

The table below details the assumptions that MSCI RiskManager<sup>®</sup> subscribers can use to model the effect of changes in oil prices on their portfolios.

	OIL ST - 10USD	OIL ST - 35USD_SYST	OIL ST - 35USD_NOSYST
EQUITY (UK) PREDICTIVE STRESS TEST			
MSCI Emerging Markets in USD	-25.4%	-3.9%	6.2%
The World Index	-15.9%	-1.5%	4.8%
MSCI World/Energy in USD	-16.4%	-8.2%	-8.2%
EQUITY (FINANCIALS)			
Uniform Shock	-50.0%	-25.0%	NONE (FOLLOWS PST)
INTEREST RATE PREDICTIVE STRESS TEST			
USD Govt 10Y	-0.84%	-0.16%	0.09%
JPY Govt 10Y	-0.23%	-0.07%	0.18%
GBP Govt 10Y	-0.51%	-0.06%	0.13%
EUR Govt 10Y	-0.77%	-0.16%	0.05%
VOLATILITY PREDICTIVE STRESS TEST			
VIX	200.00%	100.00%	no shock
<b>CREDIT SPREADS</b> PARAMETER STRESS TEST			
Energy Companies	100%	0.0%	0.0%
Financial Companies	200%	100.0%	-5.9%
Other	44%	0.0%	-5.9%

## **RISK SETTINGS FOR PREDICTIVE STRESS TEST**

Return specification:

Use the estimation windows of 07/01/2014 through 02/15/2016 for all three scenarios.

- Five-day returns
- Four-day overlay



The tables below detail the effects of all three scenarios for changes in oil prices by equities, high-yield bonds and emerging market corporate debt by sector.

## **GLOBAL EQUITIES**

MSCI ACWI	OIL USD10	OIL USD35 WITH INCR SYST RISK	OIL 35USD
TOTAL	-22.6%	-6.0%	5.8%
CONSUMER DISCRETIONARY	-16.5%	-0.5%	7.3%
CONSUMER STAPLES	-13.2%	-0.5%	5.5%
ENERGY	-16.1%	-7.1%	-6.0%
FINANCIALS	-50.0%	-25.0%	7.1%
HEALTH CARE	-14.5%	0.5%	8.2%
INDUSTRIALS	-16.2%	-1.5%	5.2%
INFORMATION TECHNOLOGY	-17.5%	-0.6%	7.6%
MATERIALS	-18.1%	-3.0%	3.5%
TELECOMMUNICATION SERVICES	-14.0%	-1.0%	5.0%
UTILITIES	-12.1%	-0.7%	4.6%

## **HIGH-YIELD BONDS (BY SECTOR)**

MERRILL HIGH YIELD INDEX	OIL USD10	OIL USD35 WITH INCR SYST RISK	OIL 35USD
TOTAL	-19.4%	-4.6%	1.3%
CONSUMER DISCRETIONARY	-10.0%	0.2%	1.3%
CONSUMER STAPLES	-10.1%	0.1%	1.4%
ENERGY	-35.4%	0.2%	0.1%
FINANCIALS	-34.3%	-20.3%	1.3%
HEALTH CARE	-9.5%	0.2%	1.2%
INDUSTRIALS	-11.5%	0.1%	1.6%
INFORMATION TECHNOLOGY	-12.5%	0.0%	1.6%
MATERIALS	-12.1%	0.2%	1.9%
TELECOMMUNICATION SERVICES	-10.8%	0.4%	1.6%
UTILITIES	-13.5%	0.4%	1.9%

## EMERGING MARKET CORPORATE DEBT (BY SECTOR)

ЈРМ СЕМВІ	OIL USD10	OIL USD35 WITH INCR SYST RISK	OIL 35USD
TOTAL	-20.4%	-7.4%	0.9%
CONSUMER DISCRETIONARY	-11.1%	0.5%	1.4%
CONSUMER STAPLES	-10.2%	0.3%	1.3%
ENERGY	-21.8%	0.5%	-0.2%
FINANCIALS	-29.4%	-16.9%	0.9%
HEALTH CARE	-4.0%	1.1%	0.6%
INDUSTRIALS	-7.2%	0.6%	1.0%
INFORMATION TECHNOLOGY	-4.8%	0.4%	0.5%
MATERIALS	-13.6%	0.5%	2.0%
TELECOMMUNICATION SERVICES	-10.8%	0.4%	1.5%
UTILITIES	-4.5%	0.7%	0.6%

The information contained herein (the "Information") may not be reproduced or redisseminated in whole or in part without prior written permission from MSCI. The Information may not be used to verify or correct other data, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information or other product or service constitutes an offer to buy or sell, or a promotion or recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. The Information is provided "as is" and the user of the Information asymes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION, NONE OF MARTY") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTY HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES, OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTY INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES. THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTIES HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES. THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN OTHER DAMAGES. THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN OTHER DAMAGES. THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN OTHER DAMAGES. THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTE

©2016 MSCI Inc. All rights reserved | CFS0316

