

Nomura Corporate Research and Asset Management Inc.
Top Five Execution Venues for Classes of Financial Instruments
For the 12 Months Ended December 31, 2017

Class of Instrument	Equities – Shares and Depository Receipts		
Notification if <1 average trade per business day in the previous year	Not Applicable		
Top five execution venues ranked in terms of trading volumes	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as a percentage of total in that class	Percentage of directed orders
J.P. Morgan Securities LLC (LEI: ZBUT11V806EZRVTWT807)	17.77%	4.60%	0.00%
Merrill Lynch, Pierce, Fenner & Smith Inc. (LEI: 8NAV47TOY26Q87Y0QP81))	15.26%	3.13%	0.00%
BARCLAYS CAPITAL INC. (LEI: AC28XWWI3WIBK2824319)	10.39%	1.08%	0.00%
Credit Suisse Securities (USA) LLC (LEI: 1V8Y6QCX6YMJ2OELI46)	9.33%	1.58%	0.00%
Morgan Stanley & Co. LLC (LEI: 9R7GPTSO7KV3UQJZQ078)	8.98%	2.88%	0.00%

Class of Instrument	Debt Instruments - Bonds		
Notification if <1 average trade per business day in the previous year	Not Applicable		
Top five execution venues ranked in terms of trading volumes	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as a percentage of total in that class	Percentage of directed orders
J.P. Morgan Securities LLC (LEI: ZBUT11V806EZRVTWT807)	13.97%	12.91%	0.00%
Merrill Lynch, Pierce, Fenner & Smith Inc. (LEI: 8NAV47TOY26Q87Y0QP81))	13.63%	12.16%	0.00%
Citigroup Global Markets Inc. (LEI - MBNUM2BPBDO7JBLYG310)	9.35%	9.01%	0.00%
Goldman Sachs & Co. LLC (LEI - FOR8UP27PHTHYVLBN30)	9.18%	9.59%	0.00%
Morgan Stanley & Co. LLC (LEI - 9R7GPTSO7KV3UQJZQ078)	7.91%	8.25%	0.00%

Class of Instrument	Currency Derivatives – Swaps, Forwards, and Other Currency Derivatives		
Notification if <1 average trade per business day in the previous year	Not Applicable		
Top five execution venues ranked in terms of trading volumes	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as a percentage of total in that class	Percentage of directed orders
The Bank of New York Mellon (LEI - HPFHU00Q28E4N0NFVK49)	73.10%	30.10%	0.00%
State Street Bank and Trust Company (LEI - 571474TGEMMWANRLN572)	14.22%	35.76%	0.00%
UBS AG (LEI - L5B73Z7Y846FLWTQMU88)	10.56%	27.02%	0.00%
JPMChase New York (LEI - 5493004W3CC8HBNL9W83)	2.12%	7.12%	0.00%

Class of Instrument	Exchange Traded Products (Exchange Traded Funds, Exchange Traded Notes and Exchange Traded Commodities)		
Notification if <1 average trade per business day in the previous year	The firm averaged <1 trade per business day in the previous year		
Top five execution venues ranked in terms of trading volumes	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as a percentage of total in that class	Percentage of directed orders
Penserra Securities LLC (LEI - 549300WY8ZBI168Y6Z05)	96.34%	96.59%	0.00%
Citigroup Global Markets Inc. (LEI - MBNUM2BPBDO7JBLYG310)	3.66%	3.41%	0.00%

Class of Instrument	Other Instruments		
Notification if <1 average trade per business day in the previous year	Not Applicable		
Top five execution venues ranked in terms of trading volumes	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as a percentage of total in that class	Percentage of directed orders
Bank of America, National Association (LEI - B4TYDEB6GKMZO031MB27)	21.48%	21.51%	0.00%
JPMorgan Chase Bank, National Association (LEI - 7H6GLXDRUGQFU57RNE97)	17.51%	17.14%	0.00%
Goldman Sachs Bank USA (LEI - KD3XUN7C6T14HNAYLU02)	13.11%	7.75%	0.00%
Morgan Stanley Senior Funding, Inc. (LEI - XRR2REEVVJS58CENNG14)	10.43%	10.50%	0.00%
Jefferies Leveraged Credit Products, LLC (LEI - SD2WHB6KCKNBO8F61R35)	6.91%	8.83%	0.00%