CA

CAMBRIDGE ASSOCIATES LLC

GLOBAL MARKET COMMENTARY

THE SURPRISING TRUTH ABOUT EMERGING MARKETS LOCAL CURRENCY DEBT VALUATIONS

July 2007

Eric Winig Aaron Costello Marcelo Morales

Copyright © 2007 by Cambridge Associates LLC. All rights reserved.

This report may not be displayed, reproduced, distributed, transmitted, or used to create derivative works in any form, in whole or in portion, by any means, without written permission from Cambridge Associates LLC ("CA"). Copying of this publication is a violation of federal copyright laws (17 U.S.C. 101 et seq.). Violators of this copyright may be subject to liability for substantial monetary damages. The information and material published in this report are confidential and non-transferable. This means that authorized members may not disclose any information or material derived from this report to third parties, or use information or material from this report, without prior written authorization. An authorized member may disclose information or material from this report to its staff, trustees, or Investment Committee with the understanding that these individuals will treat it confidentially. Additionally, information from this report may be disclosed if disclosure is required by law or court order, but members are required to provide notice to CA reasonably in advance of such disclosure. This report is provided for informational purposes only. It is not intended to constitute an offer of securities of any of the issuers that are described in the report. This report is provided only to persons that CA believes to be "Accredited Investors" as that term is defined in Regulation D under the Securities Act of 1933. When applicable, investors should completely review all Fund offering materials before considering an investment. No part of this report is intended as a recommendation of any firm or any security. Factual information contained herein about investment firms and their returns which has not been independently verified has generally been collected from the firms themselves through the mail. CA can neither assure nor accept responsibility for accuracy, but substantial legal liability may apply to misrepresentations of results delivered through the mail. The CA manager universe statistics, including medians, are derived from CA's proprietary database covering investment managers. These universe statistics and rankings exclude managers that exclude cash from their reported total returns, and for calculations including any years from 1998 to the present, those managers with less than \$50 million in product assets. Returns for inactive (discontinued) managers are included if performance is available for the entire period measured. Performance results are generally gross of investment management fees. CA does not necessarily endorse or recommend the managers in this universe.

Cambridge Associates LLC is a Massachusetts limited liability company headquartered in Boston, MA with branch offices in Arlington, VA, Dallas, TX and Menlo Park, CA. Cambridge Associates Limited is a Massachusetts limited liability company headquartered in Boston, MA and registered in England and Wales (No. FC022523, Branch No. BR005540). Cambridge Associates Limited also is registered to conduct business in Sydney, Australia (ARBD 109 366 654). Cambridge Associates Asia Pte Ltd is a Singapore corporation (Registration No. 200101063G).

CAMBRIDGE ASSOCIATES LLC

The Surprising Truth about Emerging Markets Local Currency Debt Valuations

We are on record as believing the local currency (LC) emerging debt market offers a more dynamic and diverse opportunity set than does US\$-denominated emerging markets debt.¹ This, of course, suggests skilled managers should be able to add value; however, it is also worth asking how LC debt is valued *in aggregate*, particularly relative to US\$-denominated debt. With that in mind, we set out to create a framework with which to compare LC debt yields with those of US\$-denominated debt. There are several caveats to this exercise (discussed in detail below), and investors should also recognize that the LC debt market is very much a "work in progress," likely to change significantly in both size and structure over coming years. Nevertheless, the bottom line is that when we compare LC and US\$-denominated debt on an apples-to-apples basis, there seems little to distinguish one from the other. Therefore, we conclude that *in aggregate, and based on a relatively small portion of the overall universe*, LC emerging markets debt is overvalued.

Details, Details...

Our methodology for this exercise was quite simple. We took the countries that have outstanding issues in both categories, then stripped out the currency component for LC issues using one-year currency forwards (Table A). In short, this allows us to compare debt issued by the same country, with the currency factor largely (but not entirely—see below) eliminated. For example, at the end of June Brazilian LC debt yielded 10.38%, versus 6.66% for its US\$-denominated debt. However, the Brazilian *real* is priced to depreciate by 3.96% against the US\$ over the next 12 months; thus, a US\$-based investor can only "lock-in" a yield of 6.42% without exposing himself to currency fluctuations.

This brings us to our first caveat. The above construct only removes the currency risk for a year, while most LC debt obligations have far longer maturities. The J.P. Morgan Government Bond Index Emerging Markets Broad (GBI-EM), for example, has a maturity of 6.08 years, and duration of 4.33 years. Unfortunately, it is not possible to hedge many emerging markets currencies beyond one year; thus, our use of one-year forward contracts. In short, while this exercise does remove currency risk for a year, it is simply not possible (as of yet) to completely hedge such risks for longer periods of time.²

Still, the similarity between US\$-denominated yields and those available through buying LC debt and using one-year forwards is impressive. In eight of 12 countries the difference between currency-adjusted LC yields and those available on US\$-denominated issues is less than 100 basis points, while the weighted average yield for the countries that have both LC and US\$ debt is essentially the same: 6.26% for currency-adjusted LC debt and 6.32% for US\$ debt.

¹ Please see our February 2007 Global Market Commentary: *The Changing Face of Emerging Markets Debt.*

² In theory, investors could purchase a custom swap that paid off based on relative currency movements; however, even if such swaps were available they would likely carry a very high cost.

Gimme Credit...

The second caveat is that while corporate debt makes up roughly one-quarter of the LC market, and about half of the US\$-denominated market, we based our analysis exclusively on sovereign debt. This is partly due to the makeup of the J.P. Morgan indices that are the industry standard, and partly because sovereign issues tend to be more homogenous in terms of credit quality. In other words, using sovereign debt is as close as we can get to an apples-to-apples comparison.

Still, getting a handle on credit quality is more complicated than it appears, due mainly to the different treatment accorded LC debt by Standard & Poor's and Moody's. S&P, for example, generally assigns a higher rating to LC debt than to US\$ debt, because it assumes countries are less likely to default on LC debt since they can simply print additional currency with which to pay their obligations. Moody's, on the other hand, uses an "expected loss" framework intended to assess investors' risk of loss, whether from default or currency depreciation. The Moody's approach makes more sense to us, since a loss is a loss, whether from outright default or currency debauchment. As shown in Table B, while S&P rates the vast majority of LC debt as better quality than US\$ debt issued by the same country, Moody's does not.

We would also note that while conventional wisdom holds countries are more likely to default on externally denominated debt, this is hardly a fait accompli. When Russia defaulted on its debt in 1998, for example, it did so primarily on LC debt. Indeed, it is arguably more important to understand who holds a given segment of debt (although such information is admittedly quite difficult to come by), as politicians are likely to default on debt held by "foreigners"—be it LC or externally denominated—before doing so on issues held by local investors. Given that an increasing percentage of LC debt is held by foreigners, therefore, investors should not assume such issues are immune from default risk. Moreover, legal redress may be more complicated for foreign holders of LC debt than for holders of externally denominated debt, as claims are likely to be adjudicated in local courts, rather than in the United States or London (where external debt disputes are heard).

Recent Returns

Finally, a word is due on recent returns. While past results are of course not indicative of future returns, the past few years have shown some interesting trends. For example, when J.P. Morgan introduced the GBI-EM indices in June 2005, LC yields were significantly lower than those available on US\$ debt, on both an absolute and currency-adjusted basis (Table C). Since that point, the GBI-EM Broad has posted an average annual compound return (AACR) of only 6.5% in LC, but 11.3% in US\$ (compared to 8.1% for the J.P. Morgan Emerging Markets Bond Index Global). In short, over the past two years LC debt has

outperformed US\$ debt for unhedged US\$-based investors, *but only because of the currency component*. Thus, one could argue the unattractive yields available on LC debt two years ago have held down returns; however, this has been masked for many investors by the decline in the US\$.³

Conclusion

Given the caveats discussed above, yields on LC and US\$-denominated debt are virtually identical when compared on a currency-adjusted basis. While some argue LC debt is a better value due to superior credit quality, there is in fact little difference between credit ratings when using Moody's expected loss framework. Thus, while we continue to believe there is significant opportunity in the LC debt arena, *and* that LC debt provides a modicum of protection against a further decline in the US\$, there seems no reason to prefer a hedged passive investment in LC debt over a passive position in US\$-denominated debt. However, given that we are only able to consider a small portion of the market in this manner, and that there appears to be value (and inefficiencies) in other areas of the market, we consider the LC debt market to be overvalued, as opposed to US\$ debt, which we still rate as *very* overvalued. Finally, we would preach caution for those tempted to view LC debt as simply another method to implement an "anti-US\$" position. While such a stance may seem reasonable at first glance (and we believe LC returns are likely to continue benefiting from a falling US\$), it is worth stressing that LC debt entails a variety of other risks—such as the possibility that rates will rise, or that politicians will choose to default on obligations—that could severely crimp returns *even if* the US\$ continues to slide. For investors interested in LC debt, therefore, we recommend placing funds with an experienced active manager, and keeping allocations relatively small.

³ LC debt returns also bested those of US\$ debt for unhedged pound- and euro-based investors during this period. However, whereas U.S. investors saw LC debt returns boosted by the weak US\$, European investors saw returns on *both* indices *suppressed* by the strong pound and euro, with US\$ debt particularly hard hit due to the falling greenback. Thus, for the two-year period, pound-based investors saw AACRs of 2.2% on US\$ debt and 5.2% on LC debt (versus 8.1% and 6.5% in local currency), while those based in euros saw AACRs of 2.3% and 5.4%, respectively.

Table A

COMPARATIVE YIELDS OF US\$-DENOMINATED AND LOCAL CURRENCY EMERGING MARKETS DEBT

As of June 30, 2007

<u>Country</u>	US\$-Debt <u>Yields</u>	LC-Debt <u>Yields</u>	One-Year Forward Pricing of US\$ <u>App/Dep</u>	FX-Adj LC <u>Yields</u>	US\$ Yield FX-Adj Yield <u>Differential</u>
Brazil	6.66	10.38	3.96	6.42	0.24
Chile	5.86	3.11	0.30	2.81	3.05
China	5.52	3.92	-4.56	8.48	-2.96
Colombia	6.24	9.39	2.69	6.70	-0.46
Hungary	5.71	6.69	1.59	5.10	0.61
India		8.09	2.57	5.52	
Indonesia	6.71	9.26	2.10	7.16	-0.45
Malaysia	5.74	3.52	-1.74	5.26	0.48
Mexico	6.16	7.57	2.37	5.20	0.96
Peru	6.25	5.99	-0.79	6.78	-0.53
Poland	5.58	5.49	-0.31	5.80	-0.22
Russia	6.10	5.86	-0.31	6.17	-0.07
South Africa	5.87	8.37	5.08	3.29	2.58
Turkey	6.94	17.00	12.95	4.05	2.89
Comparative Yield	6.32	7.18		6.26	
Total Index Yield	6.86	6.57			

Sources: J.P. Morgan Securities and Thomson Datastream.

Notes: Total index yields represent the overall yield on the J.P. Morgan Emerging Markets Bond Index Global (for US\$ debt) and J.P. Morgan Government Bond Index Emerging Markets Broad (for LC debt). Country yields are also drawn from these indices. Comparative yields represent the weighted average yield for countries with both US\$-denominated and local currency debt.

Table B

EMERGING MARKETS DEBT RATINGS

As of June 30, 2007

	Mo	ody's	S&P		
	Local	US\$-	Local	US\$-	
	Currency	Denominated	Currency	Denominated	
	Moody's	Moody's	S&P	S&P	
Country	Rating	Rating	Rating	Rating	
Brazil	Ba2*	Ba2	BBB	BB+	
Chile	A1	A2	AA	А	
China	NR	A2	А	А	
Colombia	Baa3	Ba2	BBB+	BBB-	
Hungary	A2	A2	BBB+	A-	
Indonesia	B1	B1	BBB+	BB-	
Malaysia	A3	A3	A+	A-	
Mexico	Baa1	Baa1	Α	BBB	
Peru	Baa3	Ba3	BBB-	BB+	
Poland	A2	A2	А	A-	
Russia	Baa2	Baa2	A-	BBB+	
South Africa	A2	Baa1	A+	BBB+	
Turkey	Ba3	Ba3	BB	BB-	

Sources: Bloomberg and J.P. Morgan Securities.

Note: US\$-denominated debt is based on the J.P. Morgan Emerging Markets Bond Global Index and local currency debt is based on the J.P. Morgan Government Bond Index Emerging Markets Broad. * Denotes this rating is a country ceiling rating.

Table C

COMPARATIVE YIELDS OF US\$-DENOMINATED AND LOCAL CURRENCY EMERGING MARKETS DEBT

As of June 30, 2005

<u>Country</u>	US\$-Debt <u>Yields</u>	LC-Debt <u>Yields</u>	One-Year Forward Pricing of US\$ <u>App/Dep</u>	FX-Adj LC <u>Yields</u>	US\$ Yield FX-Adj Yield <u>Differential</u>
Brazil	7.89	16.64	13.42	3.22	4.67
Chile	4.42	2.15	0.54	1.61	2.81
China	4.38	3.28	-5.04	8.32	-3.94
Colombia	7.19	9.45	3.87	5.58	1.61
Hungary	4.52	6.32	2.85	3.47	1.05
India		7.01	1.30	5.71	
Indonesia	6.88	11.11	*	*	*
Malaysia	4.77	4.07	*	*	*
Mexico	5.82	9.23	5.94	3.29	2.53
Peru	6.47		0.71		
Poland	4.46	4.62	0.58	4.04	0.42
Russia	5.61	7.22	1.17	6.05	-0.44
South Africa	4.78	7.75	3.21	4.54	0.24
Turkey	6.92	15.07	10.79	4.28	2.64
Comparative Yield	6.41	5.89		5.62	
Total Index Yield	6.89	5.21			

Sources: J.P. Morgan Securities and Thomson Datastream.

Notes: Total index yields represent the overall yield on the J.P. Morgan Emerging Markets Bond Index Global (for US\$ debt) and J.P. Morgan Government Bond Index Emerging Markets Broad (for LC debt). Country yields are also drawn from these indices. Comparative yields represent the weighted average yield for countries with both US\$-denominated and local currency debt.

* No forward available.