	0.38
Interbank dealing turnover	17.5	0.04
Retail		
Customer dealing turnover	110.2	0.25
Private exports 2/	434.4	
Private imports 2/	806.7	

Sources: Central Bank of Myanmar website; *Selected Monthly Economic Indicators*, Central Statistical Organization (CSO), Myanmar

Notes 1/: Monthly average for January 2013 - September 2013.

2/: Monthly average for January 2013 - December 2013.

Table 3.

Quoted prices for the US dollar on 28 August, 2013

	Dearler (broker) buying rate	Dealer (broker) selling rate
	Unit: Kyat per US dollar	
Export earnings rates	967	968
US dollar notes rates	967	968
Authorised dealer bank rates	965	974
Central Bank reference rate	973	

Source: Informal market dealers in Yangon, Myanmar

Table 4.

Distribution of private exporters by size and items, 2012

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

Source: MSR (2013).

Table 5.

Summary of the survey data

Category	Firms with Annual Exports		All Firms
	below USD 2 mil. above 0.1 mil.	above USD 2 mil.	
Number of firms	64	35	99
Industries:			
Garment	3	4	7
Beans	22	20	42
Fishery products	15	5	20
Rice	3	3	6
Others	21	3	24
Annual export amount, average (USD million)	0.87	7.85	3.34
Age, average (years)	11.7	12.2	11.9
Ownership --% of firms			
Family owned	78%	69%	75%
Partnership	22%	31%	25%
Have Kyat bank account--% of firms	89%	89%	89%
Doing import business--% of firms	48%	51%	49%
Take bank loans from Myanmar private banks--% of firms	33%	43%	36%
Have USD account at Myanmar private banks--% of firms	16%	20%	17%
Have sold export earnings--% of firms	77%	77%	77%
(Multiple choice)			
To familiar clients	59%	60%	60%
To brokers	48%	43%	46%
To private banks	0%	9%	3%

Source: Survey of export firms 2013.

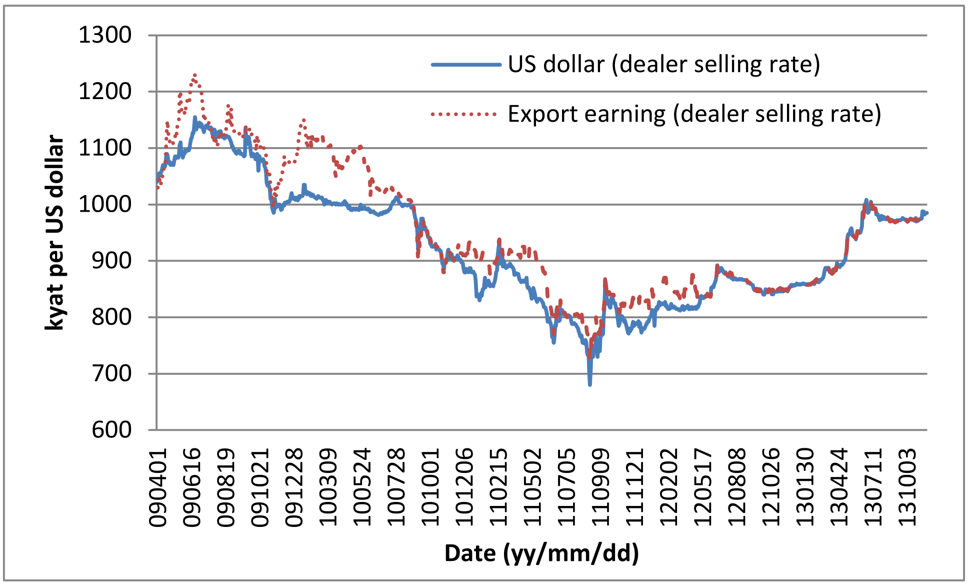
Table 6.

Probit analysis on the determinants for opening a foreign currency deposit 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 earnings in past three months		
Independent variables	Coefficient	Standard Error	Marginal Effect	Coefficient	Standard Error	Marginal Effect
Log of annaul exports	0.1449	0.1117	0.034	0.1480	0.1320	0.029
Age of firm	-0.0117	0.0244	-0.003	-0.0139	0.0288	-0.003
Dummy (taking loans from Myanmar bank)	0.6211 *	0.3296	0.144	0.7089 *	0.3691	0.141
Dummy (doing import business)	-0.0902	0.3011	-0.021	-0.4140	0.3488	-0.082
Dummy (Fishery industry)	0.7404	0.3635	0.172	0.5118	0.4569	0.101
Constant	-1.2765 ***	0.3993		-1.2616 ***	0.4616	
Prob>chi2	0.0920			0.0863		
Pseudo R-squared	0.0907			0.0968		
Number of observations	99			76		

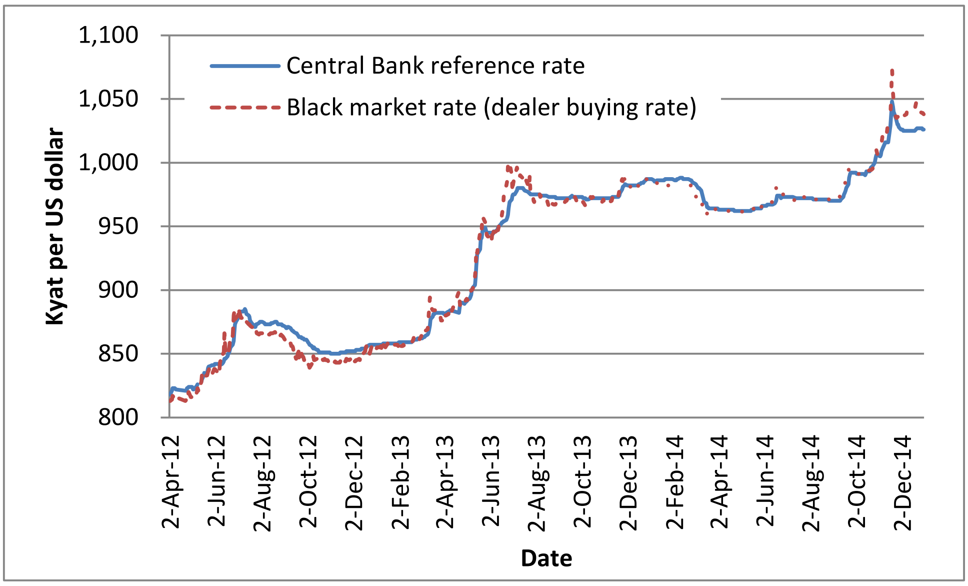
Source: Survey of export firms 2013.

Figure 1.
Black market exchange rate trends, September 2009 – December 2013



Source: Japan External Trade Organization (JETRO) Yangon Office.

Figure 2.
Trends in Central Bank reference rate and black market rate,
April 2012 – December 2014



Sources: Central Bank of Myanmar website, and E-trade Myanmar.

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