MSCI|

A Clear View of Risk and Return

Consultation on Proposed Changes to the Security Eligibility Rules for the MSCI Brazil Index

May 2012

Background and Proposal

- BM&FBOVESPA ("BVMF") has recently sent a letter informing MSCI that it may require the termination of the supply of real time stock market information to MSCI unless MSCI agrees to BVMF's new market data terms by June 14, 2012
- Although the current issues with BVMF do not affect MSCI's right to use BVMF end of day prices, MSCI believes that to ensure a reliable supply of price data it is prudent to make an exception to the security eligibility rules in the MSCI Global Investable Market Indices (GIMI) Methodology and is proposing to replace local BVMF listing of constituent companies in MSCI Brazil by the corresponding liquid ADR listing on NYSE if available
- MSCI regularly receives requests from international investors to change its current methodology and replace local listings of Brazilian securities with their respective NYSE listed ADRs
- This consultation may or may not lead to any changes to the MSCI GIMI Methodology

Security Eligibility Rules

- As a general policy MSCI gives preference to local listings over foreign listings for index inclusion for the following reasons:
 - Full breadth and depth of the investment opportunity set captured by local listings
 - Risks associated to foreign listings (e.g., counter party risk)
 - Potential time zone differences between the foreign listings and local listings
 - Potential existence of premiums / discounts of foreign listings vs. local listings (e.g., due to fungibility concerns)
 - Difference in currency exposure in portfolios

Potential Consequences of Using ADRs over Local Listings

- Based on feedback received from the investment community by MSCI in past consultations, ADRs might provide an easier way to get exposure to emerging markets compared to the local listings for the following reasons:
 - ADRs potentially facilitate the investment process for institutional investors
 - Trading fees might be cheaper for certain type of investors, no foreign exchange conversions are needed (for US based investors)
 - ADRs can allow better management of potential local market accessibility restrictions (e.g., capital controls, overall transaction costs, reducing custodian charges, potential local taxation)
 - Free availability and dissemination of ADR prices reducing the impact of monopolistic behavior of local exchanges
 - Whenever full 2-way fungibility exists (e.g., in Brazil), there are usually no persistent premiums and discounts on the ADR compared to the local listing
 - On the other hand, there are some risks associated to holding ADRs vs. local listings (e.g., counter party risk, loss of voting/economic rights)

Potential Impact on Index Composition

- 26 MSCI Brazil Index constituents out of 79 would be replaced by ADRs, representing 67% of the current index market capitalization
- This would represent a one-way index turnover of
 - 67% if treated as deletions of local listings and additions of ADR counterparts
 - 0.16% if treated as a conversion of local listings into ADRs
- Other index characteristics, such as sector representation and index market capitalization would remain very similar

MSCI Brazil index composition and liquid ADR availability

Summary Index C	Characteristics	
	MSCI Brazil	Simulated MSCI Brazil
# of constituents	79	79
# of local listings	79	53
# of ADRs	0	26
Index Market Cap (USD billion)	476	477
Weight of deletions	66.8%	
Weight of additions		66.8%
One-Way index turnover*		0.16%

^{*} assuming a conversion of local listings into ADRs

Sector Distribution

Sector	Weight in MSCI Brazil	Weight in simulated MSCI Brazil
Consumer Discretionary	4.0%	4.0%
Consumer Staples	13.4%	13.4%
Energy	19.3%	19.3%
Financials	23.0%	23.0%
Health Care	0.9%	0.9%
Industrials	4.0%	4.0%
Information Technology	3.5%	3.5%
Materials	20.7%	20.6%
Telecommunication Services	3.9%	3.9%
Utilities	7.3%	7.3%

Data	as	of	Mav	11.	2012
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Security Name	Index Weight	Liquid ADR available	Security Name	Index Weight	Liquid ADR available
PETROBRAS PN	9.0%	Yes	ELETROBRAS PNB	0.5%	No
VALE PNA	8.4%	Yes	COPEL PNB	0.5%	Yes
ITAU UNIBANCO PN	7.0%	Yes	USIMINAS PNA	0.5%	No
PETROBRAS ON	6.6%	Yes	TRACTEBEL ENERGIA ON	0.5%	No
AMBEV PN	6.3%	Yes	ELETROBRAS ON	0.5%	Yes
BANCO BRADESCO PN	6.1%	Yes	CYRELA BRAZIL REALTY	0.5%	No
VALE ON	5.6%	Yes	TOTVS	0.4%	No
ITAUSA PN	2.4%	No	COSAN ON	0.4%	No
BRASIL FOODS ON	2.4%	Yes	KLABIN PN	0.4%	No
BM&F BOVESPA	2.1%	No	RAIADROGASIL	0.4%	No
OGX PETROLEO	1.9%	No	ALL AMER LAT ON	0.4%	No
CIELO	1.9%	No	FIBRIA CELULOSE ON	0.4%	Yes
CEMIG PN	1.9%	Yes	TAM PN	0.4%	Yes
TELEF BRASIL PN	1.7%	Yes	HYPERMARCAS	0.4%	No
GERDAU PN	1.5%	Yes	LOCALIZA RENT A CAR	0.4%	No
CCR	1.5%	No	MRV ENGENHARIA	0.4%	No
ULTRAPAR PART ON	1.5%	No	ANHANGUERA EDU ON	0.4%	No
BANCO BRASIL	1.4%	No	BANRISUL PNB	0.3%	No
BC SANTANDER BRASIL UNIT	1.4%	Yes	EDP ENERGIAS DO BRASIL	0.3%	No
CSN SIDERURGICA NAC'L ON	1.2%	Yes	DIAGNOSTICOS AMERICA ON	0.3%	No
REDECARD	1.2%	No	MULTIPLAN EMPREENDIM ON	0.3%	No
SOUZA CRUZ ON	1.1%	No	ODONTOPREV ON	0.3%	No
BR MALLS PARTICIPACOES	1.0%	No	USIMINAS ON	0.3%	No
PAO DE ACUCAR PN	1.0%	Yes	AES TIETE PN	0.3%	No
TIM PART. ON	1.0%	Yes	OLON	0.3%	Yes
EMBRAER	0.9%	Yes	ECORODOVIAS INFRA E LOG	0.3%	No
SABESP ON	0.9%	Yes	DURATEX (NEW)	0.3%	No
OIPN	0.9%	Yes	ELETROPAULO METROPOL.PN	0.3%	No
BRADESPAR PN	0.8%	No	AMIL PARTICIPACOES	0.3%	No
LOJAS RENNER	0.8%	No	HRT PARTICIP EM PETROLEO	0.2%	No
NATURA COSMETICOS ON	0.8%	No	PORTO SEGURO	0.2%	No
GERDAU METALURGICA PN	0.6%	No	CTEEP PN	0.2%	No
CESP PNB	0.6%	No	MMX MINERACAO METALICOS	0.2%	No
CIA HERING	0.6%	No	BRASKEM PNA	0.2%	Yes
CETIP ON	0.6%	No	LIGHT	0.2%	No
LOJAS AMERICANAS PN	0.6%	No	SUL AMERICA UNITS	0.2%	No
JBS	0.6%	No	ROSSI RESIDENCIAL	0.1%	No
PDG REALTY	0.6%	No	SUZANO PAPEL E CELUL PNA	0.1%	No
CPFL ENERGIA ON	0.5%	Yes	BROOKFIELD INCORPORAÇÕES	0.1%	No
			GOL PN	0.1%	Yes

Potential Impact on Security Liquidity Weights

- Liquidity is high for the ADRs although lower than for local listings
 - The median Annualized Traded Value Ratio (ATVR) is 50% for ADR listings compared to 104% for local listings
- Weight differences between local listings and ADRs are small indicating no significant ADR premium/discounts
 - The maximum weight difference is 5 basis points

Security Name	•	ADR listing 12M ATVR	Local listing weight	ADR listing weight	Weight Difference
PETROBRAS PN	117%	24%	9.0%	9.0%	0.05%
VALE PNA	195%	32%	8.4%	8.4%	-0.05%
ITAU UNIBANCO PN	90%	52%	7.0%	7.0%	0.00%
PETROBRAS ON	44%	67%	6.6%	6.7%	0.04%
AMBEV PN	45%	22%	6.3%	6.3%	-0.01%
BANCO BRADESCO PN	75%	32%	6.1%	6.1%	0.01%
VALE ON	75%	86%	5.6%	5.6%	-0.03%
BRASIL FOODS ON	81%	21%	2.4%	2.4%	0.01%
CEMIG PN	89%	58%	1.9%	1.9%	0.00%
TELEF BRASIL PN	72%	32%	1.7%	1.7%	-0.01%
GERDAU PN	212%	83%	1.5%	1.5%	0.00%
BC SANTANDER BRASIL UNIT	97%	69%	1.4%	1.4%	-0.01%
CSN SIDERURGICA NAC'L ON	120%	57%	1.2%	1.2%	0.00%
PAO DE ACUCAR PN	128%	48%	1.0%	1.0%	0.01%
TIM PART. ON	110%	94%	1.0%	1.0%	0.01%
EMBRAER	66%	64%	0.9%	0.9%	0.00%
SABESP ON	54%	45%	0.9%	0.9%	0.01%
OI PN	194%	26%	0.9%	0.9%	0.00%
CPFL ENERGIA ON	74%	46%	0.5%	0.5%	0.00%
COPEL PNB	142%	47%	0.5%	0.5%	0.00%
ELETROBRAS ON	83%	32%	0.5%	0.5%	0.00%
FIBRIA CELULOSE ON	191%	62%	0.4%	0.4%	0.00%
TAM PN	143%	73%	0.4%	0.4%	0.01%
OI ON	152%	15%	0.3%	0.3%	0.00%
BRASKEM PNA	221%	55%	0.2%	0.2%	0.00%
GOL PN	460%	143%	0.1%	0.1%	0.00%
Median	104%	50%			

Note: ATVR data as of April 30, 2012; weights in the MSCI Brazil and the simulated MSCI Brazil indices as of May 11, 2012

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MSCI Brazil and simulated MSCI Brazil: Historical Performance Comparison

- Over the November 2007 March 2012 period, the two indices have had an almost identical performance and risk
- Returns correlation was 99.6% over this period
 - This correlation is understated due to a timing difference between the MSCI Brazil index levels, calculated using the 4PM London time WM/Reuters exchange rates and the closing prices of ADRs in the simulated Brazil Index (9PM London time) that implicitly incorporate the BRL exchange rate changes from 4PM to 9PM

Statistics from 30/11/2007 to 30/03/2012	MSCI Brazil	Simulated MSCI Brazil
Annualized Return (%)*	-0.32%	-0.31%
Annualized Risk (%)	37.2%	37.4%
Correlation		99.6%
Historical Beta		1.00

Discussion Points

- Would the use of ADRs be beneficial to your investment process?
- Is it in your point of view cost-effective to replace local listings by ADRs?
 - Are there advantages in market structure in the trading of ADRs?
 - Lower transaction costs?
 - Multiple exchanges for trading ADRs vs only one for local listings?
- Would the use of ADRs reduce the risk associated to monopolistic behavior of local stock exchanges (e.g., restrictive terms of usage of market information)?
- What would be the ideal timeline for the proposed change?
- Would an ADR-only index be a better alternative to the proposed index?

Appendix

Weight of Brazil in Selected Regional Indices ADR premiums

Weight of Brazil in selected regional indices

MSCI Index	Weight of Brazil
MSCI EM Latin America	63.7%
MSCI BRIC	32.4%
MSCI EM	14.6%
MSCI EM Small Cap	7.3%
MSCI ACWI	1.9%
MSCI ACWI IMI	1.8%

Brazil ADR Premiums/Discounts as of May 10, 2012

Security Name	ADR premium / discount
PETROBRAS PN	0.7%
VALE PNA	-0.5%
ITAU UNIBANCO PN	0.1%
PETROBRAS ON	0.8%
AMBEV PN	0.0%
BANCO BRADESCO PN	0.3%
VALE ON	-0.3%
BRASIL FOODS ON	0.6%
CEMIG PN	0.3%
TELEF BRASIL PN	-0.4%
GERDAU PN	0.1%
BC SANTANDER BRASIL UNIT	-0.3%
CSN SIDERURGICA NAC'L ON	0.5%
PAO DE ACUCAR PN	1.8%
TIM PART. ON	1.1%
EMBRAER	0.2%
SABESP ON	0.9%
OI PN	0.0%
CPFL ENERGIA ON	-0.1%
COPEL PNB	0.5%
ELETROBRAS ON	-0.8%
FIBRIA CELULOSE ON	-0.7%
TAM PN	1.9%
OI ON	-0.6%
BRASKEM PNA	1.6%
GOL PN	0.2%

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