# REAL-TIME APPLICATION OF THE ELLIOTT WAVE MODEL

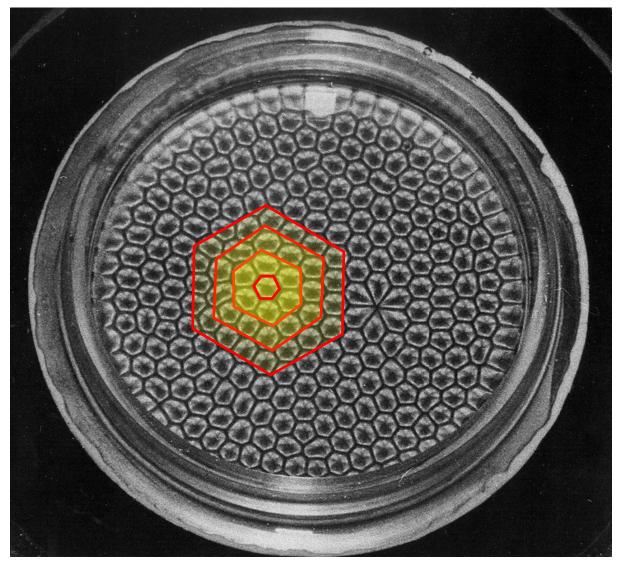
# 2010 Legends of Trading Forum Chicago, IL April 24, 2010

Robert R. Prechter, Jr., CMT

# **Review of the Elliott Wave Model**

# **Types of Fractals**

# **Self-Identical Fractal**



# Heated silicone oil

# **Indefinite Fractal**



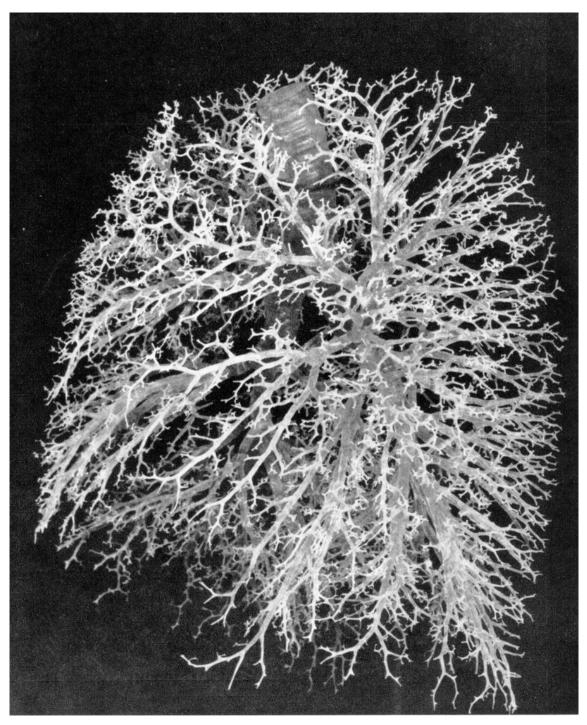


# **Indefinite Fractal**

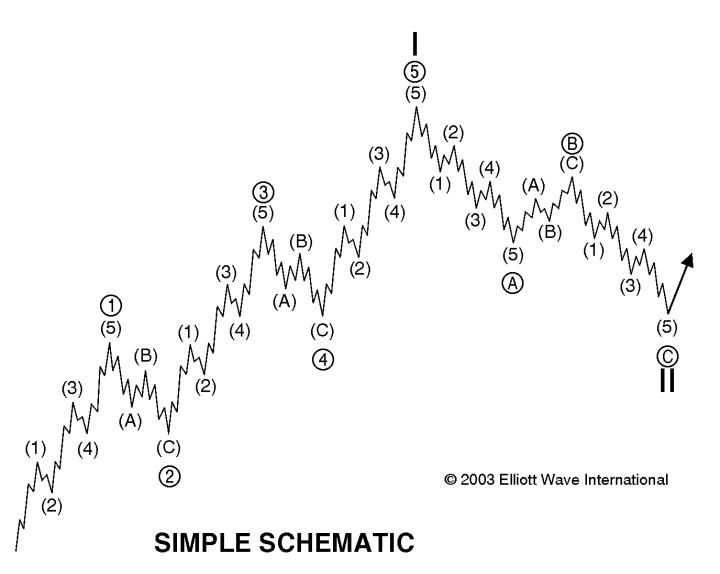
# **Robust Fractal**



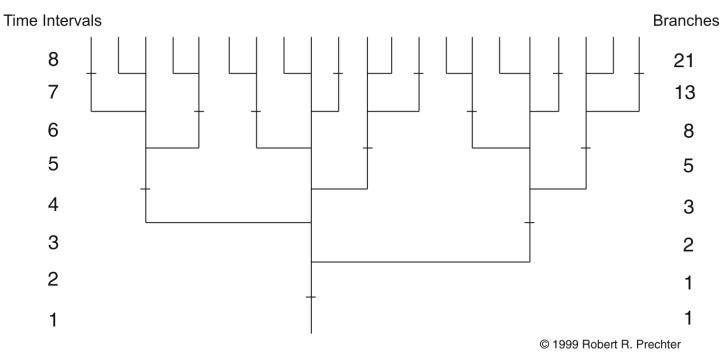
# **Robust Fractal**

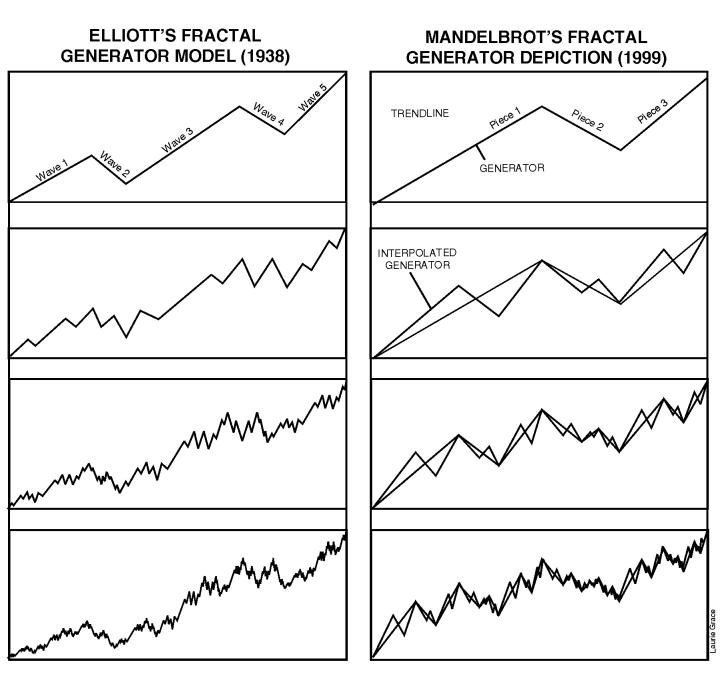


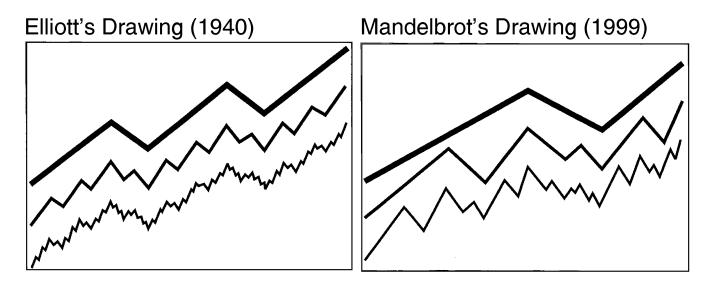
# Air passages in a lung











"The stock market operates on the same mathematical basis as many natural phenomena. In its broadest sense, the Wave Principle suggests the idea that the same law that shapes living creatures and galaxies is inherent in the spirit and activities of men en masse." —Frost and Prechter,

Elliott Wave Principle, 1978

"The geometry that describes the shape of coastlines and the patterns of galaxies also elucidates how stock prices soar and plummet."

—Benoit Mandelbrot, "A Multifractal Walk Down Wall Street," *Scientific American*, 1999

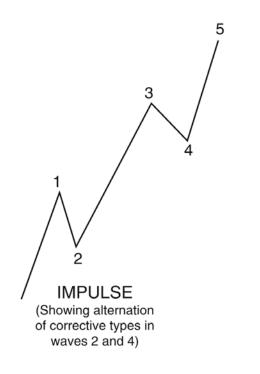
## "Coastlines are good examples of random fractals. Stock prices are comparable to coastlines."

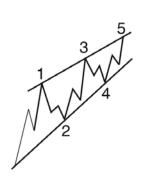
-Chaos and Order in the Capital Markets, Edgar E. Peters (1991, p.51)

## "I agree with the orthodox economists that stock prices are probably not predictable in any useful sense of the term."

*—The Misbehavior of Markets: A Fractal View of Financial Turbulance,* Benoit Mandelbrot and Richard Hudson (2004, p.6)

#### SUMMARY OF MOTIVE PATTERNS

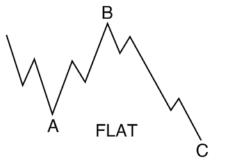


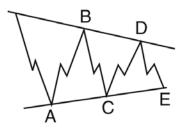


DIAGONAL

#### SUMMARY OF CORRECTIVE PATTERNS



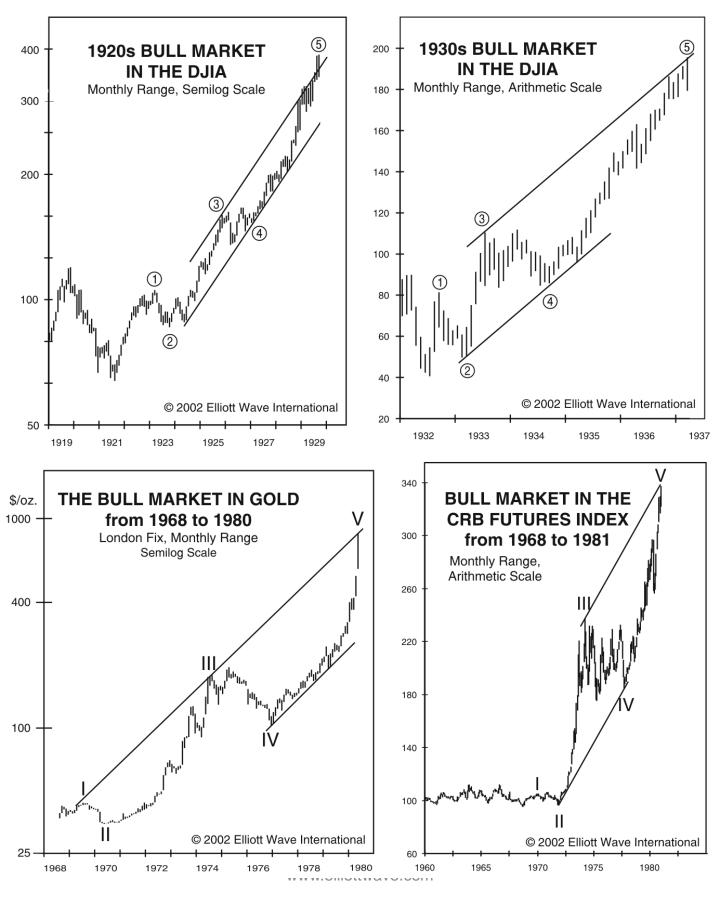






© 1999 Robert R. Prechter

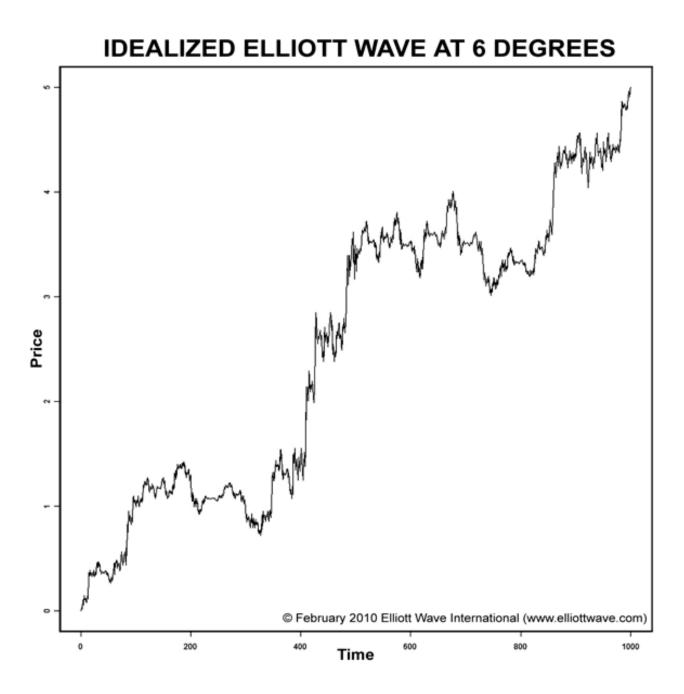
## SAMPLE ELLIOTT WAVE CHANNELS



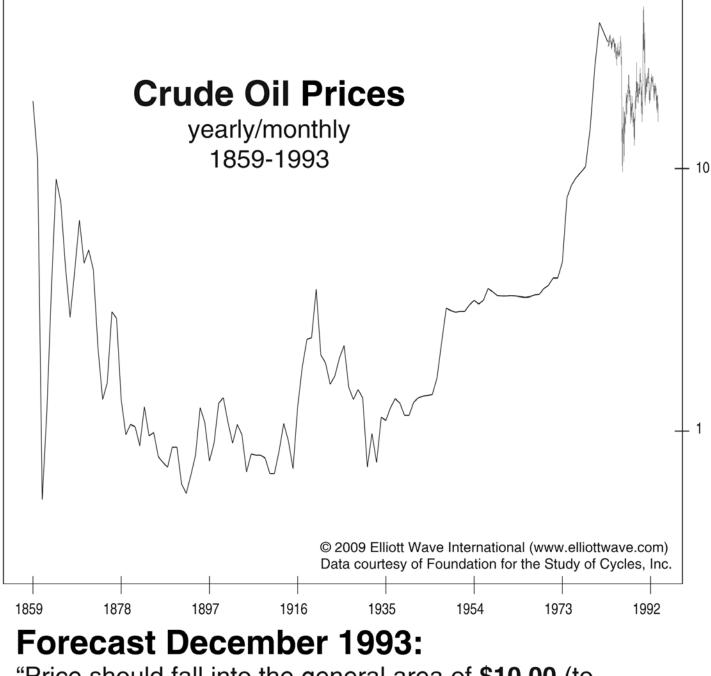
# **TRAITS OF AN IMPULSE**

- · The impulse subdivides into five waves.
- Wave 2 never moves beyond the start of wave 1.
- Wave 3 is never the shortest wave.
- Wave 4 never moves beyond the end of wave 1.
- Waves 1, 3 and 5 each subdivide into five waves.
- Waves 2 and 4 each subdivide into a corrective pattern.
- Wave 3 always takes the form of an impulse.
- Wave 1 almost always takes the form of an impulse.
- Wave 5 may be an impulse or a diagonal triangle.
- Typically, wave 1 or 3 or 5 is an extension, which means that it is substantially longer than each of the others and contains larger subdivisions than each of the others does.
- Wave 3 is most commonly the extended wave.
  - · Wave 1 is least commonly the extended wave.
  - When wave 3 is extended, waves 1 and 5 tend toward equality of amplitude.
  - The center of wave 3 has the steepest slope of any equal period within the larger impulse.
- Among the three basic types of corrective waves, wave 4 will almost always be a different type than wave 2.
  - Wave 4 typically ends when it is between the starting and ending levels of subwave four of 3.
  - Wave 4 often divides the entire impulse into .618/.382 proportion.
  - · Sometimes wave 5 does not exceed the level of the end of wave 3.
  - Wave 5 often ends when meeting or slightly exceeding a line drawn from the end of wave 3 that is parallel to the line connecting the ends of waves 2 and 4, on either arithmetic or semilog scale.
  - When wave 5 is extended, it is often 1.618 times as long as the net travel of waves 1 through 3.
  - When wave 1 is extended, it is often 1.618 times as long as the net travel of waves 3 through 5.

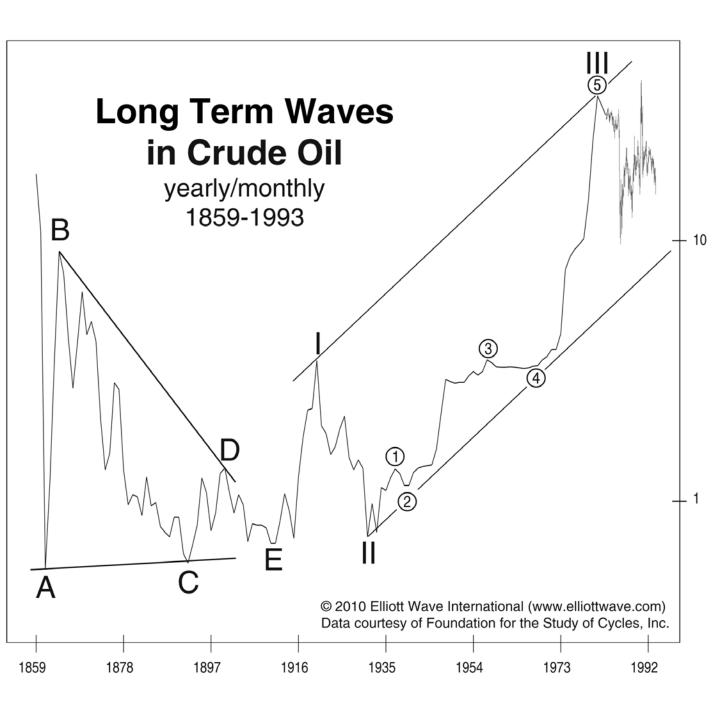
# DEALIZED ELLIOTT WAVE MODEL INCORPORATING ONLY TWO GUIDELINES



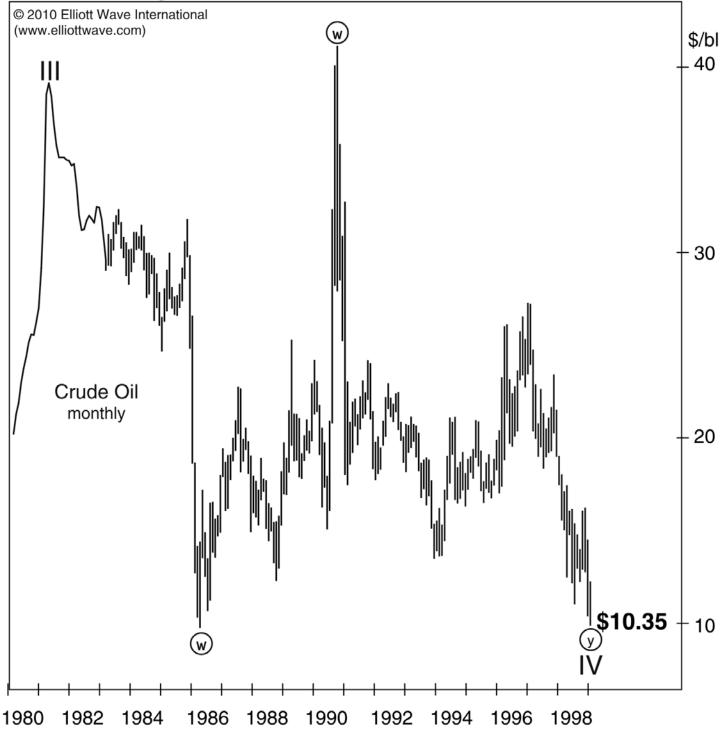
# Calling the Oil Market in Real Time

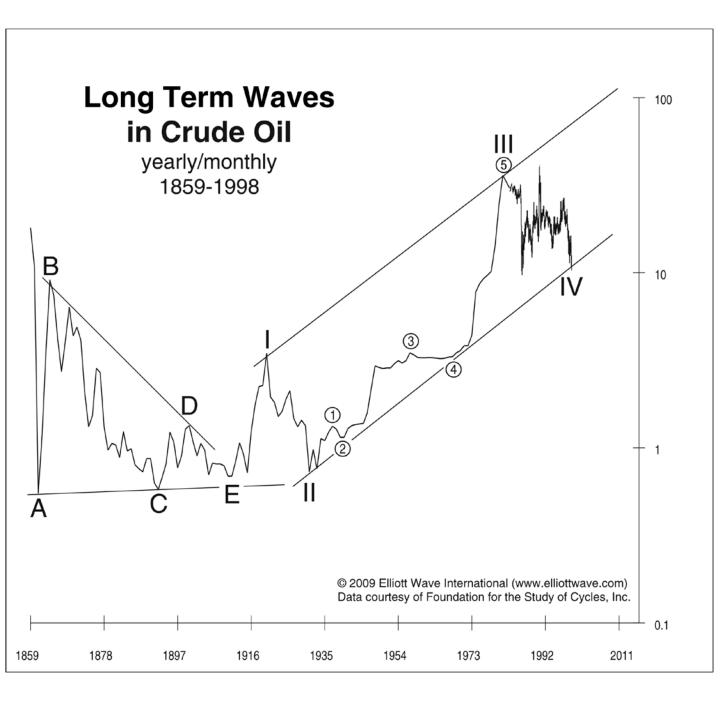


"Price should fall into the general area of **\$10.00** (to end a fourth wave move from 1980) before the final leg up takes prices into **new historical highs**." —*Global Market Perspective*, December 1993 issue

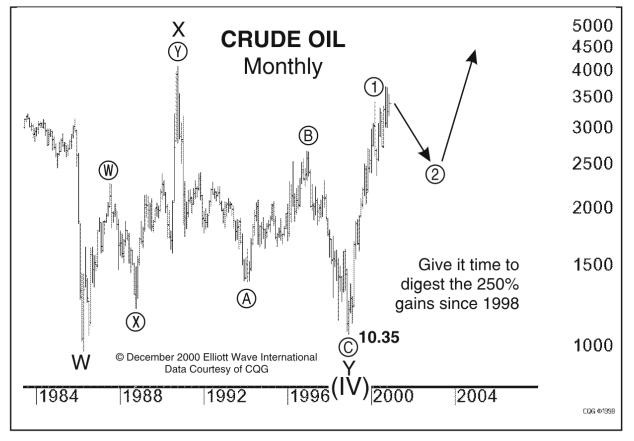


## Downside target reached in December 1998:



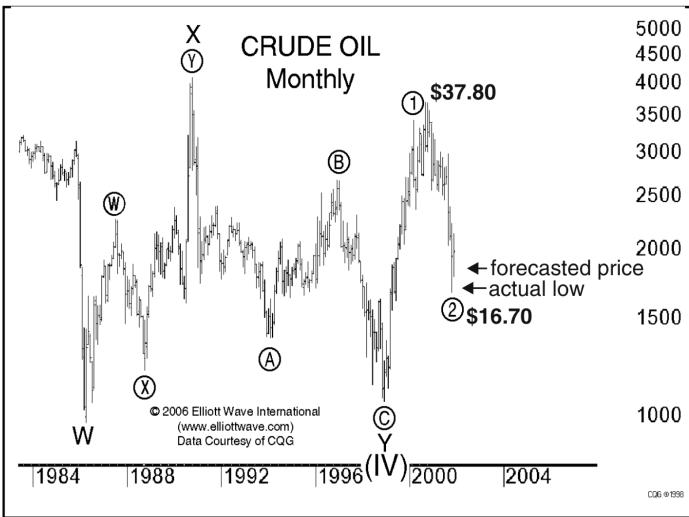


#### Forecast published in Global Market Perspective, December 2000:

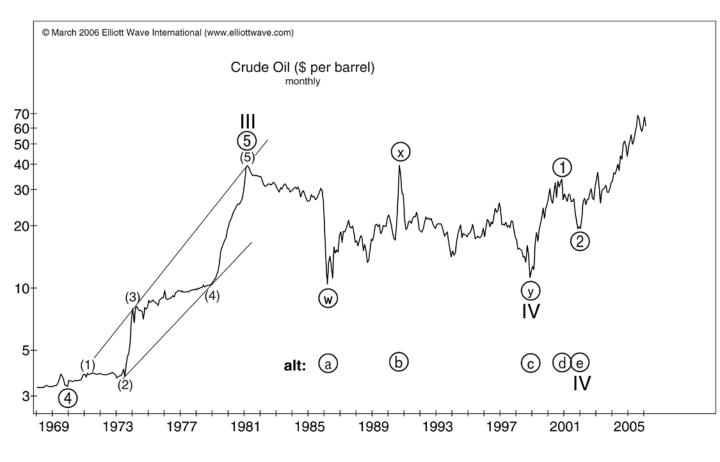


"We are soon likely to see a wave (C) decline where oil tests the 50% retracement to the **19.13** level. Once the...correction of the 1988/89 rally was over, crude exploded upward, and I expect the same outcome. One relatively conservative projection...would take crude oil up to \$61 per barrel in the coming years."

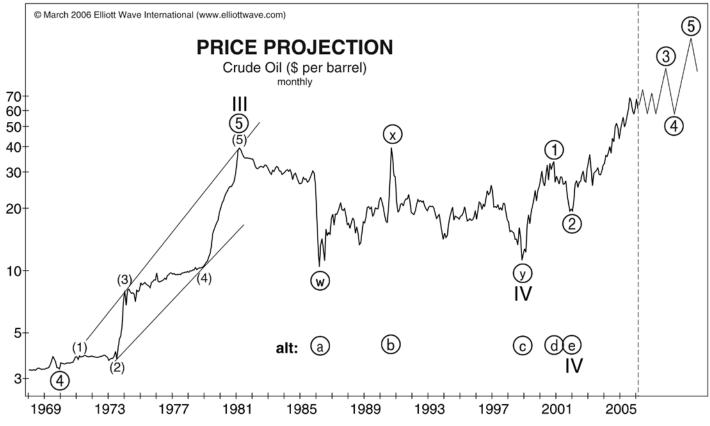
-Global Market Perspective, December 2000

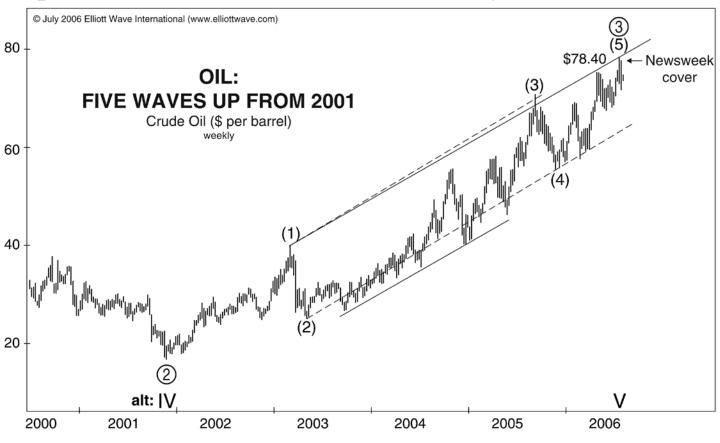


### Oil fell to \$16.70 on November 19, 2001:



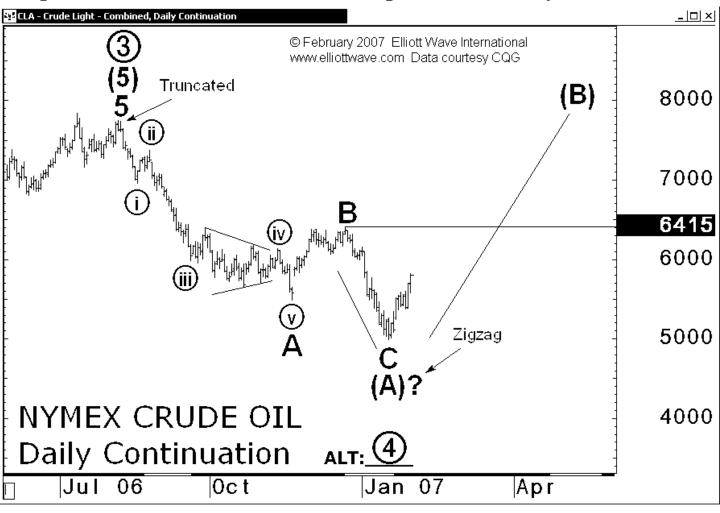






## As published in *The Elliott Wave Theorist*, July 2006:

## As published in Global Market Perspective, January 31, 2007:



"Crude extended its sell-off from last summer's record high to a 19-month low and reversed.... The three-wave structure from the top fits my outlook for a corrective decline. I've adjusted the count to show the decline as zigzag wave (A) of the Primary wave ((4)) retracement. A strong wave (B) advance would be the norm. Given the depth of the decline (i.e., >38.2% retracement of the wave ((3)) advance), a strong alternate is that wave ((4)) is complete."

## The Elliott Wave Theorist, June 9, 2008

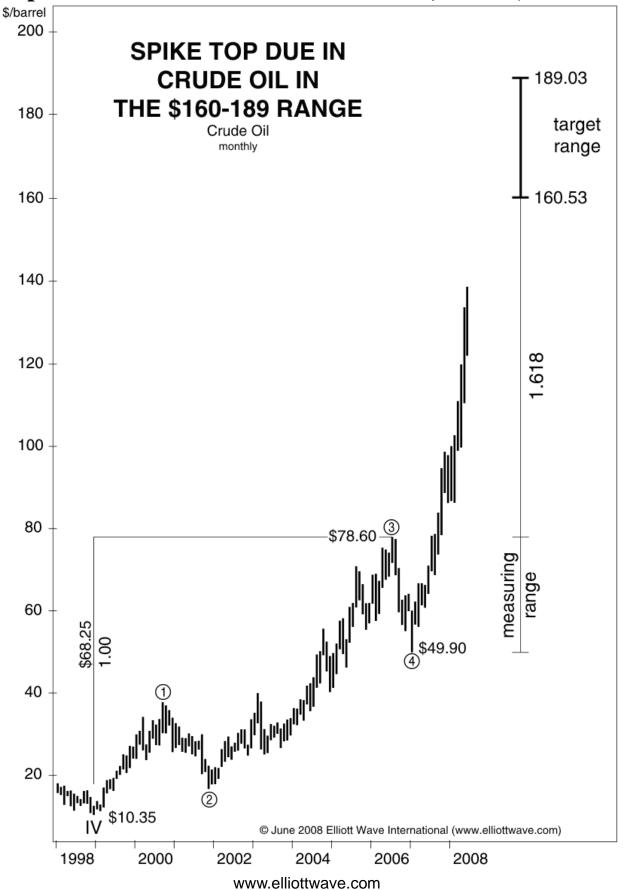
## The Top of Wave 5 in Crude Oil Is Fast Approaching

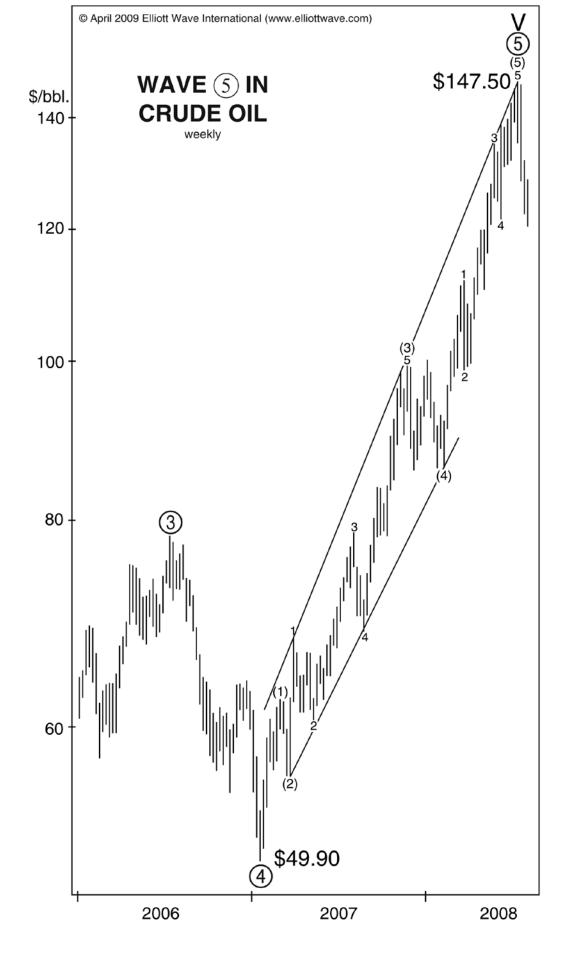
I am publishing this issue a bit early in order to alert you to an opportunity developing in the oil market.

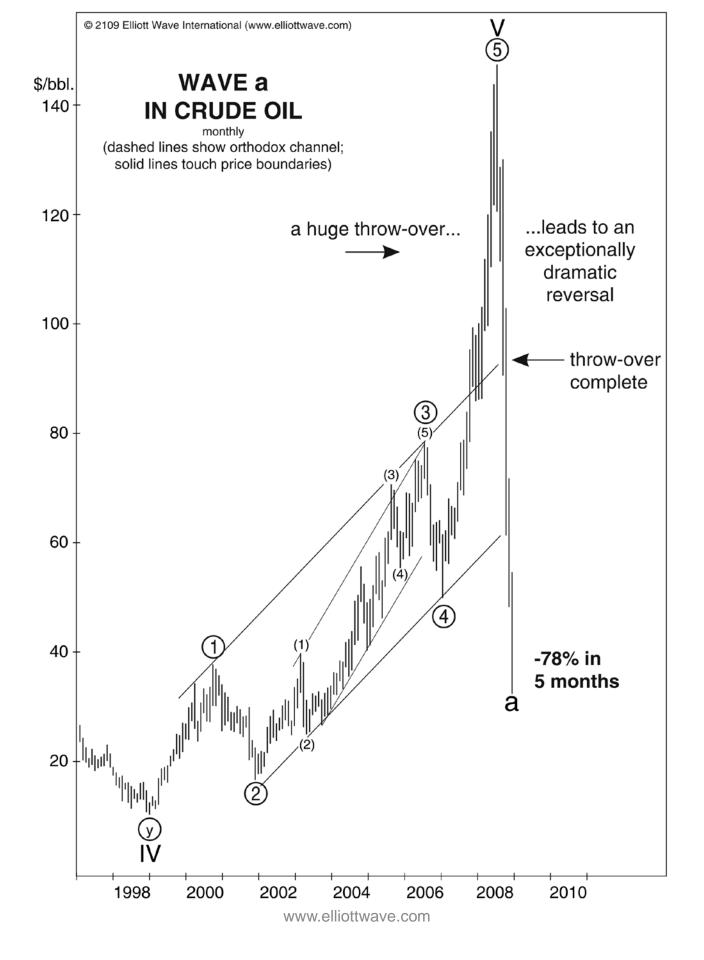
Bull markets in commodities virtually always end with an extended fifth wave, as explained in Chapter 6 of *Elliott Wave Principle* (p.173).

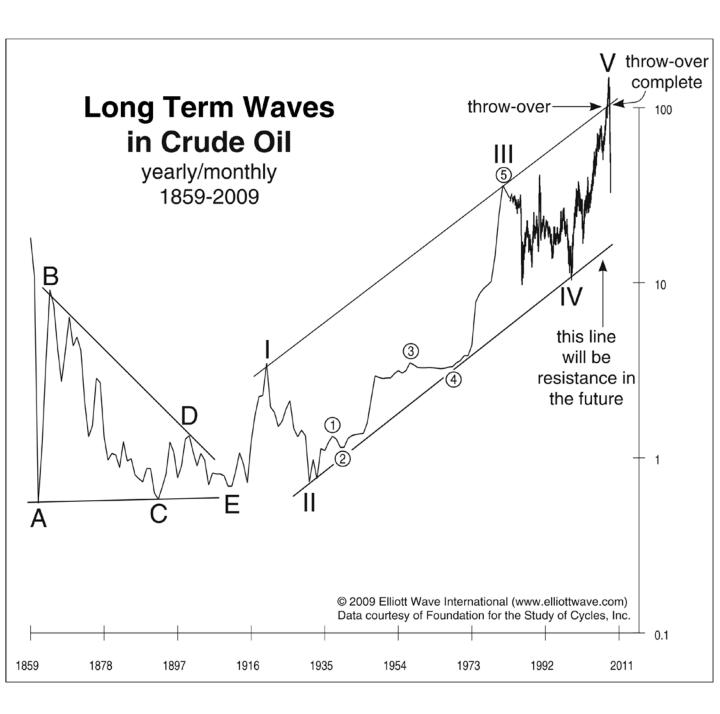
So, one of the greatest commodity tops of all time is due very soon. Ideally, crude oil should end on a violent spike high in the \$160-\$189 range.

#### As published in The Elliott Wave Theorist, June 9, 2008









## *The Elliott Wave Theorist*, July 25, 2006 **The Economic Factor**

The "Peak Oil" bulls never tire of listing economic forces that will cause oil to go up for decades and centuries. Never mind that we did not hear about this when oil was \$10 a barrel; now it's fashionable. But there is a far more fundamental aspect of economics that the bulls are ignoring.

## High prices provide incentives. Free markets always offer alternatives. Natural resource limits have never limited progress; they have only directed it.

So there are both short-term and long-term forces, working slowly perhaps but relentlessly, against an everrising oil price. It is not impossible for the world to go dark or for people to revert to the Stone Age, but it wouldn't occur because of economic forces on oil prices; it would occur because of politics and war, the main immediate forces of setback in human history.

#### The Globe and Mail, Toronto

Mar. 17, 2010 12:00AM EDT

Researchers at the University of Texas at Arlington (UTA) announced last month that they **have developed a clean way to turn the cheapest kind of coal - lignite, common in Texas - into synthetic crude, which can be refined into gasoline, with zero release of pollutants**.

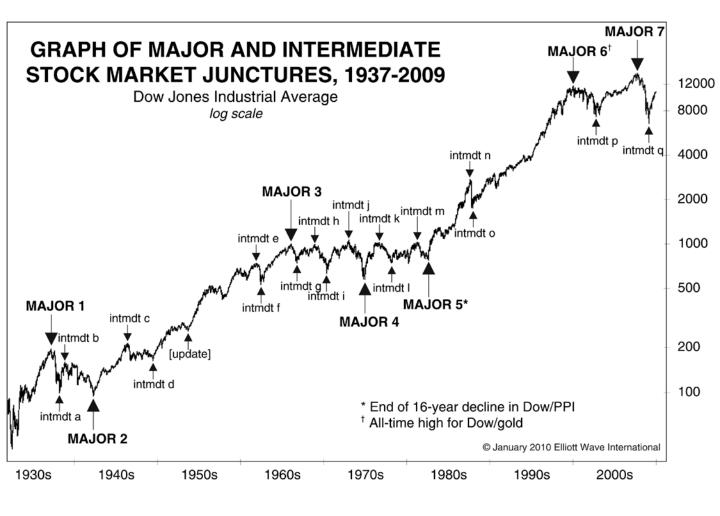
\$18 worth of coal yields 63 gallons of gasoline: 0.28 cents a gallon.

Canada has more energy in its "proven, recoverable" reserves of coal than it has in all of its oil, natural gas and oil sands combined: 10 billion tonnes. **The world has** 100 times more: **one trillion tonnes. These reserves hold the energy equivalent of more than four trillion barrels of oil.** They are scattered in 70 countries, **mostly in relatively easy-to-mine locations and mostly in democratic countries**. The United States alone has 30 per cent of the world's reserves.

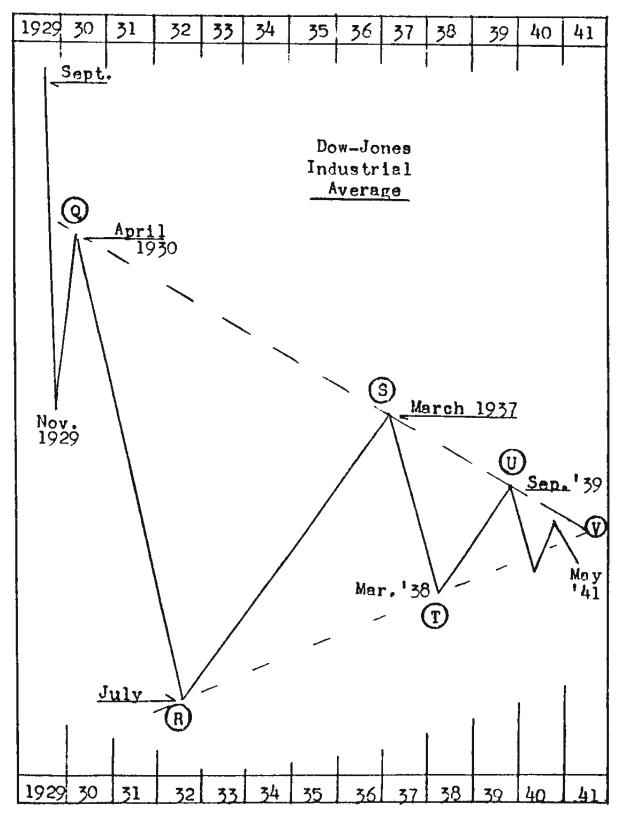
The U.S. government has approved construction of a small-scale micro-refinery to test the UTA lab-based breakthrough. This prototype micro-refinery should be in operation by year-end.

Assuming that these Texas folk are correct, this advance in technology could represent a historic moment in energy production.

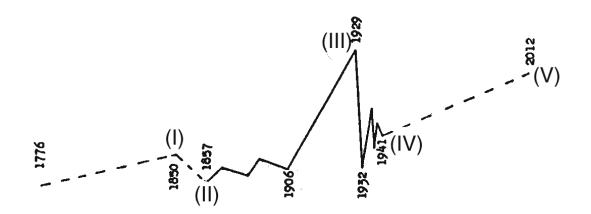
# Calling the Stock Market in Real Time



April 1942 Bottom, R.N. Elliott

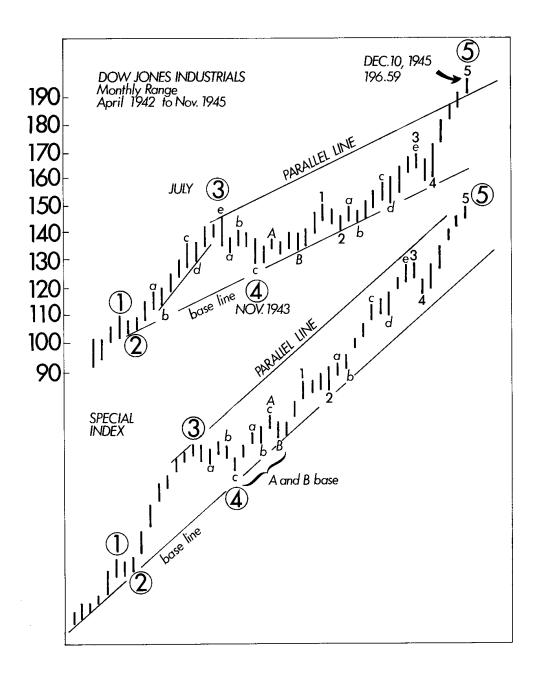


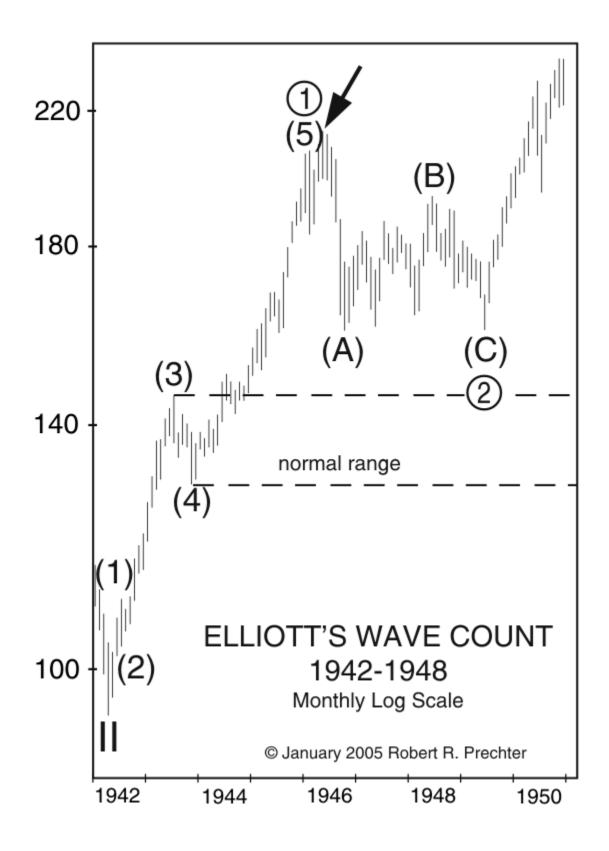
"[This] should mark the final correction of the 13-year pattern of defeatism. This termination will also mark the beginning of a new Supercycle wave (V) (composed of a series of cycles of lesser degree), comparable in many respects with the long [advance] from 1857 to 1929. <u>Supercycle (V) is not</u> expected to culminate until about 2012. (See dashed line in the graph.)"



## May 1946 Top, R.N. Elliott

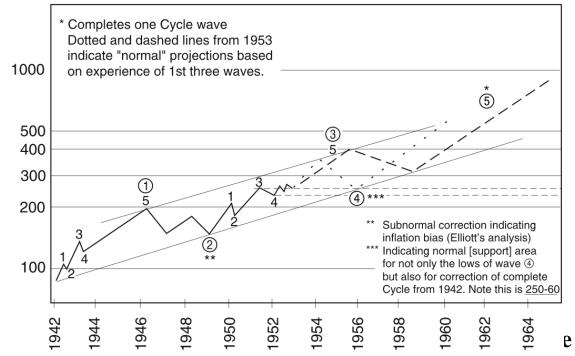
"On going to press, an irregular top, wave B, is in process of formation. This should be followed by wave C. I expect a sub-normal bear market."



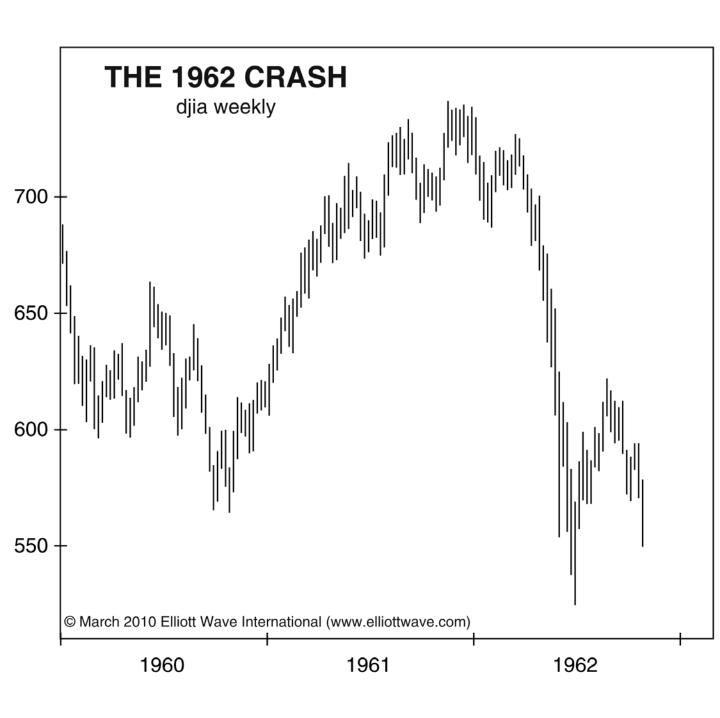


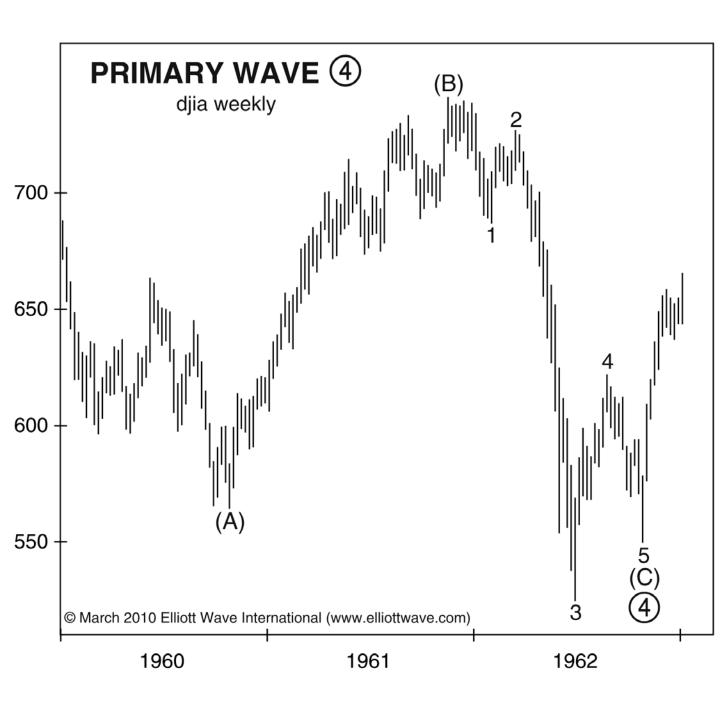
#### First Quarter 1953, A. Hamilton Bolton

"The late R.N. Elliott in 1941 projected a pattern of future stock market behavior which has not varied in fundamentals from his original outline years ago. This last prediction, or hypothesis, is vitally important, because if Elliott is right, we will not see again probably in this century stock prices as low "in dollar price" as they were in 1942. Of course, inflation will take care of a great deal of that hypothesis anyway, but it does mean that **no major depression of the 1929-32 variety is in the cards in our lifetime** (although there may well be 1921s, 1896s, 1873s again within this span). Further, it is as well to keep the background in perspective; Elliott's projection was made at a time when deflation and not inflation was the current fear."

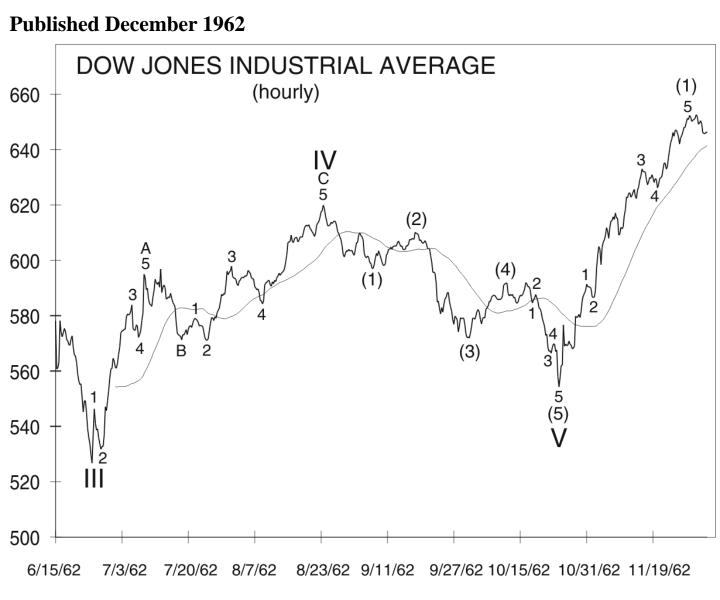


whole rise from 1942 and anything approaching a major depression in stock prices."

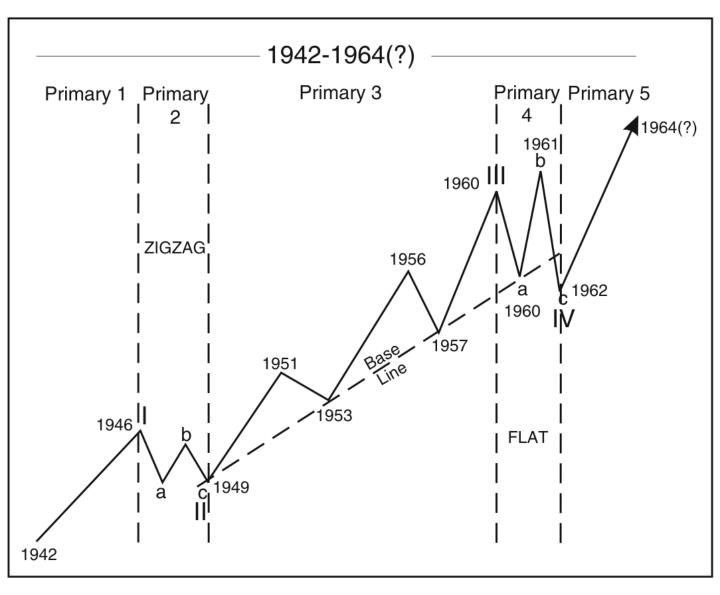


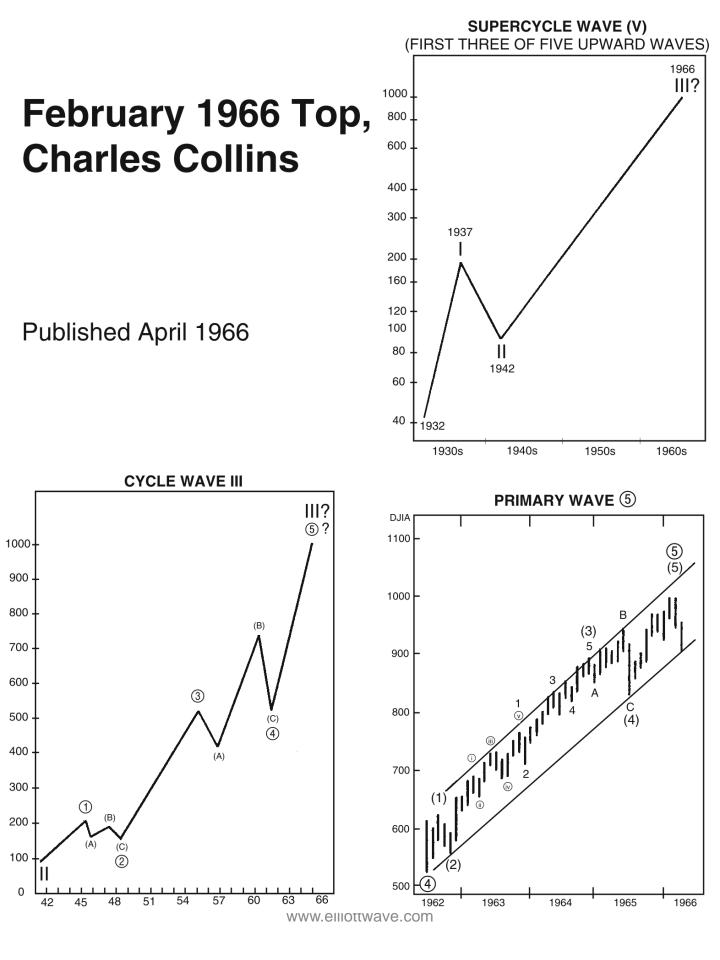


#### October 1962 Bottom, A.J. Frost



Published December 1962, A.J. Frost





#### **April 1966, Charles Collins**

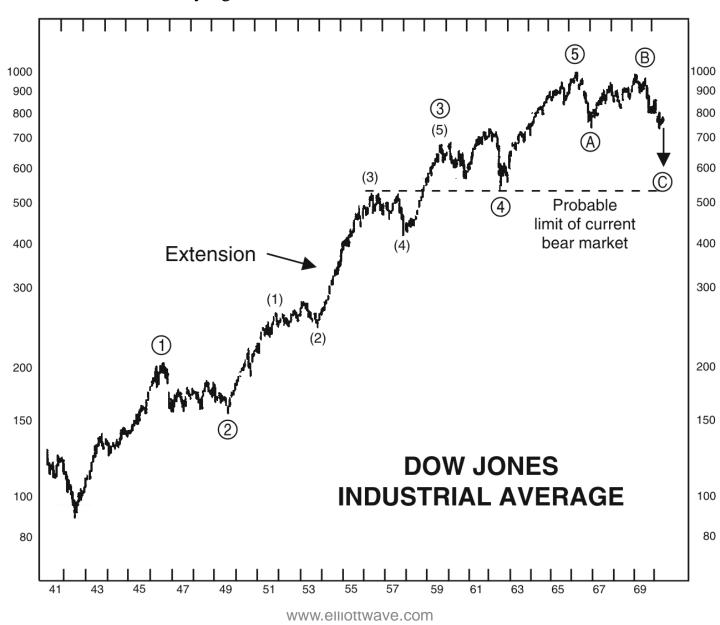
"The terminal point of the fourth Primary wave of Cycle wave III (see [wave 4 in Figure 5-7]) was established in 1962 at 524 on the Dow. **Purely as a speculation, might not the 'A'** wave of Cycle wave IV carry to the 770-710 area, the 'C' wave to around the lower 524 point, with a sizable intervening 'B' wave?"

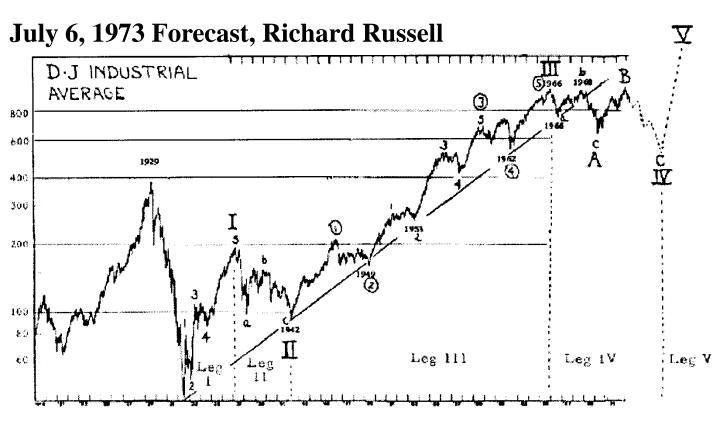
[Note: The 1966 daily closing low was **744.31**, and the ultimate low eight years later in 1974 was **577.60**.]

#### May 1970 Alfred John Frost, forecasting the low of wave IV:

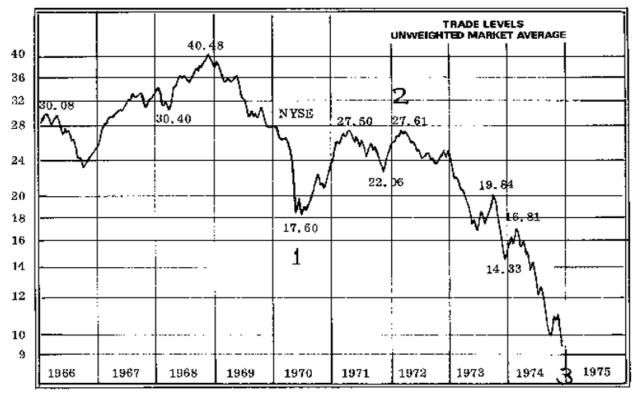
"Should the current C-wave from December 2, 1968 (DJIA 986) drop 414 points (161.8% of the 1966 A-wave decline of 256 points), **the market would bottom out at 572.**"

[Note: The low of the bear market occurred on December 9, 1974 with a daily close of 577.60 and a low hourly figure of **572.20.**]



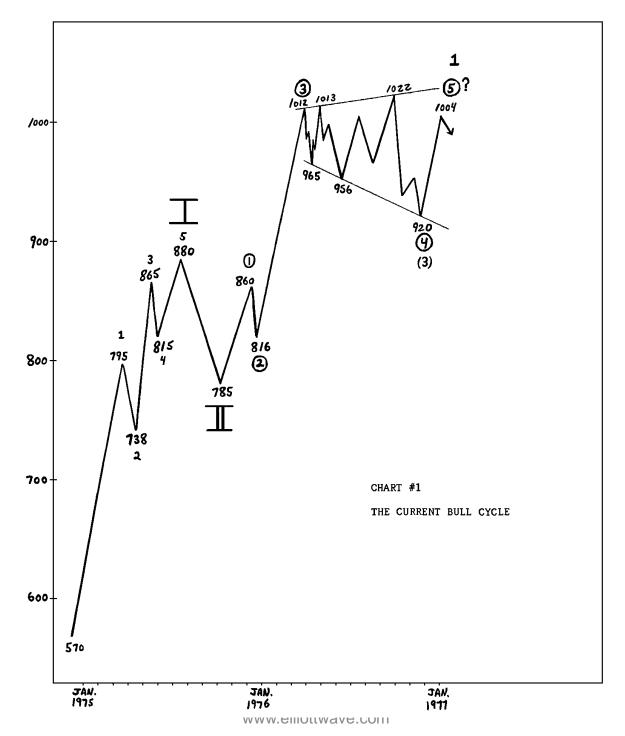


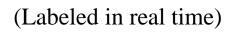
#### December 1974 Bottom, Richard Russell Published December 20, 1974



#### **December 1976 Top, Robert Prechter**



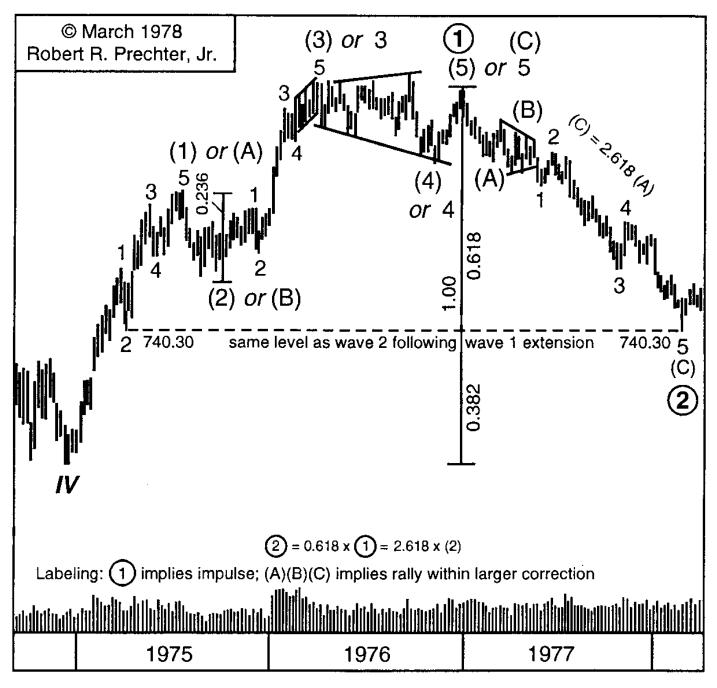


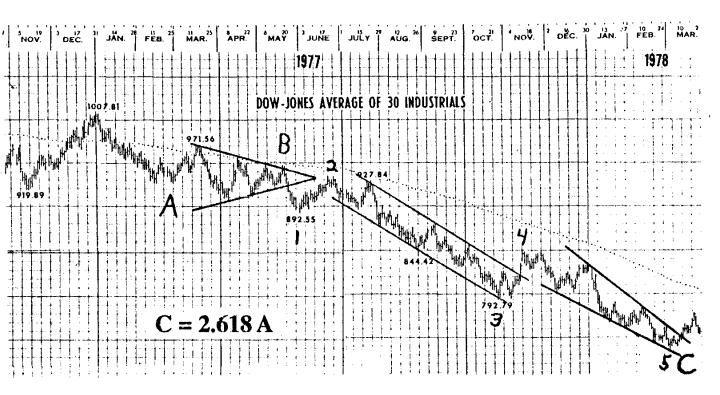


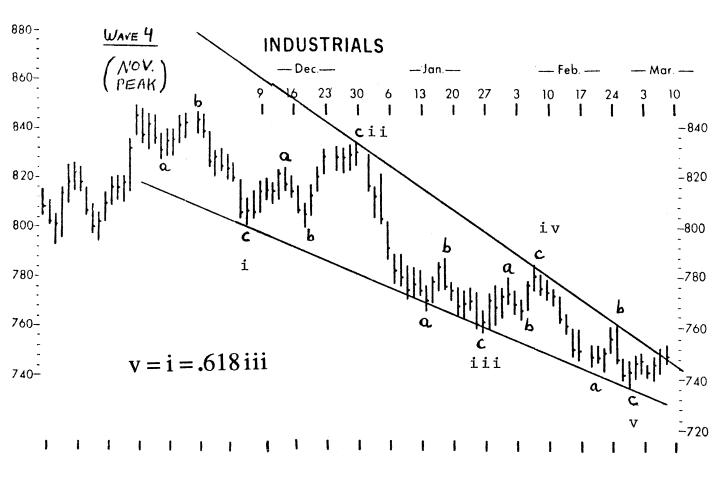


#### March 1978 Low, Robert Prechter

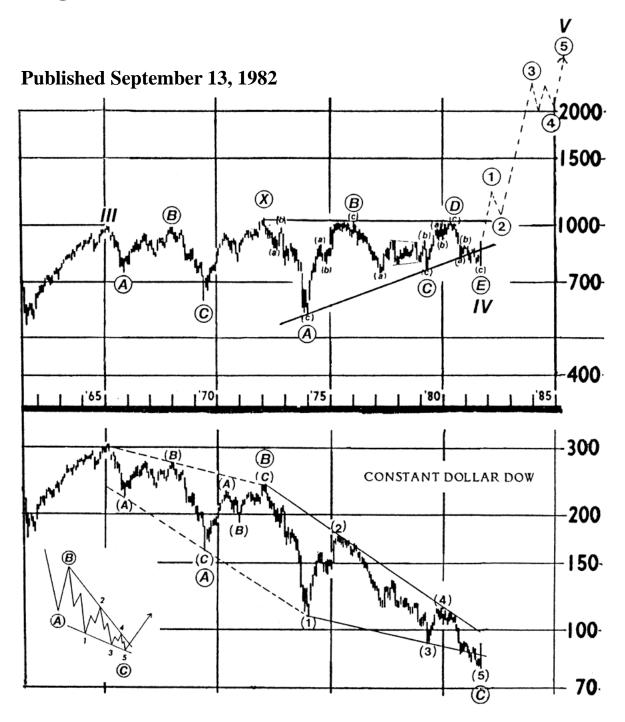
#### Elliott Wave Report, March 1978

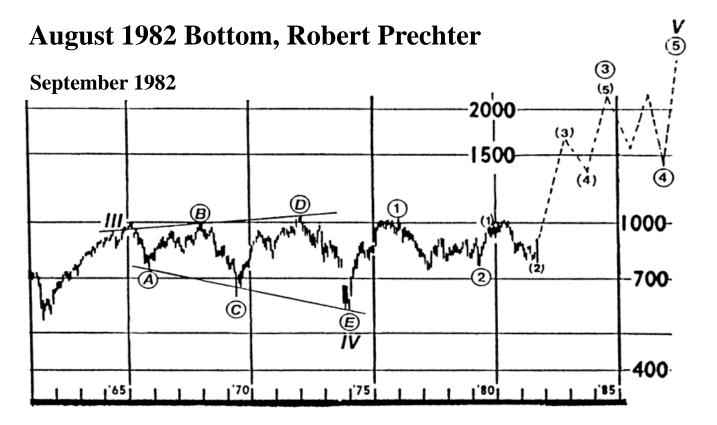






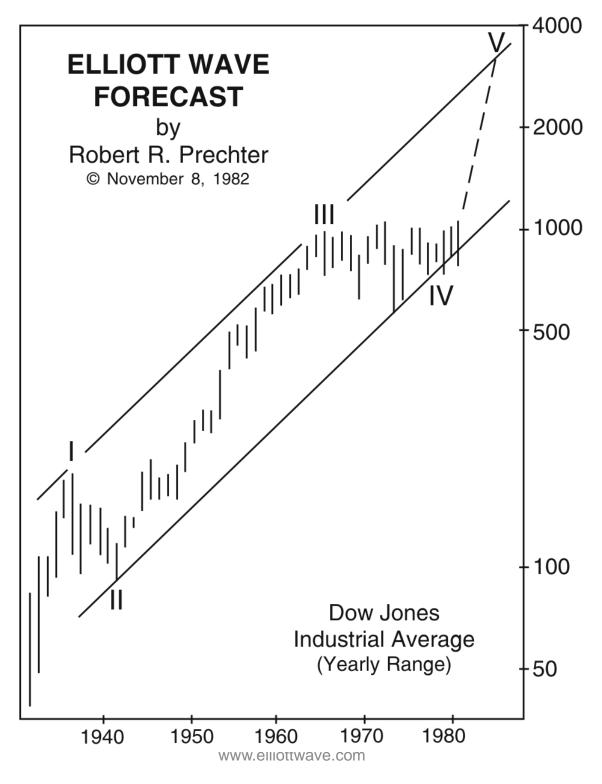
#### August 1982 Bottom, Robert Prechter





#### November 8, 1982 Robert Prechter, continued:

"Surveying all the market's action over the past 200 years, it is comforting to know exactly where you are in the wave count."



## **Predicting a Bubble**

#### The Elliott Wave Theorist, April 6, 1983:

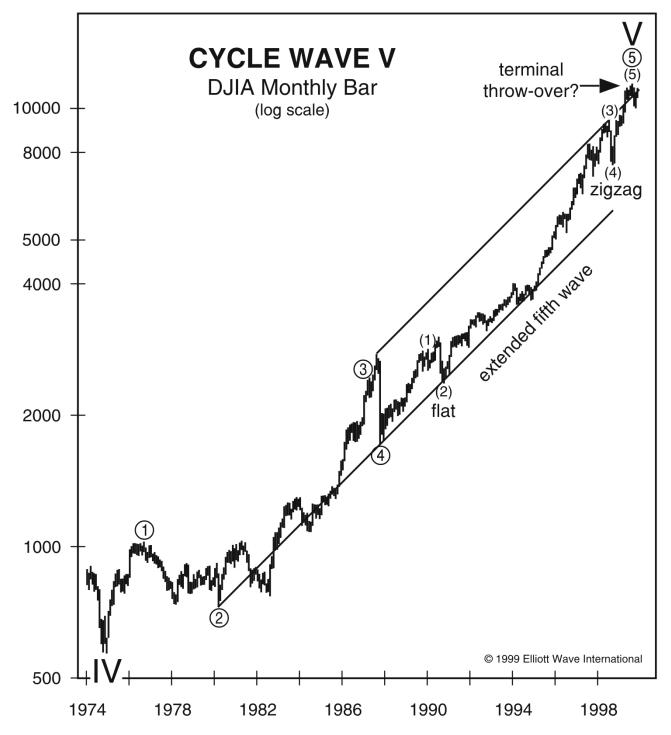
"Cycle wave V is the fifth wave of a fifth Supercycle wave. Thus, as the last hurrah, it should be characterized, at its end, by an almost unbelievable institutional mania for stocks and a public mania for stock index futures, stock options, and options on futures. In my opinion, the long term sentiment gauges will give off major trend sell signals two or three years before the final top, and the market will just keep on going. In order for the Dow to reach the heights expected by the year 1987 or 1990, and in order to set up the U.S. stock market to experience the greatest crash in its history, which, according to the Wave Principle, is due to follow wave V, investor mass psychology should reach manic proportions, with elements of 1929, 1968 and 1973 all operating together and, at the end, to an even greater extreme."

### August 1987 Top, Robert Prechter

| robert pre          |                    | 101            |                      | VAVE                                 |                            | es pre        | CIOUS METALS  |
|---------------------|--------------------|----------------|----------------------|--------------------------------------|----------------------------|---------------|---|
| October 5, 198      |                    |                |                      | STOCK MARKET<br>New Classics Library |                            | р             | \$233 per year<br>12 Monthly issues<br>lus Special Report<br>and Interim Report |
| WAVE<br>DEGREE      | DATE<br>BEGAN      | WAVE<br>NUMBER | CURRENT<br>DIRECTION | SIGNIFICANCE<br>TO                   | OPTIMUM<br>STRATEGY        | TARGET        | ALTERNATE<br>COUNT  |
| GRAND<br>SUPERCYCLE | 1789               |                | UP,<br>PEAKING       | U.S.<br>Survival                     | NO ACTION<br>WARRANTED     | 3686          |   |
| SUPERCYCLE          | JULY 8,<br>1932    | (V)            | UP                   | ECONOMIC<br>CONDITIONS               | EXPANSION<br>UNDERWAY      | 3686          |   |
| CYCLE               | AUG. 12,<br>1982   | v              | UP                   | INSTITUTIONAL<br>INVESTOR            | HOLD                       | 3686          |   |
| PRIMARY             | AUG. 25,<br>3:00   | (4)            | DOWN                 | INSTITUTIONAL<br>TRADER              | SELL WITH<br>CLOSE STOP    | 2300's        | 5 or 3<br>(new high   |
| INTERMEDIATE        | SEPT. 22,<br>10:00 | (x)            | UP,<br>PEAKING       | INDIVIDUAL<br>INVESTOR               | FOR<br>REPURCHASE;         | 2640-<br>2660 | (3) or (5<br>(new high  |
| MINOR               | SEPT. 30,<br>11:00 | c              | UP,<br>PEAKING       | INDIVIDUAL<br>TRADER                 | SEE INSIDE<br>FOR DETAILS. | 2640-<br>2660 | 3 or 5<br>(new high   |
| MINUTE              |                    |                |                      | OPTION/FUTURE<br>TRADER              | SELL WITH<br>CLOSE STOP    |               |   |
| MINUETTE            |                    |                |                      | SCALPER                              | FOR<br>REPURCHASE;         |               |   |
| SUBMINUETTE         |                    |                |                      | SKIMMER                              | SEE INSIDE<br>FOR DETAILS. |               |   |

### January 2000 Top, Robert Prechter

#### **Published December 1999**



#### July 1999 peak in Dow/Gold, Robert Prechter

The Elliott Wave Theorist, February 1999

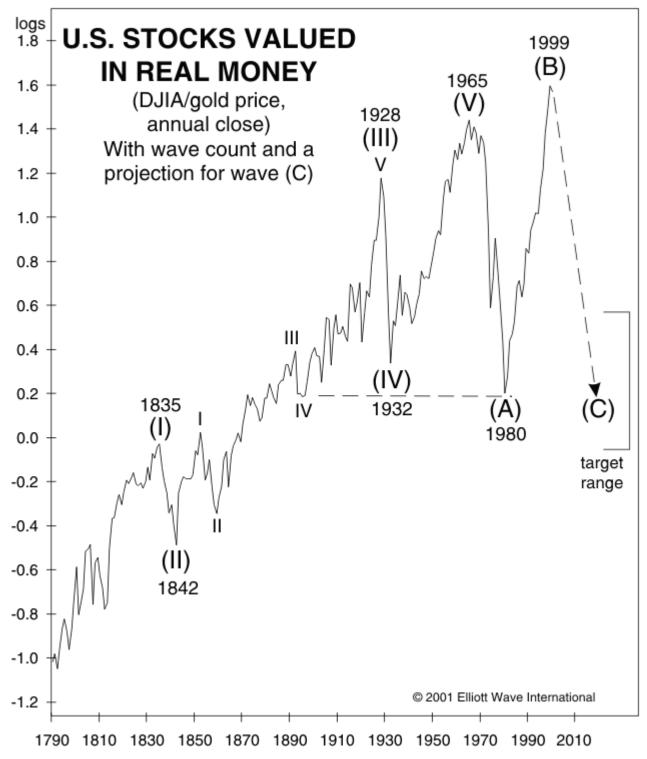
"Take a look at the bottom of the graph and note that <u>the four major</u> <u>turns (inflation-adjusted)</u> of Supercycle wave (V) from 1932 were all separated by a time span of 16.6 to 16.9 years. The next major turning point was due in "1999." To be exact, 16.6 to 16.9 years from August 9/12, 1982 (the days of the intraday and closing lows) targets February 6, 1999-July 18, 1999.

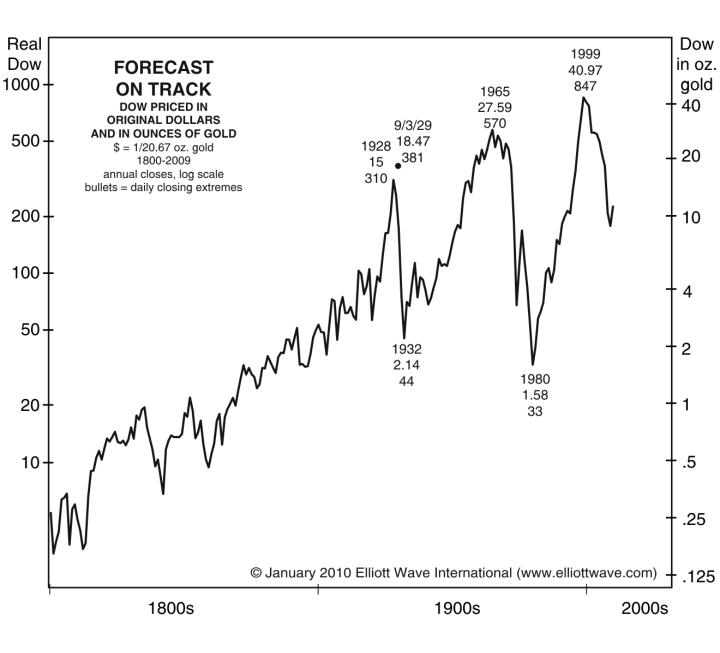
"If wave V ends in [this portion] of 1999, then every major psychological turning point of Supercycle wave (V), i.e., 1932, 1949, 1966, 1982 and 1999, will have been separated by this duration of 16.6 to 16.9 years. (For a full discussion of this analysis, see Chapter 18 of *Market Analysis for the New Millennium.*)"

Note: The Dow/gold ratio peaked on July 15, 1999 and has since fallen 84%.



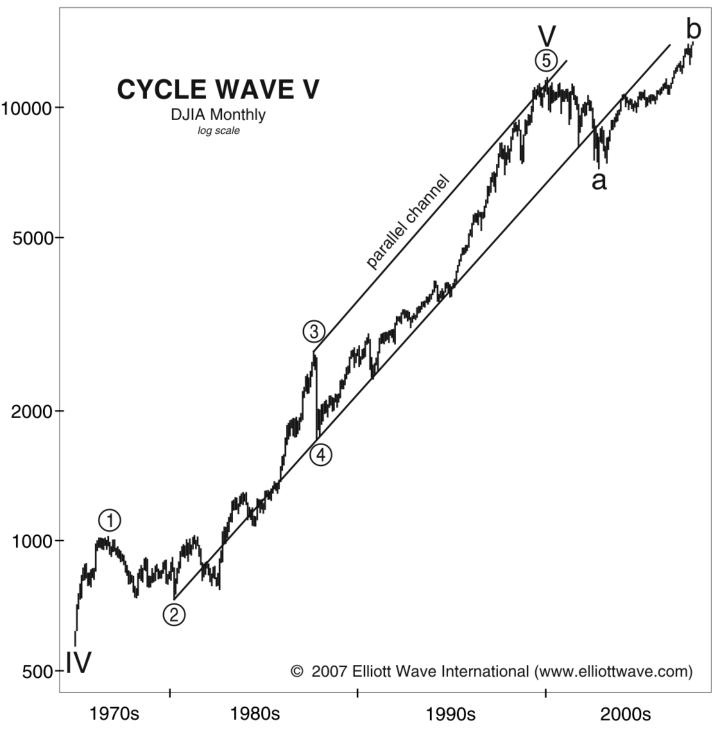
#### Forecast published in At the Crest, 2001

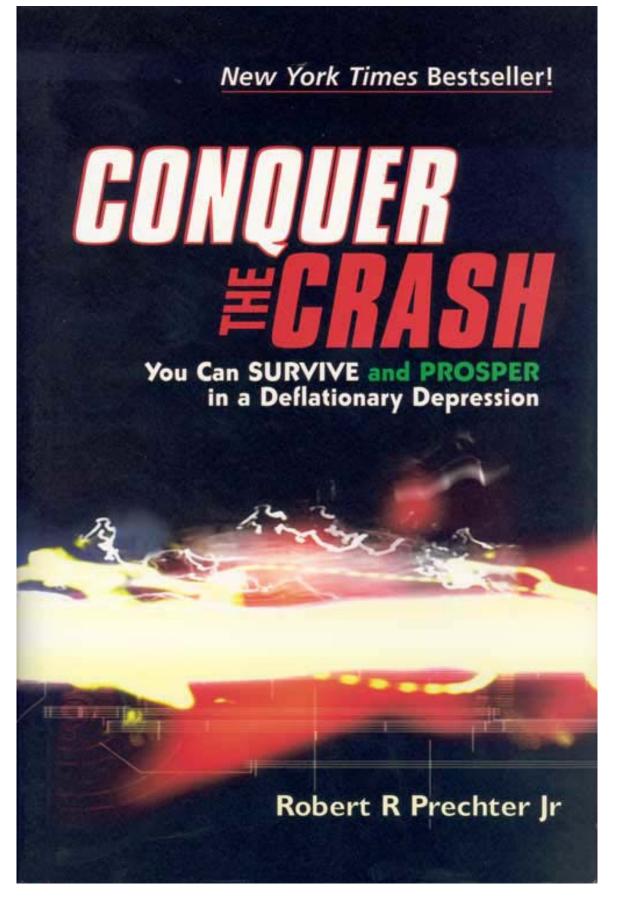


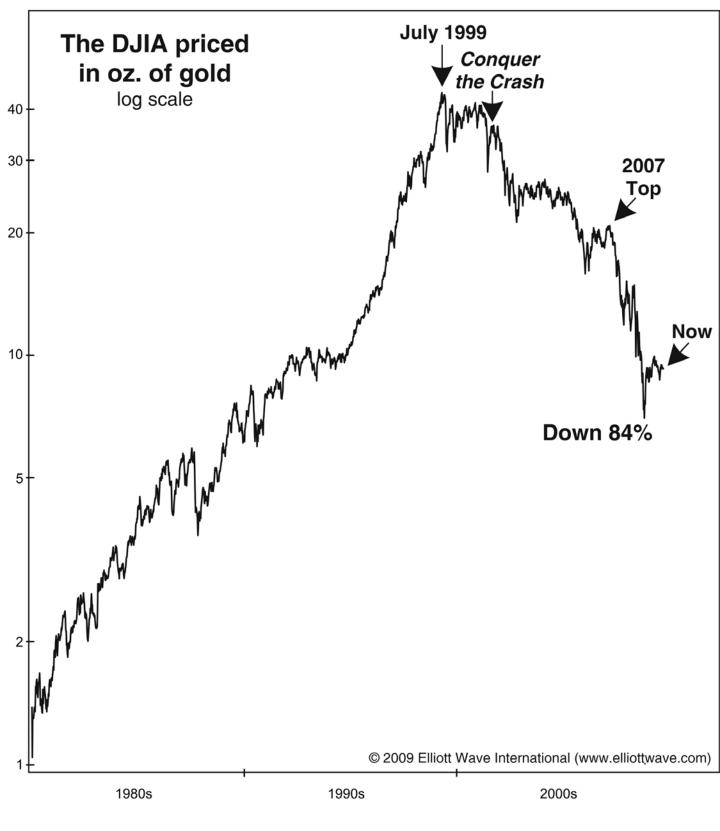


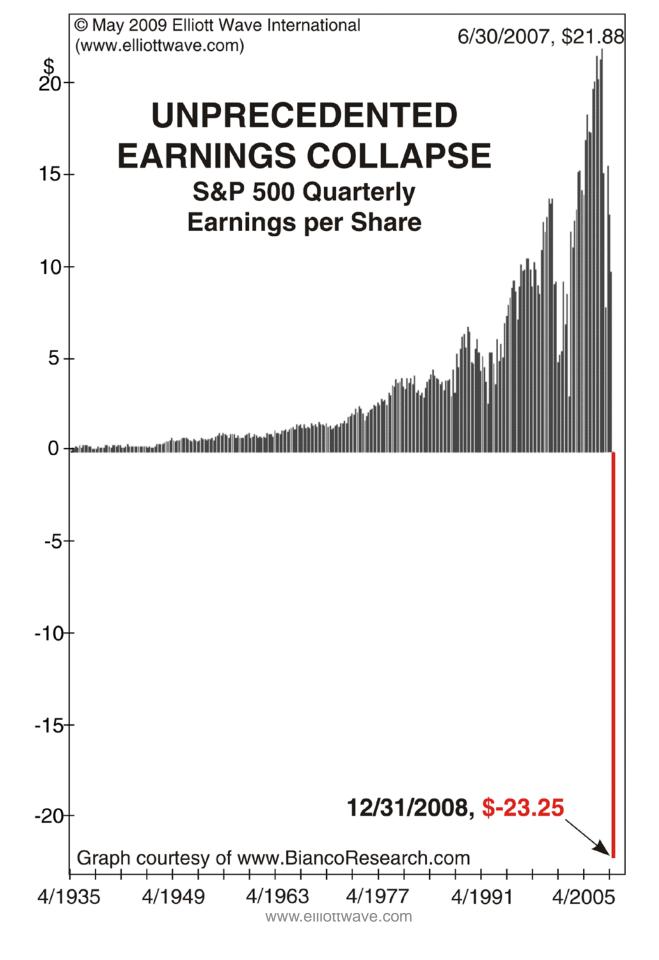
#### **October 2007 Top, Robert Prechter**

#### October 23, 2007



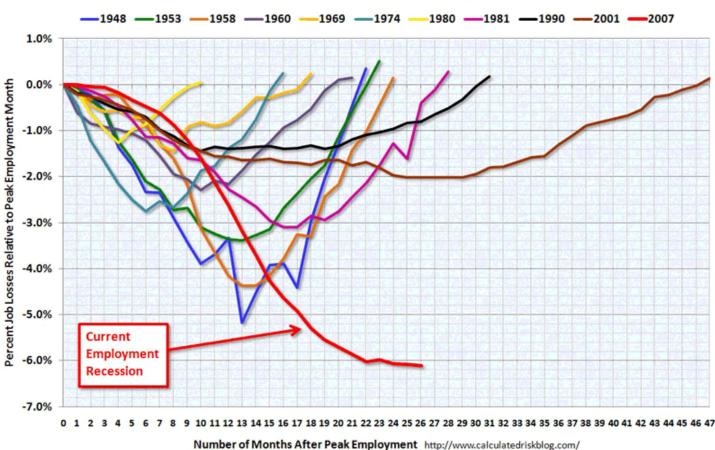


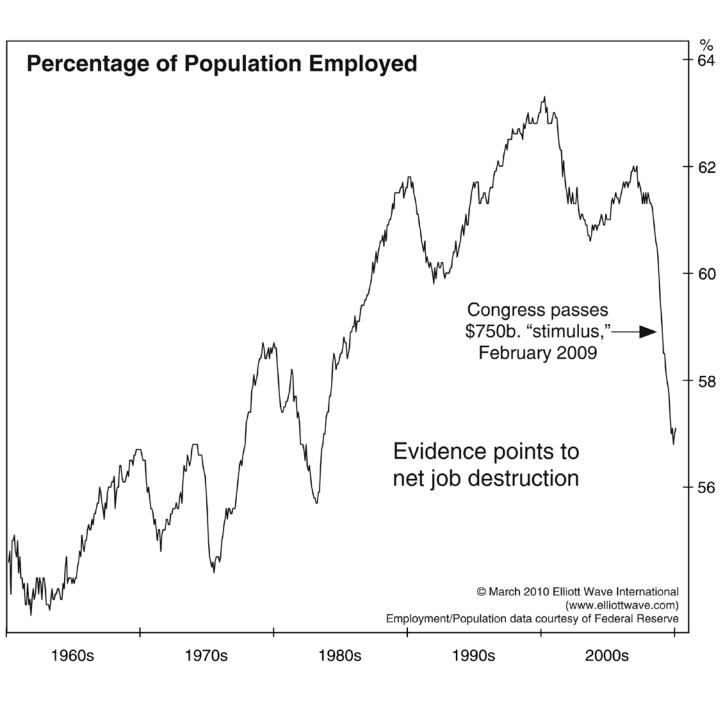




## 2007-2010 JOB LOSSES DEEPEST AND MOST PROLONGED SINCE THE 1930S

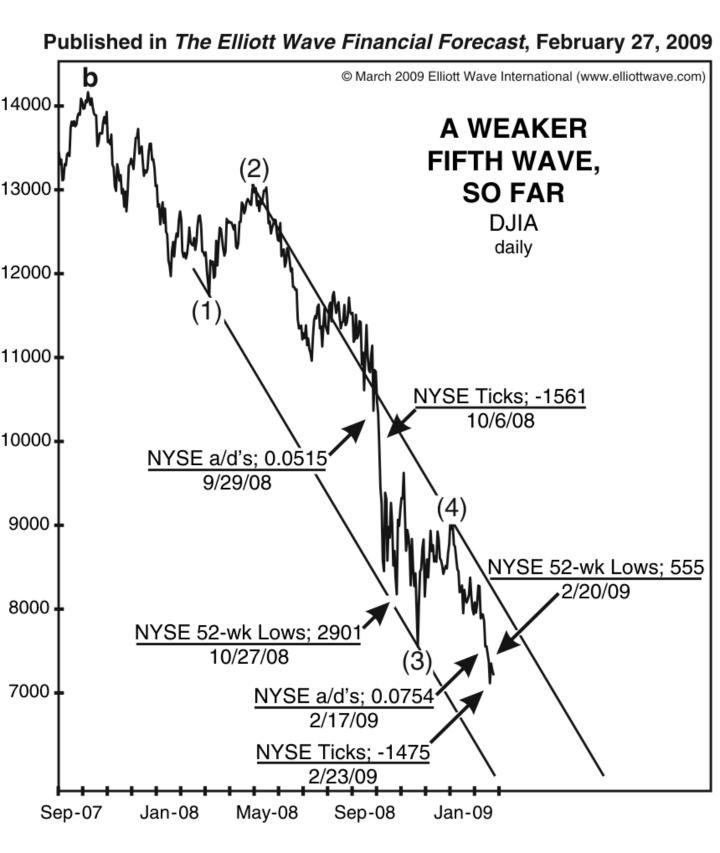
Percent Job Losses in Post WWII Recessions





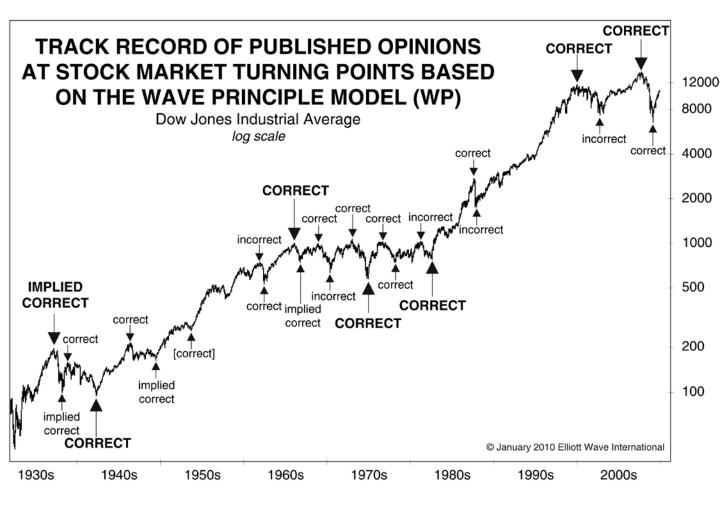
As published in *The Elliott Wave Theorist*, February 23, 2009:

"Wave (5) of 1, if that's what it is, is approaching a minimum downside target. The wave count is not quite finished, and ideally the S&P should continue down into the 600s. But the market is compressed, and when it finds a bottom and rallies, it will be sharp and scary for anyone who is short. I would rather be early than late. I recommend covering our short position at today's close."



# The Elliott Wave Theorist

"Wave 2, regardless of its extent, should regenerate substantial feelings of optimism. At its peak, the President's popularity will be higher, the government will be taking credit for successfully bailing out the economy, the Fed will appear to have saved the banking system, and investors will be convinced that the bear market is behind us. Be prepared for this environment; it will be hard for most investors to resist. But beware: Wave 3—the steepest portion of the steepest wave—will be the most intense collapse in stock prices in nearly 300 years. The perverse result of wave 2 will be to get people even more heavily invested than they already are, just before wave 3 starts."



### www.elliottwave.com/wave/TrackRecord

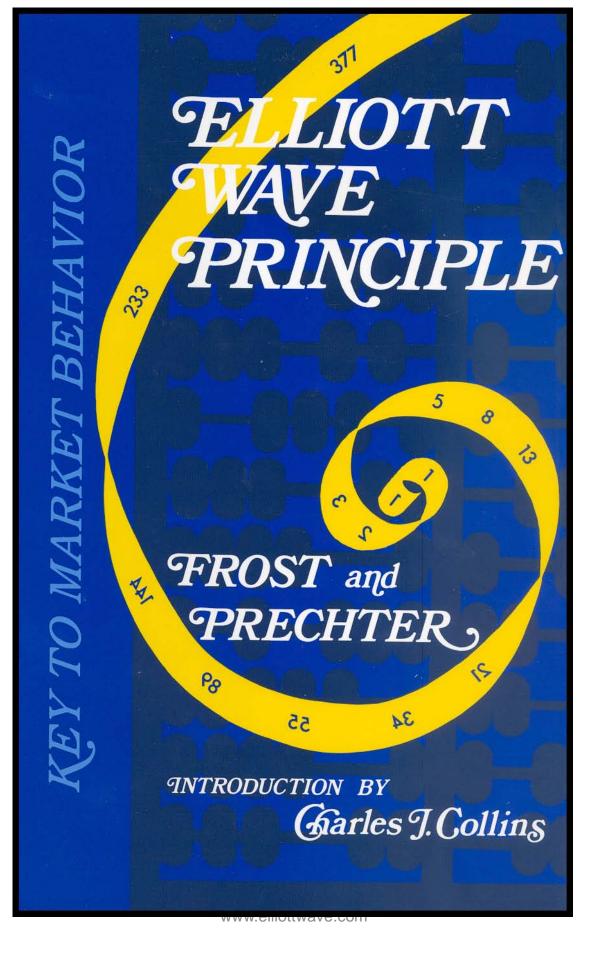




Chart courtesy of The Bank Credit Analyst

