WHITE PAPER
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GOING UNHEDGED IN FRONTIER MARKETS

The case for exotic currency exposure through impact finance

symbiotics

This paper was written by Nils Schinasi in 2017. Its intent is to share our experience about unhedged debt investing in microfinance markets and how this strategy could yield higher returns for investor portfolios. The text was proofread by Nicolas Pinguely and the paper was designed by James Atkins Design Ltd.

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SUMMARY

Our investment practice has led us to build unhedged frontier currency portfolios for our clients. We have historically originated 420 transactions for more than USD 600M volume in unhedged investments, while at the moment, these strategies represent an outstanding portfolio of around USD 440M. Through our historical analysis of hedging costs and currency movement, we observe that investors can benefit from a material premium, rewarding them for such risk taking. Since 2005, this premium for unhedged investing would average at 3.7%, sometimes reaching 10% for a diversified basket portfolio. On the contrary, a hedged strategy would result in a premium of 2.5% at most during periods of strong local currency weakness. Overall, going unhedged appears to be an interesting strategy for investors with patience and some risk tolerance.

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A UNIQUE EXPERTISE IN FRONTIER MARKETS

This paper aims to demonstrate that though unhedged exotic currency investing is a risky strategy, Symbiotics' crucial ability to diversify holdings in many markets and currencies means that we are able to diminish the risks, while allowing investors to profit from the high yields that those countries offer.

Financial orthodoxy teaches us that while the FX risk of equity investment can sometimes be left unhedged, it is best practice to hedge fixed income investments. "A broad industry rule of thumb is that it would be more common to see a foreign currency equity portfolio left at least partly unhedged, while a fixed income portfolio would be expected to be largely hedged."[1] The reason being that FX often acts as a natural hedge to equity fluctuations (a currency will frequently increase in value when equity drops, and vice versa). On the other hand, a currency crash will often happen in conjunction with an increase in the interest rate level, striking the fixed income investor with a double blow. Additionally, the average fixed income investor will typically have a handful of currencies in its portfolio, with the major currencies (USD, EUR, JPY, GBP) accounting for the vast majority of holdings. The diversification will thus be far from optimal, further bolstering the case for hedging the currency risk.

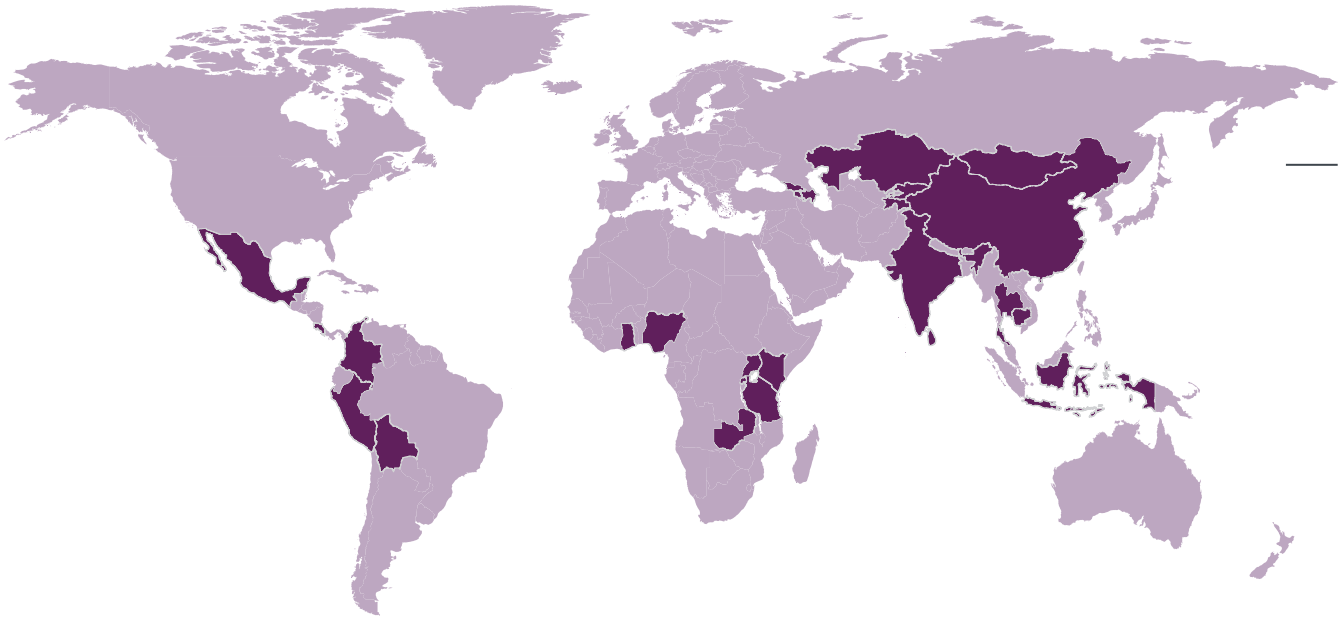
Symbiotics is in a different situation, however. Because we are able to offer access to a much broader market of foreign currencies, true diversification can be achieved. Overall, assets can be bought in more than 20 currencies across the developing and frontier world. Those currencies usually offer high yields, but are difficult to invest in by regular institutional investors. Symbiotics, with its vast and specific expertise, offers a way into those markets through microfinance and SME lending, and through a range of other impact investing opportunities. Though this form of alternative investment is a risky strategy, it offers high potential returns. To that end, we will showcase an in–house study. We looked at historical depreciation as well as hedging costs and interest rate benchmarks to get a picture of the risks and rewards of investments in frontier markets currencies.

With a track record of 12 years in microfinance, investments in local currency since 2010, a global network of analysts and a dedicated foreign exchange team, Symbiotics has developed a very specific expertise in frontier markets.

Our investments are made in the form of loans to Microfinance Institutions (MFI), SME banks as well as other impact financing projects. While around half of our current portfolio is held in hard currencies, the other half is made up of local currency loan, roughly evenly split between hedged and unhedged.

As expected, hedging currencies such as the Tadjik somoni or the Cambodian riel is not a standard operation. Specialized hedging institutions frequently

1 Financial Times: https://goo.gl/bFLiXu



A truly global footprint: the 26 countries used in our study

Armenia	Ghana
Azerbaijan	Kenya
Georgia	Nigeria
Kazakhstan	Rwanda
Kyrgyzstan	Tanzania
Tajikistan	Uganda
Cambodia	Zambia
China	Bolivia
India	Colombia
Indonesia	Costa Rica
Mongolia	Honduras
Sri Lanka	Mexico
Thailand	Peru

need to be used. Those are largely funded by western development agencies. Hedging costs are often based on macroeconomic models, rather than pure market dynamics, and institutional investors are limited in their access to such hedging instruments.

One large advantage of lending in local currency is that this improves the credit quality of the borrower. A borrower (or MFI, for Microfinance Institution) that has significant hard currency liabilities (foreign currency from his point of view) will face a mismatch between his assets (in local currency) and his liabilities (in hard currency). He would thus be more exposed to the risk of a foreign exchange crisis. The lending fund that chooses to lend in local currency then has the choice to either hedge the transaction, or to keep the currency risk while pocketing the large yield premium. While this would seem to only transfer the risk from the MFI to the lending fund, we should not forget the crucial opportunity that the lending fund has to diversify its holdings in term of currency, thus creating investor value. Contrarily to traditional fixed income investments, which are concentrated in a handful of large correlated currencies, investments in frontier markets offer much better diversification opportunities.

In theory, in a well–functioning financial market, either the borrower or lender could hedge this risk through derivatives, but we are not dealing with mature markets in our case. Modern financial markets have largely allowed institutional investors to slice and dice their foreign exchange risk, in effect dissociating the FX risk from its underlying investment. Investors are free to decrease or increase the FX risk of an investment through the use of derivatives, or even to get exposition in an unrelated currency if they so wish. Frontier markets do not work this way, and this creates an opportunity for market actors that are able to access and diversify this risk, since those imperfect markets command a market premium.

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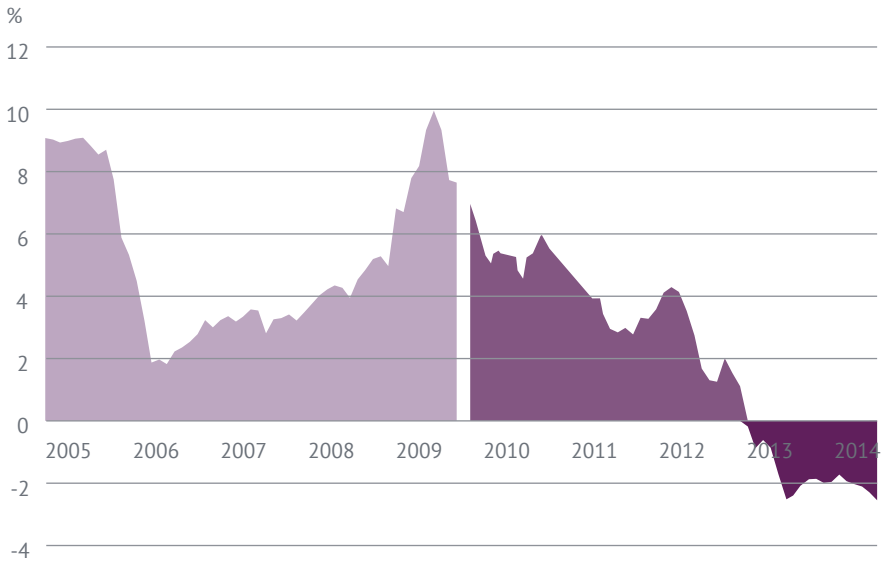
LOOKING INTO THE PAST

In deciding whether to go unhedged, two of the major questions to answer is: to what extent would going unhedged result in additional yield? And for what risk? We looked at historical data for a preliminary answer. As one can imagine, the benefits are not systematic over time, but as we shall see in the following graph, not only are gains more frequent than losses, but the losses when they occur, are manageable, while benefits are more substantial.



Graph 1: Annualized over or underperformance of unhedged strategy compared to hedged strategy Sources: TCX, Cygma, Bloomberg, Authors' calculations

Graph 1 represents the three year annualized excess return or loss that an unhedged strategy would have yielded, when compared against a hedged strategy. We used a basket of 26 currencies, equally weighted. The dark purple parts were calculated using actual hedging costs, while the light purple part was calculated using approximated hedging based on local interest benchmarks (bonds, bills and policy rates, cf. note on methodology on p.7). It is worth rephrasing the description of this graph to avoid any confusion: for each points along the date axis, we place ourselves at the beginning of the 3 year investment period and the return axis indicated the annualized excess return or loss that investing at that time would have entailed, when compared against a hedged strategy.

We can see that going unhedged would have been the correct call for most of the study time horizon. Indeed, for 7.5 years of the 9 year study, going unhedged would have yielded additional profits for the investor. Moreover, even in bad times, going unhedged would have resulted in a negative impact of maximum –2.5%. General expectations is that going unhedged should yield small returns before suffering large losses. 'Picking bread crumbs in front of

a steam roller', as the saying goes. Our study, however, tends to show that this would not have happened across our broadly diversified portfolio. Instead, with yearly losses of –2.5% at worst, the losses appear manageable, especially when contrasted with the substantial excess returns that this strategy would have been able to achieve in the past (as much as 10 percent). This is even more remarkable when one considers that the study time incorporates some serious volatility in emerging markets: the 2008 financial crisis, the Fed tapering and the 2014–15 oil and commodity price crash. The fact that the worst loss would have been –2.5% speaks to the robustness of this strategy.

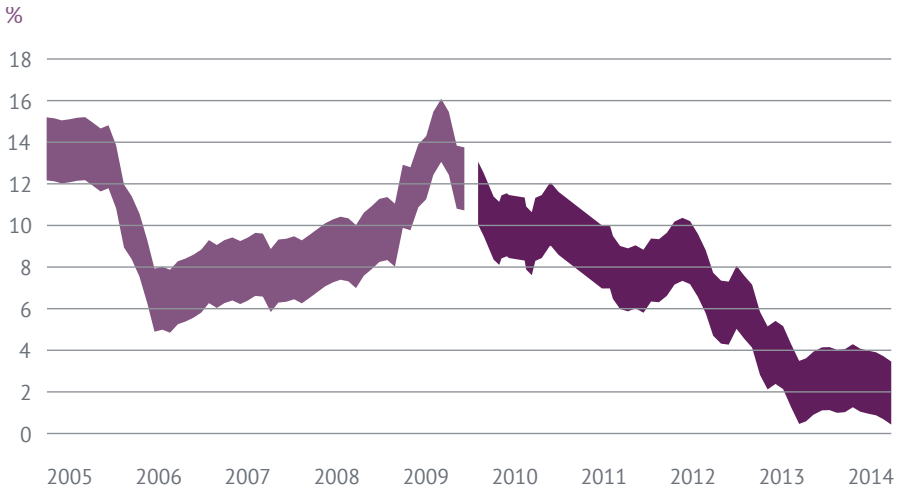
One might notice that those graphs stop in early 2014. The reader might wonder why that is the case given that as of writing we are in 2017. The reason is rather simple: the graphs represent rolling 3 year investments, and we therefore did not yet know the return of an unhedged investment made after April 2014, given that our dataset runs until April 2017.

A note on methodology

One of the major difficulties in assessing the viability of this strategy is the lackluster nature of available data: frontier markets are fast evolving. With rapid development comes paradigm shift, changing capital market conditions, shifting statistics and political regimes. Those markets often lack appropriate benchmarks for yield levels in the country. The key challenge was thus to find appropriate proxies for these interest rate levels. To that end, we used a combination of actual hedging costs as well as government bonds, bills, and central bank policy rates to construct a benchmark for interest rate levels and hedging costs since 2005.

As a first step, we used historical hedging costs from specialized providers to estimate the interest differential between the countries and the United States. The advantage of hedging costs is that they were evaluated at the time considering the local conditions (in particular the tax environment and potential capital controls), giving them a greater credibility (more so considering that those hedging costs were tradable at the time). The major disadvantage is that hedging solutions for frontier markets started appearing late (in 2009), we are thus limited in our ability to do a thorough historical simulation. To complete our dataset, we used yields for local currency government bonds, bills, as well as central bank policy rates to estimate hedging costs starting in 2005. Those bond bills and policy rates had to be adjusted in order to account for tax treatment, capital controls, and other market altering factors. To that end, we applied the average spread between tradable hedging costs and government yields to the data for which we were missing hedging costs. Four countries (out of 26) had to be dropped pre 2009 due to missing data.

To be clear, graph 1 does not represent the total return that this strategy would have yielded the investor. Instead it represents the added return (or loss) that going unhedged would have yielded to the investor, compared to a hedged return. In order to obtain the total return, we should add an additional 3–6% margin that on average is charged to borrowers on top of local interest benchmarks, depending on credit quality and market conditions. This 3–6% percent margin would be the USD return that we could expect if the local currency portfolio was fully hedged. Adding this margin would result in a rolling average return like this one:



Graph 2: Returns with a 3% to 6% margin added
Sources: TCX, Cygma, Bloomberg, Authors' calculations

As one can see in this graph, this strategy would most likely not have produced a single negative return over any three year period, this in spite of two major market events hitting the developing world over the study time frame (the 2008 global financial crisis, and the 2014–15 commodity price crash). Even the strong currency depreciations that occurred in much of the frontier markets, from Nigeria to Kazakhstan to Peru were not enough to plunge the overall portfolio in the red. This speaks in favor of a very broad diversification.

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WORTH A TRY

Over the past few decades, a quiet revolution occurred as asset allocation was understood to include not only the classical 'stocks and bonds' but a range of other alternative investments, from real estate to commodities to hedge funds. Those alternative investments brought less correlated returns to the portfolio, increasing its resilience.

A huge part of the world is today very hard to invest in for western investors: frontier markets. It is very likely that over the coming years, those markets will be the ones to grow strongly, and Symbiotics is in a unique position to offer access to those countries. This could be a rocky path, but a cold headed investor should be rewarded in the long run. In terms of timing, one could be tempted to say that it is ideal. Yields are attractive on a historical basis, and frontier market currencies have already significantly corrected following the commodity price crash of 2014–15. In following this advice, we can expect that making this a part of one's overall asset allocation would enhance portfolio risk–adjusted return. It is important to remain disciplined: bad news for individual countries will happen, but one should not lose sight of the overall picture, and not over react: getting out of all worrisome countries will make the investor miss on attractive opportunities and lose the diversification which is central to the success of the strategy.

SWITZERLAND
Symbiotics SA
Rue de la Synagogue 31
1204 Geneva
t +41 22 338 15 40

SWITZERLAND
Symbiotics SA
Forchstrasse 280
8008 Zurich
t +41 43 499 87 89

MEXICO
Symbiotics Mexico S de RL de CV
Diagonal Patriotismo 12 – 602
Colonia Hipódromo
06100 México D. F.
t +52 55 55 84 78 72

SINGAPORE
Symbiotics (Singapore) Pte. Ltd.
134 Amoy Street
#03–01
049963 Singapore
t +65 31 63 71 80

SOUTH AFRICA
Symbiotics I, C & S South Africa Ltd.
4 Loop Street, Studio 502
8001 Cape Town
t +27 21 425 51 19

UNITED KINGDOM
Symbiotics UK Ltd
6 Bevis Marks
London EC3A 7BA
t +44 203 786 1186

symbioticsgroup.com