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TECHNICAL ANALYSIS OF STOCKS & COMMODITIES™

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BARRY BRUNER

A Golden Approach

The Missing Link

Part 2

In this second part of a two-part series, you see the time & price relationship develop in real time on a chart of gold futures.

by Mircea Dologa

Last month in part 1, I discussed how I examine the time & price relationship in the market by focusing on the fourth wave, W(4). I used a combination of Elliott wave analysis, Gann methodology, and mapping multiple time frames, all of which I consider before making any final trade determinations. Once this analysis has been performed, the next step, which is a detailed study of the particular market you are trading, comes naturally. Here, I'll use the gold continuous futures contract as an example.

The price of gold futures tends to exhibit a complex development, which is why I chose to use it as an example to discuss the relationship between time & price. Understanding this relationship can help you identify the optimal time frame setup for your market.

The development of W(4) wave is fundamental in revealing where the current impulsive pattern, or main direction of the trend, terminates. Here, I will present some arguments that expose the future potential of W(4) and W(5) waves, with W(5) terminating the current parabolic impulsive pattern.

INDIRECT AND DIRECT

If you closely observe the monthly chart of the gold continuous futures contract in Figure 1, you can see that the time & price elements efficiently predict the development of W(4) wave and W(5) wave.

Indirect impact: The *indirect impact* of the price & time relationship of W(2) wave on the development of W(3) is relevant. The long duration of W(2) implied a strong buildup of the market's kinetic energy, which, as a consequence, had

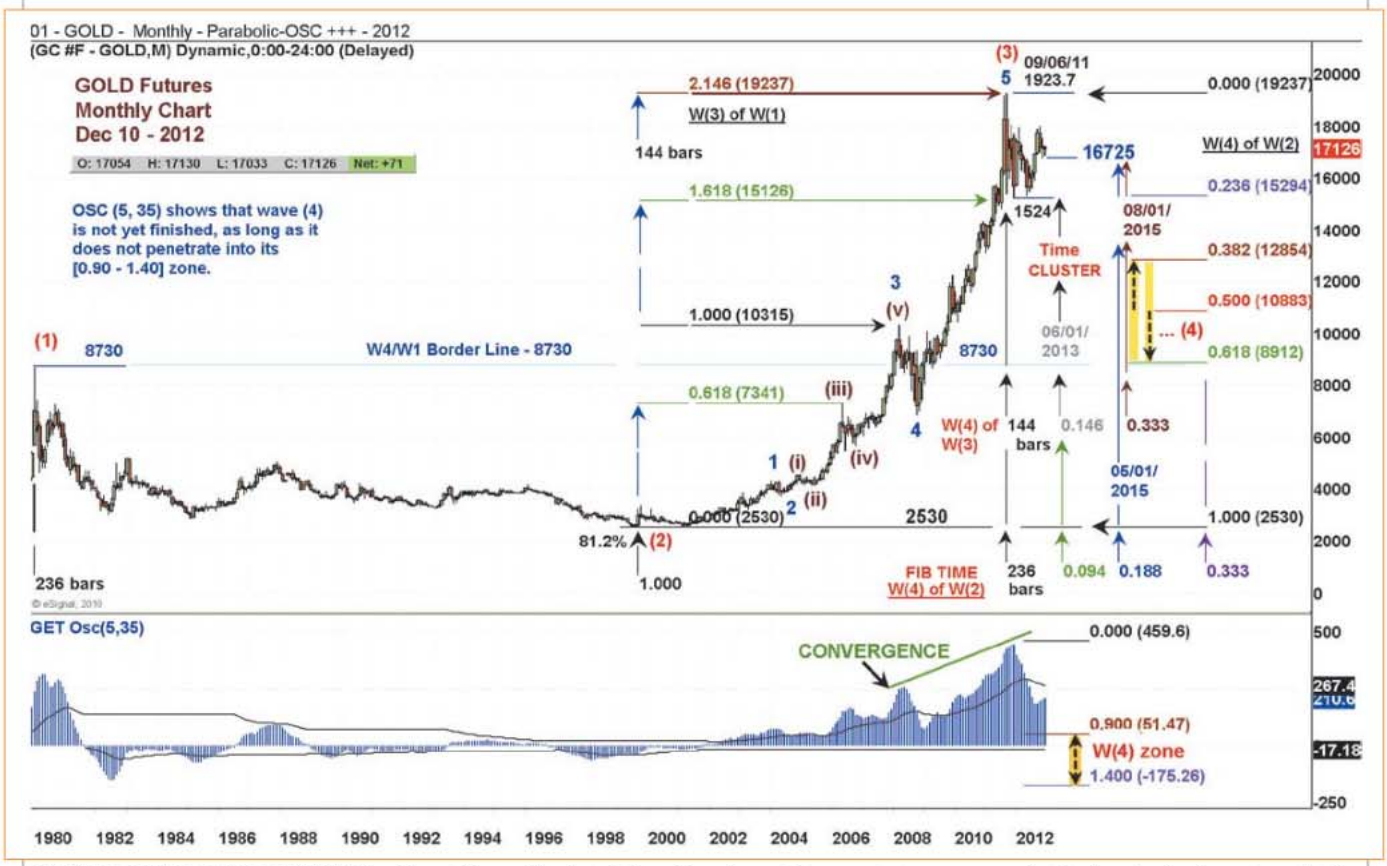


FIGURE 1: TIME & PRICE ELEMENTS. Looking at this monthly chart of the gold continuous futures contract, you can see that the time & price elements predict the development of W(4) and W(5).

a strong W(3) wave momentum, responsible for its parabolic shape. Price-wise, the size of W(3) wave was 2.146 times the size of W(1), climbing all the way up to the 1923.7 key level, thus halting the market flow at exactly this Fibonacci key level.

The high-steamed momentum of W(3) wave implies a deeper than classic retracement (38.2%) of W(4) wave. On the other hand, you could say that this retracement is still in progress due to its current position in the OSC (5,35) indicator on the subchart in Figure 1 — outside the 0.90–1.40 W(4) zone. In addition, this tremendous parabolic trajectory occurred in 144 bars, a legendary Gann number period — the square of 12 (12 x 12 = 144 bars). This number will help define the future time retracement degree of W(4) wave. Hence, it becomes necessary to be aware of the following numbers of bars when it comes to observing time: 18, 36, 54, 72, 90, 108, 126, 144, and so on — numbers that represent Gann ratios (eighths, quarters, and halves).

Before continuing, I think it's necessary to mention something about the validity of this type of labeling for the entire impulsive pattern. The W(2) duration of 236 bars may appear to be confusing, but this W(3) wave labeling (Figure 1) is one of the most probable due to multiple confirming factors:

- On the time side, the existence of the classic 144 Gann number for the number of bars in the W(3) wave strongly confirms the labeling.
- On the price side, the 1923.7 highest high level, expressed by the Fibonacci key level [W(3) = 2.146 * W(1)], confirms a strong price cluster and establishes the legitimacy of the termination of W(3). Further, the recurrent testing of multiple key levels belonging to the development of the W(3) wave confirms this labeling once more. You can easily observe the following price clusters:
  - The price relation W(3)=0.618*W(1) at the 734.1 key level coincides with the termination of the subwave (iii) of subwave 3 of W(3) wave
  - The price relation W(3)=1.0*W(1) at the 1031.5 key level coincides with the termination of the subwave (v) of subwave 3 of W(3) wave
  - The price relation W(3)=1.618*W(1) at the 1512.6 key level coincides with the termination of one of the subwaves of W(4) wave
  - And finally, the price relation W(3)=2.146*W(1) at the 1923.7 key level coincides with the termination of subwave 5 of W(3) wave.
- The OSC indicator shows the occurrence of a convergence (rather than a divergence) between the subwaves 3 and 5 of W(3) wave. This element confirms the W(3) wave labeling and incites you to expect a W(4) next wave.

Direct impact: The *direct impact* of the price & time relationship of W(2) wave on the development of W(4) is guided

by the *alternation principle*:

- The long development of W(2) wave (236 bars) implies a shorter-lasting W(4) wave.
- The deep price retracement of W(2) wave (81.2%) implies a shallower price retracement for W(4) wave. I have already discussed the high-steamed momentum of W(3) wave, which implies a deeper than classic price W(4) retracement of 38.2%. Also keep in mind that the current price retracement is at the 23.6% threshold, and that price hasn't yet reached the 0.90–1.40 retracement zone of W(4) wave.

These two elements, taken together, reveal that W(4) wave is still in its incipient stage and has a high probability of developing into a complex corrective structure.

ONWARD, W(4)

Now that I have presented the direct and indirect impacts, I will move on to the details of the ongoing W(4) wave:

- The parabolic rise lasted exactly 12 years, from September 1, 1999 until September 1, 2011, representing a 144-month period. W(4) is currently at the development of its 15th bar, a 10.41% time buildup.
- The current time retracement of W(4) wave (as of December 10, 2012), having only 15 bars, exhibits the following characteristics:
  - Three bars away from the 12.5% time threshold of the 144-bar W(3) wave duration, and
  - Seven bars away from the 9.375% time threshold of the 236-bar W(2) wave duration.

The percentage time retracement parameter of W(4) wave, which is seldom studied alone or with price, implies the following:

- It is still in its incipient stage because it only reached the 10.4% location on the 144-bar W(3) wave scale. In my experience, the minimum required retracement of a time correction should be at least 33.3% (48 bars) of the total value of 144 bars. If not, it will not qualify as a classic correction, but rather as a subwave (pullback in uptrend and rally in downtrend), belonging to the previous W(3) wave.
- Once again, the *alternation principle* tells you that more often than not, W(4) lasts longer than W(2) [n>1], guided by the time formula defined in part 1 of this series. Rarely is the duration of W(4) less than that of W(2) [n<1]. On the chart in Figure 1, it is highly probable that this time rule will be inverted and the W(4) wave will only reach a Fibonacci (or Gann, or Dow) ratio inferior to 1.0 of the 236-bar W(2) wave duration. In other words, it will last much less than 236 bars.

From a price point of view, there is a high probability that W(4) is still in its inception stage. It is likely to break down below its present price key level [W(4)'s lowest low at 1524], with a predictable movement toward the 38.2–61.8% price retracement zone.

From a time point of view, which is used less often, the W(4) wave duration has several limiting landmarks:

- A minimum duration until the 33.3% of W(3), which represents 48 bars (144:3), brings it toward August 1, 2015. If you allow an error margin of no more than two to three bars, the duration comes closer to May 1, 2015, thus forming a temporal cluster with the 0.1875 Gann ratio (1/8 + 1/16). This is calculated with respect to the entire 236-bar W(2) wave duration.
- Many intermediate shorter-wave lengths may occur. These should be considered as temporal landmarks for limiting the various subdivisions of W(4) wave, especially when you are aware that it is likely to be long lasting and have a complex structure. One of these clusters could occur on June 1, 2013 (Figure 1) — 14.6% of the 144-bar W(3) wave duration and 9.375% (1/16 + 1/32) of the 236-bar W(2) wave duration.

If price breaks out above the highest high (1923.7 level) before May 1, 2015, you can be sure that the current W(4) wave is the fourth subwave of the current W(3) wave. If this were to occur, it is likely that a divergence will occur between the last two impulsive subwaves of this modified W(3) wave. However, if the market flow breaks below W(4)'s lowest low

It is best to monitor the market flow in a progressive, step-by-step manner.

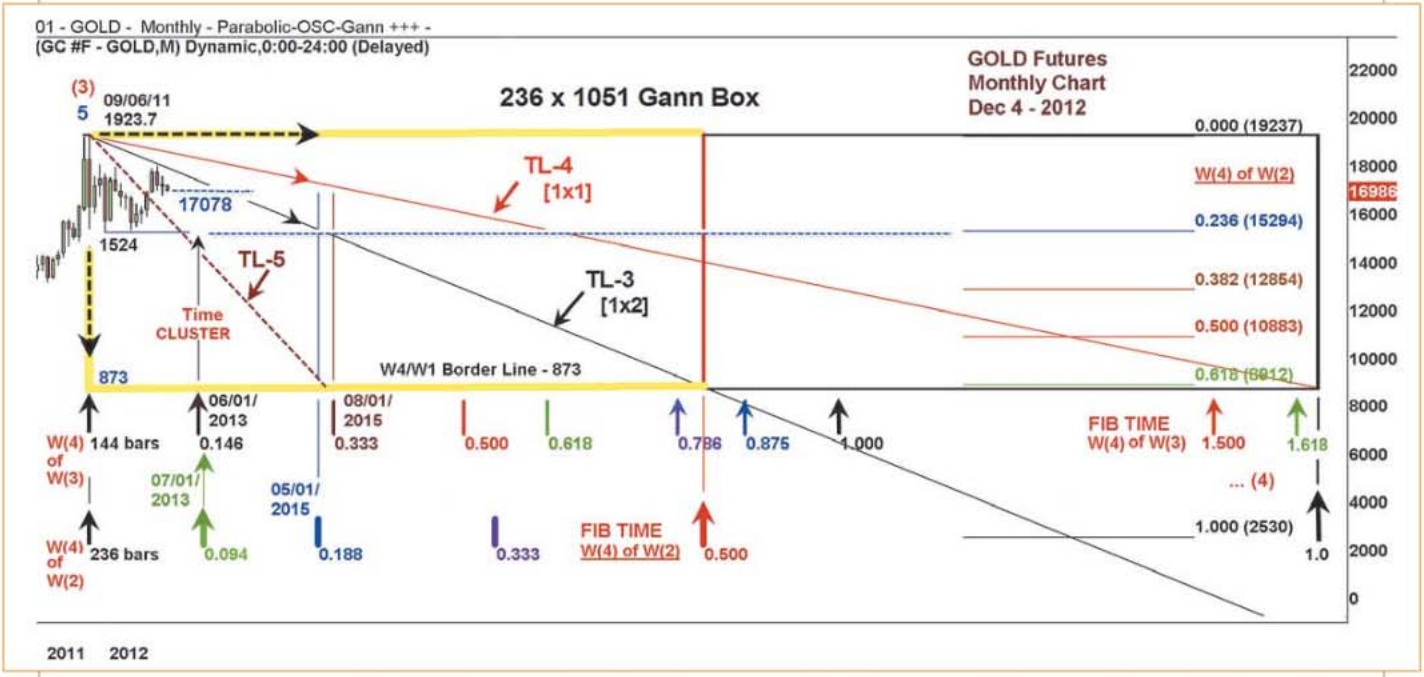
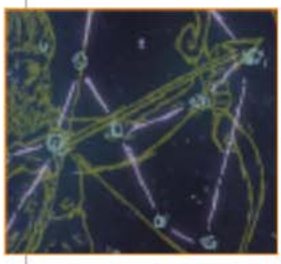


FIGURE 2: THE EVOLUTION OF W(4). Here you see how the time & price mapping will efficiently guide you through the market while it's evolving and moving toward the end of W(4).

(1524 level), then the W(4) wave will continue its development and validate the proposed scenario.



TIME & PRICE RELATIONSHIP WITH GANN

Looking at the monthly chart of gold continuous futures in Figure 2, you will be able to see how the time & price mapping will efficiently guide you while the market is evolving and moving toward the end of W(4) wave.

In order to obtain the optimal trendlines that limit the market flow development, I have used a Cartesian system based on a horizontal time axis drawn from the location of the highest high (1923.7) on September 6, 2011. Once this is done, the next step is to proceed toward establishing a time & price limit for the W(4) wave development till it terminates. This will define and encircle the best-suited Gann box for this wave. You will see that in this case, the best *time* x *price* parameters will be 236 x 1051.

On the time side of Figure 2, you are inclined toward using two time scales [144 bars of W(3) wave and 236 bars of the W(2) wave]. The advantage of using two time scales is that clusters for determining the terminal key level of W(4) and for establishing the coordinates of its corresponding subwaves will be generated. I will employ two principles:

- The *proportionality principle:* This specifies that the classic time retracement of W(4) with respect to W(3) wave should be in the 38.2–61.8% time scale. Remember that the W(3) time scale consists of 144 bars.
- The *alternation principle:* This specifies that, more often than not, the W(4) duration is governed by the following formula:

$$\text{Time of W(4)} = n \times \text{Time of W(2)}$$

where the coefficient n is usually greater than 1.0. The W(2) time scale, in this case, consists of 236 bars. It appears that this value would be the predominant time choice for an optimal Gann box.

Since it is best to monitor the market flow in a progressive, step-by-step manner, consider the following:

- The first half of the established 236x1051 Gann box with its 1x2 Gann angle (also named TL-3)
- The second half of the entire 236 x 1051 Gann box with its 1x1 Gann angle (also named TL-4). The market flow will decide if W(4) wave will terminate within these two time scales (144-bar or 236-bar), the latter being presently governed by the value of $n < 1$. In case of a time-extended W(4) wave, the terminal levels will be outside these two time scales with the value of $n > 1$.

On the price side in Figure 2, you are inclined toward using the vertical price space, limited downward to the W4/W1 overlapping borderline at 873.0. It seems logical to choose this restrained 1923.7–873.0 vertical price distance of 1,051 points as the down limit of W(4) wave of this partially developed impulsive pattern, which so far is a 5-3-5-3 structure [W(1)-W(2)-W(3)-W(4)…]. Further, the internal structure of W(3) wave is a 5-3-5-3-5 subwave structure (Figure 1). This

confirms the non-overlapping feature of the current impulsive pattern, even if the W(5) isn't yet in effect.

THE LANDMARKS

I will now look at the time & price–related landmarks drawn in Figure 2, which could be tested, retested, bounced on, or zoomed through. They could even halt the ongoing market flow.

- The resistance of the highest high at 1923.7 key level.
- The various support lines located at:
  - 1524 key level, the lowest low so far, of the current W(4) wave
  - The Fibonacci ratios: 23.6%, 38.2%, 50%, and 61.8%, respectively, 1529.4, 1285.4, 1088.3, and 891.2 levels
  - 873.0 key level, the delimiting level of the price space.
- The proximal time clusters between June 1–July 1, 2013 and May 1–August 1, 2015, followed by the other time thresholds derived from the Fibonacci ratios of the W(3) and W(2) time scale.

On the *dual time & price side* of Figure 2, the powerful landmarks play an important role due to the progression of the market toward the three Gann angles:

- In its incipient stage, the TL-5 trendline, which links the highest high with the second time cluster (May 1, 2015–August 1, 2015), halted the market flow twice before it was broken by the upsloping momentum. The TL-5 trendline is also a Gann angle that links the top with the 33.3% location of the W(3) time scale and the 18.75% (1/8 + 1/16) location of the hindsight value of the W(4) time scale.
- As the market flow advanced, the TL-3 trendline — a 1x2 Gann angle — was activated and tested. This trendline links the highest high with 50% location of the hindsight value of the 236-bar time scale of W(4). Currently, the market is using the area encapsulated by limiting TL-3 and TL-5 trendlines as its developing pathway.
- In the near future, the TL-4 trendline — a 1x1 Gann angle — is likely to play an important role because it links the highest high with the 100% location of the hindsight value of the 236-bar time scale of W(4). This trendline is waiting to be activated and acted on by the market flow to further develop the W(4) wave.

GO WITH THE MARKET

An astute trader must always be reactive to the behavior of the market and quickly adapt to recommended trading techniques. Once the optimal trading setup is established, you should be able to efficiently monitor the flow of the market, with the objective of detecting, as soon as possible, any subwaves of the ongoing W(4) wave, which, in turn, will reveal its final trajectory.

To see how the price of gold has progressed from December 2012 to August 2013, see sidebar "The Golden Road" on page 46.

Mircea Dologa, MD, began his investment and trading career in 1987 as a Commodity Trading Advisor and a registered general securities representative. He subsequently moved into teaching practical aspects of trading using techniques he developed. He is a contributor to many magazines around the world, and is publisher of the monthly World Charting Report, *which covers international indexes, commodities, and forex charts. He is a member of several technical analysis associations (ATAA & STA) and an MTA associate member. He may be contacted at mircdologa@yahoo.com or via his website at www.pitchforktrader.com.*

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‡See Editorial Resource Index

THE GOLDEN ROAD

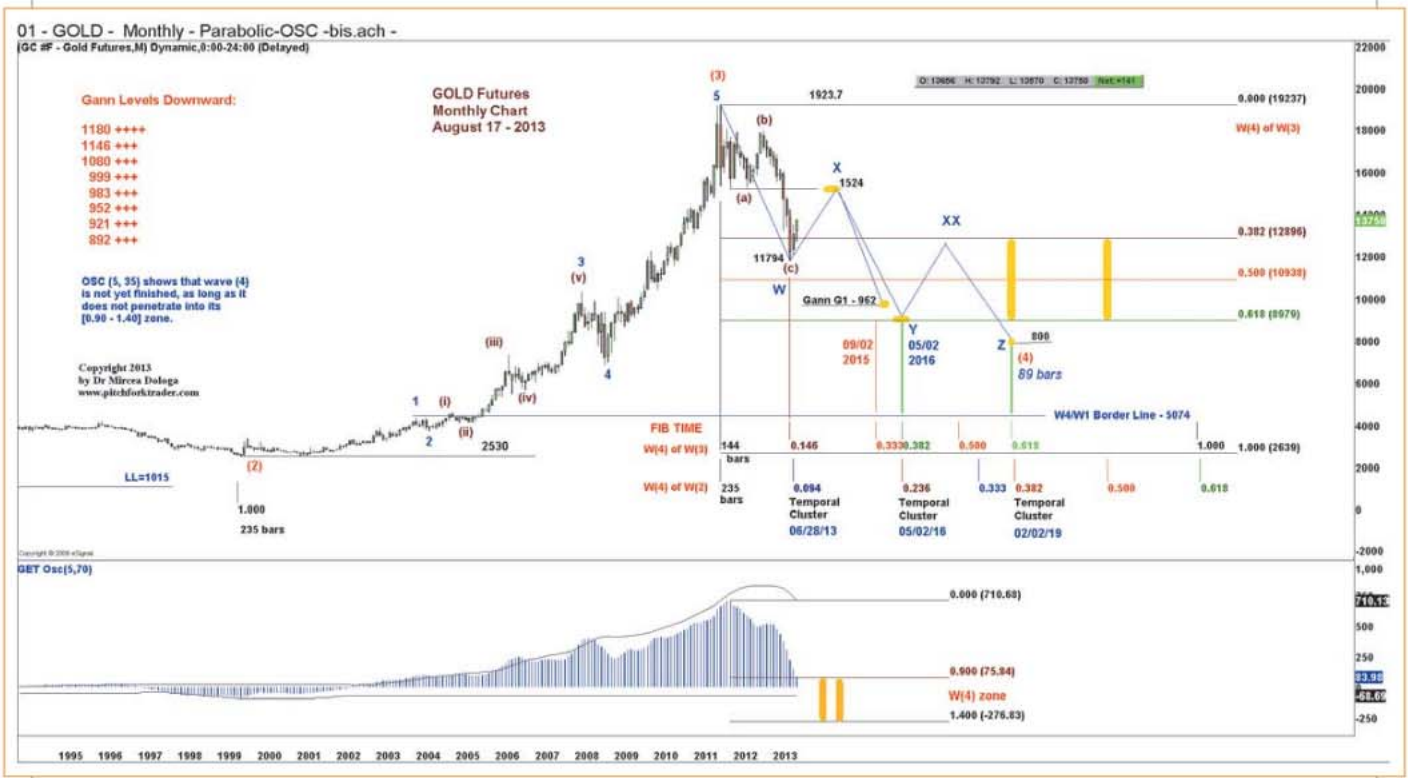
In Sidebar Figure 1, you see where gold futures have progressed from December 10, 2012 to August 15, 2013. The market moved as in my prescribed forecasts. The monthly chart shows that W(4) continued toward the 0.382–0.618 retracement zone, under the form of a complex correction, which can be either a:

- W-X-Y pattern (double three) that is likely to terminate between September 2, 2015 and May 2, 2016 at 962 or 898 key levels, respectively. This scenario will be invalidated if wave X does not reach the 1524 level.
- W-X-Y-XX-Z pattern (triple three), that is likely to terminate on February 2, 2019 at 800, the double-zero key level, given that price-wise, z=0.618*W. This scenario will be invalidated if wave XX isn't identical to wave X in terms & price.

The W(4) wave will probably last until at least September 2, 2015. Otherwise, it will just be a subwave of W(3) wave, because its duration is less than 33.3% of W(3)'s duration of 144 bars.

The OSC(5,70) shows that W(4) wave has not yet terminated since it just penetrated the 0.9–1.4 confirmation zone.

—Mircea Dologa



SIDEBAR FIGURE 1