COMMODITY CURRENCIES IN CONTEXT: A FINANCIAL WARNING SIGN© Leo Haviland, 646-295-8385May 1, 2018

"All poker is a form of social Darwinism: the fit survive, the weak go broke." A. Alvarez, "The Biggest Game in Town"

OVERVIEW AND CONCLUSION

The Bank for International Settlements provides broad real effective exchange rates ("EER") for numerous currencies around the globe. Within the BIS statistics are several nations who are important exporters of widely-traded commodities such as petroleum, base and precious metals, and agricultural products such as soybeans. Concentrating on and comparing the broad real effective exchange rates of eight freely-traded currencies widely labeled as "commodity currencies" offers insight into assorted interrelated financial marketplace relationships. The overall patterns of this array of assorted export-related commodity currencies often has intertwined in various ways with very significant trends in broad commodity indices such as the S&P Goldman Sachs Commodity Index ("GSCI") and the Bloomberg Commodity Index ("BCI"), the broad real trade-weighted United States dollar ("TWD"), emerging marketplace stocks in general (as well as the S+P 500), and key interest rate benchmarks such as the 10 year US Treasury note.

In assessing and interpreting the role of and implications indicated by the commodity currency platoon in financial battlefields, marketplace guides should highlight several preliminary considerations. The various commodity currencies ("CC") do not all move at precisely the same time or travel the same percentage distance in a given direction. Although they generally move roughly together within an overall major trend for the group, an individual member may venture in a different direction for quite some time. Although the path in recent months of the various CCs "together" generally has been sideways, their individual movements have not been identical.

Of course the various commodity currency countries are not all alike. So a given guru can tell somewhat different stories about each of them and their currency. Not all CC nations are equally important within the international trade arena. The various domains do not rely to the same extent on commodities within their export packages. And not all are reliant on a given commodity sector (such as petroleum) as part of their commodity output. Some CC nations produce notable amounts of manufactured goods. In addition, some countries probably are more vulnerable to currency and trade wars than others.

Moreover, the intertwined relationships between currencies (whether the CC EERs or others such as the broad real trade-weighted United States dollar), commodities "in general", stock marketplaces (advanced nation signposts such as the S+P 500; the emerging marketplace field in general), and interest rates can and do change. Relationships between CC EERs and the broad real trade-weighted dollar ("TWD") can shift. The TWD's intertwining and relationship to interest rate, equity, and commodities in general is complex. In addition, although subjective perspectives identify apparent convergence and divergence (lead/lag) relationships between financial territories, these connections (links, associations) can alter, sometimes substantially. Marketplace history is not marketplace destiny, whether entirely or even partly.

Commodities "in general" surpassed their first quarter 2017 peaks in first quarter 2018 (and April 2018), rapidly climbing from a notable mid-year 2017 trough. The majority of commodity currencies established an EER top in (or around) 1Q17. In contrast to commodities in general, the effective exchange rates of the various commodity currency club members either have not exceeded that top established in (around) 1Q17, or have not done so by much. In addition, the CC group's EERs generally did not climb much, if at all, from around mid-year 2017. This CC EER pattern (some divergence from commodities in general) warns that a significant top in commodities probably is near. In the past, highs for the commodity currency EERs linked to highs for commodities in general.

Relevant to this marketplace viewpoint regarding the commodity currency EERs and commodities "in general" is the upward trend in US Treasury note yields. Recall not only the major bottom in the UST 10 year note around 1.32 percent on 7/6/16, but especially underline for the CC (and global stock marketplaces) the yield climb from its 9/8/17 interim trough at just over two percent. The Federal Reserve Board has been raising the Federal Funds rate and gradually reducing the size of its bloated balance sheet. The UST 10 year note broke out in first quarter 2018 above critical resistance at 2.65pc; the UST 10 year recently bordered 1/2/14's 3.05pc barrier (3.03pc on 4/25/18; the two year UST note also has climbed, reaching 2.50pc on 4/25/18). Also supporting this outlook for commodities is the 1Q18 peak in the S+P 500 (1/26/18 at 2873) and the MSCI Emerging Stock Markets Index (from Morgan Stanley; "MXEF"; 1/29/18 at 1279).

Yield repression (very low and even negative interest rates) promotes eager hunts for yields (return) elsewhere. These include buying commodities as an "asset class". What happens to commodities when key central banks begin to end their beloved yield repression schemes, or hint that they will do so?

Marketplace history indeed shows that sometimes there has been divergence between commodities "in general" and stock benchmarks such as the S+P 500 for a while. Recall the 2007-09 global economic disaster era. The S+P 500 peaked 10/11/07 at 1576 (MXEF summit 11/1/07 at 1345), prior to the broad GSCI's pinnacle in July 2008 (7/3/08 at 894). Yet recall that the July 2008 GSCI peak occurred close in time to the noteworthy S+P 500 interim high on 5/19/08 at 1440, as well as the lower S+P 500 tops of 8/11/08 (1313) and 9/19/08 (1265). And note the timing linkage between the broad GSCI and S+P 500 in the past couple of years. Not only did they make major lows around the same time in first quarter 2016 (broad GSCI at 268 on 1/20/16; S+P 500 on 1/20/16 at 1812 and 2/11/16 at 1810). They both accelerated upward in their bull moves around the same time in mid-year 2017; the GSCI low was 351 on 6/21/17, with that in the S+P 500 6/29/17's 2406 (8/21/17 at 2417). The broad GSCI slumped from its initial high at 466 on 1/25/18, which linked to the S+P 500's high on 1/26/18; although the GSCI since has hopped over its 1Q18 interim top, it thus far has not done so by much (480 on 4/19/18).

Thus the failure of the EERs for the CC group as a whole to advance much over the past year and especially since mid-year 2017 (with no decisive overall new highs for the group in general in 1Q18) probably has implications for both commodity and equity trends.

PRELUDE: COMMODITY, STOCK, AND US DOLLAR TRENDS SINCE 2007-08

"It is not unusual for a quiet country gentleman to be more taken with such a venture than a speculator who has had more experience in its uncertainty. It was astonishing how many New England clergymen, in the time of the petroleum excitement, took chances on oil. The Wall Street brokers are said to do a good deal of small business for country clergymen, who are moved no

doubt with the laudable desire of purifying the New York stock board." "The Gilded Age", by Mark Twain and Charles Dudley Warner

Before focusing more specifically on the commodity currency effective exchange rate universe of specific nations and in general, let's survey other key trend travels and relationships (and related timing of trend changes) relevant to the CC EER landscape.

The following table reviews the broad Goldman Sachs Commodity Index ("GSCI"; which is heavily petroleum weighted), the Bloomberg Commodity Index. emerging stock marketplaces (MSCI Emerging Stock Markets Index, from Morgan Stanley; "MXEF"), the S+P 500, and the broad real trade-weighted dollar ("TWD"; Federal Reserve Board, H.10; March 1973=100, monthly average). Keep this table in mind in regard to the subsequent overview of the effective exchange rate analysis of the eight commodity currencies.

Marketplace pilgrims also should analyze commodity, currency (including those of the CC armada), and stock marketplace trends and relationships with interest rate patterns (such as for the US Treasury 10 year note) in mind. For example, again recall the UST 10 year note's major yield bottom on 7/6/16 at 1.32 percent. Its yield jumped up from 9/8/17's interim low around two percent, ascending fiercely in first quarter 2018 through major resistance at 2.65pc.

	Broad GSCI	Bloomberg <u>Comm. Index</u>	Emerging Market Stocks <u>MXEF</u>	<u>US Dollar ("TWD")</u>
Peak 2007-08	894 (7/3/08)	238.5 (7/3/08)	1345 (11/1/07) 1253 (5/19/08)	Major Low 83.9 April 2008

[Recall the joyous Goldilocks Era and its dreadful aftermath. The MXEF's peak occurred prior to that in the commodities complex, but its May 2008 interim high occurred close in time to the high in commodities in general. The S+P 500's major peak on 10/11/07 likewise preceded that in commodities in general, but its 5/19/08 interim top on 5/19/08 at 1440 was fairly close in time to those in the GSCI and BCI. So were the even lower S+P 500 tops of 8/11/08 (1313) and 9/19/108 (1265).

During this international financial crisis period, the broad real TWD established a major high in March 2009 at 96.6, alongside the S+P 500's 3/6/09 major bottom at 667. The broad GSCI major bottom was 2/19/09's 306. The MXEF's bloody decline reached its floor at 446 on 10/28/08 with a final low alongside that in the S+P 500 at 471 on 3/3/09.]

The broad GSCI established a pattern of descending interim tops after attaining its spring 2011 peak. This pattern (sequence) of highs within the commodity complex over the 2011-14 span are relevant to the commodity currency patterns discussed later, in part because various individual CC EERs attained highs at different points within (around) that 2011-14 period. Notable broad GSCI highs also were 3/1/12's 717, 9/14/12's 699, 2/13/13's 682, and 8/28/13's 675, as well as 6/23/14's crucial drop-off point at 673.

Peak 2011	762	175.7	1212	Major low 80.3
	(4/11 and 5/2/11)	(4/25/11)	(4/27/11)	July 2011

[The S+P 500 established an interim high 5/2/11 at 1371, tumbling to 1075 on 10/4/11 before resuming its gigantic bull move.

After stumbling to its major trough around 80.3 in July 2011, the TWD walked sideways within a narrow avenue for about the next three years. Its high over that span was June 2012's 86.0.]

	Broad GSCI	Bloomberg <u>Comm. Index</u>	Emerging Market Stocks <u>MXEF</u>	<u>US Dollar ("TWD")</u>
2014 High	673 (6/23/14)	138.7 (4/29/14)	1104 (9/4/14)	September 2014's 86.3 moved over 86.0, June 2012's interim ceiling

[The substantial rally in the broad real trade-weighted United States dollar ("TWD") that embarked in mid-2011 played a key part in encouraging (confirming) and accelerating bear movements in emerging marketplace stocks and commodities "in general".

Recall that in August 2015, the broad real TWD averaged 97.0; after dipping to 96.7 in October 2015, it thereafter leaped over March 2009's critical 96.6 summit, attained around the close of the horrifying 2007-09 global economic disaster. Remember also the relevance of the TWD's move above key levels for trends in commodities and emerging marketplace stocks, as well as the S+P 500.

The S+P 500's celestial rally over its spring 2011 interim high diverged for about four years from the trends in emerging equity realms and commodities. The broad real trade-weighted dollar's sharp climb from its September 2014 level interrelated 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 broad real TWD's late 2015 ascent above its March 2009 peak was an especially crucial event. This dollar climb helped propel the S+P 500 downhill following 5/20/15's 2135 pinnacle in conjunction with the emerging stock marketplace and commodity trends.

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's interim top at 2135.]

First Quarter	268	72.3	687	Key interim TWD
2016 Low	(1/20/16)	(1/20/16)	(1/21/16)	top: 101.1 (Jan 2016)
				[Fell to 96.4 Apr 2016]

[The major trough in the S+P 500 likewise occurred in 1Q16 alongside that in the MXEF and commodities (1/20/16 at 1812, 2/11/16 at 1810). The nominal broad TWD (which has daily data; H.10) built a temporary ceiling on 1/20/16 at 126.2. Note that various commodity currency EERs made lows around 1Q16 or in the preceding few months.]

1Q 2017	409	89.5 (1/17/17)	Major TWD High
Interim Top	(2/13/17)	89.4 (2/10/17)	103.3 (Dec 2016)/
		[Prior: 90.3 on 6/9/16]	103.2 (Jan 2017)

The nominal broad TWD made its tops on 12/28/16 at 128.9 and 1/3/17 at 128.8.

[Observers should stress that the December 2016/January 2017 pinnacle in the broad real TWD occurred alongside strength (the first quarter 2017 high) in the commodities sector. Therefore a "strong" US dollar does not necessarily (always) associate with ("equal") "weak" commodity prices. And likewise a weak (or weakening) TWD does not necessarily connect with (result in) strong commodity prices. Even if "all else equal", TWD depreciation generally is bullish for commodities (in dollar terms), don't forget early 2017 to mid-2017.

Also note that the majority of the CC EERs made highs around the same time as the TWD's December 2016/January 2017 pinnacle. Compare the TWD versus CC EER relationship in 1Q16 and the 2008-09 periods in which the strong TWD corresponded with weak CC EERs.

For example, Australia's EER top was in February 2017, as were Brazil's and Chile's; South Africa EER made a high in March 2017, and Russia EER's summit was April 2017. Norway's EER top was a bit earlier, in October 2016 (but its February 2017 level was close to that). However, in contrast to these CCs. Mexico's EER had kept plummeting after 1Q16, establishing a low in January 2017. Canada's EER also did not fit the pattern of Australia and its comrades around 1Q17, for it touched a low in May 2017.

Nevertheless, marketplace players should underscore that as regards the 1Q17 interim tops in the broad GSCI and BCI, the majority of the CC EERs made tops around that time.]

	Broad GSCI	Bloomberg <u>Comm. Index</u>	Emerging Market Stocks <u>MXEF</u>	<u>US Dollar ("TWD")</u>
Mid-2017	351	79.3	1000	TWD descended
Interim Low	(6/21/17)	(6/22/17)	(6/15/17)	in first half 2017.

[The MXEF made interim lows around the time of America's November 2016 election. Recall 837 on 11/14/16 and 840 on 12/23/16. The S+P 500 election period low was 11/4/16's 2084. Significantly, the MXEF's bull move accelerated in mid-2017, as did that in the GSCI and the BCI. Recall MXEF lows on 5/18/17 at 985, 6/15/17 at 1000, and 6/21/17's 1002 (7/7/17 also 1002). The S+P 500 similarly soared. Remember its take-off points at 2406 on 6/29/17 and 2417 on 8/21/17.

The commodity currencies have not "collectively" advanced significantly from a mid-year 2017 low, thus diverging to some extent from commodities in general (GSCI and BCI).]

The TWD stayed steady during second half 2017 (low was September's 95.2, inched up to 96.9 in November 2017), but averaged around 96.3, right around critical support from 96.2 to 96.6. The broad real TWD high during the global financial disaster was March 2009's 96.6. Recall also the 96.4 minor low in April 2016 and the 96.7 October 2015 take-off point.

1Q 2018 High	466	91.2	1279	TWD broke 96.2/96.6:
	(1/25/18)	(1/25/18)	(1/29/18)	Jan 2018 94.7; Feb 95.0
	480	91.3		
	(4/19/18)	(4/19/18)		

[The TWD in both March 2018 and April 2018 was 95.2 (H.10; 5/1/18 release), the same height as September 2017's but still beneath the critical range of 96.2/96.6. The TWD break under the 96.2/96.6 support in first quarter 2018 occurred alongside the jump at that time in UST 10 year yields above the 2.65 percent ceiling. Note the weakness beginning in 1Q18 in the S+P 500 (1/26/18 high at 2873; lower top 3/13/18 at 2802) and other important global stock marketplaces, not only in the MXEF. China's Shanghai Composite Index peaked 1/29/18 at 3587.

The nominal TWD had established a minor low on 9/8/17 at 116.7, rallying modestly to 121.3 on 10/27/17 before resuming its depreciation. Its lows thereafter, on 1/25/18 and 2/1/18 around 115.2, occurred alongside the highs in the S+P 500 and MXEF. The nominal TWD has since climbed, reaching 118.7 on 3/1/18 and 119.7 on 4/26/18 (latest H.10 data through 4/27/18).

Commodity indices tripped lower from their 1Q18 highs as well before climbing anew. Yet marketplace generals should ask how long this divergence from the S+P 500 and other important stock marketplaces will continue.]

THE COMMODITY CURRENCY PLAYGROUND: SETTING THE STAGE

Iggy and the Stooges sing in "Gun": "Money is a waste of time, 'course I made sure I got mine". ****

In foreign exchange trading universe, most financial, political, and media storytellers concentrate on cross rates between two nations, such as the US dollar versus the Canadian dollar. However, analysis of the broad real trade-weighted effective exchange rates for a given country offers better insight into the overall situation for that nation's currency.

Much of world trade in commodities is conducted on a US dollar basis. Many wizards preach sermons regarding particular cross rate relationships between currencies and their implications for commodities in general (and for interest rate and equity levels and trends). Nevertheless, but CC EER levels and trends are very relevant to those in flat (outright) price commodity (and securities) fields.

Commodity currencies, which derive that label from being associated with countries with substantial amounts of commodity exports, are not confined to developing/emerging nations. Because commodity exports are important to the economies of advanced countries such as Australia, Canada, and Norway, the currencies of these lands likewise can be labeled as commodity currencies.

What are the present-day percentage weights within the broad real trade-weighted dollar for the eight key commodity exporter currencies listed in the table below? ("TWD"; Federal Reserve, H.10; as of 11/6/17). Canada's represents 11.9 percent and Mexico 12.8pc. Others are significantly less. Australia makes up only 1.1 percent, Brazil constitutes 1.8pc, Chile merely .7pc, and Russia .9pc. Norway and South Africa's shares are so meager that they do not make the Fed's table.

Compare China's 21.6 percent share in the TWD (contrast its 6.6pc in 1997). The Euro FX represents 17.2pc (United Kingdom 3.6pc) and Japan 6.5pc (14.3pc in 1997) in the TWD.

The Bank for International Settlements provides broad real effective exchange rates ("EER"; CPI based; monthly average, 2010=100, based on 2011-13 trade; data back to January 1994) for 61 economies (nations; Euro Area) around the globe.

The latest BIS release (4/18/18) provides data through March 2018. Because the Federal Reserve's broad real trade-weighted dollar level for April 2018 was almost exactly the same as for March 2018, one can conjecture that April 2018's EER level for the commodity currency group as a whole ("viewed together") probably did not change much relative to the "overall" March 2018 EER for that group.

The trading patterns for the broad real TWD (Fed, H.10) closely resemble those reported by the BIS for the United States dollar EER. According to the BIS, the broad real United States EER peaked at 118.9 December 2016/119.0 January 2017. The December 2016/January 2017 US EER elevation slightly surpassed January 2016's 116.7 high, which was a noteworthy leap from July 2011's 93.0 trough. America's EER eroded to 108.8 in January 2018 (despite a small bounce from 109.9 in September 2017 to October 2017's 111.6), with February 2018 creeping up to 110.6 and March to 111.4.

The US dollar of course varies in its EER importance for the assorted commodity currency nations. America is not a very large trading partner for every one of the eight commodity currency countries discussed below, but it is enormous for a couple of them. Even if these eight commodity currency nations are modest or very small parts of the TWD package, this does not mean the United States is a small share of those nation's own EER trade weights.

Review the BIS statistics for broad indices (based on 2011-13 trade). The US is a gigantic 57.6 percent of Canada's EER and a massive 52.7pc of Mexico's. America is 14.3 percent of Australia's EER, 17.5pc of Brazil's, 17.1pc of Chile's, 6.1pc of Norway's, 5.7pc of Russia's and 11.9pc of South Africa's.

Using BIS statistics, compare those US shares in commodity currency EERs with that of other noteworthy American trading partners. The US is 17.8 percent of China's EER, 15.2pc of Japan's, and 13.2pc of the Euro Area's.

The advanced/developed (OECD) and emerging/developing marketplace countries in the table in the following section differ in varying ways regarding their commodity exports (and in their overall economic policies and political situations). Some are more petroleum focused, others more metals oriented; some are significant agricultural exporters. Some nations also export a substantial amount of manufactured goods and services. The constellation of eight CC nations is not all-encompassing, for it omits several notable commodity exporters. However, in regard to many important exporters not included below, their currency is not freely traded (floating).

COMMODITY CURRENCY ADVENTURES: 2007-PRESENT

The gunfighter Joe says: "Crazy bell ringer was right, there's money to be made in a place like this." From the movie, "A Fistful of Dollars" (Sergio Leone, director)

What do fascinating FX movements (trade-weighted, effective exchange rates) within the key commodity exporter sphere reveal over the past decade? The timing (start dates, end dates) and percentage extent of bear (bull) moves in the various commodity currencies ("CC") are not precisely the same. Yet patterns emerge for the CC group in general. In this study, keep the relationship between these CC EER trends and those for commodities in general (and stocks and interest rates) in view.

The following investigation encompasses two major bear marketplace trends for commodities in general. The first is the commodities crash after the July 2008 collapse peak (during the international economic crisis period of 2007-09). Note the associated major bear trend for the eight commodity currencies. Some EERs began their slide in fourth quarter 2007, others later. The timing of the "overall" pattern of commodity currency EER highs therefore entwined (interrelated with) 2008's commodities pinnacle.

The second bear trend is the sideways to down commodities pattern of 2011-14 (some might argue that the 2011 and 2014 commodity highs initiated independent bear moves). In any case, the 2011-14 bear period for commodities displayed multiple yet gradually lower peaks. The EERs for the eight commodity currencies, when presented and interpreted together, evidenced a horizon of peaks (a pattern of tops) which emerged during 2011-13 and thus were roughly similar to those for commodities in general. The EER depreciation for some nations began in mid-2011, whereas that for others started many months thereafter (see Mexico's April 2013).

In 1Q16, the GSCI and BCI established major troughs. The majority of commodity currency EERs likewise established important bottoms during (or around) that time. In 1Q17, commodities attained an interim top; several CC EER also made highs around that time.

Yet significantly, the subsequent period following 1Q17, and especially since mid-year 2017, manifests a less close relationship between commodities in general and the CC EER fraternity. Since mid-2017, commodity benchmarks appear much stronger than the commodity currency EER group.

The following national foreign exchange levels for the individual commodity currencies are the effective exchange rates (EER) from the Bank for International Settlements.

The column on the right hand side for the commodity currencies is for their bear marketplace trend that began during the global economic crisis era. The column on the left is for the later bear trend which commenced (depending on the individual country's EER) sometime within the 2011-2014 period during which commodities in general (GSCI; BCI) created a series of notable tops.

For each EER, the discussion in a following paragraph within the table (appearing after the bear marketplace statistics) offers information about the second CC EER bear decline. That paragraph also indicates the all-time EER highs or lows for the given currency for the 1994-present BIS series.

Also, for each commodity currency EER, the analysis next looks at the various rallies which followed the lows after the end of the CC EER's second bear trend (and at related notable aspects of the price fluctuations). It gives the BIS's most recent EER for the CC, that of March 2018. Note the ## which precede that review. This summary indicates the relatively feeble rally for the EERs of the commodity currency group "in general" in comparison with that in commodities "in general" over that span up to the present. This comparatively weak rally in the CC EER appears

in relation not only to the move since around the time of the first quarter 2016 lows in commodities and the related bottom in the CC EERs. The feebleness of the CC EER ensemble is especially apparent in regard to its price changes in comparison to those in commodities following and relative to 1Q17 levels (highs in commodities and many CC EERs), and particularly since June 2017's interim troughs in commodities.

The broad GSCI has skyrocketed 79.1 percent from its 1/20/16 low at 268 to the recent elevation around 480 (4/19/18). That recent high thus advanced 17.4 pc over its 2/13/17 top at 409. It raced up 36.8 pc from its 6/21/17 low at 351. What about the BCI? Recall its 1/20/16 bottom at 72.3. The BCI's recent high, 91.3 on 4/19/18, is up 26.3 percent relative to its 1Q16 bottom. The BCI's April 2018 high rises up only two percent over the 1Q17 interim top (89.5 on 1/17/17; 89.4 on 2/10/17). It is up about 15.1 pc from the mid-year 2017 (6/22/17) low at 79.4.

Underline the meteoric rise in petroleum prices since their major bottom in 1Q16 and their sharp rise from their mid-year 2017 depth. For example, Brent/North Sea crude oil (ICE, nearest futures continuation) made a major low at \$27.10/barrel on 1/20/16. Its 1/13/17 interim high was \$58.37. After falling to \$44.35 on 6/21/17, Brent eventually flew up to \$75.10 (4/23/18; and \$75.47 on 4/24/18). The significantly more substantial rally in the GSCI relative to the BCI reflects the greater share of the petroleum complex within the GSCI.

SECOND EER BEAR TREND: THE 2011-2014 TIME SPAN

FIRST EER BEAR TREND: 2007-09 GLOBAL CRISIS ERA

AUSTRALIA

High(s)	Low(s)	High	Low
111.6; August 2012	85.5; September 2015	99.3; July 2008	74.8; Feb 2009
23.4 p	ercent decline	24.7 percen	t decline

August 2012's effective exchange rate level represents the all-time high for the 1994-present span. Australia's EER established an initial peak 110.1 in July 2011; compare the timing of the 2011 tops in the broad GSCI and MXEF. An important interim retracement high in the EER's overall downward spiral was July 2014's 100.9. The record bottom is March 2001's 64.8.

The high since September 2015's bottom is February 2017's 95.2. There has been no notable firming in the Australia EER since mid-2017. Australia's March 2018 effective exchange rate level is 89.6, a 4.8 percent rally from the September 2015 low.

BRAZIL

High(s)	Low(s)	High	Low
109.8; July 2011	63.8; September 2015	96.9; Aug 2008	72.1; Dec 2008
92.8; July 2014			
41.9pc	decline	25.6pc decline	2

The Brazil EER plummeted from July 2014's 92.8. July 2011's plateau represents the 1994-2018 Brazil EER record high. The all-time low for that span is October 2002's 42.2.

Brazil's March 2018 EER is 84.9; up 33.1pc from September 2015 depth. However, the high in the Brazil EER since September 2015 remains February 2017's 89.1 (the EER slumped to 80.2

in December 2017). Thus, as for Australia's EER, the 1Q17 top has not been broken. There likewise was no significant low in mid-2017.

SECOND EER BEAR TREND: THE 2011-2014 TIME SPAN

FIRST EER BEAR TREND: 2007-09 GLOBAL CRISIS ERA

CANADA

High(s)	Low(s)	High	Low
104.3; April 2011	76.4; January 2016	106.8; Nov 2007	84.6; Mar 2009
26.7pc	decline	20.8pc decline	

The record peak for Canada's EER over the 1994-present period is November 2007's height. The all-time low is November 2001's 71.8, with another noteworthy bottom at 72.3 in December 1998.

Canada's EER did rally mildly from a mid-2017 low, May 2017's 79.5. The Canada EER high since January 2016 is 86.0 in September 2017. Though the September 2017 top is up 12.6 percent from the January 2016 low, that barrier remains unbroken. Canada's March 2018 EER is 81.4, up only 6.5pc from 1Q16's bottom.

CHILE

High(s)	Low(s)	High	Low
106.0; March 2013	86.9; November 2015	107.9; March 2008	85.1; Dec 2008
18.0pc	decline	21.1pc decline	

Chile's initial top in its EER bear trend was 105.2 in December 2010, with March 2013's 106.0 bordering it. In that downward venture, Chile's EER eroded to 89.2 in September 2014. It bounced up to 94.7 in May 2015 (recall the high in the S+P 500 that month) but thereafter withered to its November 2015 low. Its stellar all-time EER high occurred in October 1997 at 113.7, with its record trough 80.7 in June 2003.

The Chile EER made an interim high 97.2 in February 2017. As did the Canada EER, it rallied some from a mid-2017 low, 92.4 in June 2017, breaking slightly over the 1Q17 height with February 2018's EER of 101.4 (March 2018 EER 100.9).

SECOND EER BEAR TREND: THE 2011-2014 TIME SPAN

FIRST EER BEAR TREND: 2007-09 GLOBAL CRISIS ERA

MEXICO

High(s)	Low(s)	High	Low
106.8; April 2013	71.8; January 2017	114.0; Aug 2008	87.6; Feb 2009
32.8pc	decline	23.2pc decline	

Note also Mexico's EER erosion from 2014's minor top at 101.9 in May.

The peso EER rallied in the early stage of the dreadful 2007-09 storm. From a bottom during the Goldilocks Era at 104.1 in June 2006, it mounted to its August 2008 peak (compare the timing of 2008's broad GSCI pinnacle). However, the Mexican EER then turned lower, cratering following

September 2008's 110.3. The all-time EER high is March 2002's 133.3, the record bottom March 1995's 62.5 during the Mexico peso crisis.

The travels in the Mexico EER since 1Q16 differ substantially from those of the other commodity currencies. Although it briefly rallied from a low in February 2016 at 80.9 to March 2016's 83.9, it then retreated significantly. The Mexico EER was 78.1 in October 2016, just before America's November 2018 election. After Trump's victory, it collapsed to January 2017's 71.8 (this low contrasts with EER highs of several other CC in 1Q17).

The Mexico EER rallied to 85.4 in July 2017. Was there another take-off rally point in mid-2017? Not really. Mexico's March 2018 EER is 83.4, beneath its calendar 2017 high.

SECOND EER BEAR TREND: THE 2011-2014 TIME SPAN

FIRST EER BEAR TREND: 2007-09 GLOBAL CRISIS ERA

NORWAY

High(s)	Low(s)	High	Low
102.2 January 2013	81.2; December 2015	102.7; Oct 2007	88.2; Dec 2008
		102.7; May 2008	
20.6pc decline		14.3pc decline	

Norway's EER stood at 102.4 in April 2010, slightly over February 2013's high. Recall that April 2011's 101.9 top occurred close in time to 2011's major high in the broad GSCI. In the bear move, a renewed slide commenced from minor highs at 96.2 in May 2014 and 94.8 in September 2014. December 2015's low is significantly under December 2008's and is a record for the 1994-present era. The Norwegian EER's all-time high is January 2003's 110.5.

The Norwegian EER rallied to 89.3 in October 2016 (89.2 in February 2017 neighbors this), but retreated to 83.0 in December 2017. There has been no significant rally since mid-2017. Norway's March 2018 EER is 86.6, up 6.7 percent from December 2015, but still under the October 2016/February 2017 top.

RUSSIA

High(s)	Low(s)	High	Low
109.7; Feb 2013	65.5; February 2016	104.1; Nov 2008	84.5; Feb 2009
40.3pc decline		18.8pc decline	

Like many other commodity exporter currencies, Russia's EER tumble accelerated in mid-2014, deteriorating from 104.0 in June 2014. Recall the broad GSCI's breakdown from its interim high of 6/23/14 at 673. Russia's EER, after attaining an interim low at 68.3 in January 2015, resumed its decline from May 2015's interim top at 91.5 (recall the S+P 500's noteworthy May 2015 high). July 2015's level was 82.6; beneath February 2009's important bottom. February 2013 is 1994-2018's all-time summit. Although October 1994's 40.5 represents the record depth for the ruble in the BIS data series, remember January 1999's 43.4, a devastating 52.1 percent crash from January 1998's 90.6 peak.

The Russia EER high following its February 2016 bottom is April 2017's 94.2, which has not been broken. There was not a substantial rally from mid-year 2017. The Russia EER in March

2018 is 85.4. Though March 2018's height is above the February 2016 bottom, it is 9.3 percent under April 2017's top.

SECOND EER BEAR TREND: THE 2011-2014 TIME SPAN

FIRST EER BEAR TREND: 2007-09 GLOBAL CRISIS ERA

SOUTH AFRICA

High(s)	Low(s)	High	Low	
103.1; July 2011	62.4; Jan 2016	93.8; Oct 2007	71.7; Dec 2008	
[Dec 2010 top 105.4]		[Oct 2007 was drop-off point, but earlier		
-		top 107.1 Feb 2006]	top 107.1 Feb 2006]	
39.5pc decline from July 2011		23.6pc decline from Oct 2007		
[40.8pc from Dec 2010]		[33.1pc decline from Feb 2006]		

The all-time EER high for the January 1994-present horizon is January 1994's 123.2. The January 2016 EER neighbored the all-time record low, December 2001's 60.3.

The South Africa EER rallied to 83.9 in March 2017, but tumbled to 74.1 in November 2017. Although there was no rally from mid-2017, the EER climbed from November 2017. This ascent has reached slightly beyond 1Q17's high (as did Chile's EER), attaining 86.2 in March 2018. ****

During the terrifying acceleration of the 2007-09 global economic disaster, the major price trends for eight "commodity currencies" roughly (and of course not precisely) depreciated in rather similar fashion on a broad real effective exchange rate ("EER") basis alongside commodities "in general", the S+P 500, and emerging marketplace stocks.

Commodity currencies ("CC"), looking at them broadly, generally began to make important peaks (though not all at the same time) and tumble downhill sometime during the 2011-2014 span. This erosion of the CC's effective exchange rates paralleled a topping (sideways to down pattern) for the commodities universe over that period. The various CCs, with the exception of Mexico, established important troughs in the autumn 2015 to 1Q16 period. Commodities began to crater in June 2014, eventually establishing a major bottom in first quarter 2016 (as did the S+P 500 and other key stock playgrounds).

The CC EERs for nations other than Mexico generally climbed from their first quarter 2016 lows, with most (Australia, Brazil, Chile, South Africa) making important highs in (or around) 1Q17 (Norway October 2016/February 2017; Russia April 2017) alongside the 1Q17 interim top in the commodities sector.

Canada's 2017 top was later than 1Q17 (September 2017). And Mexico, in contrast to its CC comrades, kept tumbling after 1Q16; it established a critical bottom in January 2017.

Yet the broad real trade-weighted dollar made a major pinnacle in December 2016/January 2017. The relationship around the time of 1Q17 between the TWD and CC EERs in general (six of the eight currencies), with the TWD and CC EERs in general making highs around the same time, thus contrasts with the feeble CC effective exchange rates/strong TWD during the dark time of 2008-09, as well as the weak overall commodity currency EER pattern continuing alongside the TWD's bull trend upside breakout after September 2014. That somewhat strong CC EER of 1Q17

accompanied by the robust December 2016/January 2017 TWD likewise differs substantially from 1Q16's strong dollar (a key interim high)/weak CC EER (during autumn 2015/1Q16) relationship.

Commodities in general attained an interim plateau in 1Q17, but (especially the GSCI) rocketed upward from mid-year 2017 lows to make dramatic new highs in first quarter 2018 alongside the S+P 500 and emerging stock battlefields. However, the commodity currency complex as a whole has not penetrated above highs in or around 1Q17; Chile and South Africa did in 1Q18, but not by much. Neither did the CC clan collectively ("as a whole") march upward from mid-year 2017.

In any case, what does the "overall" failure of commodity currencies to strongly advance alongside the commodities complex (particularly since mid-2017 and especially in recent months) indicate? The inability of the commodity currencies in general to make new highs in calendar 2018 dramatically over (if at all) over their first quarter 2017 elevation is a warning sign that commodities in general probably will begin to slump in the relatively near future. Given the tendency of the CC EER group as a whole to establish important highs around the time of highs for commodities in general (and for CC EERs to reach key bottoms around the time of lows for commodities), a decline (even if relatively minor) for the CC EER group probably would warn (confirm) that a peak in commodities is in place or near in time.

The falls in the S+P 500 (and in other advanced nation and emerging marketplace stocks) underscores the bear risk to commodities nowadays, for commodities often have peaked (bottomed) around the same time as a crucial top (bottom) in important advanced nation or emerging marketplace stocks. Consider the 2007-08 commodities in general/S+P 500 relationship, in which a somewhat later top occurs for commodities relative to equities. Underline the 1Q18 high in the S+P 500 and emerging marketplace stocks. Commodities made an initial high in 1Q18, which they recently exceeded slightly.

For further related marketplace analysis of stock, interest rate, currency, and commodity fields, see other essays such as "As the Financial World Turns: Commodity and Other Marketplace Domains" (4/2/18); "Global Stock Marketplaces: Winter of Discontent" (3/5/18); "There Will Be Blood: Financial Battlefields" (2/9/18); "Busload of Faith: Financial Marketplaces" (1/15/18); "Marketplace Vehicles: Going Mobile" (12/13/17); "History on Stage: Marketplace Scenes" (8/9/17).

This essay is furnished on an "as is" basis. Leo Haviland does not warrant the accuracy or correctness of this essay or the information contained therein. Leo Haviland makes no warranty, express or implied, as to the use of any information contained in this essay in connection with the trading of equities, interest rates, currencies, or commodities, or for any other use. Leo Haviland makes no express or implied warranties and expressly disclaims all warranties of merchantability or fitness for a particular purpose. In no event shall Leo Haviland be liable for any direct, indirect, special, incidental, or consequential damages (including but not limited to trading losses or lost profits) arising out of or related to the accuracy or correctness of this essay or the information contained therein, whether based on contract, warranty, tort, or any other legal theory.

All content copyright © 2018 Leo Haviland. All Rights Reserved.