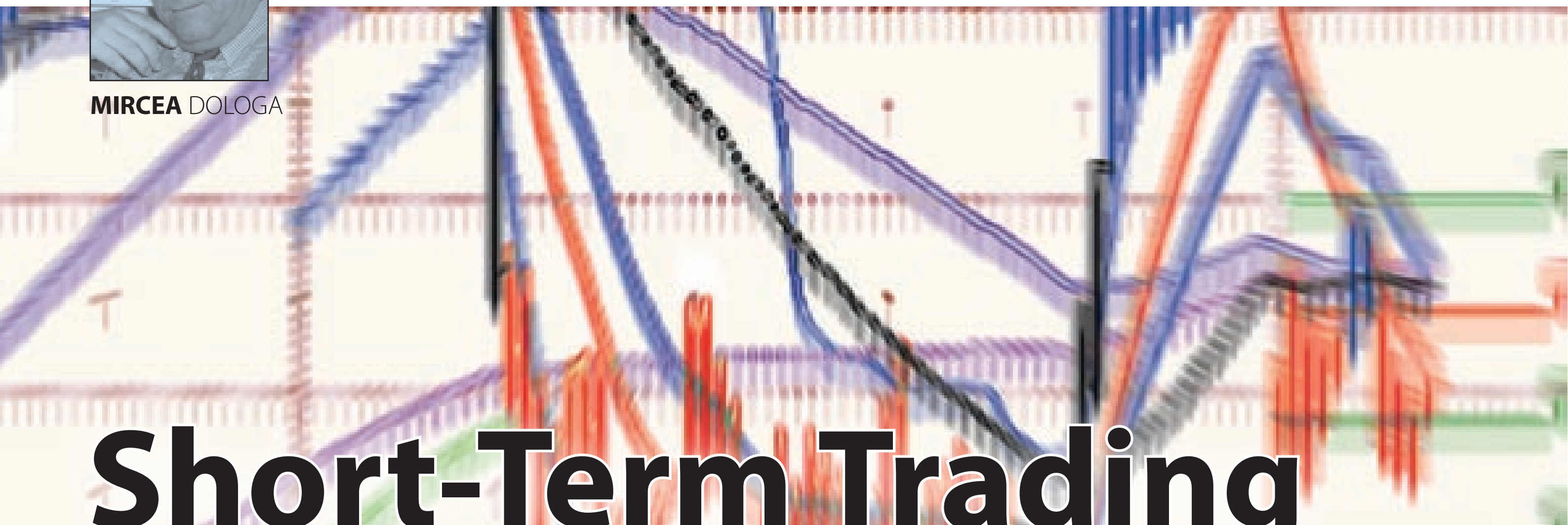
MIRCEA DOLOGA

Dr Mircea Dologa, MD, CTA, a commodity trading advisor (CTA), explains a useful analysis technique



Short-Term Trading with Action and Reaction Lines

The *Action & Reaction Lines* concept was kept secret from the crowd for many years. If you browse through the technical analysis literature one can see that this topic was rarely treated. This well kept secret represents a real mystery. The first to mention this concept was Roger W. Babson and then later Dr Alan H. Andrews. Both of them practised this set-up with huge success, making profits of millions of dollars. The efficiency of this mechanism is based on Newtonian principles.

Definition & Historical Foundation

The *Action & Reaction Lines* set-up is formed by three lines: a *Center Line*, an *Action* and a *Reaction Line* where the *Center Line* is encapsulated by the *Action* and *Reaction Line*.

Sir Isaac Newton (1642-1727) has claimed that:

"Truth is ever to be found in simplicity, and not in the multiplicity and confusion of things".

He synthesized the works of Descartes, Kepler, Copernicus and Galileo, writing several books. His genius marked not only the 17th century but also the future of mankind. In his works, he mentioned:

"Geometry is founded in mechanical practice, and is nothing but a part of the universal mechanics … the description of right lines and circles, upon which geometry is founded, belongs to mechanics. Geometry doesn't teach us (how) to draw these lines, but requires them to be drawn".

He mainly considered the topics related to gravity, elastic force, levity, the resistance of fluids and the like attractive or impulsive forces.

Writings in his main book *Principia* (1687) cover the three laws of motion. He elaborated his principles through the use of nothing except his intelligence and the power of his analysis. Newton's 3rd Law (Action and Reaction Principle) states:

"For every Action there is an equal and opposite Reaction"

Having two bodies A and B - when the former exercises an action on the latter body (B) with an Action FAB force - then the body B exercises on A an equal and an opposite directed FBA force called Reaction.

We illustrate this principle in Figure 1:

- Action and Reaction forces are always equal and opposite in direction.
- Action and Reaction forces can't be added (compounded) because each is applied to different bodies.
- Mathematically, FAB = - FBA

(the arrows signify the vectorial character of each force, defined by: magnitude and direction); these two forces are equal in magnitude but opposite in direction.

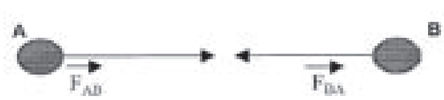


Figure 1 – The Action & Reaction Principle

Characteristics and Function

This principle stood the test of time and more than 300 years later, the resulting structure – classical mechanics – has its ubiquitous use in financial markets, business, and our everyday life.

We know by now that Action & Reaction Lines represent vectorial forces. The dictionary defines the word vector as

"a quantity that has magnitude and direction and that is commonly represented by a direct line segment whose length represents the magnitude and whose orientation in space represents the direction; broadly, an element of a vector space."

(Merriam-Webster's Collegiate Dictionary – 10th edition 2002).

We know from our high school days that every force carries a certain degree of energy. What better carrying guide for this kinetic energy could there be, than the channelling structure ensured by the Action & Reaction Lines?

They carry the market flow energy, through the time-price ethereal space, showing us where the market could modify its kinetic energy status through :

- An energy building rectangle or cluster, which will assist the price to restore its energy, and then breakout from this zone with a renewed momentum, or
- An entire energy exhaustion process provoking a reversal with an ensuing counter-trend movement.
- A multiple vectorial forces intersection called *confluence*, which promptly halts most of the kinetic forces. The more numerous the forces that form the confluence, the stronger its halting power.
- The formation of huge bars, having 2 to 4 multiples of the ATRs

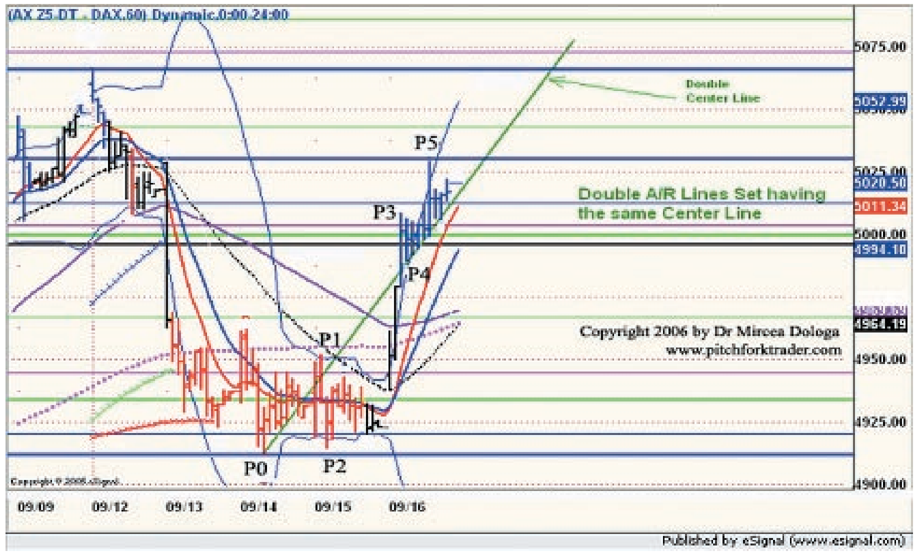


Figure 2

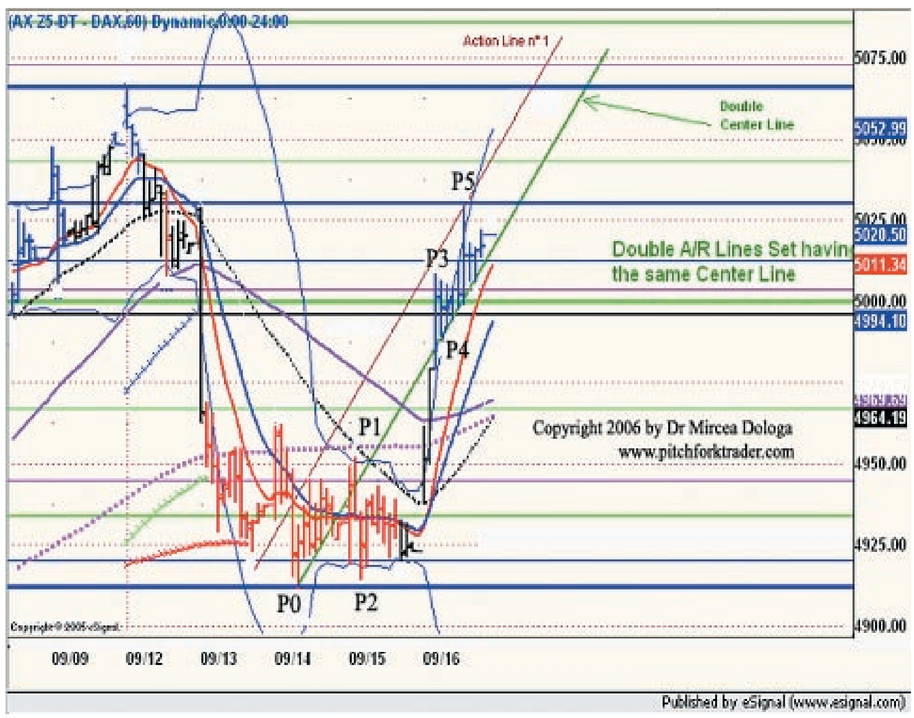


Figure 3

(Average True Range) which will encase all the kinetic energy of the local market flow in a high-steamed momentum movement, ready to break through the energy field, at the speed of an express freight train.

We define the ATR as the larger of either the distance between the current day's high and low, or the current day's high or low and yesterday's close

The Methodology of the Double A & R Lines Set-ups Construction - A&R Criss-cross Pattern Technique

We have deliberately chosen this type of A & R Criss-cross Pattern Technique, sort of market mapping, through the dispersion mechanism of Action & Reaction Lines, around the Center Line, in order to study its in-

Figure 4

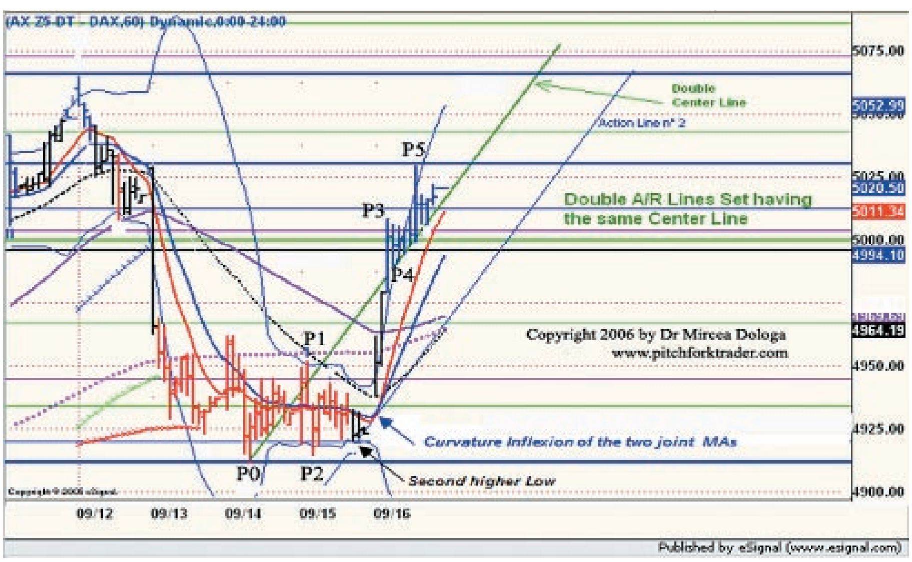


Figure 5

fluential inclination on the outcome of the entry and on the potential results of the whole trade.

Its finality depends on the varying degree of the kinetic energy carried across the market flow by these three sets of trend lines, throughout the selected 60-min time frame charts (refer to Figure 2).

The selection of their trajectory, including the choice of the pivots, becomes primordial in our quest for the low-risk high-probability trades.

As we can observe in Figure 2, the P0 to P5 pivots have been selected and labelled. The numerously tested (eight times) Center Line has been drawn. Our goal, for this case, is to study the double A&R Lines set-ups construction, having the same Center Line, in view of a reversal.

Action Line No 1 is constructed by drawing a parallel trend line to the Center Line, through the P5 pivot.

The drawing of the Reaction Line in Figure 4, mirrors the Action Line, in regard to the Center Line. Its use will be very profitable once the market flow reversal begins. The A&R Lines set-up No 1 is thus constructed in the following order: first the Center Line, then the Action Line and finally the Reaction Line.

For the study of the A&R Lines set-up No 2 in Figure 5, we have chosen the same numerously tested (8 times) Center Line. The Action Line No 2 was constructed by drawing the tangent to the curvature inflexion of the two intersected/joint moving averages, a lower parallel trend line to the Center Line, through the Cartesian coordinates of the second higher low, where P0 pivot was the lowest low (reversal point) and the P2 pivot, the first higher low.

The drawing of the Reaction Line No 2 mirrors the Action Line No 2, in regard to the same Center Line.

We have noticed that the A&R Lines set-up No 2:

- was constructed in the same order, as the A&R Lines set-up No 2 (first the Center Line, then Action Line and finally, the Reaction Line), although we differentiate that the two Action Lines (No 1 and No 2) were not on the same side of the Center Line; the same is true for the two Reactions Lines.
- These two set of lines do not form a symmetry in regard to the Center Line; each side contains an Action and a Reaction Line from a different A&R Lines set-up.
- We have deliberately chosen this type of A&R Criss-cross Pattern Technique, sort of market mapping, in order to study its influential validity on the outcome of entry and the potential results of the whole trade.
- Action Line No 2, was peculiarly constructed by tangentially drawing a line to the curvature inflexion of the two intersected/joint moving averages.

In order to enhance the comprehension of this A&R Criss-cross Pattern Technique, we have purposely drawn the dual combination of the two different Action Lines, each on a different side of the Center Line. Thus, we have created a better description of the current market flow, which freely travels upward through the channel formed by the Center Line and the Action Line No 1.

The market rested for 3 bars, and is now ready to proceed either upward, having the Action Line No 1 as an objective target, or on the contrary, downward dropping like a stone in abyssal waters. The latter movement will take the Action Line No 2 as its primary objective target. The numerous tests (eight times) of the Center Line denoted a strong support pleading for the up-trend continuation, but the steep slope of the two moving averages at the P0 to P5 labelling both announced a vigorous market reversal.

Our two set-ups are now complete and we are ready for the market to make its next move. What will it be: a trend continuation or an abyssal drop?

As we partially expected (see Figure 9) the market dropped twice its usual daily Average True Range (120 points worth about $3600) into the abyss, due to the political and economic instability provoked by the results of the German election (09/18/05).

Think also of the unpredictable human-created events, so frequent in our modern times: exacerbation of the ongoing wars (e.g. Iraq), terrorism acts, natural catastrophes, and of course the results of ongoing elections.

Going back to Figure 9, we deliberately exposed it without the two A&R Lines set-ups. Even if it is obvious that the market drop is significant, it is not so obvious how a trader should have behaved:

- before the gap day,
- during the opening (or morning & gap's day)
- and even the post-gap day (s).

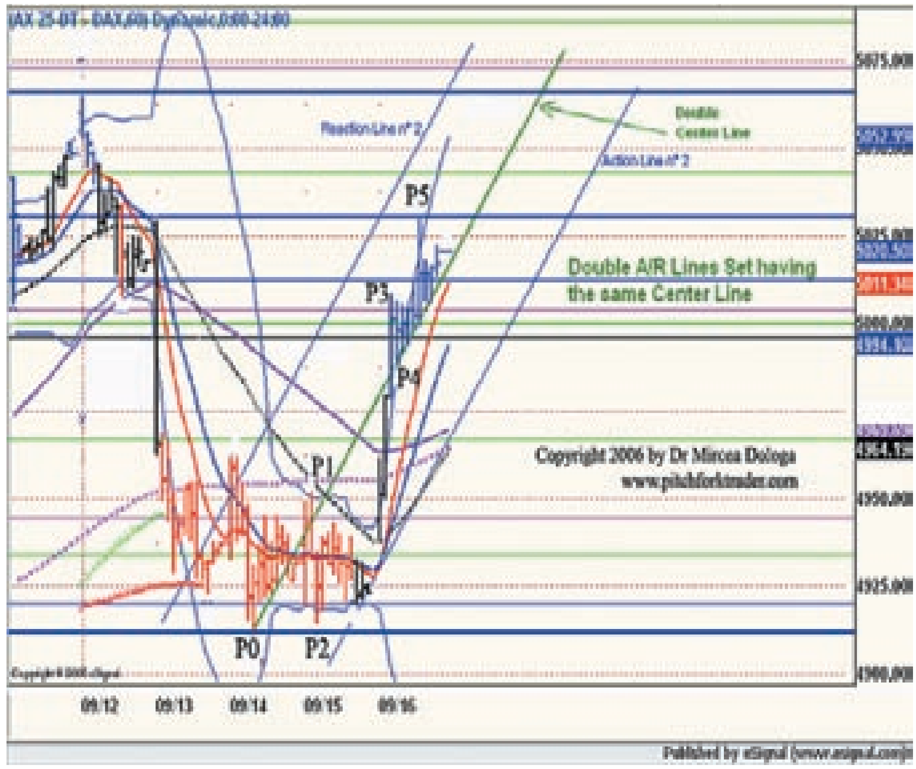


Figure 6

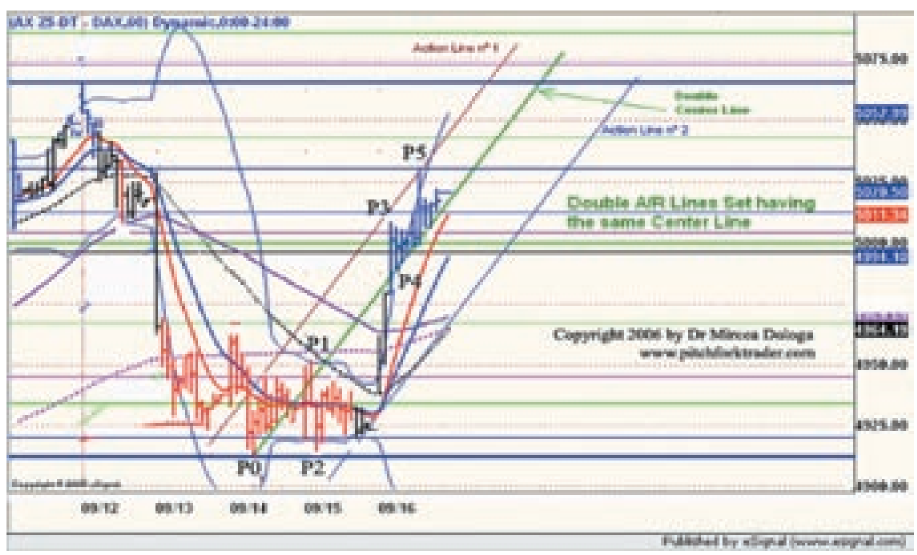


Figure 7

The well experienced, astute trader would have been getting the most out of this specific, somewhat tailor made situation created by the unexpected, yielding well above average profits for the trader.

Figure 10 is identical to Figure 9, but has most of the indispensable trend lines already drawn. We can more clearly observe the market flow's behaviour, and adopt the trader's attitude in an optimal manner. In spite of the huge down gap, the opening 60 minutes bar retraced more than 38.2%, but less than 50%.

The second opening bar climbed all the way up to the Action Reaction Line No 2, creating an almost 55%

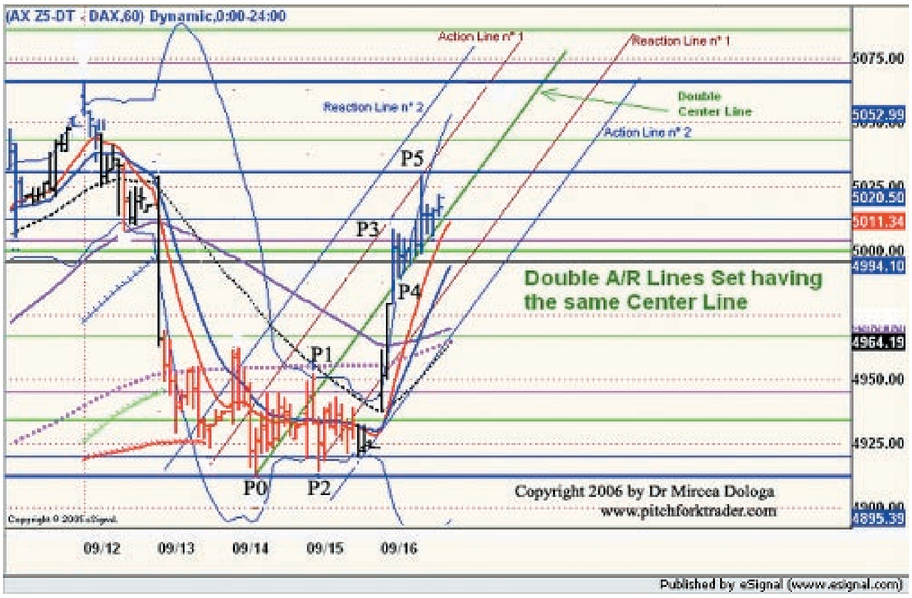


Figure 8

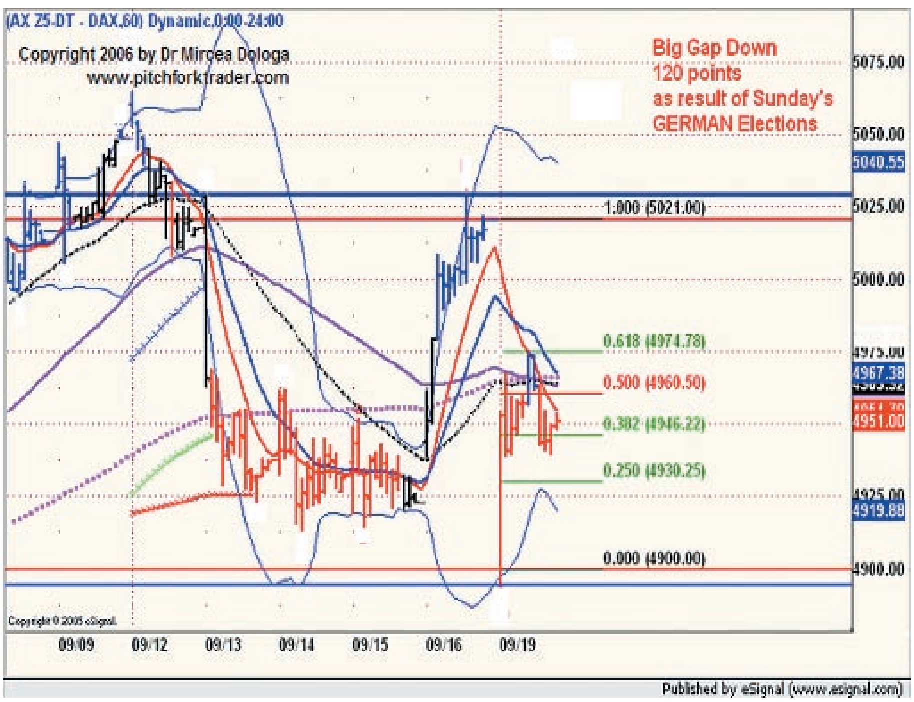


Figure 9 - prior chart continuation

retracement. With these high-steamed movements done, the market flow entered a sideways phase, varying between the 30% and the 62% retracement. This rectangle is formed, and the last low leaned against the newly constructed Action Line No 3.

We were earlier talking about "getting the most out of this specific, somewhat tailor made situation created by the unexpected, yielding well above average profits for the trader". The astute trader would have thoroughly analysed this complex trading situation, in an evolutionary manner, with several timing related aspects in mind:

- The day before, in pre-close phase: he would have noticed the equal probability chances for a next day morning trade: either a long or a short trade. I do not usually recommend to enter in pre-close and stay with the market overnight (and even less over the week-end), but I must confess that there are times when it is really worth it to take the risk. That Friday (091605) was one of these days.
- The pre-opening phase would have emphasized the use of an intensive pre-open preparation, allowing us to find out who won the German elections; it was already Monday morning - 091905.

In this way, we could have gathered some veridical information and got a rather full comprehension of the imminent market drop situation, well ahead the market opening.

The opening bar revealed the immensity of the gap (twice the Average True Range) and instantly informed the trader of the hyper-extended volatility (rubber-band like phenomenon). It was not only normal, but also very profitable, to enter against the gap, right at the opening level of 4900, with a very consistent number of multiple trading units because:

- The market had more than 80% chance to reverse to the mean, with a strong retracement potential beyond the 50%. It reached exactly the 61.8% value (4974 level) six hours later.
- We add that this kind of trade was even more optimized by the extreme low risk of only 5 Dax points (125 euros/contract); the day's low was at the 4895 level.
- We have seldom had this great opportunity, so the trader must be aware of them and apply the right selected techniques, once they are mastered through a repetitive apprenticeship process.
- Shortly put, the reward/risk ratios are the following calculations:
  - 9 for an objective target of

38.2% retracement, calculated by dividing the reward (4946-4900) by the risk (5 points) – formula is [(4946-4900) / 5],

– 12 for an objective target of 50.0% retracement – formula is [(4960-4900) / 5],

– 15 for an objective target of 61.8% retracement – formula is [(4975-4900) / 5],

- During the day's activity: once the 62% retracement area was reached (4974.75 level), it was almost certain that the market players were tired after the 6 to 7 hours of excitement, and that a sideways market activity will ensue. The sideways trader took greatest pleasure here, making at least one trade profit of 20-25 Dax points/contract.
- The post-gap trading days: in spite of the huge gap, the German Dax 30 Index did not deserve to get stuck at these low levels. It was only a matter of political context. Within five days of the day's gap, the industrious German stock market completely filled the huge gap, thus reaching the 5021 level again.

So far on this 60 minute time frame, we have noticed that the market is guided by the main Fibonacci ratios: 0.382, 0.500, and 0.618.

The above chart differs from the chart of the Figure 10 by just the presence of the Reaction Line No 2. It is very useful for the trader to get familiar with how well the market flow movements are regulated by the latter line which serves as an authentic symmetry axis, in spite of the dramatic and anguishing huge gap's movements.

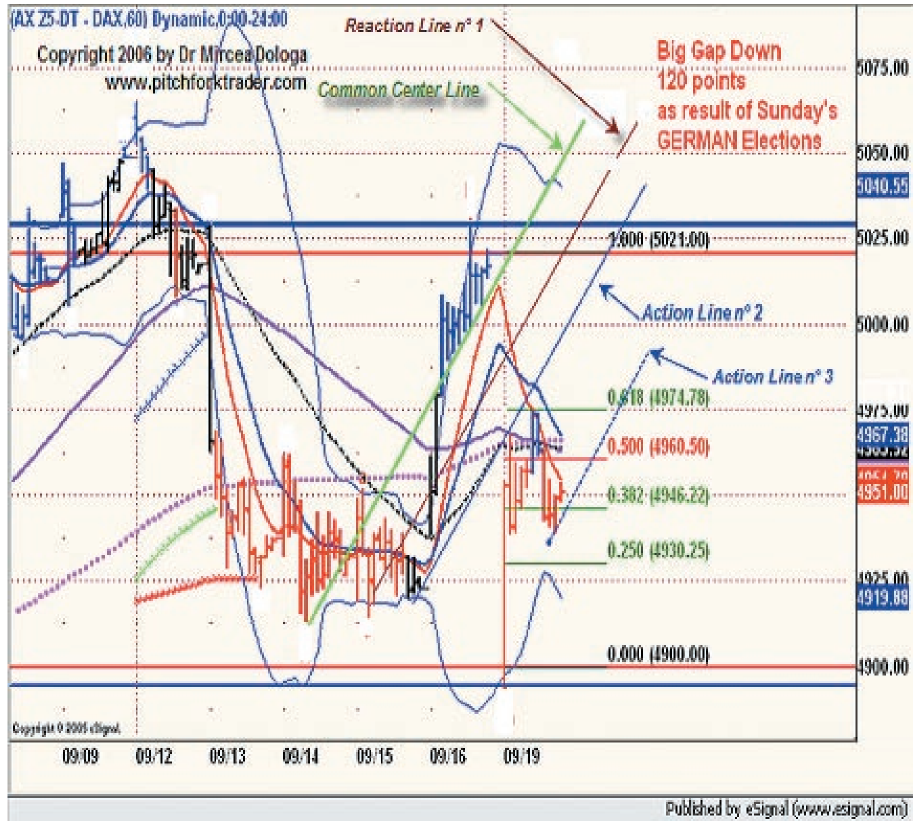


Figure 10 - prior chart continuation

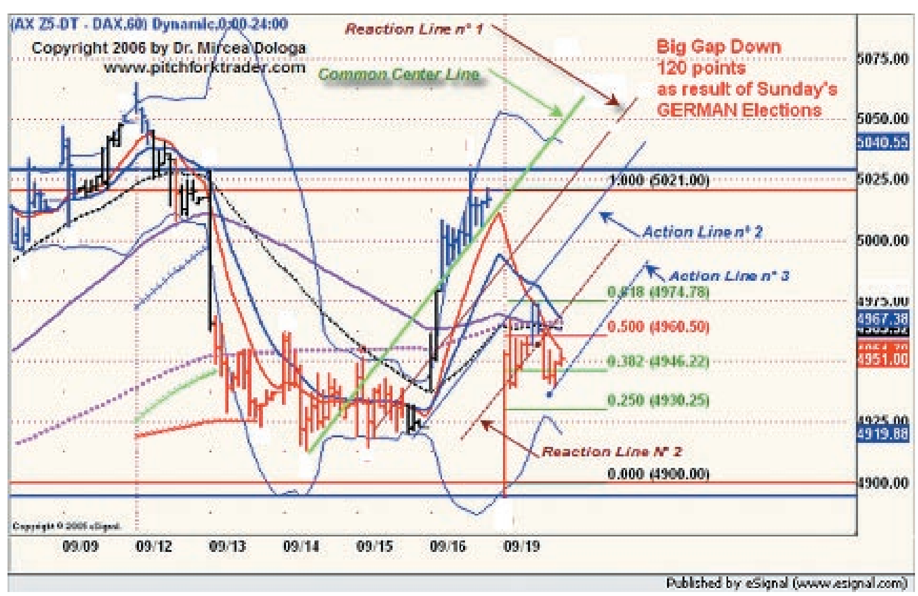


Figure 11 - prior chart continuation

Conclusion

The Action & Reaction Lines is one of the best tools that bring risk control to the trader, which is the name of the game – this is the same principle that applies in any entrepreneurial life. This risk dominance will be always present because of the nature of the trader's professional life. He knows that of all businesses, trading is the only one that imposes losses, better said it's a way of the trader's life.

The risk management is the only trading element having the power of 'to be or not to be'. As the saying goes "you make money, if you don't lose money".

Dr Mircea Dologa is a commodity trading advisor (CTA) who founded a new teaching concept, for young and experienced traders at www.pitchforktrader.com He can be contacted for any questions at mircdologa@yahoo.com