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APPLICATION OF CHAOS THEORY TO MARKETS

The theory of Chaos found its application back in the 19th century, but these were only the first steps. Edward Lawrence and Benoit Mandelbrot tackled this theory in the second half of the 20th century. However, Lawrence in his theory tried to predict and managed to derive the main reason for the chaotic behavior - different initial conditions.

Capital markets go through alternating periods of calm and storminess. However, they are not always chaotic, and the shift between calm and chaos is often sudden and unpredictable. Some believe that these concepts of chaos theory can be used to understand how financial markets operate.

Markets tend to grow in bubbles that eventually pop with drastic consequences. Financial bubbles often grow because of positive feedback. When investors make money during a rise in the financial markets, other observers think the investors must have made a smart decision, which leads the observers to invest their own money in the markets. The result is more buying and stock prices going higher. The positive feedback loop leads to prices beyond any logical or justifiable level. The loop eventually ends, and the last investors are left hanging with the worst positions.

The same concept can explain volatile bear markets. The markets can suddenly shift due to outside factors, which cause investors to pay attention only to negative news. Initial selling leads to more selling as market participants liquidate their positions. The negative feedback loop tends to accelerate quickly, often resulting in a market full of undervalued stocks.

Bill Villas the author of "Trading Chaos" is sure that the characteristic links of chaos are systemic and random. In his opinion, chaos is permanent, in comparison with the same stability, which is temporary. In turn, financial markets are a product of chaos. In fact, the theory of Chaos casts doubt on the very basis of technical analysis.

References

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