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Microfinance Foreign Exchange Facilities: Performance and Prospects

Foreign capital investment in microfinance has been booming over the past four years. Commercial cross-border debt and equity invested in microfinance surpassed US$11 billion in 2009, representing an estimated 20 percent of the funding base for specialized microfinance providers.[1] Foreign investment brings important benefits for microfinance institutions (MFIs). It can provide longer term debt maturity and risk capital that often is not available in the local market, but it can come with a significant string attached: foreign exchange risk.

Seventy percent of cross-border, fixed-income investments are denominated in foreign currencies[2] (meaning currencies other than the currencies in which the MFIs are operating), leaving MFIs with significant foreign exchange exposure.[3] During the most recent global financial crisis, some MFIs that depend on foreign currency-denominated debt have suffered heavy foreign exchange losses that threaten their overall viability (Littlefield and Kneiding 2009). And local currency hedging needs for microfinance is estimated at US$1.5 billion in 2009.[4]

Managing foreign exchange risk has been a persistent challenge for microfinance donors and investors. Some have developed their own internal hedging systems to offer local currency loans, while others, like the Dutch public investor FMO, have sought to establish dedicated vehicles to hedge local currency investments for themselves and other international donors and investors.

In the last two years, three projects (TCX, Cygma, and MFX) sponsored by development finance institutions (DFIs), public donors, and social investors have emerged to address this problem. These projects intend to offer MFIs and microfinance investors a method to hedge foreign exchange risk, even for currencies for which hedges are not commercially available. These hedging facilities represent an innovative, though not risk-free, answer to the challenges posed by foreign exchange volatility to MFIs. These hedging options are particularly important to protect MFIs from the turbulence of currency markets during the present financial crisis.

In the longer term, MFIs could reduce their foreign exchange risk exposure by relying more heavily on local currency deposits and by working to develop deeper local currency markets in developing countries. The new facilities offer an interim solution for the short term, but if they are managed well, they may accelerate the emergence of local currency markets.

The first section of this paper describes the aspirations and risk management plans of these foreign exchange hedge alternative projects and traces the unusual conditions under which the new facilities are emerging. The second section, largely based on interviews, analyses MFI and investor demand and experience with the facilities. The third section looks ahead to future risk management challenges. Finally, the fourth section considers whether deeper local currency markets

This guide is written for microfinance investors. It presumes a basic familiarity with hedges, swaps, and other mechanisms used to manage foreign exchange risk.

Readers who are not familiar with those tools can find them explained at http://en.wikipedia.org/wiki/Foreign_exchange_market

1 CGAP 2009 Funder Survey.

2 CGAP 2009 Funder Survey.

3 That is, if the local currency devalues against the foreign currency, the MFI will need more local currency than it anticipated in order to repay the loan.

4 Cygma market assessment for local currency hedging 2009.

can, by themselves, solve many of the problems the facilities are trying to address.[5]

Microfinance Hedging Facility Aspirations, Operations, and Offerings

The financial crisis has made it abundantly clear that MFIs that borrow foreign currency to fund their operations must protect themselves from the risk that local currency depreciations or devaluations will substantially increase their cost of funding and may eventually leave them unable to repay such debt obligations out of their local currency income. The most common commercial tools for converting hard-currency funding into local currency are currency forwards and cross-currency swaps (see Box 1).

Box 1: Common Hedging Products

Currency forwards are agreements to exchange a future payment in one currency for an equal payment in another. The exchange rate of a forward contract differs from the spot market exchange rate by an amount reflecting the expected movement of the currencies, determined by differences in relevant benchmark interest rates.

Swaps are agreements to exchange loans of equal value in two currencies. These consist of (*i*) an initial exchange of equal amounts of principal at market exchange rates; (*ii*) exchange of interest rate payments on the loan; and (*iii*) exchange of repayments of the principal at a future date. The interest rates differ to reflect expected currency movements, the fixed or floating rates on the two loans, and the credit quality of the parties in the swap.

Forwards and swaps can either be **deliverable**, which involves the actual exchange of the agreed amounts in the two currencies, or **nondeliverable**, meaning payment of only the net amounts due to either party given prevailing exchange rates at the time of payment. There is no initial payment in a nondeliverable agreement.

In effect, swaps are the exchange of two loans of equal value in different currencies. However, swaps are not usually available for the less liquid local currencies in which many MFIs make their loans (Featherston, Littlefield, and Mwangi 2006; CGAP 2009). When such swaps are commercially available through international banks, prices can be volatile—as demonstrated during the 2008 financial crisis. Others are using back-to-back lending to hedge against depreciation risk. This structure typically involves the MFI taking a foreign currency loan and depositing it in a domestic bank. Using this deposit as cash collateral, the domestic bank lends in local currency to the MFI. These strategies have proven to be costly in many markets as documented in CGAP earlier research (Flaming 2007). To address these problems, DFIs have developed their own internal risk management strategies to lend in local currency, and some have contributed to setting up dedicated foreign exchange facilities in partnership with like-minded investors.

In the past three years, several projects have been initiated by public and socially oriented private investors to mitigate foreign exchange risk. These projects include two currency hedging funds (TCX and Cygma) and one hedging intermediary (MFX Solutions). Another hedging project, MICROFIX, that is still to be finalized is being initiated by Planet Finance.[6]

The Hedging Facilities

The Currency Exchange Fund (TCX)

TCX is a currency hedging fund created in 2007 by FMO and incorporated in the Netherlands as a limited liability company. TCX offers currency swaps and forwards to international investors that want to hedge investments that are denominated in emerging market currencies. It is supported

5 This guide is written for microfinance investors. It presumes a basic familiarity with hedges, swaps, and other mechanisms used to manage foreign exchange risk. Readers who are not familiar with those tools can find them explained at http://en.wikipedia.org/wiki/Foreign_exchange_market.

6 Planis, the advisory service and asset management arm of Planet Finance, is planning to establish a MICROFIX platform to serve as an intermediary between MFIs/MIVs and TCX and commercial banks trading desks. MICROFIX wants to operate as a clearing house with standardized hedging products and transparent pricing information as well as advisory services for MFIs and MIVs.

Table 1: Microfinance hedging facilities

	TCX	MFX Solutions	Cygma
Type	Currency fund	Hedging intermediary	Currency fund
Size (US$)	590 million (actual)	13 million (actual)	50 million (target)
Counter-parties	Mostly DFIs with investment-grade ratings	MFIs and MIVs without investment-grade ratings	Mostly MIVs
Risk management	Absorbs market risk; no credit risk	Absorbs credit risk; lays off market risk to TCX	Absorbs market risk; bears credit risk only of MIVs
Expected ratio of hedges to capital	3:1	9:1	10:1
Legal structure/country of incorporation	Netherlands (limited liability company)	Netherlands (limited liability company)	Luxembourg FIS (specialized, investment fund)
Launch of operation	In operation since late 2008	In operation since July 2009	Launch expected in 2010
Main sponsor	FMO	MIVs/Omidyar	Chatham Financial

MIV = microfinance investment vehicle

by 19 co-investors (members), including DFIs, such as the German development bank KfW; multilateral institutions, such as the European Bank for Reconstruction and Development (EBRD); and private microfinance investors, such as Triodos and Oikocredit.[7] TCX has raised US$590 million, of which approximately 15 percent is from the Dutch government. In addition, it has secured a US$150 million backstop guarantee from FMO. TCX was rated AA- by Standards and Poor (S&P) as a counterparty for swaps in October 2008. It was, however, downgraded to A- in October 2009 as a result of S&P's new rating criteria for government-related entities.

Institutions are required to invest at least US$5 million in TCX to gain access to its currency hedging services. These investments provide TCX with the capital cushion needed to meet its obligations in the event of losses. TCX believes it can safely offer institutional hedges in nominal values of three to six times the value of their hedged investment and still have adequate capital to cover possible hedging losses. Over time, TCX expects to offer hedges with a greater nominal value as it lays off part of the hedging risk to commercial markets. In the case of swaps, TCX investors and other qualified investors—which may ultimately include select local banks—can swap future streams of local currency payments from their projects for predetermined U.S. dollar or euro-denominated payments from TCX. In the case of forwards, an institution can exchange a single future local currency payment due from a project for a U.S. dollar or euro payment from TCX.

Either way, the hedge fixes the local borrower's future obligations in its own currency and allows it to minimize its foreign exchange risk. TCX intends to make offers only where commercial banks do not provide commercial quotes, so as to avoid duplicating readily available market alternatives.[8]

TCX is designed to bear emerging market foreign exchange and interest rate risk. It deliberately has limited its exposure to counterparty credit risk by trading only with investment-grade-rated institutions that are required to post collateral for their TCX transactions. This decision to minimize the lender counterparty risk, of course, limits the

7 For a full list of investors, see www.tcxfund.com.

8 Although the US$5 million minium investments that TCX requires is too high for all but the largest microfinance investors, it is not out of line with the collateral or guarantees demanded by commercial hedge funds.

number and type of institutions that can deal directly with TCX and has given rise to the need for intermediaries, like MFX, that are willing to accept greater counterparty credit risk.

Unlike the other new facilities, TCX offers hedges beyond the range of debt maturities traded in some emerging markets, with the aim of supporting infrastructure projects that can take 15 years to finish.[9] During its first year of operation in 2008, TCX concluded 34 nondeliverable forwards and swaps in 19 currencies. Those deals fell roughly evenly across Sub-Saharan Africa, Asia, and Latin America. There were fewer in Eastern Europe perhaps because of the reliance on the euro in this region. Despite TCX's multisector focus, including long-term infrastructure investments, nearly half of the early hedges TCX concluded in 2008 were medium term (4–6 years), and many of them were undertaken to support microfinance.

TCX started diversifying its portfolio by investing in short-term forward contracts on some of the more liquid emerging market currencies, even before it began to enter into swaps for clients. It nevertheless suffered when many of those currencies depreciated during the fourth quarter of 2008 and sustained US$86 million in losses as of October 2008.[10] It subsequently recovered these losses during the first half of 2009 and received an additional euro 40 million in first loss protection from the German Government. Despite the severity of the crisis, TCX's losses never exceeded the worst case scenarios contained in its financial forecasts.

Cygma Corp

Since 2007, Cygma Corp has advised microfinance investment vehicles (MIVs) on foreign exchange risk policy and has supported their hedging operations, in particular by structuring loans and swaps, handling execution, and managing the foreign exchange risk of their investments. A venture of Chatham Financial, a for-profit company specializing in market risk management for real estate and private equity, Cygma is focusing on microfinance funds, networks, and other intermediaries that lend to or own MFIs.

Cygma is establishing a currency fund to absorb the foreign exchange risk of swaps that MIVs undertake to make local currency investments in MFIs. It is focusing on currency swaps not available in the wider credit market. Like TCX, this facility will rely on the diversification of its currency exposures to hedge the global foreign exchange position of its clients without hedging individual positions. The current plan is to raise US$50 million to support a portfolio of swaps and forwards up to 10 times that amount. The International Finance Corporation is planning to invest US$10 million or 20 percent of the fund total assets.[11] An additional US$25 million in guarantees will provide credit enhancements to enter into swap agreements with commercial banks if necessary. The expected launch date of the fund is June 2010.

Focusing on MIVs rather than MFIs can make the problem of coping with counterparty credit risk more manageable. To the extent that MIVs are organized as special purpose vehicles that are funded more with equity than debt, they are less likely than MFIs to enter into bankruptcy or informal debt workouts. It is also easier to execute swap contracts with MIVs than with MFIs because MIVs tend to be based in countries with established legal frameworks for standard International Swaps and Derivatives Association (ISDA)[12] swap dealer agreements.

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9 Looking forward, TCX will expand its operations to another 15–20 countries with strong development potential that lack suitable local currency benchmarks, such as interbank rates or Treasury Bill rates. In Cambodia, Guatemala, and Rwanda, for example, TCX is conducting pilot studies to assess the feasibility of offering swap rates based on macroeconomic models reflecting growth assumptions, inflation forecasts, and central bank policy.

10 TCX Web site and interview with Joost Zuidberg, TCX manager.

11 Microfinance Focus 31 December 2009.

12 ISDA is a trade organization of participants in the market for over-the-counter derivatives.

MFX Solutions LLC

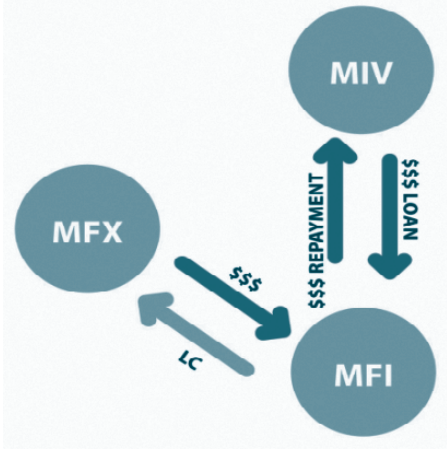
MFX is a hedging intermediary offering MFIs and MIVs access to TCX or other commercial hedging tools available on the market. MFX was established by U.S. investors in October 2008; it launched operations in July 2009. It is organized as a for-profit fund whose principal investors—Omidyar Network, Calmeadow Foundation, ACCION International, Triodos, and Incofin—are represented on its five-member board. Its initial funding of US$13 million comes from two sources—MIVs likely to use its services and donors, such as Omidyar, with no intention to transact with MFX. As a result, MFX plans to allow MIV investors to hedge in volumes totaling 10 to 18 times their initial investment.

In its role as an intermediary, MFX offers non-deliverable swaps and forwards to MIVs and MFIs that cannot now deal directly with TCX and other more traditional swap dealers because of the MFIs' and MIVs' perceived counterparty credit risk. MFX takes the credit risk of its customers, but hedges their foreign exchange and interest rate risk through TCX or traditional swap dealers. MFX can do this because it itself enjoys a AAA rating as a result of a US$20 million guarantee that it secured from the Overseas Private Investment Corporation. This rating allows MFX to qualify as an investment-grade counterparty when it engages in hedging arrangements with TCX and other commercial hedging facilities on behalf of its noninvestment grade customers.

For these services, MFX charges its customers a spread over the difference between the local currency interest rate paid by the MFI and the foreign currency interest rate paid by MFX. It also charges its customers a fee to cover customer credit evaluations that will be performed for MFX by MicroRate, a specialized rating agency.

For example, an MFI that lends to its microentrepreneurs in Kazakh tenge may want to swap its US$2 million floating-rate debt obligation to a foreign creditor into the equivalent amount of a local currency denominated, fixed-rate debt obligation. MFX would ask TCX for a quote. MFX then, as an intermediary, would pass U.S. dollar payments from TCX to the MFI and local currency payments from the MFI to TCX. MFX would become TCX's counterparty so that the counterparty risk of this MFI is assumed by MFX. TCX's risks would be limited to market risk—that is, the risk of changes in the value of the tenge against the dollar and changes in dollar floating interest rates. MFX currency swaps are illustrated in Figures 1 and 2.

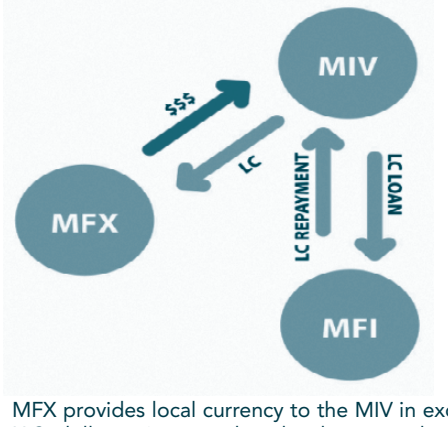
Figure 1. Currency swap with an MFI.



MFX receives local currency from an MFI and provides it with the U.S. dollar it needs to repay its hard currency loan.

Source: MICROFIX

Figure 2. Currency swap with an MIV.



MFX provides local currency to the MIV in exchange for U.S. dollar so it can make a local currency loan to an MFI.

Source: MICROFIX

User Perspective on Microfinance Foreign Exchange Hedge Alternatives

MFI and MIV Needs

Consider foreign currency from the perspective of a Cambodian MFI with strong financial performance but no license to collect savings. The local capital market is thin, and the institution funds its growth with foreign currency from international lenders.

Some lenders, such as Dutch-based social investors Oikocredit and Triodos, find ways to make floating-rate loans in local currency. These lenders are prepared to absorb losses if those local currencies devalue, and they hope to offset such losses at least partially through the generally higher rates available in currencies expected to depreciate. Such local currency denominated loans avoid foreign currency mismatch on the balance sheet of the MFI, but at a cost—floating-rate liabilities can be a problem in a country where interest rates jump from 5 percent to 22 percent within a year.

There are no appropriate interest rate benchmarks for pricing floating local currency loans in Cambodia. As a result, most international lenders offer MFIs hard currency loans. When the MFIs exchange the proceeds of those hard currency loans for the local currency that it lends to clients, the hard currency loans leave the MFI with a net open position: its foreign currency assets are insufficient to cover its foreign currency liabilities (or potentially vice versa).

As a rule of thumb, lenders tend to ask MFIs to limit their net open positions to 20 percent of equity. Foreign guarantees for local bank loans[13] would be more efficient from this Cambodian institution's perspective, but few international lenders are offering such guarantees. In the near term, a hedging facility that absorbs the risk of local currency swaps would be the best option for the MFI to manage its foreign exchange exposure.

Deposit-based funding reduces foreign exchange exposure, but only if the deposits are denominated in local currency. Several MFIs in Eastern European countries such as Kosovo take deposits in euros while making their loans in local currency.

The larger microfinance asset managers have started to respond to MFIs' increasingly urgent need for local currency financing. Blue Orchard and ResponsAbility already have over a third of their fixed-income portfolio hedged in local currency. Oikocredit has set up its own local currency fund, in addition to investing in TCX. For such MIVs, a typical transaction will involve both a currency and an interest rate swap. For example, an MIV funded in dollars may want to offer a two-year fixed-rate loan in rubles to a Russian MFI. If the MIV requires an interest rate 500 basis points over the three-month London interbank rate (LIBOR) to compensate for the MFI's credit risk, it would ask swap dealers for quotes on the fixed ruble interest rate it would have to pay in exchange for a dollar floating rate payment of LIBOR plus 5 percent.

That fixed rate would normally include four components:

- The rate on three-month, risk-free ruble loans. The difference between this and the comparable dollar rate reflects the difference between expected ruble and dollar inflation.
- The spread between three-month and two-year risk-free ruble loans.
- The premium for the MIV's credit risk to the swap dealer.
- The five percentage point spread over LIBOR, reflecting the dollar rate charged by the MIV.

13 For example, Grameen Growth Guarantees fund is an innovative program offering local currency funding to MFIs through local banks.

Swaps are currently available only to MIVs that meet international bank standards and only for currencies of countries with well-developed credit markets. MIVs recognize that commercial and investment banks shy away from the small sizes and illiquid currencies that are characteristic of many MFI transactions. But when hedging instruments are available MIVs would like to get more transparent swap pricing and quicker responses to their quote requests.[14] There would be strong demand for a service that aggregates swaps on a daily or even weekly basis.

Experience with Hedge Providers and Facilities

This section summarizes MFI and investor experience with the facilities based on CGAP research.[15] Some users say that the hedging facilities could make their services more attractive to the microfinance sector by expanding their range of currencies, making their pricing more transparent, and lowering the minimum capital requirements for their counterparts. Users sometimes find it difficult to understand how currency hedges are priced, and why the costs are sometimes so high. One DFI reports that the TCX quote for a seven-year African cross-currency swap jumped to 25 percent from 15 percent within two weeks, reflecting the impact that even small amounts of new data can have on rates derived from models for countries with very few observable interest rates. The institution instead took a loan at 18 percent from a local bank that may not have fully adjusted to local inflation data.

Some MIVs find the US$5 million investment required by TCX too high—as they do the US$5 million collateral required in standard swap dealer agreements and the investment proposed by Cygma. Noting these concerns, MFX intends to dispense with such requirements.

Also, there is worry about the financial soundness of the hedging facilities. Users look at TCX's losses last year and wonder about MFX's decision not to cover its credit risk with collateral. More generally, they ask whether the equity base of the hedging facilities will be large enough to cover the credit and foreign exchange risk they take on. At the same time, many users want hedging products with longer maturities, even though this raises the facilities' risk profile.

Lastly, some investment funds want advice on foreign currency hedging. Cygma is helping MIVs structure hedges, sign swap agreements with banks, and negotiate the terms of swaps—services that some MIVs have found useful. MFX intends to offer free foreign exchange training for MFI officers.

Managing Hedging Risks

The hedging facility faces two kinds of risk: market risk from fluctuating exchange (and possibly interest) rates, and credit risk from MFI and even MIV counterparties that may be unable to meet their obligations to the hedging facility. For their part, MFIs and MIVs need to manage the additional risk, however small, that the provider of their swap or forward may be unable to meet its obligations. In both swap and forward contracts, the MFI or MIV generally exchanges future local currency payments for future U.S. dollar or euro payments. Whether the counterparty is one of the new hedging facilities or the swap desk of a commercial bank, there is a risk that it will be unable to make its scheduled payments, leaving the MFI or MIV partly unhedged against changes in exchange rates.

Market risk and diversification

TCX and Cygma plan to manage the market risk of their hedging contracts and other local currency investments through currency diversification.

14 CGAP interview with leading MIV asset managers, 2009.

15 Interviews with eight leading DFIs, and MIVs conducted in the summer of 2009.

Both funds hope to reduce the risk of currency volatility by investing in a broad range of second-tier currencies, expecting that declines in some currencies will be balanced by strength in others.

Some bankers worry, however, that the capacity for emerging currency movements to balance one another is limited. They feel that these second-tier currencies tend to rise and fall together in the long run, or at least in times of financial turmoil. The hedge facility managers interviewed for this research do not agree. They say that these concerns do not take into account the income they receive from facilitating swaps. MFIs and MIVs pay high local currency interest rates in exchange for dollar or euro payments, which serve to prefund expected losses arising from devaluation of those local currencies over time.[17]

The facilities expect this interest income will produce gains over the long run, if not for every quarter. They also expect that diversification of their exposures should help smooth out their losses and gains from quarter to quarter. The question then arises as to how many currencies they need to diversify their portfolios of exposures. Minlam, a microfinance hedge fund that takes speculative positions in emerging market currencies, thinks 10–20 currencies can be enough. For funds that do not actively manage their currency positions for profit, 20–30 currencies may be needed. Based on its econometric model, Joost Zuidberg of TCX agrees that 20–30 currencies are necessary for diversification, with the crucial provision that the actual number depends on regional diversification. Twenty currencies may be enough for portfolios with good regional diversification, while 30 are probably necessary for those with regional concentrations. Cygma's model, drawing on over 10 years of data, suggests that 30–40 currencies may be necessary.[18]

Capital and safety

TCX, Cygma, and the gateway fund MFX plan to limit their market or credit risk in order to assure counterparties that they will be able to meet their commitments throughout the term of their swaps. TCX is limiting its exposure to three times its capital, Cygma and MFX to 10 times capital. The question for MFIs and MIVs is whether these limits make sense.

As noted earlier, TCX lost US$86 million in 2008 as the global financial crisis deepened and spread, subsequently recovering these losses in 2009 after conditions stabilized somewhat.

Cygma believes its risks will be smaller than those of TCX compared to the nominal value of its hedges. First, its transactions will be smaller and more granular than those of TCX—and thus easier to diversify—because it will not have to hedge large infrastructure and other development projects that tend to involve longer maturity debt. Cygma expects its average transaction size will be no more than one-third of TCX's. Second, unlike TCX it will not offer swaps beyond the maturity of existing reference rates in the currencies it hedges. Shorter maturities of emerging market debt will limit Cygma to shorter term transactions, while TCX undertakes some swaps beyond that constraint to hedge longer term projects. Cygma expects an average maturity of roughly a third of that of TCX. Under these scenarios, Cygma thinks

16 Interview with two international banks offering foreign exchange hedging instruments in microfinance (summer 2009).

17 Suppose, for example, that the local currency amount owed to TCX or Cygma falls by 10 percent in a year when measured in dollars—as it would if a local currency debt worth US$1,000 at the beginning of the year is worth only US$900 at the end. However, if the interest rate on the local currency part of the swap is 10 percentage points higher than the interest rate on the dollar part paid by TCX or Cygma to its counterparty. Then the counterparty pays TCX or Cygma roughly US$100 more in interest than TCX or Cygma pays to the counterparty. In that case, the extra 10 percent of interest on the local currency debt compensates for the fall in value of the local currency debt.

18 It is as yet uncertain as to whether TCX will be able to offer affordable swaps in second-tier currencies beyond the range of maturities of any local currency reference rates—for example, five-year swaps in a market with no regularly traded bonds due in more than three years. TCX nevertheless hopes that some of its hedges will create longer term local-currency liquidity, that that local-currency liquidity will encourage longer term local-currency lending, and that that lending will provide interest rates on which to base longer term swaps.

it needs roughly a third as much capital as TCX: its swap limit will be 10 times capital compared with three times for TCX limit. This seems reasonable, but it is challenging to quantify the effect of the differences between the two businesses.

The Local Currency Market Alternative

The larger question for MFIs and MIVs, however, is whether more foreign exchange hedging will retard or supplant the development of local currency markets to the point where they can meet the needs of the microfinance sector. There is reason to hope the new facilities might actually accelerate this development.

In the best of all worlds, local markets would make local savings available to MFIs, while international development investors would bear foreign exchange risk by making local currency investments. It is worth asking how the new hedging facilities will affect international investors' willingness to bear currency risk and the development of robust local currency and credit markets.

If the development community could persuade more international investors to bear local currency risk, some MIVs might not have to rely on the new hedging facilities to avoid foreign exchange risks. Indeed, one might argue that socially oriented investors or donors could leverage more private capital into the microfinance sector if they were to help address foreign exchange risks, rather than credit risks, particularly in markets with exotic currencies. In any case, with the current outlook for the U.S. dollar and the euro, some MIVs might be tempted to take some speculative positions on emerging market currencies. And MFIs should be bolder in asking foreign investors to shoulder more currency risk.

MFIs should also improve their asset and liability management and rein in their appetite for foreign currency exposure. Since shorter term funding from MIVs and DFIs means more frequent loan negotiations, MFIs understandably try to extend the term of their borrowings where possible to six and even seven years. However, the average maturity of their microloans tends to be short term—a year or less in most cases. This leaves MFIs with a significant maturity gap and consequent exposure to a mismatch between the pricing behavior of short-term local currency assets and long-term hard currency liabilities.

In fact, the difficulty of completing swaps in the amounts and currencies MFIs need might be a sign that the deals should be avoided in the first place. Some socially oriented investors, such as the Grameen USA Foundation Growth Guarantee fund,[19] are already guaranteeing the repayment by an MFI of a local currency loan from a local bank rather than provide a hard currency loan directly to the MFI that it should, but may not be able to, hedge. The answer from the hedging facilities is that exotic currencies suffer from a market conundrum. Reference rates will not emerge without deals; deals will not be concluded without reference rates. The new facilities, runs the argument, are the instrument by which DFIs can potentially contribute to a solution.

The potential of these facilities to open up local currency markets may go beyond the swap activities of commercial banks. This is because these facilities rely on a theory of foreign exchange hedging quite different from that of commercial swap dealers.

Commercial dealers make money from the gain that occurs when two borrowers can raise funds more cheaply in one another's currencies. If an MFI wants to swap a future stream of payments

19 The Grameen growth guarantee fund has raised over US$10 million from high net worth individuals in the United States to guarantee local currency loan to MFIs.

in Kenyan shillings for U.S. dollars, for example, the swap dealer will essentially look for a second counterparty, such as a Kenyan exporter who wants to swap U.S. dollars for Kenyan shillings. The ability of a commercial bank to give attractive quotes on swaps depends, in other words, on the existence of similar swaps.[20]

The new facilities are based on a different theory—namely that, in the long run, interest rate differences among currencies compensate investors for any depreciation or devaluation. If it is right, the theory gives some comfort that a dealmaker with sufficient patience can offer swaps even in markets where there are no similar transactions. This then provides a basis for developing those markets.

Indeed, all of the new hedge providers are optimistic that their activity will promote the development of local currency markets; they differ only in their expectation about how long development will take.[21] Some of the new facilities hope that by managing foreign exchange and credit risks carefully, they can increase emerging market liquidity. While such liquidity may not be essential to microfinance and may even be a poor substitute for the mobilization of domestic savings, it is probably essential for economic development more broadly.

For example, TCX believes its activity can address three reasons for the stunted development of local currency markets:

- Its deals can help local institutions price their own loan and foreign exchange transactions and thus help establish the reference rates needed to develop an effective local credit market.
- Its activities may conceivably create incentives for local regulators to support the convertibility of their currencies—offsetting the incentive to insulate those currencies from hard-to-manage capital inflows and outflows.
- Its activities also can improve local institutions' understanding of market risk.

In 2009, TCX rolled out deliverable contracts in 10 Sub-Saharan African countries, entailing actual delivery of the currencies involved. These cash transactions can help provide the volume needed for local banks to develop robust local currency markets.

Cygma hopes that its activity will promote these markets and eventually eliminate the need for its own fund. After all, the most stable alternative for MFIs would be access to domestic resources, whether through direct deposit taking or through local banks, pension funds, or the debt market. Accordingly, Cygma expects its advisory services to be as important as its hedging services.

Even if some local currency markets develop rapidly, however, it is not clear that all will. In many markets, MFIs are not able to source domestic capital or mobilize savings. As a temporary solution until these markets develop, the three facilities may represent a welcome, though not risk-free, innovation.

Moreover, there are substantive reasons to expect the facilities to accelerate the development of local currency and credit markets in emerging markets. The most important one is that, by helping to establish relevant interest and foreign exchange rates, the facilities will make it easier for local financial institutions to price and offer local savings products and foreign exchange transactions.

Conclusion

MFIs may be able to hedge the risk that the value of their local currency assets will fall against their

20 It may even become more difficult to find counterparties like the exporter in this example if the current crisis reduces demand for exports from emerging markets.

21 CGAP research and interviews with TCX, MFX and Cygma (Fall 2009).

hard currency obligations to creditors by arranging swaps and forwards with a hedging intermediary like MFX. By covering the credit risk of the MFI, MFX will be able to lay off the market risk of these hedges through parallel swaps with TCX or commercial banks.

Cygma is raising a fund to help MIVs hedge the market risk that arises when they provide local currency loans to MFIs out of their hard currency capital base. MIVs that want to hedge such risk will be able to enter into swaps and forwards with Cygma. Cygma will manage its own market risk by diversifying its currency exposures and will address its credit risk by limiting its counterparties to intermediaries that it understands well and that typically have little leverage.

TCX has already started to offer hedges to DFIs and foreign investors seeking to make local currency investments. In time, it may also hedge the market risks of MFIs and MIVs, either directly or indirectly through the gateway funds MFX. TCX will manage the market risk of its positions through diversification and expects to bear very little, if any, credit risk.

MFX has proposed sound strategies to manage the credit risk of its MFI counterparties, as have Cygma and TCX to manage the market risk of their swaps and forwards. MFIs and MIVs will nevertheless need the utmost transparency from these facilities and diligence in monitoring them to ensure safety as market conditions evolve.

The development of deeper and more widespread local currency markets represents the best solution to the foreign exchange risks of MFIs. The facilities, nevertheless, represent a useful interim solution as those local markets develop—particularly because they have the potential, if they manage their risks carefully, to accelerate the development of those markets.

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