

A Way Forward

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“History does not repeat itself exactly, but behavior does.”

-Robert Farrell

“Cycles . . . where are they when you need them?”

-Richard Russell

Abstract

This article puts recent market behavior into historical context. We review several explanatory theories based on long-term market cycles. Assuming that these long-wave boom-to-bust cycles will persist, we consider implications for financial market structure and government policy. In summary, we agree with the following “Austrian” economic principles: 1) the boom causes the bust; 2) the bust is proportionate to the boom; 3) major intervention is likely to cause major unintended consequences; and 4) sound money is the best policy in all environments. We conclude with some thoughts on monetary reform and offer a potential way forward. We hope and expect that this article will stimulate more research in long-wave studies and solutions that might arise from them.

Introduction

During the crash of 2008, we noticed that conventional market indicators were not working. Could it really be different this time? For clues, we decided to look back over the centuries – as far as market data was available.

We begin by analyzing daily market volatility, looking for technical patterns in relation to secular trend. Next, we introduce two fundamental models based on absolute value (dividend yield) and relative value (Dow/gold ratio). We then examine a pure time-based model – the mysterious Kondratieff-wave cycle. Various economic theories are also discussed, along with implications for government policy and some suggestions for positive steps forward.

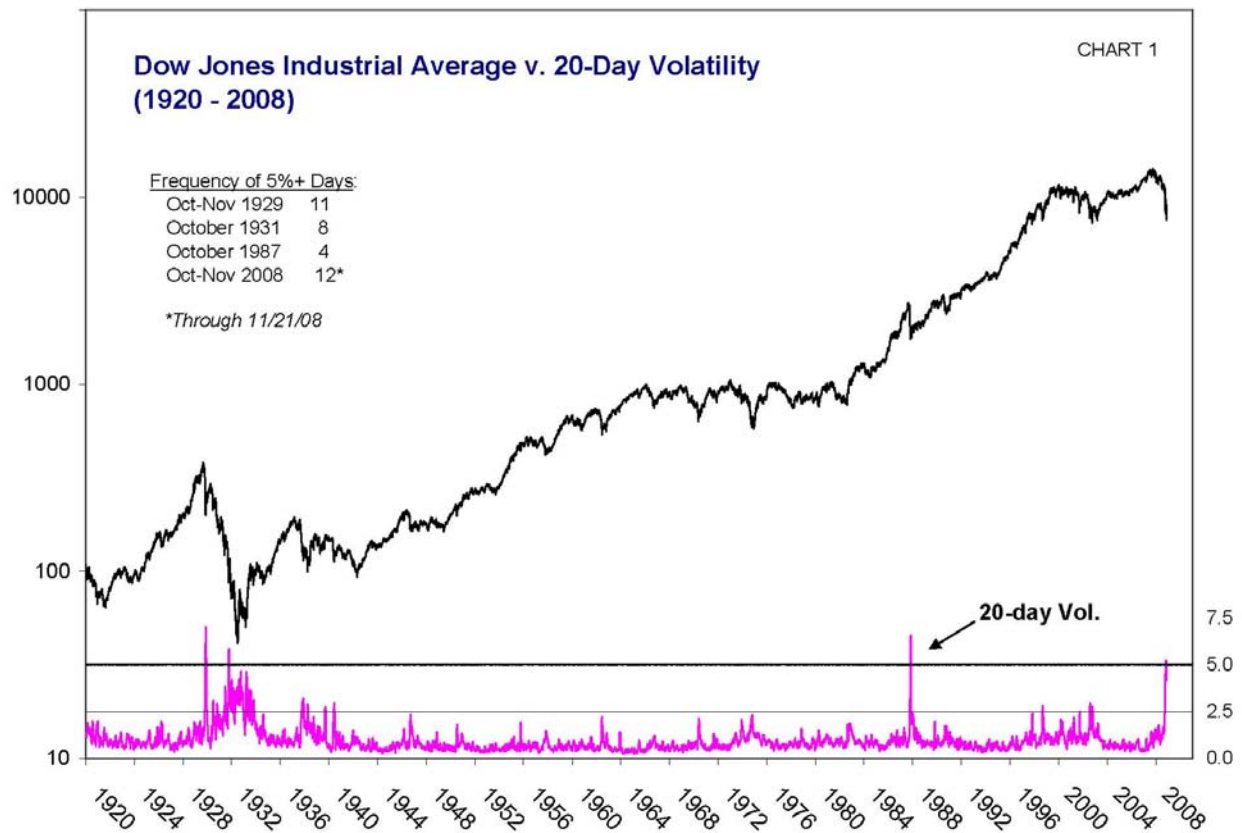
Our long-wave models are not meant to provide specific forecasts, but to explore a broad range of possibilities. For an unconventional tour through the centuries, please read on.

Market Volatility

The autumn 2008 crash has far-reaching implications for world economies and geopolitics. Not only have scores of leveraged financial institutions collapsed, but bellwether equity indices have exhibited behavioral signatures not seen since the 1930s bear market.

Chart 1 presents a 90-year history of the Dow Jones Industrial Average along with a measure of short-term volatility. Our volatility metric is a 20-day standard deviation of daily price change, measured on a close-to-close percentage basis. Prior to October 2008, 20-day volatility exceeded 5% in only three instances: October 1987, October 1931, and November 1929.¹ So, what does volatility reveal?

¹ Reviewing other major markets, we note that 20-day volatility exceeded 5% on three occasions during the initial NASDAQ rout of 2000-2001. Interestingly, the initial Nikkei crash of 1990-1992 produced no 20-day reading in excess of 4%. As far as we know, all major world markets exhibited extreme volatility in autumn 2008.

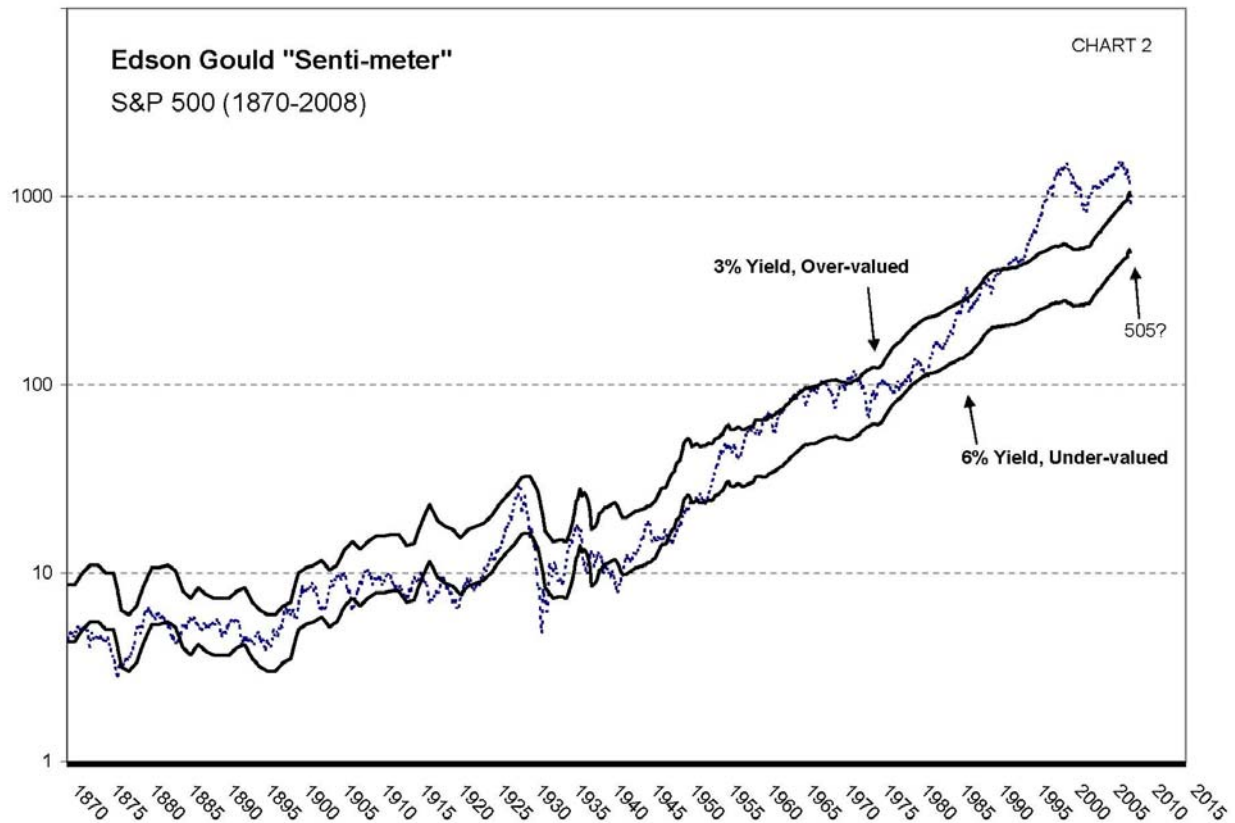


Elevated volatility is clearly a bear market phenomenon. Extremely elevated volatility, on the other hand, has a mixed track record. In 1987, intense volatility did not signal a protracted bear market or spill over to the real economy. In that instance, the spike resulted from a single-day market failure related to program trading and portfolio insurance, both popular products of the time.

So, which will it be – 1929 or 1987, or earlier? For this, we must travel beyond daily volatility into the world of long-wave cycle analysis.

Market Cycles

One interesting model, popularized by Edson Gould in the 1960s, proposes that, over the long term, market dividend-yield tends to range between 3% and 6%. See Chart 2. As of this writing in November 2008, this indicator projects downside risk on the S&P 500 to the vicinity of 505 – more than 30% beneath the scary lows of October 2002.



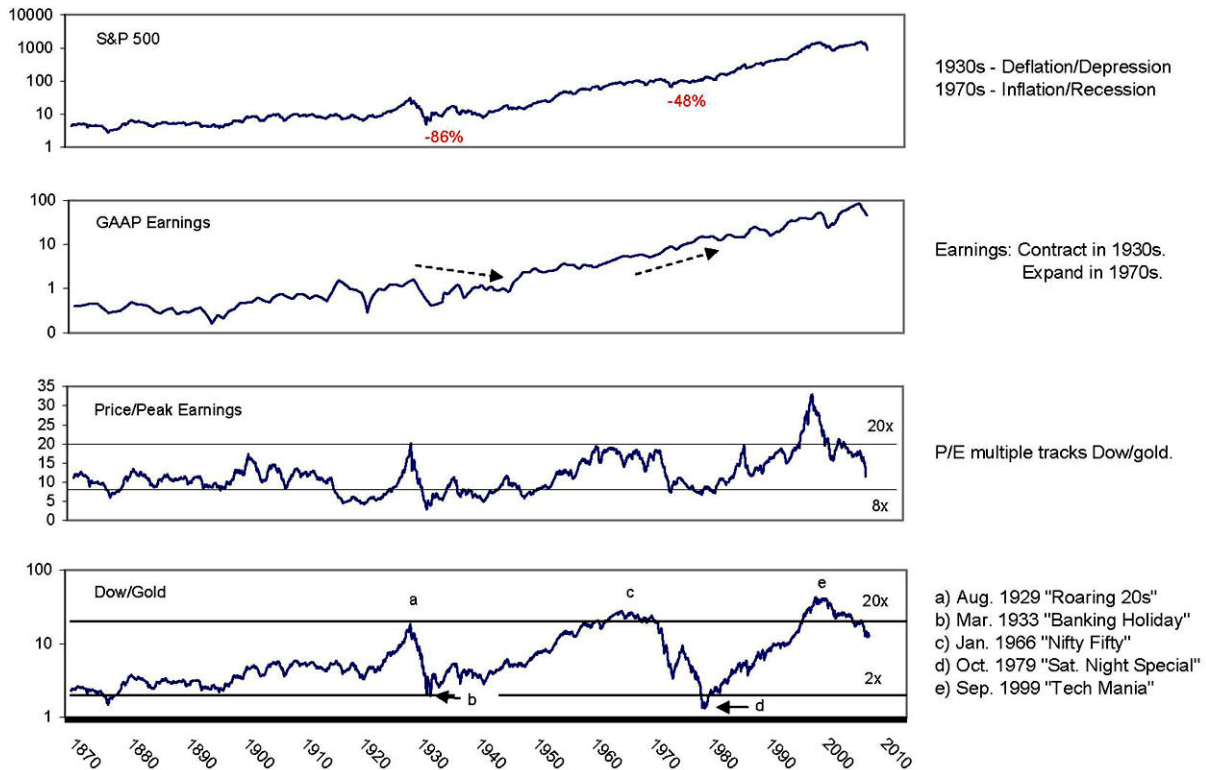
Modern critics have dismissed this model as entirely dependent on exogenous factors. They argue that: 1) today's dividend yields are historically attractive versus U.S. Treasury yields; and 2) modern enterprises are incented to keep dividend payouts artificially low, as tax policy favors capital gains. While these criticisms are valid over conventional time frames, we are not convinced that, in the long view, arguments based on discount-rate and tax regimes should carry more weight than cyclical forces themselves. Put differently, we fail to see why 3% is not a reasonable base yield for the most junior of asset classes – common stocks. Also, dividends are real while “earnings” have, too often, been victimized by “spin”.

Another model of great interest is the Dow/gold ratio. This model measures how many ounces of gold it takes to buy the Dow Jones Industrial Average. Proponents view Dow/gold as a valuation metric, revealing long pendulum swings between “financial-asset” and “hard-asset” eras. There have been three major swings over the past 140 years, with financial eras ending in 1929, 1966, and 1999. Through this lens, we are now nine years into a hard-asset era.

Chart 3 plots the Dow/gold ratio versus the S&P 500 Index along with its GAAP earnings and price/earnings ratio. As you can see, Dow/gold has a strong connection with market P/E. The correlation between these two series is 83% – well above the 68% correlation in dollar terms. During the 1930s bear market, the dollar was pegged to gold, meaning that Dow/gold was driven entirely by the Dow. During the 1970s bear market, the dollar floated and gold did most of the work. In that era, investors recognized monetary debasement by paying lower multiples for nominal earnings. Dow/gold and price/earnings were both marked down to 1930s levels, despite 8% nominal earnings growth.

S&P 500 vs Earnings, P/Es & Dow/Gold Ratio

CHART 3



As of this writing in November 2008, it takes about twelve ounces of gold to purchase the Dow. If we are now repeating a 1930s- or 1970s-like scenario, we are, once again, on the road to near-parity.

Before leaving the Dow/gold model, we note its value as a guide to secular trend. An awareness of the Dow/gold cycle could have helped investors navigate the aberrant short-term volatility of October 1987. At that time, market P/E was nearing historic highs. Dow/gold, on the other hand, was not far off historic lows. Recognition of an ascendant Dow/gold phase could have helped investors make the correct bull-market call. By that same argument, today's investors should be very cautious, as recent volatility has occurred in a descending Dow/gold environment.

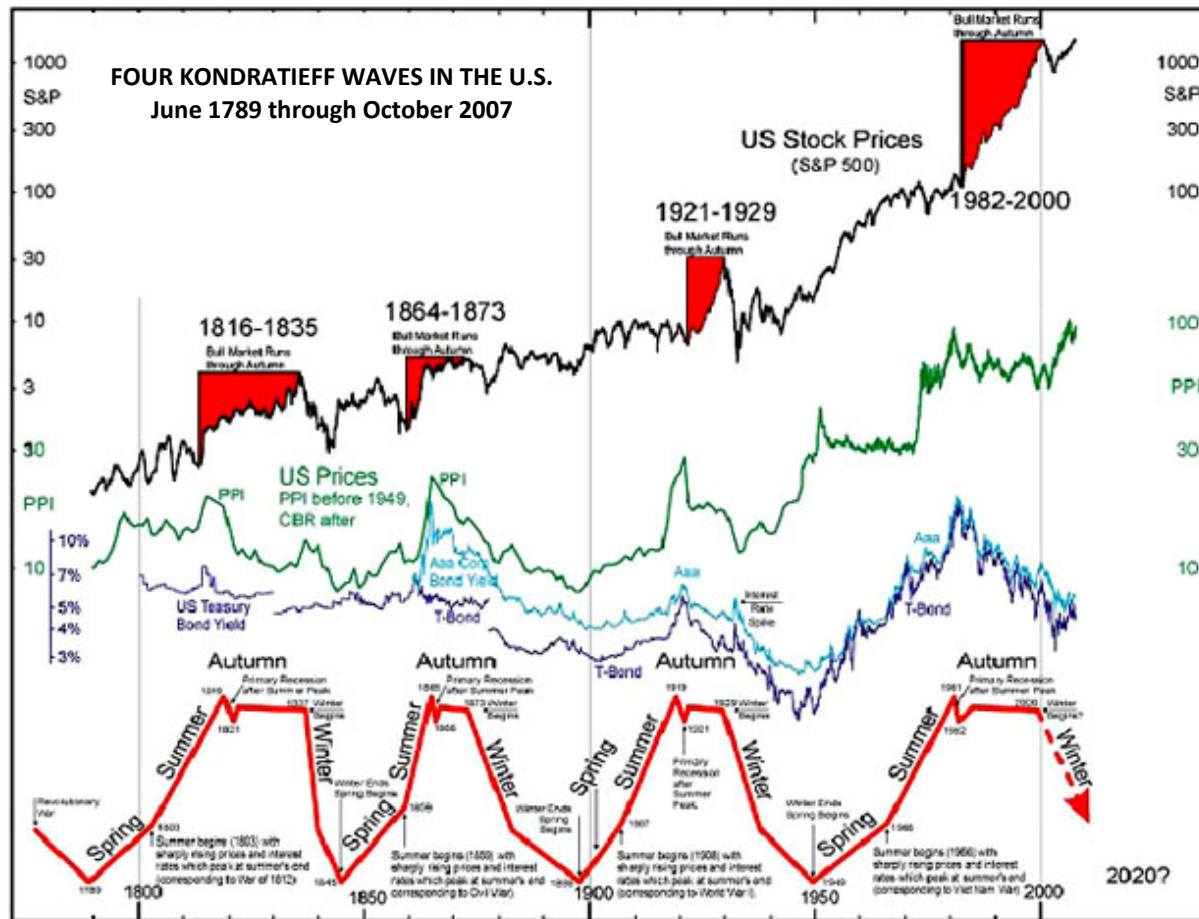
No discussion of long-term market cycles would be complete without the grand-daddy of them all, Kondratieff-wave theory. The K-wave, or grand super-cycle, as this model is known, is shrouded in mystery. Its creator, Nikolai Kondratieff died at age 46 in a Russian gulag. The year was 1938 and Joseph Stalin was in peak form. Nikolai's sin was to predict that capitalism would, once again, revive and flourish. This, of course, did not sit well with state doctrine, providing an early example of "career risk".

The K-wave progresses through four distinct phases

Spring (expansion)	Summer (recession)	Autumn (plateau)	Winter (depression)
1784-1800	1800-1816 (War of 1812)	1816-1835 ("Era of Good Feelings")	1835-1844 (Mexican American War)
1845-1858	1859-1864 (American Civil War)	1864-1874 ("Reconstruction")	1875-1896 (Spanish American War)
1896-1907	1907-1920 (World War 1)	1920-1929 ("Roaring 20's")	1929-1949 (World War 2)
1949-1966	1966-1982 (Vietnam War)	1982-2000 ("New World Order")	2000-? (War on Terror? Or?)

Source: kwaves.com

and can be observed four times during the past 220 years.



Source: Ian Gordon, The Long Wave Analyst (www.thelongwaveanalyst.ca)

The K-wave model is typically presented with a monetary overlay, associating "Spring" with inflationary growth, "Summer" with stagflation, "Autumn" with deflationary growth, and "Winter" with debt deflation. We note that K-wave chronology fits well with our dividend-yield and Dow/gold models. As market practitioners, we are naturally skeptical of its purported regularity. We believe that its descriptive power is more important than its timing precision. The K-wave is an interesting historical

construct warranting serious attention. The fact that modern economists tend to dismiss it as “unscientific” has not prevented them from repeating historic mistakes.

As originally postulated, the Kondratieff wave was a generational phenomenon ... but maybe it is really a lifetime phenomenon. If so, the longer life expectancy we have now, compared with that in the 1930s, may have lengthened the old 50- to 54-year timeframe. It took longer this time, then, for us to lose the personal guidance of those who lived through the last K-wave trough (the Depression), and when we no longer had their personal guidance we were ready to repeat the generational excesses of the past.

Whatever the case, though – whether the Kondratieff cycle is generational or lifetime – it is clear that the financial markets are doing something unlike anything we have seen since the 1930s, and that we are likely working our way down to a Kondratieff trough. In K-wave terms, we are moving from Autumn to Winter. Just as the current decline is unlike the declines of the past 60 years, the ultimate bottom is not likely to resemble the bottoms of the past 60 years either. This, in turn, means that the next bull market is also not likely to resemble the bull markets of the past 60 years. This is not your father’s bear market.

So, what is the economic thinking behind these technically-oriented long-wave models? For that, we turn to business-cycle theory as advanced by some of our favorite dead economists.

Business Cycles

A few days before the equity crash of 1929, Yale Economist Irving Fisher famously stated: “Stock prices have reached what looks like a permanently high plateau.” With the benefit of hindsight, and a taste of humble pie, he later penned his influential *Debt-Deflation Theory of Great Depressions*. This tract appeared in 1933 and reviewed the busts occurring after 1837, 1873, and 1929. Noting that great busts followed spectacular booms – in cotton, railroads, and automobiles – Fisher explained the business cycle as follows:

“In summary, we find that: (1) economic changes include steady trends and unsteady occasional disturbances which act as starters for cyclical oscillations of innumerable kinds; (2) among the many occasional disturbances, are new opportunities to invest, especially because of new inventions; (3) these, with other causes, sometimes conspire to lead to a great volume of over-indebtedness; (4) this, in turn, leads to attempts to liquidate; (5) these, in turn, lead (*unless counter-acted by reflation*) to falling prices or a swelling dollar; (6) the dollar may swell faster than the number of dollars owed shrinks; (7) in that case, liquidation does not really liquidate but actually aggravates the debts, and the depression grows worse instead of better, as indicated by all nine factors²; (8) the ways out are either *via laissez faire* (bankruptcy) or scientific medication (reflation), and reflation might just as well have been applied in the first place... The general correctness of the above “debt-deflation theory of great depressions” is, I believe, evidenced by experience in the present and previous great depressions. Future studies by others will doubtless check up on this opinion.”

The idea that boom causes bust, and that great busts are self-reinforcing, was, in fact, addressed by other economists, not least those of the Austrian school. In contrast to Irving Fisher, leading Austrian economists such as Friedrich Hayek and Ludwig von Mises taught that monetary inflation is more problem than cure. To them, Fisher’s “occasional disturbances” are products of central banking itself.

² Fisher’s “nine factors” are: 1) Debt liquidation and distress selling; 2) Contraction of deposit currency; 3) A fall in the level of prices; 4) A still greater fall in the net worths of businesses; 5) A like fall in profits; 6) A reduction in output, in trade and in employment; 7) Pessimism and loss of confidence; 8) Hoarding and slowing down still more the velocity of circulation; and 9) Complicated disturbances in the rate of interest, in particular, a fall in the nominal, or money, rates and a rise in the real, or commodity, rates of interest.

Austrian economists argue that artificially low interest rates, induced by monetary intervention, encourage asset misallocation which eventually sours under natural forces of supply and demand.³ The main tenets of Austrian business-cycle theory can be summarized as follows: 1) the boom causes the bust; 2) the bust is proportionate to the boom; 3) major intervention is likely to cause major unintended consequences; and 4) sound money is the best policy in all environments.

Austrian business-cycle theory has been harshly criticized by influential economists such as John Maynard Keynes and Milton Friedman. Still, as market practitioners, we find much to like in Austrian thought. In our opinion, it is no coincidence that terms such as “Greenspan put”, “Fed teaser rate”, and “Helicopter Ben” have entered the money-management lexicon. To their credit, Hayek and Mises both predicted the upcoming crisis in 1929. Keynes, on the other hand, lost heavily, and the cogency of his writing seems to have suffered thereafter.

Implications

Assuming that long-wave structures do exist – that the business cycle has not been repealed by Keynesian economics – where are we headed now?

Based on historical evidence, we are likely to experience either painful debt deflation or highly destructive monetary inflation ... perhaps both at the same time. We expect governments to continue to follow the seemingly easy path of heroic intervention until forced to confront the issue of sound money.

One of the characteristics of government is that it be seen as “providing leadership”, even when it has no idea where the leadership should go. Governments do not deal well with complex problems, yet the signs of a dynamic emergent complex of competing forces may just be upon us. Yes, it is possible to have deflation from asset destruction (estimated at over \$30 trillion at this writing, mid-November 2008) and inflation from the ultimately successful increase in money supply. Tools to fight the negative effects of one may aggravate the other. And adjustments can be made in the market place in real time while governments move in halting batch-processing time.

Market participants want to know the duration of the downturn, its damage to the economy, and the character of the recovery. The artful tool of Kondratieff can give us some guidance that the decline might be another five or ten years ... or longer. And we speculate whether government intervention can fix major structural problems, or whether such intervention could undermine the fundamental property rights, international cooperation, and personal freedoms that have been the bedrock features of developing capitalism for most of the twentieth century.

Thoughts on Monetary Reform

Conditions are more challenging now than in the past hundred years. The dollar is the mainstay of value for world monetary systems. Thus, damage is universal and change will come about with an admonition of “anything but dollars”. One can imagine a global system imposed upon the U.S. which has each country supporting its currency by holding reserves in proportion to trade balances, as practiced in Singapore today.

It is counterintuitive that inflation and deflationary forces may coexist in the same economic system; however, biological and other complex systems find these conditions common and we should expect

³ A strict interpretation of Austrian philosophy casts fiat money as the *sole* evil in economic life. We are not that cynical. Our understanding of history leads us to believe that business cycles would exist with or without fiat money. We do note, however, that cycle indicators such as the Dow/gold ratio have gained amplitude since the Fed opened shop in 1913.

economic processes to adopt similar characteristics, although contrary to our trained linear minds. Massive destruction of wealth accompanied by massive additions to the monetary base that do not generate acceleration of wealth transfers can produce outcomes that seemingly lurch from one to another and back again. Both evils may fight for dominance. Although theoretically they could be in balance, the weights can be so severe that volatility is more likely than a steady stable state.

The attitude of the world toward the U.S. has been one of disdain for its aggressive and self-destructive monetary policies. Now, with new leadership, there will be a new assessment; however, it is most likely that expectations will vastly exceed accomplishment. When disappointment sets in, the forces for a new global alignment – one that is not centered in the U.S. – will exert themselves. One can only hope that Kondratieff's Winter is not an icy blanket of “beggar thy neighbor” protectionism which seems to be coming to the fore in a number of advanced countries and gaining political popularity in the United States. If so, the Winter could be a decade or two long.

In times of severe market dislocation, it is natural to cast blame. The culprits *du jour* are Wall Street greed and under-regulation. But this is not the whole story. If blame is to be assigned, we must also fault *over-regulation* in the form of aggressive price-fixing by central bankers.

When the economy faltered in 2001-2002, Fed policymakers reduced their intervention rate to a daring 1%, unintentionally encouraging the sub-prime binge that followed. History suggests that the Fed's ability to manage the economy by discretionary action is doubtful at best.⁴ We should now consider “de-politicizing” the Fed by either abolishing its dual mandate or returning to a rules-based system such as the Bretton Woods accord, which was abandoned in 1971. Proactive monetary reform, though painful in the short run, is always preferable to externally imposed discipline.

A Potential Way Forward

From the perspective of long-wave thinking, mean reversion, and complexity science, we learn to treat today's financial turmoil with respect and perhaps a little fear. The tool of transparency will be of paramount importance to encourage market participants to act on rational assessments of risk and reward, not on excessive preservation of exclusive self-interest. The U.S. government should demand open books as the price for bailouts and should advance loans rather than inject capital into failing enterprises. We should recognize that “trickle down” economics does not work, and that a new economics based on historical realities is needed.

Members of the analytical profession missed signals of an incipient bust thus failing the primary dictum of any profession ... do no harm. And we should not be surprised by policymaking failure. None of us have had personal experience with the conditions now faced by banks and individuals.

The global financial system is frozen shut and massive amounts of monetary heat will be required to thaw the blockage. Rewards to first movers will go a long way to encourage follow-on. And punishment for selfish behavior, like using government money for golden parachutes, should be swift, severe, and public. Policymakers urging massive intervention should be required to address its potential adverse consequences. Unless sound-money policies ultimately prevail, the U.S. is in danger of losing its reserve-currency status.

From the perspective of more than a hundred years we can prepare for the worst, hope for the best, and act on the steps in between that will mute the damage.

⁴ In response to a flagging economy in 1927, Fed Governor Benjamin Strong administered his infamous “shot of whiskey to the stock market”, encouraging the speculative mania that ended in 1929.

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About the authors: Dean LeBaron, CFA, is an author, contrarian thinker, and founder of Batterymarch Financial Management (www.deanlebaron.com/dlbio.html). Walter Deemer is a principal of DTR, Inc., an institutional investment advisory service; a former head of market analysis at Putnam Investments; and a founding member and past president of the Market Technicians Association (www.walterdeemer.com/bio.htm). Mark Ungewitter is a portfolio manager at Charter Trust Company (www.chartertrust.com).

Special thanks to Ian McAvity and Marilyn Pitchford.

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Talk to us: Walter, Mark and Dean

"A Way Forward" was written in November and continues to enjoy a steady, appreciative (usually) circulation. Readers are groping, as we are, for answers in a new era. We might have provided some guidance. And in that spirit we have opened a forum where you can speak to us, where we can speak about our latest thinking and together we'll come to better answers than we have today.

Forums are difficult to generate. Most of us do not participate since they seem impersonal. But this is one we can promise is anything but. The visitors to our sites are generally known to us, usually students of markets and are fully conditioned to top class work, theirs and others. Collectively we might uncover some relationships that will assist us in this murky time.

That was the goal of "A Way Forward" -- to stimulate thinking...ours and yours. We thank you for participating with us.

-- Walter, Mark, Dean

The "A Way Forward" Forum is at <http://walterdeemer.com/forum/viewforum.php?f=2>

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The Kate Welling Interview: "Unconventional Clues" (January 23, 2009)

Kate Welling, who writes a widely-followed and highly-regarded publication at Weeden for professional investors, picked up on our paper and interviewed the three of us in January. The result was a really neat (and very readable) piece in which we were much less statesmanlike (and, from Kate's prodding, were forced to venture more conclusions than the article, which was designed to "goad discourse", contained). The interview was published in Welling@Weeden on January 23rd, and Kate has graciously given us permission to post it for all to see.

"Unconventional Clues" is at <http://www.walterdeemer.com/UnconventionalClues.pdf>