Mini-Crash in Tune With Cosmic Rhythms

by Theodor Landscheidt

There are good reasons to look at the solar system and its constituent parts as a whole that embraces a complex web of holistic interrelations (Landscheidt 1989*a*). Consequently, the environment that affects human actions is not confined to the narrow space delimited by the earth's atmosphere. It reaches out to the boundary of the heliosphere, that huge domain where the solar wind dominates the interstellar medium.

Energetic solar eruptions and corresponding disturbances in the earth's magnetic field form a solar-terrestrial bridge for conveying instability, which induces a change of pattern in all kinds of terrestrial cycles.

The same solar system configurations that regulate energetic solar eruptions also release terrestrial responses, including variations in length of day, strong geomagnetic storms, earthquakes, ozone depletion, droughts and floods, and variance in rainfall and temperature (Landscheidt 1983, 1986, 1988, 1989*a*). Last, but not least, the constellations involved, special phases in the sun's cyclical motion about the solar system's center of mass, are also related with the rise and fall in animal populations, economic turning points, stock prices, interest rates, global periods of general instability, and even human creativity (Landscheidt 1989*a,b*).

The solar system configurations under consideration form cycles that the author dealt with at the Southern California Chapter dinner meeting in Irvine on March 14, 1989. Figure 1 was among the projections presented to the dinner guests. It reflects the influence of cyclical phases of instability in the cosmic environment on human activity in the economy.

The change from global stability in the solar system to instability, and vice versa, enhances or attenuates the sun's activity and its terrestrial response. Energetic solar eruptions, an expression of the sun's instability, and corresponding disturbances in the earth's magnetic field, an indication of terrestrial instability, function as vehicles in spreading global instability. They form a solar-terrestrial bridge for conveying instability, which induces turning points or a change of pattern in all kinds of terrestrial cycles.

As far as human activity is involved, solar system instability seems to

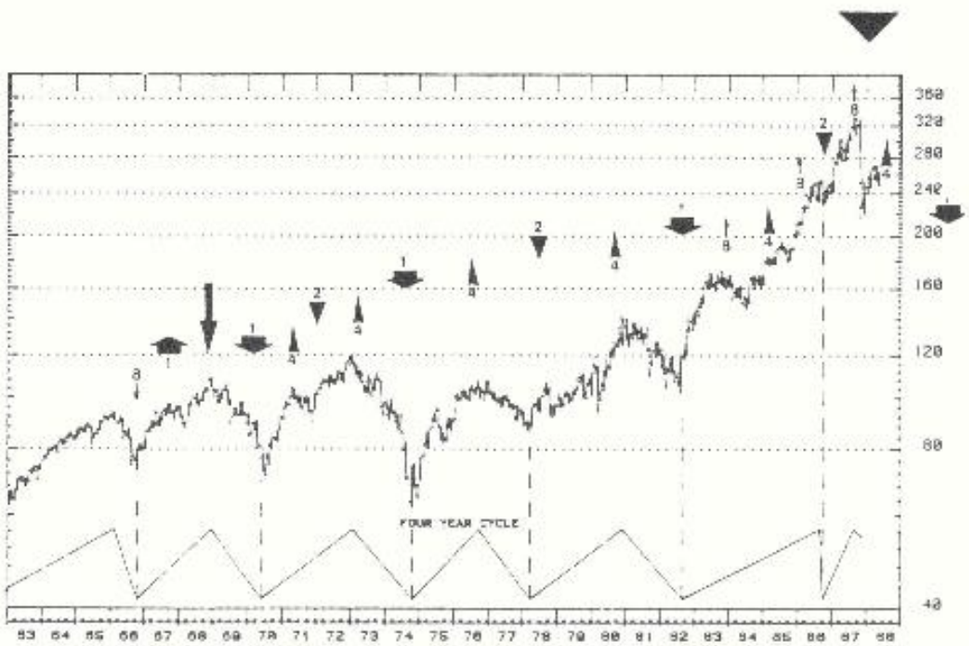

FIG. 1. Relationship between Standard & Poors 500 monthly index and cycles formed by minor and major solar system instability events. Short fat arrows, arrowheads, and fine arrows indicate epochs of fundamental periods (index 1) and harmonics (indices 2-8) of JU-CM-CS cycles. The long fat arrow in 1968 marks the epoch of the major instability event; the second harmonic of the corresponding cycle is represented by the fat triangle at the top. The time series of stock prices and the cosmic cycles show the same rhythmic pattern. (From Cycles, July 1988; chart courtesy of Halco Commodity Traders, Dallas, Texas.)

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spread via hormones and the nervous system. So it is imaginable that people involved in the trading of stocks who are psychologically unsteady and plagued by unstable autonomous nervous systems or hormones, might act differently from well balanced, optimistic people. Experts acknowledge that a large part of variations in share prices cannot be explained by economic laws and facts. There are always lingering budget deficits, but they begin to matter when cosmic instability spreads and pushes masses of people to feel, think, and act in a way that reflects prevailing instability.

The last phase of major instability started in 1968 and ended in 1972. The next phase will begin in 2002 and come to an end in 2011.

It has been shown (Landscheidt 1989c) that energetic solar eruptions and related geomagnetic storms can be predicted by means of major and minor instability events released by special solar system configurations. Minor instability events occur when the sun's center (CS), the solar system's center of mass (CM), and Jupiter (JU)—the weighty center of the world of planets—are in line (JU-CM-CS). Such configurations initiate strong impulses of torque in the sun's orbital motion about CM. Their astrophysical effects have been dealt with elsewhere (Landscheidt 1983, 1988).

According to recent results of research in complex dynamical systems, JU-CM-CS events release instability because they are boundary phenomena (Landscheidt 1989b). The sun reaches a zero phase in its oscillatory motion about CM. The torque acting on it approaches zero, changes sign, and shows sharp increase in the opposite direction. The sun changes from approaching the center of mass to receding from it, or vice versa. This turning point in the sun's cyclical motion about CM, related to the transgression of a zero phase and resulting instability, induces corresponding turning points in terrestrial cycles that are linked to the sun's activity. JU-CM-CS events form cycles with a mean period of 9.275 years. Intriguingly, Dewey and Vaux (1965) found a 9.225-year cycle in stock prices.

The JU-CM-CS cycle is subject to considerable variation in wavelength; it can be as short as two years, or as long as 14 years. This is illustrated in Figure 1. The short fat arrows indicate epochs of consecutive JU-CM-CS events that form cycles showing rather different wavelengths. The index 1 reminds us that we are dealing with fundamental periods. Wide and narrow arrows as well as small arrows represent harmonics of respective cycles specified by indices. Indicators that coincide with maxima of the Standard & Poors index point upwards, while those that coincide with minima point downwards. After the long fat arrow that marks the epoch of a "major instability event" [an explanation of this term is given below], the epochs of JU-CM-CS events and the second harmonics of respective cycles are correlated with bottoms in the data, and the fourth and eighth harmonics with tops.

In the current JU-CM-CS cycle—running from October 31, 1982 (1982.83), to April 20, 1990 (1990.3)—the midpoints between the fourth and eighth harmonics, the sixteenth harmonics, were, in each case, related to bottoms in the data. As predicted at the March 1989 dinner meeting, this correlation continued beyond the time frame of Figure 1.

The upper part of Figure 2 displays the further course of stock prices (DJIA) in accordance with the turning point indicators of the JU-CM-CS cycle. The epoch of the bottom indicator (designated by the last arrow pointing downwards) is at the end of October 1989, not far from the date of the mini-crash on October 13. On this date, the DJIA nosedived 190.58 points to 2,569.26, the largest drop since the 1987 crash; the Toronto market suffered its fourth worst point-drop in history. The North American markets, however, recovered about two-thirds of their losses through the following week.

Such volatility reflects, on a smaller scale, the instability that emerged in fall 1987. But it begs for a stronger point than mere correlation with a sixteenth harmonic of a cycle formed by minor instability events.

The large solid triangle in Figure 1 indicates a relationship that could provide a convincing explanation. It points to the epoch of the second harmonic in a long cycle formed by consecutive "major instability events." Such very effective events occur when the solar system's center of mass stays in or near the sun's surface for several years. The scientific background of these major solar system events has been explained in detail elsewhere (Landscheidt 1989*a*). They represent a special boundary phenomenon that can be described in terms of a non-equilibrium phase transition. Their main function is to spread instability, the precondition of the emergence of new patterns. Major instability events were released in 1789, 1823, 1867,

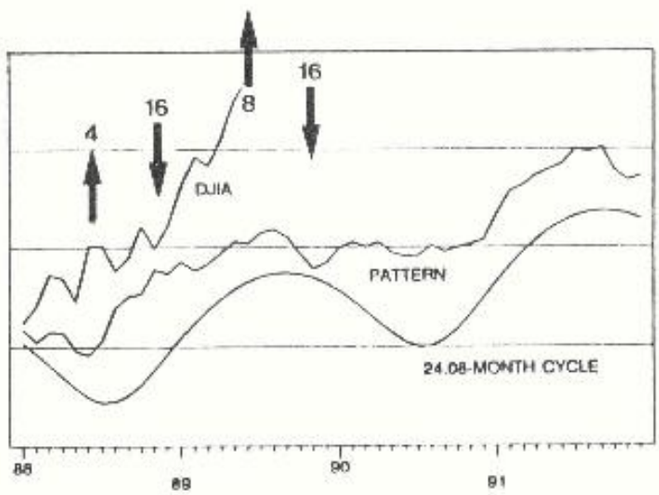

FIG. 2. Extension of the connection in Figure 1. Turning points in the upper curve representing the DJIA are in phase with the arrows marking epochs of respective harmonics of the JU-CM-CS cycle. The last arrow matches the date of the mini-crash on October 13, 1989. (From Mogey, 1989.)

1933, and 1968. It has been shown (Landscheidt 1989*a*) that the years that followed these epochs were periods of radical change and revolution, a breakdown of old structures and the emergence of new forms and ideas.

This is also valid for second harmonics in cycles formed by consecutive major instability events. The last phase of major instability started in 1968 and ended in 1972. The next phase will begin in 2002 and come to an end in 2011. When the centers of both time periods are taken to calculate the epoch of the second harmonic of the major cycle, the result is 1988. It is easy to see that 1988, in fact, was a year of radical change, breakdowns of rigid structures, and the emergence of new patterns and ideas.

The London-based International Institute for Strategic Studies remarked: "When historians review 1988, they may well see it as the year in which the Cold War ended . . . All around the globe, belligerence gave way to compromise." This refers to the Soviet withdrawal from Afghanistan, the international agreement on South African withdrawal from Namibia, Vietnam's pledge to remove its troops from Cambodia, and the ceasefire in the eight-year Iran-Iraq war.

Experience has shown that second harmonics in major instability cycles have a duration of effect covering about plus-or-minus two years around the mean epoch, which corresponds with the extended periods of effect of the major instability events themselves. When looking at the resulting period 1986 to 1990, one cannot help thinking of Mikhail Gorbachev's reforms in Russia and their repercussions in Eastern Europe, Hungary's declaration of being a democracy, reestablishment of parliamentarism in Poland, prodemocracy demonstrations of huge crowds in China and Eastern Germany, and the Palestinian rebellion against the Israeli occupation, but also the Free Trade agreement between Canada and the U.S. and the decision of the European Economic Community to reach a state of complete economic unity by 1992.

The latter event shows that the potential of change predominant in phases of solar system instability affects human activity in economy as well as in other fields like politics, art, or science. The record highs in the stock market during the phase of instability from 1986 to 1990, together with the crash in 1987 and the minicrash in 1989, seem to be an expression of the high potential of change typical for such periods of instability. Thus, the volatility in the market should continue until about 1990.

Because of the imminent JU-CM-CS event, the epoch of which is 1990.3, a bottom may be expected such as occurred in 1970, 1974, and 1982 (Figure 1). But this will also be the start of a new rally. Figure 1 also shows how the famous 4-year cycle elaborated by the Foundation (Epperson 1989) matches the picture. However, the cosmic background presented here explains why the 4-year cycle is sometimes longer or shorter. As to predictions, this is crucial.

Figure 1 further demonstrates how the major instability event in 1968 (large fat arrow) brought about a phase change in the connection between the cosmic rhythms involved and the time series of stock prices: before 1968, the epochs of JU-CM-CS events were related to tops instead of bottoms, and the eighth harmonic pointed to bottoms instead of tops; after 1968, this relation was reversed.

A wealth of other plots presented at the March dinner meeting provide evidence of strong correlation between minor and major instability events in the solar system and diverse terrestrial cycles. Figure 1 is only one example. Readers of *Cycles* can easily do individual research in such connections. Table 1 lists the epochs of JU-CM-CS events and the second harmonics of corresponding JU-CM-CS cycles. Other harmonics can be computed easily, as the dates are given in decimal fractions of the year.

Table 1.

Epochs of JU-CM-CS Events and Second Harmonics of Corresponding Cycles 1800-2000

	Epoch	Harmonic		Epoch	Harmonic		Epoch	Harmonic
(G)	1803.70				1877.59	(C)	1951.37	
		1807.56	(G)	1881.89				1955.50
(C)	1811.42				1886.53	(G)	1959.62	
		1815.56	(C)	1891.17				1963.71
(G)	1819.69				1896.47	(C)	1967.80	
		1827.29	(G)	1901.77				1968.91
(C)	1834.89				1906.91	(G)	1970.02	
		1839.04	(C)	1912.05				1972.25
(G)	1843.18				1916.44	(C)	1974.48	
		1847.04	(G)	1920.82				1978.66
(C)	1850.90				1925.58	(G)	1982.83	
		1855.06	(C)	1930.33				1986.57
(G)	1859.21				1936.31	(C)	1990.30	
		1866.25	(G)	1942.29				1994.43
(C)	1873.28				1946.83	(G)	1998.56	

(C): JU-CM-CS event accompanied by a sharp increase in orbital angular momentum and centrifugal motion of the sun away from center of mass.
(G): JU-CM-CS event accompanied by a sharp decrease in orbital angular momentaum and centripetal motion of the sun toward the center of mass.

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