

Equity, Commodities and Funds				
relative changes (%)				
Risk factor category	GEO	Country	Index name	Shock
Equity	EU	Austria	<i>Austrian Traded Index</i>	-26.5
Equity	EU	Belgium	<i>Belgium BEL 20 Index</i>	-32.5
Equity	EU	Bulgaria	<i>Bulgaria Stock Exchange SOFIX Index</i>	-31.0
Equity	EU	Croatia	<i>Zagreb Stock Exchange CROBEX Index</i>	-29.0
Equity	EU	Cyprus	<i>Cyprus Market Index</i>	-33.8
Equity	EU	Czech Republic	<i>Prague Stock Exchange Index</i>	-34.8
Equity	EU	Denmark	<i>Nordic Exchange OMX Copenhagen 20 Index</i>	-29.0
Equity	EU	Estonia	<i>Nordic Exchange OMX Tallinn (OMXT) Index</i>	-26.3
Equity	EU	Finland	<i>Nordic Exchange OMX Helsinki Price Index</i>	-32.4
Equity	EU	France	<i>France CAC 40 Index</i>	-34.3
Equity	EU	Germany	<i>DAX 30 Performance Index</i>	-31.7
Equity	EU	Greece	<i>Athens Stock Exchange Main General Index</i>	-34.2
Equity	EU	Hungary	<i>Budapest Stock Exchange BUX Index</i>	-33.7
Equity	EU	Ireland	<i>Irish Stock Exchange ISEQ Overall Index</i>	-39.0
Equity	EU	Italy	<i>FTSE Milan Stock Exchange MIB</i>	-36.4
Equity	EU	Latvia	<i>Nordic Exchange OMX Riga (OMXR) Index</i>	-24.8
Equity	EU	Lithuania	<i>Nordic Exchange OMX Vilnius General Index</i>	-24.7
Equity	EU	Luxembourg	<i>Luxembourg Stock Exchange LuxX Index</i>	-25.1
Equity	EU	Malta	<i>Malta Stock Exchange Index</i>	-12.8
Equity	EU	Netherlands	<i>Amsterdam Exchange (AEX) Index</i>	-34.6
Equity	EU	Poland	<i>Warsaw Stock Exchange General Index</i>	-27.7
Equity	EU	Portugal	<i>Portugal PSI-20 Index</i>	-36.5
Equity	EU	Romania	<i>Romania BET 10 Index</i>	-33.8
Equity	EU	Slovakia	<i>Bratislava Stock Exchange SAX Index</i>	-25.0
Equity	EU	Slovenia	<i>Slovenian Blue Chip Index (SBI TOP)</i>	-25.7
Equity	EU	Spain	<i>Spain IBEX 35 Index</i>	-36.3
Equity	EU	Sweden	<i>Nordic Exchange OMX Stockholm 30 Index</i>	-31.4
Equity	EU	United Kingdom	<i>Financial Times Stock Exchange (FTSE) Ordinary Share Index</i>	-41.3
Equity	Rest of Europe	Norway	<i>Oslo Exchange All Share Index</i>	-25.1
Equity	Rest of Europe	Russia	<i>Russian Traded Index</i>	-54.9
Equity	Rest of Europe	Switzerland	<i>Swiss Exchange SWX Swiss Market Index</i>	-25.9
Equity	Rest of Europe	Turkey	<i>International Stock Exchange National 100 Index</i>	-37.3
Equity	North America	Canada	<i>Standard and Poors/TSX Composite Index</i>	-30.5
Equity	North America	US	<i>Standard and Poors 500 Index</i>	-39.4
Equity	Australia and Pacific	Australia	<i>Australian Stock Exchange All Ordinaries Index</i>	-23.2
Equity	South and central America	Argentina	<i>Buenos Aires Stock Exchange Merval Index</i>	-44.8
Equity	South and central America	Brazil	<i>Sao Paulo Stock Exchange Bovespa Index</i>	-40.4
Equity	South and central America	Mexico	<i>Mexico Stock Exchange (MXSE) IPC General Index</i>	-27.9
Equity	Asia	China	<i>Shanghai Stock Exchange Composite Index</i>	-35.4
Equity	Asia	Hong Kong	<i>Hong Kong Stock Exchange HANG SENG Index (HSI)</i>	-31.6
Equity	Asia	India	<i>Bombay Stock Exchange Sensitive Index</i>	-19.3
Equity	Asia	Japan	<i>Nikkei Index</i>	-31.6
Equity	Asia	Singapore	<i>Straits Times Index STI</i>	-22.3
Equity	EU	Dividend EU	<i>EURO STOXX Select Dividend 30</i>	-35.1
Equity	North America	Dividend North America	<i>Dow Jones U.S. Select Dividend Index</i>	-35.8
Equity	Others	Other countries	<i>Other countries index</i>	-30.0
Funds	EU	EU Private equity index	<i>LPX Europe Listed Private Equity Index PI</i>	-35.0
Funds	Global	Global Private Equity index		-40.0
Funds	EU	EU Hedge Fund Index	<i>db Hedge Fund Index</i>	-30.0
Funds	Global	Global Hedge Fund Index	<i>HFRU Global Hedge Fund Index</i>	-30.0
Funds	Global	Global Real Estate Investment Trusts Index		-35.5
Funds	Others	Other funds	<i>Other funds index</i>	-35.0
Commodities	Global	Oil Crude Brent	<i>BRENT CRUDE FUTR</i>	-15.6
Commodities	Global	Natural Gas	<i>NATURAL GAS FUTR</i>	-33.1
Commodities	Global	Agriculturals		-35.2
Commodities	Global	Metals	<i>Gold spot</i>	-23.9
Commodities	Global	Metals	<i>Silver spot</i>	-9.1
Commodities	Global	Metals	<i>Copper spot</i>	-35.3
Commodities	Global	Metals		-37.1
Commodities	Others	Other commodities		-30.2

FX shocks relative changes (%)			
GEO	Description	Exchange rate name	Shock
EU	EURCZK represents 1 EUR per x CZK (Czech Koruna)	EURCZK	11.1
EU	EURGBP represents 1 EUR per x GBP (British Pound)	EURGBP	24.9
EU	EURHRK represents 1 EUR per x HRK (Croatian Kune)	EURHRK	4.9
EU	EURHUF represents 1 EUR per x HUF (Hungarian Forints)	EURHUF	18.6
EU	EURPLN represents 1 EUR per x PLN (Polish Zloty)	EURPLN	15.4
EU	EURRON represents 1 EUR per x RON (Romanian Leu)	EURRON	16.1
EU	EURRSD represents 1 EUR per x RSD (Serbian Dinar)	EURRSD	11.0
EU	USDSEK represents 1 USD per x SEK (Swedish Krona)	EURSEK	10.9
Rest of Europe	EURCHF represents 1 EUR per x CHF (Swiss Franc)	EURCHF	-14.7
Rest of Europe	EURRUB represents 1 EUR per x RUB (Russian Ruble)	EURRUB	24.8
Rest of Europe	EURTRY represents 1 EUR per x TRY (Turkish Lira)	EURTRY	43.2
North America	EURCAD represents 1 EUR per x CAD (Canadian dollar)	EURCAD	15.1
North America	EURUSD represents 1 EUR per x USD (US Dollar)	EURUSD	14.5
South and central America	EURARS represents 1 EUR per x ARS (Argentine Peso)	EURARS	32.3
South and central America	EURBRL represents 1 EUR per x BRL (Brazilian Real)	EURBRL	43.1
South and central America	EURMXN represents 1 EUR per x MXN (Mexican Peso)	EURMXN	21.6
Asia	EURCNY represents 1 EUR per x CNY (Chinese Yuan Renminbi)	EURCNY	13.8
Asia	EURHKD represents 1 EUR per x HKD (Hong Kong Dollar)	EURHKD	14.4
Asia	EURINR represents 1 EUR per x INR (Indian Rupee)	EURINR	14.1
Asia	EURJPY represents 1 EUR per x JPY (Japanese Yen)	EURJPY	14.5
Asia	EURKRW represents 1 EUR per x KRW (South Korean Won)	EURKRW	21.6
Asia	EURMYR represents 1 EUR per x MYR (Malaysian Ringgit)	EURMYR	13.3
Asia	EURSGD represents 1 EUR per x SGD (Singapore Dollar)	EURSGD	11.2
Asia	EURTHB represents 1 EUR per x THB (Thai Baht)	EURTHB	16.8
Asia	EURTWD represents 1 EUR per x TWD (New Taiwan Dollar)	EURTWD	11.7
Africa	EURZAR represents 1 EUR per x ZAR (South African Rand)	EURZAR	27.3
Others	Other exchange rates	Other	17.4

Interest rate yield shocks absolute changes (basis points)							
GEO	Country	Description	3M	1Y	5Y	10Y	15Y
EU	Euro Area	Interest rate SWAP on the EUR (Euro)	-5	-6	-13	-29	-29
EU	Bulgaria	Interest rate SWAP on the BGN (Bulgarian lev)	-5	-6	-13	-29	-29
EU	Croatia	Interest rate SWAP on the HRK (Croatian Kuna)	0	0	-36	-65	-65
EU	Czech Republic	Interest rate SWAP on the CZK (Czech Koruna)	-4	-10	-12	-30	-30
EU	Denmark	Interest rate SWAP on the DKK (Danish Krone)	-5	-6	-13	-29	-29
EU	Hungary	Interest rate SWAP on the HUF (Hungarian Forint)	-1	-6	-43	-84	-84
EU	Poland	Interest rate SWAP on the PLN (Polish Zloty)	-2	-16	-21	-18	-33
EU	Romania	Interest rate SWAP on the RON (Romanian Leu)	0	-21	-43	-52	-52
EU	Sweden	Interest rate SWAP on the SEK (Swedish Krona)	0	-2	-10	-34	-48
EU	United Kingdom	Interest rate SWAP on the GBP (British Pound)	-6	-13	-27	-47	-54
Rest of Europe	Norway	Interest rate SWAP on the NOK (Norwegian Krone)	-3	-21	-30	-44	-48
Rest of Europe	Switzerland	Interest rate SWAP on the CHF (Swiss Franc)	-10	-10	-12	-35	-35
Rest of Europe	Turkey	Interest rate SWAP on the TRY (Turkish Lira)	0	-3	-88	-169	-169
North America	Canada	Interest rate SWAP on the CAD (Canadian Dollar)	-1	-2	-2	-10	-22
North America	US	Interest rate SWAP on the USD (US Dollar)	-5	6	6	-7	-18
Australia and Pacific	Australia	Interest rate SWAP on the AUD (Australian Dollar)	-16	-1	-14	-36	-36
South and central America	Mexico	Interest rate SWAP on the MXN (Mexican Peso)	0	-10	-50	-100	-121
South and central America	Brasil	Interest rate SWAP on the BRL (Brazilian Real)	0	-8	-38	-75	-75
Asia	Hong Kong	Interest rate SWAP on the HKD (Hong Kong Dollar)	0	-2	-18	-50	-50
Asia	Japan	Interest rate SWAP on the JPY (Japanese Yen)	-4	-4	-4	-11	-17
Africa	South Africa	Interest rate SWAP on the ZAR (South African Rand)	-2	14	-18	-60	-60
Others	Other countries	Interest rate SWAP on the other currencies	-5	6	6	-7	-18

Sovereign credit spreads
absolute changes (basis points)

GEO	Country	Reference swap rate	3M	1Y	5Y	10Y	15Y
EU	Austria	EUR	30	29	52	52	52
EU	Belgium	EUR	70	82	97	89	89
EU	Bulgaria	EUR	30	29	52	52	52
EU	Croatia	HRK	68	126	150	148	148
EU	Cyprus	EUR	68	126	150	148	148
EU	Czech Republic	CZK	70	82	97	89	89
EU	Denmark	EUR	30	29	52	52	52
EU	Finland	EUR	30	29	52	52	52
EU	France	EUR	30	29	52	52	52
EU	Germany	EUR	30	29	52	52	52
EU	Greece	EUR	68	126	150	148	148
EU	Hungary	HUF	68	126	150	148	148
EU	Ireland	EUR	30	29	52	52	52
EU	Italy	EUR	68	126	150	148	148
EU	Latvia	EUR	70	82	97	89	89
EU	Lithuania	EUR	68	126	150	148	148
EU	Luxembourg	EUR	30	29	52	52	52
EU	Malta	EUR	68	126	150	148	148
EU	Netherlands	EUR	30	29	52	52	52
EU	Poland	PLN	68	126	150	148	148
EU	Portugal	EUR	68	126	150	148	148
EU	Romania	RON	68	126	150	148	148
EU	Slovakia	EUR	30	29	52	52	52
EU	Slovenia	EUR	30	29	52	52	52
EU	Spain	EUR	68	126	150	148	148
EU	Sweden	SEK	30	29	52	52	52
EU	United Kingdom	GBP	70	82	97	89	89
North America	Canada	CAD	31	38	56	54	54
North America	US	USD	3	14	87	85	85
South and central America	Brazil	BRL	68	126	150	148	148
Rest of Europe	Norway	NOK	78	64	69	51	51
Asia	Japan	JPY	91	86	92	76	76
Others	Other countries	USD	70	82	97	89	89

Corporate credit spreads absolute changes (basis points)					
GEO	Country	Type	1 to 2 (ECAI)	3 (ECAI)	4 to 6 (ECAI)
EU	Austria	Financial	63	94	187
		Non-financial	54	72	80
	Belgium	Financial	108	139	232
		Non-financial	99	117	126
	Denmark	Financial	63	94	187
		Non-financial	54	72	80
	France	Financial	108	139	232
		Non-financial	99	117	126
	Germany	Financial	63	94	187
		Non-financial	54	72	80
	Italy	Financial	151	182	275
		Non-financial	142	160	168
	Netherlands	Financial	63	94	187
		Non-financial	54	72	80
	Spain	Financial	151	182	275
		Non-financial	142	160	168
	Sweden	Financial	63	94	187
		Non-financial	54	72	80
	UK	Financial	108	139	232
		Non-financial	99	117	126
Others	Others	Financial	108	139	232
		Non-financial	99	117	126

Corporate credit spreads indexes absolute changes (basis points)			
GEO	Country	Type	Shock
EU		<i>Itraxx Overall 5y</i>	93
		<i>Itraxx Crossover 5y</i>	346
		<i>Itraxx High vol 5y</i>	137
		<i>Itraxx Non financial 5y</i>	78
		<i>Itraxx Financial 5y</i>	236
		<i>Itraxx SenFinancial 5y</i>	136
North America	US	<i>Investment grade*</i>	58
		<i>High yield*</i>	218
Asia		<i>Investment grade **</i>	140
		<i>High yield**</i>	370
Others	Others	<i>Investment grade **</i>	130
		<i>High yield**</i>	300

*CDX index

** Itraxx index

Covered bonds credit spreads absolute changes (basis points)		
GEO	Type	Shock
EU	1 to 2 (ECAI)	70
	3 (ECAI)	87
	4 to 6 (ECAI)	96
North America	1 to 2 (ECAI)	65
	3 (ECAI)	83
	4 to 6 (ECAI)	91
Asia	1 to 2 (ECAI)	117
	3 (ECAI)	135
	4 to 6 (ECAI)	143
Others	1 to 2 (ECAI)	84
	3 (ECAI)	102
	4 to 6 (ECAI)	110

Securitization credit spreads absolute changes (basis points)			
GEO	1 to 2 (ECAI)	3 (ECAI)	4 to 6 (ECAI)
EU	90	107	116
North America	70	87	96
Asia	100	117	126
Others	70	87	96

Liquidity and modelling uncertainty relative changes (%)		
GEO	Country	Shock
<i>Global</i>	Liquidity reserve	230
<i>Global</i>	Modelling uncertainty - L2	180
<i>Global</i>	Modelling uncertainty - L3	220

FX Implied volatility shocks relative changes (%)								
GEO	Description	Risk factor name	1M	3M	6M	1Y	2Y	5Y
EU	EURCZK ATM Implied Volatility	EURCZK	144	100	79	79	100	100
EU	EURGBP ATM Implied Volatility	EURGBP	206	166	131	86	91	83
EU	EURHRK ATM Implied Volatility	EURHRK	18	13	8	10	9	9
EU	EURHUF ATM Implied Volatility	EURHUF	225	152	98	82	114	107
EU	EURPLN ATM Implied Volatility	EURPLN	135	101	75	55	77	76
EU	EURRON ATM Implied Volatility	EURRON	155	138	138	147	86	79
EU	EURRSD ATM Implied Volatility	EURRSD	147	112	88	77	80	76
EU	EURSEK ATM Implied Volatility	EURSEK	140	97	77	57	75	70
Rest of Europe	EURCHF ATM Implied Volatility	EURCHF	200	141	110	87	90	64
Rest of Europe	EURRUB ATM Implied Volatility	EURRUB	249	161	150	139	139	134
Rest of Europe	EURTRY ATM Implied Volatility	EURTRY	554	267	179	120	125	75
North America	EURCAD ATM Implied Volatility	EURCAD	116	85	67	53	57	56
North America	EURUSD ATM Implied Volatility	EURUSD	100	72	58	52	56	54
South and central America	EURARS ATM Implied Volatility	EURARS	457	294	219	168	136	119
South and central America	EURBRL ATM Implied Volatility	EURBRL	457	294	219	168	136	119
South and central America	EURMXN ATM Implied Volatility	EURMXN	457	294	219	168	136	119
Asia	EURCNY ATM Implied Volatility	EURCNY	105	76	59	64	57	57
Asia	EURHKD ATM Implied Volatility	EURHKD	175	102	71	54	44	55
Asia	EURINR ATM Implied Volatility	EURINR	131	75	61	60	54	56
Asia	EURJPY ATM Implied Volatility	EURJPY	180	120	88	64	60	59
Asia	EURKRW ATM Implied Volatility	EURKRW	236	215	149	149	138	136
Asia	EURMYR ATM Implied Volatility	EURMYR	29	12	7	5	4	4
Asia	EURSGD ATM Implied Volatility	EURSGD	91	67	47	33	51	64
Asia	EURTHB ATM Implied Volatility	EURTHB	40	21	20	16	14	14
Asia	EURTWD ATM Implied Volatility	EURTWD	102	68	47	39	34	34
Africa	EURZAR ATM Implied Volatility	EURZAR	292	206	101	67	77	94
Others		Others	198	133	99	81	78	74

IR volatility shocks
relative changes (%)

GEO	Country	Description	1Mx1Y	1Yx1Y	5Yx5Y	10Yx10Y
EU	<i>Euro Area</i>	<i>EUR (Euro) European Swaption Black Vol ATM Libor Discount</i>	135	100	47	47
EU	<i>Czech Republic</i>	<i>CZK (Czech Koruna) European Swaption Black Vol ATM Libor Discount</i>	135	100	47	47
EU	<i>Denmark</i>	<i>DKK (Danish Krone) European Swaption Black Vol ATM Libor Discount</i>	135	100	47	47
EU	<i>Hungary</i>	<i>HUF (Hungarian Forints) European Swaption Black Vol ATM Libor Discount</i>	34	25	12	12
EU	<i>Poland</i>	<i>PLN (Polish Zloty) European Swaption Black Vol ATM Libor Discount</i>	62	55	55	55
EU	<i>Sweden</i>	<i>SEK (Swedish Krona) European Swaption Black Vol ATM Libor Discount</i>	62	55	55	55
EU	<i>United Kingdom</i>	<i>GBP (British Pound) European Swaption Black Vol ATM Libor Discount</i>	121	121	118	10
Rest of Europe	<i>Norway</i>	<i>NOK (Norwegian Krone) European Swaption Black Vol ATM Libor Discount</i>	74	62	55	34
Rest of Europe	<i>Switzerland</i>	<i>CHF (Swiss Franc) European Swaption Black Vol ATM Libor Discount</i>	61	61	61	14
Rest of Europe	<i>Turkey</i>	<i>TRY (Turkish Lira) European Swaption Black Vol ATM Libor Discount</i>	300	280	200	200
North America	<i>Canada</i>	<i>CAD (Canadian Dollar) European Swaption Black Vol ATM Libor Discount</i>	86	104	134	42
North America	<i>US</i>	<i>USD (US Dollar) European Swaption Black Vol ATM Libor Discount</i>	150	85	63	76
Australia and Pacific	<i>Australia</i>	<i>AUD (Australian Dollar) European Swaption Black Vol ATM Libor Discount</i>	124	121	53	84
South and central America	<i>Mexico</i>	<i>MXN (Mexican Peso) European Swaption Black Vol ATM Libor Discount</i>	300	280	200	200
South and central America	<i>Brasil</i>	<i>BRL (Brazilian Real) European Swaption Black Vol ATM Libor Discount</i>	300	280	200	200
Asia	<i>Hong Kong</i>	<i>HKD (Hong Kong Dollar) European Swaption Black Vol ATM Libor Discount</i>	145	126	140	135
Asia	<i>Japan</i>	<i>JPY (Japanese Yen) European Swaption Black Vol ATM Libor Discount</i>	184	289	150	130
Africa	<i>South Africa</i>	<i>ZAR (South African Rand) European Swaption Black Vol ATM Libor Discount</i>	160	160	228	228
Others	<i>Other countries</i>		150	85	63	76

Equity volatility shocks relative changes (%)					
GEO	Country	Index name	3M	6M	12M
<i>EU</i>	<i>EA</i>	<i>EURO STOXX 50 Volatility Index VSTOXX</i>	190	163	108
<i>EU</i>	<i>UK</i>	<i>FTSE 100 Volatility Index</i>	190	163	108
<i>North America</i>	<i>US</i>	<i>Chicago Board Options Exchange SPX Volatility Index</i>	186	160	110
<i>Asia</i>	<i>Hong Kong</i>	<i>HSI Volatility Index</i>	171	167	160
<i>Asia</i>	<i>Japan</i>	<i>Nikkei Stock Average Volatility Index</i>	152	155	159
<i>Global</i>	<i>Emerging</i>	<i>JPMorgan Emerging Market Volatility Index (EM-VXY)</i>	300	250	150
<i>Others</i>	<i>Others</i>		195	175	130