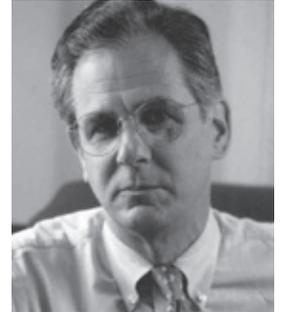




## The Market Meltdown: Efficient, Inefficient, or Deficient?

Robert A. Jaeger, Ph.D.

Senior Market Strategist, BNY Mellon Asset Management



July 2009

---

The meltdown was neither a textbook-style efficient market nor a garden-variety inefficient market. It was a deficient (broken, dysfunctional) market.

---

Does the recent meltdown in the financial markets drive a silver stake through the heart of the efficient markets hypothesis (EMH)? No. The meltdown killed the bad ideas, but they were dead already. And the good ideas are as alive today as they were before the meltdown.

The EMH combines three myths (the bad ideas) with two insights (the good ideas). The central myth is that investors are totally rational. The insights are that there are no risk-free profits and markets are unpredictable. These insights then get confused with two other myths. "Return requires risk" gets confused with "risk generates return," and unpredictability gets confused with randomness.

These five ideas help define the uniqueness of the market meltdown. The meltdown was neither a textbook-style efficient market nor a garden-variety inefficient market. It was a deficient (broken, dysfunctional) market.

Before we examine the five ideas, let's note that the EMH is available in both moderate and extreme versions. The extreme version insinuates that markets are born efficient; the moderate version acknowledges that markets are *made* efficient by smart investors and smart regulators. The moderate version emphasizes that the market is hard to beat precisely because so many people are trying so hard to beat it. If the entire investment community "went passive," then inefficiencies would blossom overnight. When the *laissez faire* regulatory community "went passive," markets eventually imploded.

The extreme version of the EMH holds that efficient markets are "self-sufficient" or "self-regulating." This view encourages a dangerous complacency. Healthy markets require feeding; the extreme EMH bites the hand that feeds it.

**Rationality, Fear and Greed.** Investors are not totally rational calculating machines. They are a complicated mix of rationality and emotion. Moreover, the emotions are not *irrational*. In late 2008, it was irrational *not* to be afraid.

---

There are no risk-free returns, but lots of return-free risks. The EMH sometimes suggests that risk generates return, i.e., “over the long term, investors get paid for taking risk.” This is an expensive myth. Equity investors have spent more than 10 years not getting paid for taking risk.

---

The myth of the rational investor has gradually given way to “behavioral economics,” which pays attention to fear, greed, and a long list of “heuristics and biases,” what David Letterman might call “stupid investor tricks.” Fear and greed create panics and bubbles. Notice, however, that greed does not disappear even when fear is at its peak. Contrarians were buying during the panic of late 2008, and, if you were thinking about “capitulating,” greed was the voice that said, “If I sell today, I’ll miss the rebound.”

**Risk and Return.** Irrationality does not create free lunches. “Rational investors” try to take advantage of “irrational investors,” but this is not a risk-free enterprise. As Keynes emphasized, “markets can remain irrational longer than you can remain solvent.” The market meltdown did not offer any risk-free trades. The contrarians who bought in November thought that “all the bad news is already in the price,” but stocks hit new lows in March 2009.

There are no risk-free returns, but lots of return-free risks. The EMH sometimes suggests that risk generates return, i.e., “over the long term, investors get paid for taking risk.” This is an expensive myth. Equity investors have spent more than 10 years *not* getting paid for taking risk. And the market meltdown was part of a larger “flight to safety” in which all risky assets lost value. The challenge for the investor is to separate the risks worth taking from the risks not worth taking.

**Prediction and Randomness.** Markets display trends, or cycles, which makes them unpredictable but not random. A random sequence is a string of statistically independent events whose history cannot be explained even after the fact. Nobody knows or cares why the coin came up Heads on the tenth toss. Trends are different: they reinforce themselves until they destroy themselves, and their history can be explained. For example, The Great Moderation reinforced itself until it destroyed itself, thus ushering in The Great Deleveraging. Many books will be written to explain all the details that we could not have predicted.

Trends create an opposition between momentum investors, who trade with the trend, and contrarian investors, who trade against the trend. Normally there is a fair fight between these two groups, but the meltdown of 2008 was “all momentum, all the time.” Selling in one portfolio caused price declines that triggered selling in other portfolios. The mythical random walk became a row of falling dominos, which forced the Federal Reserve to act as “contrarian of last resort.” However, even in the midst of all that non-random behavior, nobody could predict where prices would go.

Ironically, both the EMH and behavioral economics underestimate the prediction challenge. According to the EMH, the challenge is to develop a view of the future more accurate than the expectations embodied in today’s prices. This ignores a second problem: we can see today’s prices, but we can’t see the underlying expectations. During the tech bubble, companies would sometimes beat the official “consensus earnings estimate” but the stock would go down anyway because the company didn’t beat “the whisper number.” I know what I expect, and you know what you expect, but we don’t always know what “We” expect.

Behavioral economists underestimate the prediction challenge by insinuating that investors are “predictably irrational” (the title of a recent book). People may behave predictably when faced with simple choices in a psychology lab, but real-world investing often involves *hard decisions*, which require the careful balancing of conflicting arguments. The hallmark of a hard decision is that even the person making the decision can’t predict the outcome.

This means that markets are even more unpredictable than “complex chaotic systems” like the weather, whose unpredictability rests partly on “the butterfly effect”: small events can have large and unpredictable consequences. But butterflies are not prone to indecision, and our beliefs about the weather don’t affect the weather. Markets are human creations, so their unpredictability must be understood in human terms.

The stock market is like an election with three established parties and a large Undecided block. During the November panic, the contrarians bought while there was blood in the streets, the momentum investors sold in order to cut their losses, and the “Stay the Course” investors did nothing while everyone else was going crazy. The Undecided investors knew all the arguments for buying, selling, and holding, but they still weren’t sure what to do. They were torn between fear and greed, and there was no way to predict the outcome.

---

... efficient markets  
aren’t born that way:  
they are made efficient  
by the efforts of  
intelligent people who  
aren’t intimidated by  
extreme ideas about  
market efficiency.

---

Let’s return to the title question. Efficient markets, which feature rational investors and random walks, are found only in textbooks. Real-world markets show multiple signs of inefficiency: fear, greed, trends, and so forth. There is a contest between fear and greed, and a separate contest between momentum and contrarian investors. When those contests become pathologically imbalanced, markets become deficient.

However, even deficient markets show signs of efficiency, and efficient markets show signs of inefficiency. The market meltdown offered no free lunches and no crystal-ball view of how the crisis would evolve. And the markets for government securities and large capitalization stocks, which are arguably the most efficient markets in the world, are prone to bubbles, panics, and other distortions.

Every market is efficient in some ways and inefficient in other ways, so it’s time to banish the words “efficient” and “inefficient” from our vocabulary. Smart investors try to exploit the “inefficiencies” while respecting the “efficiencies.” They try to take advantage of fear, greed, and trends; they try to avoid “return-free risks”; and they remember that there are no risk-free profits and no crystal balls. This is a delicate balancing act, for which there are no simple recipes. However, we must not allow the EMH to discourage us from trying. As the moderate version of the EMH points out, efficient markets aren’t born that way: they are made efficient by the efforts of intelligent people who aren’t intimidated by extreme ideas about market efficiency.



## BNY MELLON ASSET MANAGEMENT

The statements and opinions expressed in this article are those of the authors as of the date of the article, and do not necessarily represent the views of The Bank of New York Mellon Corporation, BNY Mellon Asset Management or any of their respective affiliates. This article does not constitute investment advice, and should not be construed as an offer to sell or a solicitation to buy any security or make an offer where otherwise unlawful. BNY Mellon Asset Management is the umbrella organization for The Bank of New York Mellon Corporation's affiliated investment management firms and global distribution companies. BNY Mellon Asset Management International Limited and its affiliates are not responsible for any subsequent investment advice given based on the information supplied. • Past performance is not a guide to future performance. The value of investments and the income from them is not guaranteed and can fall as well as rise due to stock market and currency movements. When you sell your investment you may get back less than you originally invested. Portfolio holdings are subject to change at any time without notice, are for information purposes only and should not be construed as investment recommendations. • This is not intended as investment advice but may be deemed a financial promotion under non-U.S. jurisdictions. The information provided is for use by professional investors only and not for onward distribution to, or to be relied upon by, retail investors. • This document should not be published in hard copy, electronic form, via the web or in any other medium accessible to the public, unless authorized by BNY Mellon Asset Management International Limited.

In Australia, this document is issued by BNY Mellon Asset Management Australia Limited (ABN 56 102 482 815, AFS License No. 227865) located at Level 6, 7 Macquarie Place, Sydney, NSW 2000. Authorized and regulated by the Australian Securities & Investments Commission. • In Brazil, this document is issued by BNY Mellon Serviços Financeiros DTVM S.A., Av. Presidente Wilson, 231, 11th floor, Rio de Janeiro, RJ, Brazil, CEP 20030-905. BNY Mellon Serviços Financeiros DTVM S.A. is a Financial Institution, duly authorized by the Brazilian Central Bank to provide securities distribution and by the Brazilian Securities and Exchange Commission (CVM) to provide securities portfolio managing services under Declaratory Act No. 4.620, issued on December 19, 1997. • In Canada, interests in any investment vehicles may be offered and sold through BNY Mellon Asset Management Canada, Ltd., an Ontario registered Investment Counsel Portfolio Manager and a Limited Market Dealer. • In Dubai, United Arab Emirates, this document is issued by the Dubai branch of The Bank of New York Mellon, which is regulated by the Dubai Financial Services Authority. • In Germany, this document is issued by WestLB Mellon Asset Management Kapitalanlagegesellschaft mbH, which is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht. WestLB Mellon Asset Management Holdings Limited is a 50:50 joint venture between The Bank of New York Mellon Corporation and WestLB AG. WestLB Mellon Asset Management Kapitalanlagegesellschaft mbH is a wholly owned subsidiary of this joint venture. • If this document is used or distributed in Hong Kong, it is issued by BNY Mellon Asset Management Hong Kong Limited, whose business address is Unit 1501-1503, 15/F Vicwood Plaza, 199 Des Voeux Road, Central, Hong Kong. BNY Mellon Asset Management Hong Kong Limited is regulated by the Hong Kong Securities and Futures Commission and its registered office is at 6th floor, Alexandra House, 18 Chater Road, Central, Hong Kong. • In Japan, this document is issued by BNY Mellon Asset Management Japan Limited, Meiji Seimei Kan 6F, 2-1-1 Marunouchi Chiyoda-ku, Tokyo 100-0005, Japan. BNY Mellon Asset Management Japan Limited is a Financial Instruments Business Operator with license no 406 (Kinsho) at the Commissioner of Kanto Local Finance Bureau and is a Member of the Investment Trusts Association, Japan and Japan Securities Investment Advisers Association. • In Singapore, this document is issued by The Bank of New York Mellon, Singapore Branch for presentation to professional investors. The Bank of New York Mellon, Singapore Branch, One Temasek Avenue, #02-01 Millenia Tower, Singapore 039192. Regulated by the Monetary Authority of Singapore. • This document is issued in the UK and in mainland Europe (excluding Germany), Taiwan and Korea by BNY Mellon Asset Management International Limited. BNY Mellon Asset Management International Limited, 160 Queen Victoria Street, London EC4V 4LA. Registered in England No. 1118580. Authorized and regulated by the Financial Services Authority.

This document is issued in the United States by BNY Mellon Asset Management. BNY Mellon Asset Management International Limited and any other BNY Mellon entity mentioned above are all ultimately owned by The Bank of New York Mellon Corporation.

©2009 The Bank of New York Mellon Corporation.