NOMURA

Nomura EM Momentum Index Description

14 April 2016

Summary Description	The Nomura EM Momentum Index (the "**Index**") is a US Dollar denominated index. The Index is based on a strategy which aims to generate a positive return based on the performance of a basket (the "**Basket**") of ten currencies (each a "**Currency**") versus the US dollar. The nominal position which the index takes in each of the currencies in the Basket is determined by a combination of the strategy's momentum signal and a risk weighting mechanism. Leverage on the Basket is adjusted weekly to target an index volatility of 8%.
Index Currency	U.S. Dollar ("USD")
Calculation Agent	Nomura International Plc
Index Business Day	Each day which is both a London and New York Business Day is an Index Business Day. Each Index Business Day is denoted by t. t+1 shall refer to the Index Business Day immediately following Index Business Day t t = 0 on 13 February 1996.
$Index_0$	100
$Index_t$	$Round[Index_{t-1} \times \{1 + Net\ Return_t\}, 8]$
Net $Return_t$	$\sum_{i=1}^{10} \left(Leveraged\ Return_t^i - Trading\ Costs_t^i \right)$
Leveraged $Return^i_t$	For each Currency^i, if day t-1 is a Business Day in Holiday Centre^i then, $Leveraged\ Return_t^i = 0.1 \times Leverage_{t-1}^i \times Risk\ Weighted\ Return_t^i$ Otherwise, $Leveraged\ Return_t^i = 0.1 \times Leverage_{t-n}^i \times Risk\ Weighted\ Return_t^i$ where n is the number of Index Business Days from but excluding t to and including the last Index Business Day that is also a Business Day in Holiday Centre^i.

Nomura International Plc (the "Index Sponsor") makes no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. The Index or Index Sponsor shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. The Index Sponsor is making no representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with securities offered in relation to the Index.

Leverage$_t$	If t is a New Leverage Day, then $Leverage_t = Min\left[Leverage\ Cap_t, \frac{Volatility\ Target}{Annualised\ Volatility\ [Return]_{t-60,t-1}}\right]$ Otherwise $Leverage_t = Leverage_{t-1}$
New Leverage Day	The second Index Business Day in each Week.
Leverage Cap$_t$	$Leverage\ cap_t = Min\left[400\%, 75th\ percentile\ of\ \left(\frac{Volatility\ Target}{Annualised\ Volatility\ [Return]_{k-60,k-1}}\right)\right]$ The 75th percentile is calculated using the rolling series computed by taking k over all available values from 14 May 1996 to t.
Volatility Target	8%
Return$_t$	$\frac{1}{10}\sum_{i=1}^{10}\left(Risk\ Weighted\ Return^i_t\right)$
Risk Weighted Return^i_t	For each Currency^i, if day t-1 is a Business Day in Holiday Centre^i then, $Risk\ Weighted\ Return^i_t = Momentum\ Signal^i_{t-1} \times Risk\ Weight^i_{t-1} \times NMFX\ Return^i_t$ Otherwise, $Risk\ Weighted\ Return^i_t = Momentum\ Signal^i_{t-n} \times Risk\ Weight^i_{t-n} \times NMFX\ Return^i_t$ where n is the number of Index Business Days from but excluding t to and including the last Index Business Day that is also a Business Day in Holiday Centre^i.
Momentum Signal^i_t	If t is a New Leverage Day then $Momentum\ Signal^i_t = \frac{1}{3} \times \left[1\ Month\ Signal^i_t + 3\ Month\ Signal^i_t + 12\ Month\ Signal^i_t\right]$ Otherwise $Momentum\ Signal^i_t = Momentum\ Signal^i_{t-1}$
1 Month Signal^i_t	$Max\left[-1, Min\left[\frac{Average\left[NMFX\ Return^i\right]_{t-22,t-1}}{Standard\ Deviation\left[Average[NMFX\ Return^i]_{k-22,k-1}\right]_{t-1249,t}}, 1\right]\right]$

Nomura International Plc (the "Index Sponsor") makes no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. The Index or Index Sponsor shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. The Index Sponsor is making no representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with securities offered in relation to the Index.

3 Month Signal$^{i}_{t}$	$$Max\left[-1, Min\left[\frac{Average\left[NMFX\ Return^{i}\right]_{t-66,t-1}}{Standard\ Deviation\left[Average[NMFX\ Return^{i}]_{k-66,k-1}\right]_{t-1249,t}}, 1\right]\right]$$
12 Month Signal$^{i}_{t}$	$$Max\left[-1, Min\left[\frac{Average\left[NMFX\ Return^{i}\right]_{t-250,t-1}}{Standard\ Deviation\left[Average[NMFX\ Return^{i}]_{k-250,k-1}\right]_{t-1249,t}}, 1\right]\right]$$
Risk Weight$^{i}_{t}$	If $\left[\frac{Raw\ Risk\ Weight_t^i}{\sum_{i=1}^{10} Raw\ Risk\ Weight_t^i}\right] > Risk\ Weight\ Proportion\ Cap$, then: $Risk\ Weight_t^i = Risk\ Weight\ Proportion\ Cap \times \sum_{i=1}^{10} Raw\ Risk\ Weight_t^i$ Otherwise $Risk\ Weight_t^i = Raw\ Risk\ Weight_t^i$
Raw Risk Weight$^{i}_{t}$	If t is a New Leverage Day, then $Raw\ Risk\ Weight_t^i = Min\left[Risk\ Weight\ Cap_t^i\ , \frac{Risk\ Weight\ Volatility\ Target}{Annualised\ Volatility[NMFX\ Return^{i}]_{t-60,t-1}}\right]$ Otherwise $Raw\ Risk\ Weight_t^i = Raw\ Risk\ Weight_{t-1}^i$
Risk Weight Cap$^{i}_{t}$	$Min\left[300\%, 75th\ percentile\ of\ \left(\frac{Risk\ Weight\ Volatility\ Target}{Annualised\ Volatility[NMFX\ Return^{i}]_{k-60,k-1}}\right)\right]$ The 75th percentile is calculated using the rolling series computed by taking k over all available values from 31 March 1995 to t.
Risk Weight Volatility Target	10%
Risk Weight Proportion Cap	25%
NMFX Return$^{i}_{t}$	$\frac{NMFX_t^i}{NMFX_{t-1}^i} - 1$ Where NMFX^{i} refers to the Nomura FX Return Index for Currency^{i} as detailed in Appendix 1.
Trading Costs$^{i}_{t}$	For each Currency^{i}, if day t-1 is a Business Day in Holiday Centre^{i} then, $Trading\ Costs_t^i = Transaction\ Cost_{t-1,t}^i + Roll\ Cost_{t-1,t}^i$

Nomura International Plc (the "Index Sponsor") makes no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. The Index or Index Sponsor shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. The Index Sponsor is making no representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with securities offered in relation to the Index.

	Otherwise, $Trading\ Costs_t^i = Transaction\ Cost_{t-n,t}^i + Roll\ Cost_{t-n,t}^i$ where n is the number of Index Business Days from but excluding t to and including the last Index Business Day that is also a Business Day in Holiday Centre[i].
Transaction Cost$^i_{t\text{-}k,t}$	$T^i \times 0.1 \times \{ABS[(Leverage_t \times Risk\ Weight_t^i \times Momentum\ Signal_t^i) - (Leverage_{t-k} \times Risk\ Weight_{t-k}^i \times Momentum\ Signal_{t-k}^i)]\}$ Where ABS denotes the absolute value of the function between the brackets, and T^i can be found in Appendix 3.
Roll Cost$^i_{t\text{-}k,t}$	$R^i \times ABS[(0.1 \times Leverage_{t-k} \times Risk\ Weight_{t-k}^i \times Momentum\ Signal_{t-k}^i)] \times \left(\frac{12}{250}\right)$ Where R^i can be found in Appendix 3.
General Definitions	
Average [α] $_{a,b}$	$\frac{1}{(b-a+1)} \times \sum_{k=a}^{b} \alpha_k$
Standard Deviation [α] $_{a,b}$	$\sqrt{\frac{\sum_{k=a}^{b}(\alpha_k - Average[\ \alpha\ ]_{a,b})^2}{b-a}}$
Annualised Volatility[α] $_{a,b}$	$Standard\ Deviation[\ \alpha\ ]_{a,b} \times \sqrt{250}$
Round [α , β]	Rounds value **α** to the βth decimal place.
Documentation	All capitalized terms used in this document and not otherwise defined will have the meanings given to them in the 2006 ISDA Definitions.

Nomura International Plc (the "Index Sponsor") makes no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. The Index or Index Sponsor shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. The Index Sponsor is making no representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with securities offered in relation to the Index.

Appendices

Appendix 1: Nomura FX Return Indices and Price Sources

*NMFXCNY is used until 30 April 2012. From 01 May 2012 onwards NMFXCNH replaces NMFXCNY.

i	Currency[i]	Source
1	Brazilian Real (“BRL”)	NMFXBRL
2*	Chinese Yuan (“CNY”)	NMFXCNY
2*	Chinese Yuan (“CNH”)	NMFXCNH
3	Indian Rupee (“INR“)	NMFXINR
4	South Korean Won (“KRW”)	NMFXKRW
5	Mexican Peso (“MXN”)	NMFXMXN
6	Polish Zloty (“PLN”)	NMFXPLN
7	Russian Ruble (“RUB”)	NMFXRUB
8	Singaporean Dollar (“SGD”)	NMFXSGD
9	Turkish Lira (“TRY”)	NMFXTRY
10	South African Rand (“ZAR”)	NMFXZAR

Appendix 2: Currency Holidays

*CNY is used until 30 April 2012. From 01 May 2012 onwards CNH replaces CNY.

i	Currency[i]	Holiday Centre[i]
1	BRL	Bolsa de Mercadorias y Futuros (BMF)
2*	CNY	Beijing
2*	CNH	Hong Kong
3	INR	Mumbai
4	KRW	Seoul
5	MXN	Mexico City
6	PLN	Warsaw
7	RUB	Moscow

Nomura International Plc (the "Index Sponsor") makes no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. The Index or Index Sponsor shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. The Index Sponsor is making no representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with securities offered in relation to the Index.

8	SGD	Singapore
9	TRY	Istanbul
10	ZAR	Johannesburg

Appendix 3: Transaction and Roll Costs

*CNY is used until 30 April 2012. From 01 May 2012 onwards CNH replaces CNY.

i	Currency^{i}	T^{i}	R^{i}
1	BRL	0.050%	0.030%
2*	CNY	0.040%	0.010%
2*	CNH	0.040%	0.010%
3	INR	0.095%	0.020%
4	KRW	0.070%	0.030%
5	MXN	0.040%	0.015%
6	PLN	0.045%	0.030%
7	RUB	0.060%	0.020%
8	SGD	0.040%	0.010%
9	TRY	0.010%	0.020%
10	ZAR	0.040%	0.030%

Appendix 4: Disruption Events and Fallbacks

The following Disruption Events and Fallback provisions shall apply to the Index:

Price Source Disruption: In the event that, in the sole determination of the Calculation Agent, in relation to any day a Price Source fails to publish a level in relation to any variable which is required in order to determine the Index, the Calculation Agent will determine the level of such variable: (a) using the Fallback Price Source specified in relation to such variable (if any); (b) if no Fallback Price Source is specified or such Fallback Price Source is also subject to a Price Source Disruption, in its sole discretion.

References to "Price Source" shall be construed as referring also to any successor page or information on which the relevant rate may be published as determined by the Calculation Agent in its sole discretion acting in a commercially reasonable manner.

Error in methodology: in the event that the Calculation Agent determines that there is an error in the method for determining an Index, it shall make such adjustments as it deems necessary in its sole discretion to correct such error.

Nomura International Plc (the "Index Sponsor") makes no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. The Index or Index Sponsor shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. The Index Sponsor is making no representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with securities offered in relation to the Index.

	Market Disruption Event: In the event that, on any day, there is any event or circumstance which, in the sole opinion of the Calculation Agent, generally prevents dealers in the market from entering into transactions of the type which would be required to replicate the Index, the level for the Index for such day shall be as determined by the Calculation Agent in its sole discretion. **Price Materiality Event:** In the event that, on any day, the level published on any Price Source in relation to any variable which is required in order to determine an Index is, in the sole determination of the Calculation Agent, significantly different to the level of such variable prevailing in the market, such variable shall instead be determined by the Calculation Agent using its sole discretion, acting in a commercially reasonable manner.
Appendix 5: Replacement of Index Components	If the Calculation Agent, acting in its sole discretion, determines that on any day a variable, rate or other component which is necessary in order to determine a level of the Index (an "**Index Component**"): (a) is no longer available; or (b) has been materially modified and such modification will have a materially adverse effect on the Strategy achieving its Objective, then the Calculation Agent shall remove or replace such affected Index Component with an alternative rate, variable or component (a "**Replacement Index Component**") which, in it its sole determination, better achieves the objective of the Strategy. In making such removal or replacement, the Calculation Agent may make such adjustments to the Replacement Index Component as it considers necessary so that the level of the Index after event reflects a similar level to that calculated prior to the removal or replacement, acting in its sole discretion. Following the removal or replacement of an Index Component (as specified above), the Calculation Agent will promptly publish a notice which specifies the Index Component(s) removed or replaced and any Replacement Index Components.
Appendix 6: Disclaimer	Nomura International Plc is not sponsored, endorsed or promoted by any sponsor of an Index Component (a "**Sponsor**") or any of their respective subsidiaries or affiliates, and neither the Sponsor nor any of their respective subsidiaries or affiliates, makes any representation regarding the advisability of investing in the Index or any Index Component.

Nomura International Plc (the "Index Sponsor") makes no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. The Index or Index Sponsor shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. The Index Sponsor is making no representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with securities offered in relation to the Index.