

# Putting Mr. Market on the Couch

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When it comes to our swinging stock market prices, what is the problem and what are the solutions?

"According to our Imperfect Knowledge Economics model, prices and risk tend to undergo swings when trends in fundamentals persist for some time, which they do quite often, and market participants have no specific reasons to expect a change, and thus they are likely to revise their forecasting strategies in guardedly moderate ways. We would expect, therefore, that fundamental factors play an important role in driving asset-price swings and risk. We would also expect the set of fundamental factors and their influences to change over time." —Roman Frydman and Michael D. Goldberg, [Beyond Mechanical Markets: Asset Price Swings, Risk, and the Role of the State](#), chapter 11.

Roman Frydman and Michael D. Goldberg have written an interesting book concerning the behavior of the stock market and other asset markets. In this review essay, I want to give my own interpretation of some of the major issues the book discusses.

Does the behavior of stock prices make sense? Consider the price-earnings ratio for the overall stock market. Historically, a P/E ratio of 15 appears to be about normal. Relative to that benchmark, we can consider four possible patterns of variation.

	Short-term (lasting days)	Long-term (lasting years)
Small Changes	<b>Normal noise</b>	<b>Minor drift</b>
Large Changes	<b>Glitches</b>	<b>Swings</b>

Normal noise consists of daily fluctuations in stock prices. If the Dow goes up by 1 percent in a day, this means that if the P/E ratio starts at 15.00, then the next day it moves to 15.15, which is not a large move.

Minor drift would be a gradual change in the average P/E ratio, going from, say, 15 to 17 over a period of many years.

Glitches are sudden, sharp price changes that are quickly reversed. One example is the "flash crash" of May 6, 2010, when a computer error and automated trading programs caused stocks to lose nearly 10 percent of their value before prices rapidly recovered. Another example might be the October 19, 1987, stock market plunge that saw the Dow lose over 20 percent in a single day. Only part of this loss was reversed in subsequent days, but within two years stock prices had surpassed their pre-crash highs. Some blame the 1987 crash on program trading, particularly executed as a strategy of "portfolio insurance," although this view is controversial.

As these examples illustrate, glitches have an element of lacking liquidity and departing from fundamental valuation. That is, prices are suddenly driven down sharply for technical reasons. Gary Gorton's description of the financial meltdown of 2008 as a "[run on repo](#)" suggests elements of a glitch were at work in the sudden drop in some asset prices.

Swings are large, persistent changes in asset prices relative to historical benchmarks. Instead of staying around 15, the P/E ratio for the overall stock market might spend several years at 10 or below and subsequently spend several years at 25 or above. Frydman and Goldberg illustrate this nicely using a chart created by Robert Shiller, which can be viewed by downloading the Excel file of stock prices from his "[irrational exuberance](#)" webpage.

Shiller was the first economist to document these large, persistent swings, and he made a point of arguing that prices were more variable than fundamentals. His article, "[Do Stock Prices Move Too Much to Be Justified by Subsequent Changes in Dividends?](#)" was published in 1981 and was [recently judged](#) one of the 20 most significant papers published in the 100-year history of the *American Economic Review*.

Frydman and Goldberg say that the existence of asset price swings contradicts previous theories of financial markets. For example, the Efficient Markets Hypothesis, in its strongest form, holds that market prices always reflect fundamentals. If this were true, then we should only observe normal noise or minor drift. Most proponents of the Efficient Market Hypothesis, however, do not deny the existence of asset price swings. In fact, Eugene Fama, the economist most closely associated with the Efficient Markets Hypothesis, co-wrote [a famous paper](#) with Ken French in 1988 that documented the long-term "mean reversion" of stock prices: asset price swings do seem to occur, but prices appear to eventually come back to a long-term trend.

The Efficient Market Hypothesis says it is not possible to outsmart the market. Asset price swings create an opportunity to outsmart the market by buying when asset prices fall below benchmarks and selling when they rise above benchmarks. The size and persistence of these swings make this a difficult strategy to execute in practice, however, because, as John Maynard Keynes is said to have remarked, "The market can stay irrational longer than you can stay solvent." If you buy when prices have fallen, prices could keep dropping, and unless you can hold on, you may have to sell for a loss. This problem of holding out is even more acute when you try to short a market that you think is too high, because if prices keep going up, you are certain to be asked to put up more cash or close out your position. Because someone trying to profit from asset market swings will likely suffer a gambler's ruin problem (taking losses and going bankrupt before the market turns around and moves your way), the Efficient Markets Hypothesis can be said to survive in weak form—even when market swings are present. That is, there is no safe, sure way to profit from large, persistent market swings.

The other theory Frydman and Goldberg attempt to dismiss is behavioral finance. They interpret behavioral finance as offering theories of asset markets in which participants sometimes ignore fundamentals altogether and simply trade on momentum. In effect, Frydman and Goldberg argue, this theory of behavior would predict bubbles that look more like glitches than like swings. That is, we should observe violent movements that emerge quickly and are quickly reversed, rather than long swings.

Having dismissed, fairly or not, the alternative theories, Frydman and Goldberg propose a theory with two elements. First, investors are diverse in terms of the information they possess and in terms of their forecasting strategies. Second, investors gradually obtain information and adjust their forecasting strategies. As these adjustments take place, they generate the long-term swings in asset prices that we observe.

Near the end of the book, Frydman and Goldberg argue that government regulators should make an effort to identify when asset prices have moved far from normal benchmarks. Moreover, regulators should take steps to lean against the markets when prices are far out of line. For example, a central nation's bank might intervene in the foreign exchange market when the price of its currency gets far away from purchasing power parity: the point at which a broad index of prices for goods in home currency is comparable to the price of similar goods in foreign currency.

The way that I look at it, Frydman and Goldberg suggest that government acts as a sort of hedge fund of last resort. When private hedge funds fail to keep asset prices in line with historical benchmarks, because hedge fund managers are unwilling or unable to take positions against the mania, government ought to step in.

Frydman and Goldberg argue for very cautious use of intervention only when asset prices have moved quite far from benchmark values. Even so, I cannot get comfortable with the idea of bureaucrats doing the work of hedge funds using government resources. With respect to preventing another financial conflagration, rather than look to the government to put out the fire, I would just be grateful if government could refrain from undertaking policies that fuel it.

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**FURTHER READING:** Kling also explains "What's Stalling the Next Economic Revolution?" discusses "When Labor Is Capital: The Limits of Keynesian Policy," and outlines "Why Our Current Budget Situation Is a Crisis." He is coauthor of ***From Poverty to Prosperity*** with Nick Schulz, and the two have written "Individual Health Savings Accounts Are Better," "Planning the Next Bubble," and "Markets Fail. That's Why We Need Markets."

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