

Preview of 2016 S&P GSCI® Rebalance

S&P GSCI ADVISORY PANEL MEETING

Mark Berkenkopf – Associate Director
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OVERVIEW

- There should be no substantial modifications to and no contracts added to or removed from the S&P GSCI in 2016.
- The Investment Support Level (ISL) will likely be decreased from the current level of US\$ 220 billion to the level of US\$ 180 billion effective January 2016.
- Sector weights will likely remain little changed.
- Brent Crude Oil and Gas Oil should have the largest weight percent decrease and WTI Crude Oil and Feeder Cattle should have the largest weight percent increases.
- WTI Crude Oil will now hold the largest weight in the index, overtaking Brent Crude Oil.
- Cocoa had the largest World Production Average (WPA) increase of 5.2%.
- There were no declines in any commodity World Production Averages (WPA).
- WTI Crude Oil saw the largest percentage volume increase, up 37.36% and Lean Hogs volume saw the largest percentage volume decrease, dropping 13.45%.
- The final 2016 S&P GSCI Rebalance will be published in early November, 2015 and implemented in January 2016.

WORLD PRODUCTION QUANTITY SOURCES

Commodity	Source	Comments
Wheat	FAOSTATS	
Corn	FAOSTATS	
Soybeans	FAOSTATS	
Lean Hogs	FAOSTATS & UN data	FAO data more robust than UN data
Cattle	FAOSTATS & UN data	FAO data more robust than UN data
Coffee	FAOSTATS	
Sugar	USDA	
Cocoa	FAOSTATS	
Cotton	USDA	
Gold	USGS - MYB	
Silver	USGS - MYB	
Crude Oil	UN Data	
Natural Gas	UN Data	
Aluminum	USGS - MYB	
Copper	USGS - MYB	
Lead	USGS - MYB	
Nickel	USGS - MYB	
Zinc	USGS - MYB	

WORLD PRODUCTION AVERAGES

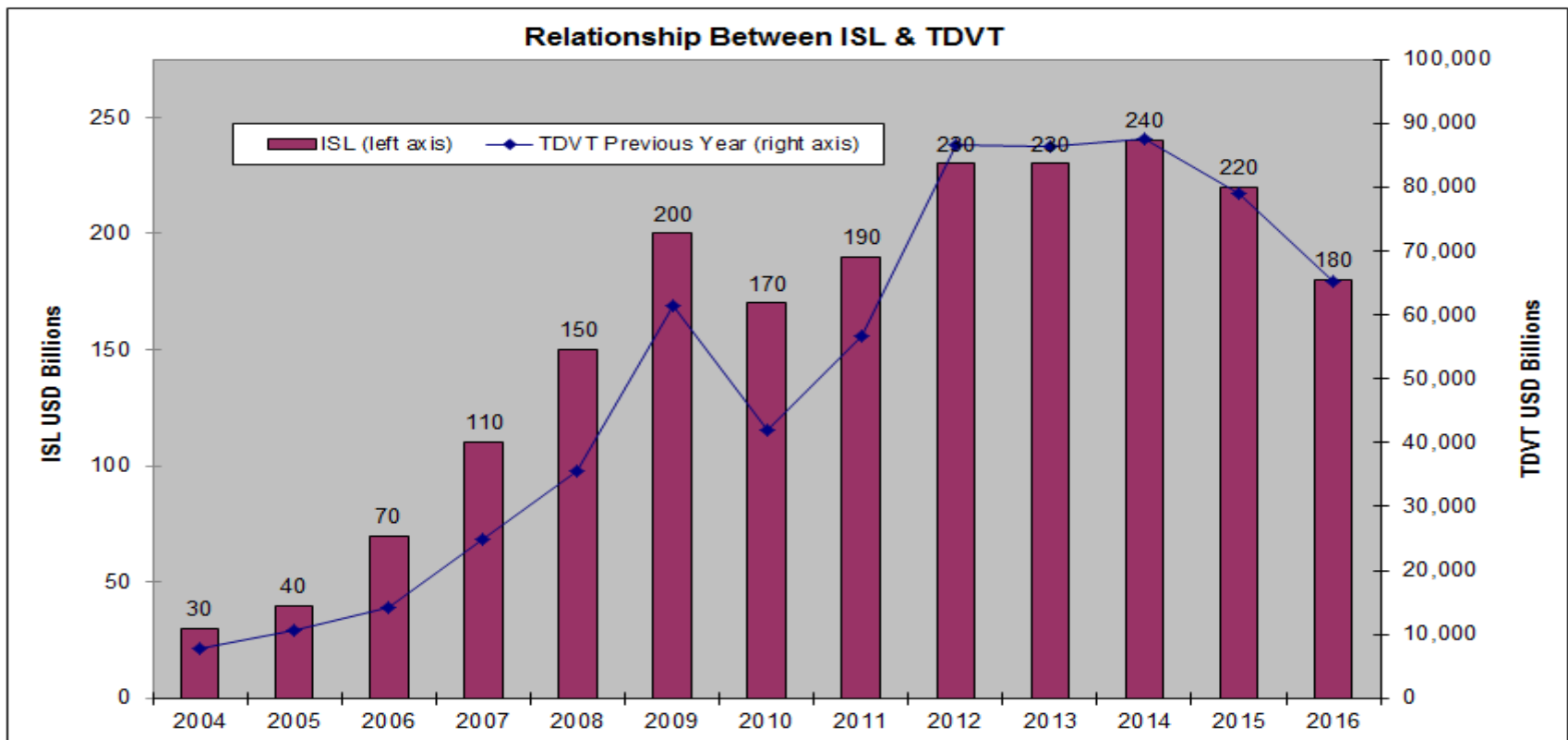
Commodity	WPQ Units	2015 WPA	2016 WPA	Percentage Change
Wheat	M ton	666,466,762	678,027,825	1.7%
Corn	M ton	835,882,151	852,546,224	2.0%
Soybeans	M ton	240,278,555	244,561,496	1.8%
Lean Hogs	1000 M ton	38,541,813	39,767,313	3.2%
Cattle	M ton	49,637,826	51,514,494	3.8%
Coffee	M ton	8,245,923	8,381,239	1.6%
Sugar	M ton	157,463,200	158,969,400	1.0%
Cocoa	M ton	4,277,231	4,498,280	5.2%
Cotton	M ton	25,013,039	25,278,836	1.1%
Gold	1 Kg	2,470,000	2,544,000	3.0%
Silver	1 M ton	22,300	23,420	5.0%
Crude Oil	1000 M ton	3,572,232,240	3,623,323,516	1.4%
Natural Gas	1 Petajoule	32,830	33,382	1.7%
Aluminum	1000 M ton	45,816,000	47,090,000	2.8%
Copper	1000 M ton	18,660,000	19,100,000	2.4%
Lead	1000 M ton	9,170,000	9,484,000	3.4%
Nickel	1 M ton	1,442,000	1,516,000	5.1%
Zinc	1000 M ton	12,080,000	12,380,000	2.5%

WPA COMPARISON TABLE (2011 – 2016)

Commodity	Unit	2011	2012	2013	2014	2015	2016
Wheat	1000 M ton	607,179,129	631,628,801	642,509,771	647,389,857	666,466,762	678,027,825
Corn	1000 M ton	716,556,132	753,063,006	771,424,261	799,358,319	835,882,151	852,546,224
Soybeans	1000 M ton	209,676,610	218,615,028	222,056,398	232,246,870	240,278,555	244,561,496
Lean Hogs	1000 M ton	31,874,730	33,032,151	34,873,804	37,519,258	38,541,813	39,767,313
Cattle	1000 M ton	47,570,642	48,166,185	48,126,079	48,720,841	49,637,826	51,514,494
Coffee	1000 M ton	7,579,527	7,895,326	7,962,799	8,077,173	8,245,923	8,381,239
Sugar	1000 M ton	154,572,198	156,364,508	155,124,759	156,159,370	157,463,200	158,969,400
Cocoa	1000 M ton	4,015,306	4,116,321	4,100,944	4,178,555	4,277,231	4,498,280
Cotton	1000 M ton	23,420,128	24,226,913	23,809,232	24,353,925	25,013,039	25,278,836
Gold	1 Kg	2,430,000	2,382,000	2,388,000	2,404,000	2,470,000	2,544,000
Silver	1 M ton	20,200	20,700	21,040	21,480	22,300	23,420
Crude Oil	1000 M ton	3,566,556,980	3,603,987,000	3,610,557,977	3,604,982,089	3,604,790,667	3,623,323,516
Natural Gas	1 Petajoule	30,406	30,604	31,096	31,919	32,783	33,382
Aluminum	1000 M ton	41,288,000	42,530,000	43,640,000	44,256,000	45,816,000	47,090,000
Copper	1000 M ton	16,620,000	17,140,000	17,700,000	18,200,000	18,660,000	19,100,000
Lead	1000 M ton	7,574,000	7,872,000	8,280,000	8,710,000	9,170,000	9,484,000
Nickel	1 M ton	1,286,000	1,352,000	1,376,000	1,410,000	1,442,000	1,516,000
Zinc	1000 M ton	10,680,000	11,040,000	11,120,000	11,580,000	12,080,000	12,380,000

INVESTMENT SUPPORT LEVEL

- Purpose of ISL:
 - Estimate for liquidity
 - Trigger for CPW changes
 - Not an accurate estimate of commodity investment space



ISL COMMENTARY

- We are recommending an ISL level of 180, which is a significant decrease from 2015. We have historically captured an average of about 72% of the change in TDVT. This year we will be capturing just below the historical average change, due to the large decrease in TDVT. The change is in line with the percent change in overall TDVT. We will continue to maintain our conservative approach to the increase in ISL, to allow for a moderate buffer, thus not calling for a potential intra-year rebalance.

Year	ISL	% Change In ISL	TDVT	% Change In TDVT	% Change In TDVT Captured By ISL Change
2004	30	0.00%	7828.4	33.82%	0.00%
2005	40	33.33%	10582.1	35.18%	94.76%
2006	70	75.00%	14301.3	35.15%	213.39%
2007	110	57.14%	24964	74.56%	76.64%
2008	150	36.36%	35670.6	42.89%	84.79%
2009	200	33.33%	61399.1	72.13%	46.21%
2010	170	-15.00%	41984.7	-31.62%	47.44%
2011	190	11.76%	56608.4	34.83%	33.78%
2012	230	21.05%	86698.5	53.15%	39.61%
2013	230	0.00%	86253.4	-0.51%	0.00%
2014	240	4.35%	87565.9	1.52%	285.73%
2015	220	-8.33%	78917.0	-9.88%	84.37%
2016	180	-18.18%	65320.9	-25.40%	71.57%

Average Excluding Current Year	83.89%
Average With Current Year	82.95%
Average Excluding 2006 & CY	72.12%
Average Excluding 2006 With CY	72.07%

2016 S&P GSCI CPW CALCULATION – PRO FORMA

Symbol	Commodity	CF	Contract Size	Lot Size	ISL	WPA	Volume	TQT	% TQT	CPW	ACRP	TDW	RPDW	TDVT (ann)	TVM
W	Chicago Wheat	36.7437	5000	100	180	678,027,825	29,726,052	4,045,054,254	0.81008277	20181.8	5.21416667	105231.2688	3.53%	775	121.9
KW	Kansas Wheat	36.7437	5000	100	180	678,027,825	6,969,028	948,329,646	0.18991723	4731.456	5.53770833	26201.4233	0.88%	193	121.9
C	Corn	39.3683	5000	100	180	852,546,224	80,645,912	10,242,493,580	1	33563.3	3.75729167	126107.1074	4.23%	1515.1	198.9
S	Soybeans	36.7437	5000	100	180	244,561,496	54,871,040	7,466,727,629	1	8986.094	9.78583333	87936.4182	2.95%	2684.8	505.6
KC	Coffee	2204.623	37500	100	180	8,381,239	7,663,186	130,348,579	1	18477.47	1.51354167	27966.4207	0.94%	434.9	257.5
SB	Sugar	2204.623	112000	100	180	158,969,400	31,794,872	1,615,253,794	1	350467.6	0.13545833	47473.7570	1.59%	482.4	168.3
CC	Cocoa	1	10	1	180	4,498,280	7,199,851	71,998,510	1	4.49828	2997.08333	13481.7200	0.45%	215.8	265
CT	Cotton	2204.623	50000	100	180	25,278,836	6,644,964	150,705,223	1	55730.3	0.63409167	35338.1188	1.19%	210.7	98.7
LH	Lean Hogs	2204.623	40000	100	180	39,767,313	9,686,743	175,753,278	1	87671.93	0.78208333	68566.7553	2.30%	303	73.2
LC	Live Cattle	2204.623	40000	100	180	51,514,494	12,823,578	232,667,046	0.81171792	92186.84	1.5473125	142641.8499	4.79%	793.7	92.1
FC	Feeder Cattle	2204.623	50000	100	180	51,514,494	2,379,595	53,968,298	0.18828208	21383.2	2.16029167	46193.9488	1.55%	257	92.1
CL	WTI Crude Oil	7.33	1000	1	180	3,623,323,516	227,818,975	31,080,351,296	0.4355804	11568.56	59.37	686825.4072	23.04%	13525.6	326.1
HO	Heating Oil	315	42000	1	180	3,623,323,516	36,926,529	4,923,537,200	0.06900168	78754.85	1.97074167	155205.4643	5.21%	3056.5	326.1
XB	RBOB Gasoline	354.9	42000	1	180	3,623,323,516	39,484,082	4,672,672,426	0.06548589	84209.46	1.87831667	158172.0322	5.31%	3114.9	326.1
CO	Brent Crude Oil	7.33	1000	1	180	3,623,323,516	182,286,201	24,868,513,097	0.34852363	9256.426	65.7775	608864.5612	20.43%	11990.3	326.1
QS	Gas Oil	1	100	1	180	3,623,323,516	58,088,045	5,808,804,500	0.08140839	294.9689	588.25	173515.4554	5.82%	3417	326.1
NG	Natural Gas	947086.29	10000	1	180	33,382	114,612,040	1,210,154	1	31615.91	3.0555	96602.4130	3.24%	3502	600.3
LA	Aluminum	1	25	1	180	47,090,000	62,312,305	1,557,807,625	1	47.09	1820.85417	85744.0227	2.88%	2836.5	547.8
LP	Copper	1	25	1	180	19,100,000	39,909,363	997,734,075	1	19.1	6008.1875	114756.3813	3.85%	5994.6	865
LN	Nickel	1	6	1	180	1,516,000	19,019,793	114,118,758	1	1.516	13711.2083	20786.1918	0.70%	1564.7	1246.5
LL	Lead	1	25	1	180	9,484,000	12,664,596	316,614,900	1	9.484	1885.95833	17886.4288	0.60%	597.1	552.8
LX	Zinc	1	25	1	180	12,380,000	29,199,040	729,976,000	1	12.38	2124.35417	26299.5046	0.88%	1550.7	976.4
GC	Gold	32.15075	100	1	180	2,544,000	43,984,801	136,808,009	1	81.79151	1182.49167	96717.7790	3.24%	5201.2	890.5
SI	Silver	32150.75	5000	1	180	23,420	13,772,316	2,141,834	1	752.9706	16.0373333	12075.6405	0.41%	1104.4	1514.4

2016 S&P GSCI CPW COMPARISON

Symbol	Commodity	2015 CPW	2016 CPW	% Change
W	Chicago Wheat	19929.26	20181.8	1.27%
KW	Kansas Wheat	4559.198	4731.456	3.78%
C	Corn	32907.26	33563.3	1.99%
S	Soybeans	8828.723	8986.094	1.78%
KC	Coffee	18179.15	18477.47	1.64%
SB	Sugar	347147	350467.6	0.96%
CC	Cocoa	4.277231	4.49828	5.17%
CT	Cotton	55144.32	55730.3	1.06%
LH	Lean Hogs	84970.17	87671.93	3.18%
LC	Live Cattle	92895.69	92186.84	-0.76%
FC	Feeder Cattle	16537	21383.2	29.31%
CL	WTI Crude Oil	10354.9	11568.56	11.72%
HO	Heating Oil	82958.12	78754.85	-5.07%
RB	RBOB Gasoline	86115.54	84209.46	-2.21%
LCO	Brent Crude Oil	9618.998	9256.426	-3.77%
LGO	Gas Oil	341.2737	294.9689	-13.57%
NG	Natural Gas	31092.93	31615.91	1.68%
MAL	Aluminum	45.816	47.09	2.78%
MCU	Copper	18.66	19.1	2.36%
MNI	Nickel	1.442	1.516	5.13%
MPB	Lead	9.17	9.484	3.42%
MZN	Zinc	12.08	12.38	2.48%
GC	Gold	79.41235	81.79151	3.00%
SI	Silver	716.9617	752.9706	5.02%

2016 ACRP COMPARISON

Symbol	Commodity	2015 ACRP	2016 ACRP	% Change
W	Chicago Wheat	624.6041667	521.4166667	-16.52%
KW	Kansas Wheat	698.9583333	553.7708333	-20.77%
C	Corn	436.75	375.7291667	-13.97%
S	Soybeans	1300.6875	978.5833333	-24.76%
KC	Coffee	156.5625	151.3541667	-3.33%
SB	Sugar	17.17166667	13.54583333	-21.12%
CC	Cocoa	2938.583333	2997.083333	1.99%
CT	Cotton	81.53166667	63.40916667	-22.23%
LH	Hogs	104.8625	78.20833333	-25.42%
LC	Live Cattle	140.925	154.73125	9.80%
FC	Feeder Cattle	184.7770833	216.0291667	16.91%
CL	WTI Crude Oil	99.455	59.37	-40.30%
HO	Heating Oil	2.95885	1.970741667	-33.40%
RB	RBOB Gasoline	2.799216667	1.878316667	-32.90%
LCO	Brent Crude Oil	108.0491667	65.7775	-39.12%
LGO	Gas Oil	909.8958333	588.25	-35.35%
NG	Natural Gas	4.247666667	3.0555	-28.07%
MAL	Aluminum	1827.283333	1820.854167	-0.35%
MCU	Copper	7034.041667	6008.1875	-14.58%
MNI	Nickel	16184.25	13711.20833	-15.28%
MPB	Lead	2138.75	1885.958333	-11.82%
MZN	Zinc	2068.25	2124.354167	2.71%
GC	Gold	1281.891667	1182.491667	-7.75%
SI	Silver	20.15891667	16.03733333	-20.45%

YEARLY VOLUME COMPARISON

Symbol	Commodity	2015 Volume	2016 Volume	% Change
W	Chicago Wheat	24,843,434	29,726,052	19.65%
KW	Kansas Wheat	5,683,410	6,969,028	22.62%
C	Corn	67,274,621	80,645,912	19.88%
S	Soybeans	46,353,295	54,871,040	18.38%
KC	Coffee	6,913,081	7,663,186	10.85%
SB	Sugar	30,309,654	31,794,872	4.90%
CC	Cocoa	6,197,360	7,199,851	16.18%
CT	Cotton	5,520,880	6,644,964	20.36%
LH	Lean Hogs	11,192,630	9,686,743	-13.45%
LC	Live Cattle	13,018,071	12,823,578	-1.49%
FC	Feeder Cattle	1,853,949	2,379,595	28.35%
CL	WTI Crude Oil	165,852,064	227,818,975	37.36%
HO	Heating Oil	31,636,219	36,926,529	16.72%
RB	RBOB Gasoline	32,840,304	39,484,082	20.23%
LCO	Brent Crude Oil	154,065,283	182,286,201	18.32%
LGO	Gas Oil	54,661,016	58,088,045	6.27%
NG	Natural Gas	114,333,431	114,612,040	0.24%
MAL	Aluminum	64,119,393	62,312,305	-2.82%
MCU	Copper	38,038,602	39,909,363	4.92%
MNI	Nickel	17,326,363	19,019,793	9.77%
MPB	Lead	13,281,083	12,664,596	-4.64%
MZN	Zinc	30,949,050	29,199,040	-5.65%
GC	Gold	38,769,799	43,984,801	13.45%
SI	Silver	13,327,153	13,772,316	3.34%
Total Volume		988,360,145	1,130,482,907	14.38%

2016 DOLLAR WEIGHT COMPARISON – PRO FORMA

Symbol	Commodity	2015 CPW	2016 CPW	2015 ACRP	2015 TDW	2016 TDW	2015 PDW	2016 RPDW	Difference (basis pts)
W	Chicago Wheat	19929.26	20181.8	5.214166667	103914.4832	105231.2688	3.53%	3.53%	0
KW	Kansas Wheat	4559.198	4731.456	5.537708333	25247.50876	26201.42332	0.86%	0.88%	2
C	Corn	32907.26	33563.3	3.757291667	123642.1738	126107.1074	4.21%	4.23%	2
S	Soybeans	8828.723	8986.094	9.785833333	86396.41182	87936.4182	2.94%	2.95%	1
KC	Coffee	18179.15	18477.47	1.513541667	27514.90099	27966.42074	0.94%	0.94%	0
SB	Sugar	347147	350467.6	0.135458333	47023.95404	47473.75698	1.60%	1.59%	-1
CC	Cocoa	4.277231	4.49828	2997.083333	12819.21774	13481.72002	0.44%	0.45%	2
CT	Cotton	55144.32	55730.3	0.634091667	34966.55378	35338.11881	1.19%	1.19%	0
LH	Lean Hogs	84970.17	87671.93	0.782083333	66453.75379	68566.75525	2.26%	2.30%	4
LC	Live Cattle	92895.69	92186.84	1.5473125	143738.6623	142641.8499	4.89%	4.79%	-10
FC	Feeder Cattle	16537	21383.2	2.160291667	35724.74329	46193.94877	1.22%	1.55%	33
CL	WTI Crude Oil	10354.9	11568.56	59.37	614770.413	686825.4072	20.91%	23.04%	213
HO	Heating Oil	82958.12	78754.85	1.970741667	163489.0237	155205.4643	5.56%	5.21%	-35
RB	RBOB Gasoline	86115.54	84209.46	1.878316667	161752.254	158172.0322	5.50%	5.31%	-20
LCO	Brent Crude Oil	9618.998	9256.426	65.7775	632713.6409	608864.5612	21.52%	20.43%	-110
LGO	Gas Oil	341.2737	294.9689	588.25	200754.254	173515.4554	6.83%	5.82%	-101
NG	Natural Gas	31092.93	31615.91	3.0555	95004.44762	96602.41301	3.23%	3.24%	1
MAL	Aluminum	45.816	47.09	1820.854167	83424.2545	85744.02271	2.84%	2.88%	4
MCU	Copper	18.66	19.1	6008.1875	112112.7788	114756.3813	3.81%	3.85%	4
MNI	Nickel	1.442	1.516	13711.20833	19771.56242	20786.19183	0.67%	0.70%	2
MPB	Lead	9.17	9.484	1885.958333	17294.23792	17886.42883	0.59%	0.60%	1
MZN	Zinc	12.08	12.38	2124.354167	25662.19833	26299.50458	0.87%	0.88%	1
GC	Gold	79.41235	81.79151	1182.491667	93904.44211	96717.77898	3.19%	3.24%	5
SI	Silver	716.9617	752.9706	16.03733333	11498.15377	12075.6405	0.39%	0.41%	1

2016 SECTOR WEIGHT COMPARISON – PRO FORMA

Sector	2015 Weight	2016 Weight	Difference (basis pts)
Energy	63.56%	63.05%	-52
Agriculture	15.70%	15.76%	6
Livestock	8.37%	8.64%	27
Industrial Metals	8.79%	8.91%	12
Precious Metals	3.59%	3.65%	6

- The Livestock sector had the largest percentage increase due to the individual commodity percentage weight increase in Feeder Cattle, an increase in Average Contract Reference Prices for Live Cattle and Feeder Cattle, as well as large production increases within the Livestock sector.

OPEN INTEREST COMPARISON

Symbol	Commodity	Aug. 2014 OI	Aug. 2015 OI	% Change
W	Chicago Wheat	356,839	337,934	-5.30%
KW	Kansas City Wheat	120,022	165,794	38.14%
C	Corn	1,125,660	1,182,600	5.06%
S	Soybeans	601,825	609,474	1.27%
KC	Coffee	144,497	159,542	10.41%
SB	Sugar	828,221	768,718	-7.18%
CC	Cocoa	194,821	162,408	-16.64%
CT	Cotton	160,267	170,975	6.68%
LH	Lean Hogs	207,738	173,202	-16.62%
LC	Live Cattle	277,150	212,967	-23.16%
FC	Feeder Cattle	32,833	32,882	0.15%
CL	WTI Crude Oil	1,474,668	1,593,460	8.06%
HO	Heating Oil	320,666	391,539	22.10%
RB	RBOB Gasoline	248,043	375,212	51.27%
LCO	Brent Crude Oil	1,339,866	1,919,729	43.28%
LGO	Gas Oil	494,137	787,182	59.30%
NG	Natural Gas	884,260	875,817	-0.95%
MAL	Aluminum	862,850	1,098,524	27.31%
MCU	Copper	306,757	414,893	35.25%
MNI	Nickel	199,224	285,662	43.39%
MPB	Lead	130,615	158,715	21.51%
MZN	Zinc	307,453	384,481	25.05%
GC	Gold	322,920	399,568	23.74%
SI	Silver	135,579	144,795	6.80%

Total Open Interest	11,076,911	12,806,073	15.61%
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Sources: CFTC & LME Exchange

CFTC Data for US futures (total long positions only)

CFTC data for ICE - Europe Exchange (total positions reported only)

Exchange data for LME (total positions)

COMPONENT CANDIDATE SCREENING REVIEW

CONTRACTS TESTED FOR INCLUSION

Soybean Oil	Coal (API4) fob Richards Bay (Argus/McCloskey) Swap
Soybean Meal	European 3.5% Fuel Oil Rotterdam Calendar Swap
Hard Red Spring Wheat	RBOB Calendar Swap Future
COMEX Copper	Gas Euro-BOB OXY NWE Barges
Henry Hub Natural Gas - Last Day	Oman Crude Oil
Brent Crude Oil - Last Day	ICE WTI Crude Oil
NYMEX Platinum	ICE Heating Oil
NYMEX E-Mini Crude Oil	ICE NY Harbor RBOB Gasoline
NYMEX Palladium	MICEX Brent Oil
Coal (API2) cif ARA (Argus/McCloskey) Swap	Tin
Gulf Coast No. 6 Fuel Oil 3.0% Sulfur Future	Robusta Coffee - 10 Tonne
NYMEX Chicago Ethanol Future	White Sugar

COMPONENT CANDIDATE SCREENING REVIEW (CONT.)

None of the candidates tested completely satisfy all of the components of the eligibility criteria:

RPDW: at least 1% for a Contract that is not included in S&P GSCI

TDVT: at least US\$ 15 billion for Contracts not represented in S&P GSCI
at least US\$ 30 billion for Contracts already represented in S&P GSCI

TQT: at least 25% for Contracts already represented in S&P GSCI

TVM Lower Level: 30 for Contracts not represented in S&P GSCI

TVM Upper Level: 200 for Contracts already represented in S&P GSCI

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Contact Us

Mark Berkenkopf – Associate Director

mark.berkenkopf@spdji.com

David Blitzer – Chairman of the Index Committee

david.blitzer@spdji.com