

## **BASE METALS AND OTHER MARKETPLACE TRAVELS**

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### **CONCLUSION**

In the commodities constellation, base metals such as aluminum, copper, lead, nickel, and tin usually attract much less attention than the alluring stars of the petroleum complex. Nevertheless, base metals hold an important position in the global economic universe. Not only are they especially important for the economies of many emerging/developing countries (think of China, a huge base metals consumer), but also for several so-called advanced nations.

Of course history is not destiny. However, history reveals that major moves (trend changes) in the base metals complex (use the London Metal Exchange's base metal index, "LMEX", as a benchmark) nevertheless can offer important guidance for significant shifts in other marketplaces. Often LMEX major moves precede those in other financial realms.

The bear marketplace trend for base metals "in general" began in early 2011 and accelerated in 2014 and 2015. Base metals established an important bottom in mid-January 2016. This occurred alongside, though shortly before, troughs in commodities in general (and the petroleum complex in particular) and key lows in the S+P 500 and emerging marketplace stocks. The LMEX bottom also preceded the peak in the trade-weighted United States dollar and a significant yield low in the US Treasury 10 year note.

Emerging and developed countries closely interconnect in today's international economy. So the base metals price rally since its first quarter 2016 low helped to spark optimism about improved global economic growth. However, the upward walk in base metals has been very modest compared to the sharp petroleum climb. In addition, recent LMEX highs roughly coincide with the April 2016 ones in the S+P 500 and emerging marketplace stocks. And US Treasury note yields have slipped lower since mid-March. Suppose noteworthy renewed weakness in base metals appears, with 1Q16 lows challenged or broken. This probably would signal (confirm) further slowing in real GDP expansion rates not only in China, but around the globe.

### **LAUNCH PAD**

Of course supply/demand situations for assorted commodities vary. Analysts also differ in their perspectives regarding a given commodity, relationships between commodities, and the links between commodities and other marketplaces such as currencies, interest rates, and stocks.

Not all commodities or commodity sectors travel exactly alike. Copper does not precisely mirror crude oil. Often price patterns (or important turning points within them) are dramatically dissimilar. Price trends of various individual commodity marketplaces (or commodity marketplace fields such as the petroleum complex or base metals) apparently may converge or diverge relative to each other. One commodity arena may seem to lead or lag another. In addition, convergence/divergence and lead/lag perspectives and issues exist between commodities "in general" (or any given commodity) and other realms such as stocks, interest rates, and foreign exchange.

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The London Metal Exchange Index (LMEX) provides a helpful overview of base metals in general. Six primary non-ferrous metals constitute the LMEX. The index includes aluminum (42.8 percent), copper (31.2pc), lead (8.2pc), nickel (2.0pc), tin (one pc), and zinc (14.8pc).

To unearth trends for commodities “in general”, many marketplace players eagerly study indices such as the broad S&P Goldman Sachs Commodity Index (“GSCI”). The GSCI alloy (percentage dollar weights for 2016, S&P Dow Jones Indices, Table 2; 11/5/15) includes LMEX elements; it has 2.9 percent aluminum, 3.9pc LME copper, .6pc lead, .7pc nickel, and .9pc zinc (no tin). However, their percentage dollar weights add up to only 9.0 percent of the 2016 GSCI. Compare the petroleum complex’s hefty 59.8 percent GSCI share (Brent/North Sea crude oil grabs 20.4pc, NYMEX crude 23.0pc). Because base metals represent a paltry percentage of the broad GSCI, and although base metals and the GSCI often manifest roughly similar trends, the GSCI is not always a close proxy to the base metals complex.

Gold is 3.2pc of the GSCI, silver about .4pc. So base metals plus precious metals combined equal only 12.6pc of the broad GSCI.

### **FINANCIAL MARKETPLACES: FLIGHTS AND CRASHES**

In the following table, data for the broad real trade-weighted US dollar (“TWD”) is from the Federal Reserve Board (H.10; monthly average; March 1973=100). Morgan Stanley’s “MSCI Emerging Stock Markets Index” (“MXEF”) represents emerging stock marketplaces.

In this review, note the trend (and timing) in the LMEX base metal vehicle alongside the broad Goldman Sachs Commodity Index (which is heavily petroleum weighted), emerging stock marketplaces, and the TWD since 2011. The LMEX’s major turns in 2011, 2014, and first quarter 2016 preceded those in the MXEF and TWD. The LMEX’s crucial price shifts preceded those in the broad GSCI in 2011 and 2016, following it by about a month in 2014.

Sustained interest rate yield repression and explosive money printing by the Federal Reserve Board and its allies helped to manufacture a marvelous golden age for advanced nation stock benchmarks such as the S+P 500. Many fervently ask: “Where should we put our money when interest rate yields are so low?”

Yet beginning in mid-year 2015, bear moves in the S+P 500 and other key advanced nation stock marketplaces nevertheless accompanied these LMEX, GSCI, MXEF, and US dollar trends, as did the collapse in China’s Shanghai Composite Index.

The nominal broad TWD, unlike the broad real TWD, has daily data. Its 5/15/15 interim low at 112.8 shortly preceded the 5/20/15 S+P 500 summit at 2135 (and the June 2015 Japanese and Chinese stock marketplace plateaus). The LMEX high on 5/5/15 at 3003 paralleled the GSCI’s 5/6/15 top at 459 (NYMEX crude oil top 5/6/15 at \$62.58) and occurred prior to the 5/15/15 interim low in the TWD and the S+P 500’s 5/20/15 pinnacle. The LMEX’s 1/12/16 trough shortly preceded the date of the nominal broad TWD’s apex (1/20/16 at 126.2) as well as the 2016 lows in these three stock territories.

Therefore the LMEX base metal index (base metals “in general”) at present is a useful variable for marketplace stargazers to monitor in relation to important trends in other key marketplaces.

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	<u>Broad GSCI</u>	<u>London Metal Exchg LMEX</u>	<u>Emerging Market Stocks MXEF</u>	<u>US Dollar (“TWD”)</u>
<b>Peak 2011</b>	762 (4/11 and 5/2/11)	4478 (2/4/11) 4469 (4/8/11) 4339 (7/26/11)	1212 (4/27/11)	<b>Major low 80.5 July 2011</b>
<b>2014 High</b>	673 (6/23/14)	3316 (7/24/14) 3296 (8/26/14)	1104 (9/4/14)	86.5 in September 2014 moved over 86.1, June 2012’s interim ceiling
<b>Recent Low</b>	268 (1/20/16)	2049 (1/12/16)	687 (1/21/16)	101.2 (January 2016)
<b>Percent Fall From 2011 Peak</b>	<b>64.8</b>	<b>54.2</b>	<b>43.3</b>	<b>TWD rally 25.7pc since July 2011 bottom</b>
<b>Percent Fall From 2014 High</b>	<b>60.2</b>	<b>38.2</b>	<b>37.8</b>	<b>TWD rally 17.1pc since September 2014</b>
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<b>Percent Rise From 1Q16 Low (high level; date achieved)</b>	<b>35.8</b> (364; 5/12/16)	<b>17.8</b> (2414; 4/29/16)	<b>24.6</b> (856; 4/21/16)	<b>TWD decline 5.2pc since January 2016</b>
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As the broad real trade-weighted US dollar marched sideways in a narrow range following its July 2011 major floor, it established a minor high in June 2012 at 86.1. September 2014’s TWD 86.5 broke over June 2012’s resistance. Keep in mind this September 2014 TWD breakthrough occurred in between LMEX interim tops of 7/24/14 at 3316 and 11/21/14 at 3150.

The broad real trade-weighted dollar’s blasting upward from its September 2014 level connected closely with the bearish commodity and emerging marketplace stock tumbles, and eventually with a fall in the S+P 500 and other OECD (advanced nation) stocks. The TWD’s three month August-October 2015 span averaged 97.2, thus edging beyond March 2009’s 96.8 worldwide economic disaster peak. November 2015’s 98.2 decisively soared over March 2009’s resistance.

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	<u>S+P 500</u>	<u>Japan: Nikkei</u>	<u>China: Shanghai Composite</u>
<b>Major High</b>	2135 (5/20/15)	20953 (6/24/15)	5178 (6/12/15)
<b>1Q16 Low</b>	1812 (1/20/16) 1810 (2/11/16)	14866 (2/12/16)	2638 (1/27/16)
<b>Percent Fall</b>	<b>15.1pc</b>	<b>29.1</b>	<b>49.1</b>

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<b>Percent Rise</b>	<b>16.6</b>	<b>18.5</b>	<b>17.4</b>
<b>From 1Q16</b>	(2111; 4/20/16)	(17614; 4/25/16)	(3097; 4/13/16)
<b>Low</b> (high level; date achieved)			

The MXEF made a second low on 2/12/16 at 708 alongside the S+P 500's 2/11/16 floor. China's Shanghai Composite made a second low adjacent to its January 2016 one, 2/29/16's 2639.

The US Treasury 10 year note yield's recent low was 2/11/16's 1.53 percent. This event stands close in time to key turns made in assorted other financial marketplaces.

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Important peaks (valleys) in the LMEX do not necessarily (always) precede those in the petroleum complex. The 6/20/14 NYMEX crude oil drop-off high point at \$107.73 preceded the LMEX summer 2014 tops. Yet recall LMEX summer 2014 plateaus occurred months prior to the crucial OPEC oil meeting of 11/27/14, in which oil ministers decided to maintain high production levels (capture market share). The broad GSCI cratered after its 11/26/14 close near 515.

In any case, concentrate on the recent close historical timing relationships between base metals in general and crude oil. The LMEX index's first quarter 2016 low, 1/12/16's 2049, occurred slightly before critical crude oil bottoms. NYMEX crude oil (nearest futures continuation) made its initial low at \$26.19 on 1/20/16, with a second trough at \$26.05 on 2/11/16. ICE Brent/North Sea crude oil (nearest futures) made its bear low at \$27.10 on 1/20/16, with a second one at \$29.92 on 2/11/16.

The NYMEX crude oil rally from its 1Q16 depth to recent May 2016 heights above \$47.00 is over 80.0 percent, as is the Brent charge over \$49.00. These percentages dwarf the 17.8pc climb in the LMEX base metals complex.

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Iron ore (delivered to China), though not part of the LMEX, is an important segment of the base metal complex. Its timing patterns are roughly consistent with those of the LMEX since 2011. Iron ore peaked on 2/17/11 at 191.7, shortly after the 2/4/11 LMEX major high (an interim top on 5/5/11 at 183.0 followed). It plummeted to 38.3 (12/11/15)/ 39.5 (1/13/16; alongside the 1/12/16 LMEX bottom), a crushing eighty percent retreat from February 2011. Iron ore thereafter ascended to 70.5 on 4/21/16, but thereafter slipped, hovering around 54.5 recently.

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What about precious metals from 2011 to the present? From the standpoint of major trend change timing, silver (arguably only a semi-precious metal) patterns have been fairly close to those in base metals. Silver skyrocketed from its 10/28/08 bottom at \$8.46 up to 4/25/11's celestial major top around \$49.80. Its April 2011 peak approximately coincides with February and April 2011 ones in the LMEX. The second silver top on 8/22/11 at \$44.06 follows the late July LMEX one by about a month.

Other important LMEX interim tops after its 2011 peak include 2/9/12's 3820 and 9/14/12's 3609 (2/4/13 at 3614). Compare notable silver tops include 2/29/12's \$37.48 and 10/1/12's \$35.36.

Silver touched its interim high at \$22.18 on 2/24/14, quite a bit before the LMEX's 7/24/14 summit at 3316. However, the time of its later drop-off point of \$21.58 (7/10/14) occurred close to the LMEX one (gold interim top at 1347 also 7/10/14). Silver established an important low on

12/14/15 at \$13.65 (72.6 percent collapse from its 2011 summit), only a few weeks before the important 1/12/16 LMEX low (and adjacent to the 12/11/15 low at 38.3 in iron ore). Its high since mid-December 2015 is 5/2/16's \$18.02, a 32.0pc jump.

What about gold? The gold trend relationship with base metals has not always been close. For example, if financial meltdown fears become widespread and intense, gold may rally while base metal (and stock) marketplaces decline. A comprehensive analysis of gold pricing and trends also would review it in non-dollar terms.

Although the pattern for gold did not exactly mimic that of base metals since 2011, like the LMEX and silver, it ventured down. Its heavenly major high on 9/6/11 at 1921 indeed was later than those in the LMEX (though not long after the final LMEX top at 4339 on 7/26/11; second silver top 8/22/11 at \$44.06).

Other important gold tops during its bear move include 11/8/11's 1804, 2/28/12's 1793 (close in time to the LMEX and silver ones), and 10/3/12's 1795 (compare LMEX and silver). Gold collapsed from 7/10/14's 1347 high (fairly close in time to the LMEX's important 7/24/14 top.

The 12/3/15 gold low at 1046 bordered its 3/17/08 Goldilocks Era 1034 peak. That December 2015 low occurred not very long before LMEX's 1/12/16 one at 2049, and right next to those in iron ore (12/11/15) and silver (12/14/15).

Gold's dismal fall from its 2011 top to its December 2015 low was 45.5 percent, not that different from the 54.2pc LMEX slump in its bear voyage commencing in 2011.

Gold's recent high at 5/2/16 at 1306, a 25.0 percent rally from its 12/3/15 trough, occurred the same day as that in silver and close in time to the LMEX's 4/29/16 one at 2414.

### **BASE METALS AND OTHER MARKETPLACES: 2007-09 REVISITED**

Admittedly, in a review of several very important marketplace domains during the 2007-09 global economic crisis era, a notable time lag between the achievement of a crucial price point turning level (major high/major low) in a given arena in relation to those of various other arenas sometimes appears. Nevertheless, many significant trend changes in the LMEX base metal index, the broad Goldman Sachs Commodity Index, emerging marketplace stocks "in general", the S+P 500, the broad real trade-weighted dollar, and the US Treasury 10 year note occurred around roughly the same time. Given the preceding analysis of the 2011-present period, this underscores the importance of watching base metals as a guide to (confirming indicator for) significant trend changes in these financial arenas.

The LMEX's lofty May 2007 pinnacle preceded major highs in the broad GSCI (7/3/08 at 894), MXEF (11/1/07 at 1345), S+P 500 (10/11/07; 1576), and Shanghai Composite Index (10/16/07 at 6124), as well as the broad real trade-weighted dollar's April 2008 major bottom. The LMEX's high in early February 2011 also occurred prior to (although not long before) major peaks in the broad GSCI and MXEF. And quite significantly, the LMEX's March and July 2008 very important secondary tops occurred close in time to the major low in the TWD, the final highs in the S+P 500 (5/19/08; 1440) and MXEF (5/19/08 at 1253), and the broad GSCI's peak. In addition, the LMEX's December 2008 major low occurred relatively near in time to turns in these marketplaces.

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	<b><u>2007-08 High</u></b>	<b><u>Crisis Era Low</u></b>
<b>LME</b>	5/4/07; 4557	12/24/08; 1614
<b>(Base Metals)</b>	(3/5/08; 4400)	
<b><u>Index (LMEX)</u></b>	(7/2/08; 4038)	

China's Shanghai Composite Index established its major bottom 10/28/08 at 1665. Its noteworthy second low occurred 12/31/08 at 1815, just after the LMEX's major bottom.

	<b><u>2007-08 High</u></b>	<b><u>Crisis Era Low</u></b>
<b><u>Broad GSCI</u></b>	7/3/08; 894	2/19/09; 306 (initial low on 12/24/08 at 308)

The initial low in December 2008 occurred the same day as that in the LME's base metals index. The final high in the S+P 500 was 5/19/08's 1440. The 2/19/09 low occurred not long before the S+P 500's 3/6/09 major low at 667.

	<b><u>2007-08 High</u></b>	<b><u>Crisis Era Low</u></b>
<b><u>MXEF</u></b>	11/1/07; 1345 (5/19/08; 1253)	10/28/08; 446 (final low on 3/3/09 at 471)

The Shanghai Composite's final trough occurred 3/3/09, the same day as that in the MXEF emerging marketplace stock index, and not long before the S+P 500's 3/6/09 major bottom.

	<b><u>2007-08 Low</u></b>	<b><u>Crisis Era High</u></b>
<b><u>Broad Real</u></b>	Apr 2008; 84.1	March 2009; 96.8
<b><u>Weighted Dollar</u></b>		

The TWD's March 2009 peak occurred near in time to the S+P 500's major bottom.

	<b><u>2007-08 High</u></b>	<b><u>Crisis Era Low</u></b>
<b><u>Gold</u></b>	3/17/08; 1034	10/24/08; 688

Gold's March 2008 major high occurred not long after the second LMEX top (3/5/08). Gold reached its October 2008 abyss several weeks prior to the LMEX's trough, and right alongside major lows in China's Shanghai Composite stock market index (10/28/08 at 1665) and the MXEF (10/28/08).

	<b><u>2007-08 Yield High</u></b>	<b><u>Crisis Era Yield Low</u></b>
<b><u>US 10 Yr Note</u></b>	6/13/07; 5.32pc	12/18/08; 2.04pc

The UST 10 year attained its 2007 yield ceiling not long after the major high in base metals, LMEX's 5/4/07 top at 4557. Note the timing link between the December 2008 bottoms in UST yields and the LMEX.

### **TAKING OFF: RECENT AND FUTURE FLIGHTS**

The LMEX and many other financial marketplaces established important lows around the same time a few months ago. However, despite the stratospheric ascent of the petroleum complex, the base metals climb has been modest, around eighteen percent. Also, since its first quarter 2016 lows, the S+P 500 thus far has failed to break over its May 2015 peak. The S+P 500, Nikkei, and Shanghai Composite instead have tripped a bit lower since their April 2016 highs. Although the

US Treasury 10 year note yield marched to a high of 2.00 percent on 3/16/16 it thereafter slipped, sliding further from 4/26/16's 1.94pc. Although the UST two year note yield increased to one percent on 3/16/16 following its trough at .58pc on 2/11/16, it likewise has fallen.

The trade-weighted US dollar's depreciation from its 1Q16 peak intertwined with the trend turns of the LME, petroleum (and the broad GSCI), emerging marketplace and advanced nation stocks, and the UST 10 year note. However, as marketplace history is not destiny, a weaker dollar is not inevitably bullish for the S+P 500 or all commodities. Looking forward, further and sustained TWD depreciation (use a ten percent or more fall from 1Q16's high as a rough guideline) arguably will be a bearish sign for stocks and commodities in general. Obviously, numerous other factors matter in various and diverse ways for assorted marketplaces. Think of central bank policies, corporate earnings, American political and fiscal developments, petroleum supply/demand and inventories, and so on.

Yet the TWD April 2016 level at 96.0 (monthly average; March 2016 97.7) fell beneath March 2009's 96.8 major high. The nominal broad TWD's high occurred 1/20/16 at 126.2. Its subsequent low at 118.2 on 5/2/16 is off 6.3pc from that elevation (daily data through 5/6/16). In this context, note the falling UST yields since mid-March 2016 as well as the modest declines in the S+P 500 and other stocks from their April 2016 heights. Although not much time has elapsed since the March 2016 UST yield highs and April 2016 equity price tops, also recall the LME's 4/29/16 high at 2414. Suppose the LME descends further from its current level around 2230 toward its 1/12/16 depth at 2049; that base metals move will be a bearish warning for stocks and signal weakening worldwide economic growth prospects.

What about oil's gigantic bull move since 1Q16? Doesn't that portend further noteworthy rallies in the LME and stock marketplaces, as well as a more robust global economic recovery? Perhaps. But petroleum industry inventories remain lofty, and the net noncommercial long position in oil futures and options (CFTC Commitments of Traders) is still high. Besides, recall that in 2008, major peaks in NYMEX crude oil (7/11/08 at \$147.27) and the broad GSCI (July 2008) occurred after major highs in the LME and the S+P 500.

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See other recent LH essays such as "Looking Backward, Gazing Forward: US Corporate Profits and Financial Trends" (5/3/16); "Fantastic Voyages: the US Dollar and Commodity Currencies" (4/3/16); "Great Expectations: the Federal Reserve, Inflation, and Politics" (3/20/16); "Hellish Falls, Divine Rallies: Commodities in Context" (3/6/16); "As the World Burns: Marketplaces and Central Banks" (2/8/16).

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