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Citation: Zuckerman, Ezra W. (2010), What if we had been in charge? The sociologist as builder of rational institutions, in Michael Lounsbury, Paul M. Hirsch (ed.) *Markets on Trial: The Economic Sociology of the U.S. Financial Crisis: Part B (Research in the Sociology of Organizations, Volume 30)*, Emerald Group Publishing Limited, pp.359-378.

As Published: [http://dx.doi.org/10.1108/S0733-558X\(2010\)000030B016](http://dx.doi.org/10.1108/S0733-558X(2010)000030B016)

Publisher: Emerald Group Publishing Limited

Persistent URL: <http://hdl.handle.net/1721.1/71595>

Version: Author's final manuscript: final author's manuscript post peer review, without publisher's formatting or copy editing

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What if We Had Been in Charge?
The Sociologist as Builder of Rational Institutions¹

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Abstract

In this postscript, I argue that a sociological approach to regulating securities markets requires a clear stance on the relationship between price and value, one that combines (a) the contrarian thesis that there are objective criteria by which one can assess value more accurately than the current market price; (b) the constructionist thesis that prices are governed by commonly known beliefs that can vary substantially from the objective reality they purport to reflect; and (c) the realist thesis that the market comprises powerful mechanisms (arbitrage and learning) that, when working properly, close the gap between the contrarian's private belief and common knowledge, thus producing reasonable prices. This intergrated "rationalist" perspective understands the real estate bubble as the product of institutional conditions that fostered pluralistic ignorance regarding the extent of bearish sentiment. Regulatory prescriptions focus on support for transparent pricing and a relative evenhandedness in the institutional support provided for bulls/optimists and bears/pessimists.

¹ Thanks to Mike Lounsbury for inviting me to write this postscript and to Rodrigo Canales, John-Paul Ferguson, Israel Friedman, Paul Hirsch, Cat Turco, and Chris Winship for very helpful and timely feedback. My apologies to the other contributors to this volume, both because I could not do justice in this space to the breadth and depth of their contributions, and because they will not have the opportunity to respond to this postscript.

“You can’t short a house,” (John) Paulson told a colleague (in 2005), regretfully, as he surveyed the booming housing market.

-- Gregory Zuckerman, *The Greatest Trade Ever*, p.9

“Our models are fine,” the Bear Stearns expert responded (to Paulson, in 2006), polite but self-assured. “We’ve been doing this for twenty years.” [Paulson’s colleague Paolo] Pellegrini listened closely to the conversation, displaying little emotion. He became convinced that some of the (Bear) executives didn’t fully believe their own arguments. They were simply aiming to stop Paulson from shorting so much and causing trouble for Bear Stearns... Two could play this game, Pellegrini eventually decided. He started to act as if he was having second thoughts about his bearish stance, and as if he was being swayed by the arguments of the guests... “We really appreciate the help; thanks, guys.” He didn’t dare reveal what really was on his mind. “We said, ‘Oh, thank you for your help.’ But really we were saying ‘Fuck you,’” Pellegrini recalls. “We were both pretending.”

-- Gregory Zuckerman, *The Greatest Trade Ever*, pp. 155-6

The Challenge

In the confines of this postscript, I can scarcely do justice to the magnitude of the financial crisis or to the range of treatments in this volume or the wider literature. I will thus narrow my focus to a single question, which forms a challenge when considered as a matter of policy. This challenge is motivated by the epigraphical selections as well as the following exchange, which is drawn from Oscar Wilde’s *Lady Windermere’s Fan: A Play about a Good Woman* (1903: 95-96):

Cecil Graham: What is a cynic?

Lord Darlington: A man who knows the price of everything and the value of nothing.

Cecil Graham: And a sentimentalist, my dear Darlington, is a man who sees absurd value in everything and doesn’t know the price of a single thing.

The question this exchange raises is as follows: What stance on the relationship between price and value should sociologists adopt? Should we be “cynics,” “sentimentalists,” or something else?

This question is more than a matter of intellectual posture. Sociologists have long been consigned to the sidelines of regulating markets despite widespread agreement among us with the clarion call issued by Schneiberg and Bartley (this volume, p.3) that “regulation constitutes markets.” As the zeal for regulation expressed by virtually all contributors to this volume attests, there is a sociological consensus that we must “rethink market architecture” rather than waiting to “intervene(e) after the fact (ibid.; Fligstein 2001).”² In all likelihood, we are likely to remain on the sidelines. But as with any opposition party, it is important that we think and act as if we are the party in power and to work productively with the ruling party when there is common ground in building a better polity, society, and economy. In particular, if we are to take seriously the task of promoting a healthy infrastructure for securities markets, we must have a clear view on the relationship between price and value, and how that relationship changes under alternative institutional conditions. After all, we could simply abolish securities markets. If we are committed to retaining them-- and it is notable that none of the contributors suggests otherwise-- this implies that we believe in a system of allocating capital through the price mechanism. But can we expect this mechanism to do a good job of judging value, and under what conditions will it perform better or worse?

Existing Sociological Approaches to the Challenge

None of the contributors to this volume address this challenge directly. But they do cite two problematic approaches to the relationship between price and value that Wilde did not consider-- that of the “fool” and that of the “naïf;” and we will see that versions of Wilde’s “cynic” and “sentimentalist” have their place in the sociological literature as well.

² In her contribution, Krippner expresses the lone dissenting voice in this chorus. In particular, she endorses the view that “intrinsic properties of financial markets” (p.4) give rise to bubbles such that there is seemingly nothing we can do about bubbles and their sequelae, other than perhaps to eliminate securities markets. But in fact, she avoids taking a position on whether capital should be allocated through markets or via a central planner (cf., the debate between Thurow and Simon referenced on pp. 19-21). This approach is problematic for two related reasons. First, it is a defensible stance only if we remain observers, rather than as participants, in the system. But we are necessarily participants, if not because we are buyers or sellers of securities then because we are subject to externalities produced by those who are. Second, as Schneiberg and Bartley and the other contributors point out, there are no intrinsic properties of securities markets; securities markets are creatures of particular institutional conditions and thus vary in their properties depending on how the institutions are configured.

The fool makes an appearance most prominently in the chapters by Pozner, Stimmler, and Hirsch and by Fligstein and Goldstein. Pozner et al. describe a “miasma of irrationality” (p.5) in which market participants “collectively drove off a cliff” (this volume, p. 37) while Fligstein and Goldstein describe market participants as having succumbed to a “field wide delusion” (p.34). Other contributors (e.g., Carruthers; Guillén and Suárez; Palmer and Maher); echo these characterizations and generally depict Wall Street as a tightly-knit, closed network in which market participants focus solely on keeping up with one another, and lose track of the big picture.³ And if contributors to this volume cast the real estate investor in the role of the fool, the role of the naïf is played by the “market fundamentalists” (i.e., economists espousing the efficient markets hypothesis; EMH) who are condemned by such contributors as Abolafia and Fligstein and Goldstein for failing to curb Wall Street’s foolishness. Consider the first of the two quotes that Abolafia (this volume, p.5) attributes to former Federal Reserve Chairman Alan Greenspan:

Bubbles generally are perceptible only after the fact. To spot a bubble in advance requires a judgment that hundreds of thousands of informed investors have it all wrong. Betting against markets is usually precarious at best.

This statement was clearly not uttered by someone who is willing to distinguish between price and value, at least not in an actionable way. And in this case, the source of this reluctance is a naive faith that markets are always right (or at least that their collective wisdom is always superior to that of any one individual, including a central banker) such that it would be presumptuous to think he knows better than the market.⁴

The contributors’ tendency to distance themselves both from Wall Street and Greenspan suggests that, unsurprisingly, the sociological orientation to the relationship between price and value is neither that of the fool nor that of the naïf. But then what orientation suits us?

³ Perrow rejects the image of lemming-like mass suicide that the other contributors depict, and the epigraphical selections are consistent with the more cynical portrait that he draws. I will return to this issue below.

⁴ Perrow makes a strong case for the possibility that this refusal was actually more cynical than naïve. Additional evidence to support this accusation may be found in the fact that many of the most prominent efficient-markets-theorists have become very rich by betting on glaring market inefficiencies that should, according to their own theories, have been eliminated many years ago.

Let us now consider the two alternatives that Wilde presents, beginning with the “sentimentalist.” Although Wilde ridicules this orientation, “sentimentalism” is in fact a salient alternative in that it is well-represented in contemporary markets by the contrarian or value investor, as defined by Graham and Dodd (1940) and made famous by Warren Buffett (Lowenstein 1996)—i.e., someone who formulates an independent judgment of the “intrinsic” or “fundamental” value of the asset, and acts to take advantage of differences between price and intrinsic value. Wilde’s characterization reflects the fact that contrarians are often lampooned as sentimentalists, as when they find value in an asset that everyone else has given up on as hopelessly passé. But as suggested by the epigraphical quotes from managers at the hedge fund Paulson & Co., which made \$15 billion by betting against the U.S. housing bubble, in the long run the joke is often on those who run with the herd.⁵

Besides the relevance of contrarianism as an approach to investing, sociologists’ opposition to neoclassical economics generally, and to the EMH in particular, suggests two reasons to suspect that we might be comfortable in the role of contrarian. First, we sociologists clearly think that *our value* is greater than is reflected by our disciplinary status, especially relative to economics. Thus, there are at least some realms in which we are comfortable judging intrinsic value and disregarding “market price.” Second, insofar as Greenspan’s quote suggests that the contrarian position is the opposite of his own, and insofar as the contributors view themselves as opposed to Greenspan (and the efficient-markets ideology he espoused), one might conclude that the sociological orientation is that of the contrarian. In particular, whereas Greenspan was reluctant to identify a bubble as it inflated and to act against it, 13 of the 20 contributors use the term “bubble” in their chapters and they imply that this bubble could in principle have been identified before it popped. However, a review of the contributions to this volume indicates that a sociological central banker may not have been so quick to diagnose and intervene in bubbles. Note in particular that only one of those 13 contributors (Abolafia, this volume, p.6) provides a definition of the word bubble, derived from Stiglitz (1990, p.13): a condition “when prices are high ...only because investors believe that the selling price will be high tomorrow –when ‘fundamental’ factors do not seem to justify such a price”

⁵ For example, Buffett made his fortune by betting on stocks during the bear market of the 1970s, which inspired the famous BusinessWeek headline of August 13, 1979: “The Death of Equities.”

(Stiglitz 1990: 13).” Moreover, while this definition is useful, it is too general to provide guidance for action. Thus if sociologists have some contrarian tendencies, it seems that we do not embrace this orientation with much enthusiasm-- or perhaps we embrace it in the intellectual marketplace but not in securities markets.

Perhaps one reason for this lackluster endorsement of contrarianism is that most sociologists are committed to some form of social constructionism—i.e., a position on social valuation that is captured by the Thomas Theorem (see Merton 1995): “If men believe things are real, they are real in their consequences.” Moreover, if the Thomas Theorem applies to social life generally, it certainly applies to financial markets, given their “self-recursive” properties (Zuckerman 2004)—i.e., price is determined most directly by the marginal investor’s valuation of the asset. Accordingly, Merton (1948) derived the “self-fulfilling prophecy” from the Thomas Theorem using the rhetorical device of a parable about a Depression-era run on a bank. Once we recognize that price is governed simply what others are willing pay (and the stability of an institution depends on our collective perception that it is stable), it seems dicey (and naïve) to base our orientation to financial markets on a commitment to intrinsic value.

Accordingly, there has recently been considerable interest among sociologists in a constructionist position known as “performativity theory.” The articulation of this theory is varied, but at its core it argues that economic theories do not describe contemporary markets (“a camera”) as much as they construct them (“an engine”); see MacKenzie 2006; see also Mackenzie, Muniesa, and Liu 2007 for review; and see Mirowski and Nik-Khah 2007 for critique).⁶ This approach adopts the “pure” or “radical” social constructionist view (see Abbott 2001; Best 2008; Bromberg and Fine 2002; Goode 1994) that reigning interpretations of the world govern only because they have become socially accepted, with no real or “objective”

⁶ Perhaps the best case for performativity theory is that developed by Mackenzie and Millo (2003; Mackenzie 2006) on how the Black-Scholes (BS) theorem “performed” derivatives markets in the sense that that market participants used the theory to enact a market that satisfied its predictions. But there are two interrelated problems with this argument: (a) BS was actually not developed as a theory of how pricing worked (“a camera”) but a piece of financial engineering that specified how pricing should work (“an engine”), so any enactment by the theory is equivalent to an engineer using a blueprint enacting a bridge; and (b) they cannot rule out the alternative that BS was simply a better approach to pricing options.

constraint operating on such acceptance.⁷ In the case of performativity theory, it is the discipline of economics that is the agent-- even guarantor-- of social acceptance. This approach goes beyond the well-known idea that social theories have self-fulfilling properties to make the claim that such self-fulfillment is the sole basis for the features of markets that we see.⁸

But such a position of radical constructionism is highly problematic for two related reasons. First, performativity theory implies that it is impossible for Greenspan (or Michael Jensen; cf., Dobbin and Jung's chapter) to be naïve or foolish.⁹ If he performs markets with his words and frameworks, this implies that he cannot be wrong. But he *was* wrong. Consequently, the financial crisis underlines what should be obvious—i.e., that poor economic theories can actually help to *break* markets just as good economic theories can help make them. And if economic theories can be wrong about the world, so can theories that presume that economic theories perform the economy. Accordingly, if the financial crisis is yet another nail in the coffin of the EMH (if there is room for another nail), it has the same ominous implications for performativity theory.

In addition, just as it is silly to put a naïve market fundamentalist in charge of markets, it is just as silly to install someone who thinks that the dominant theorists (whether economic or sociological or otherwise) conjure markets. In essence, the problem is that the radical constructionism of performativity theory *reduces, in practical terms, to the cynical posture reflected in Lord Darlington's quip*. Abbott (2001: 87) put the matter well when he wrote that

⁷ Performativity theorists sometimes seem to acknowledge there are objective constraints on the performativity of economics. But: (a) such constraints tend to be patched in as *ad hoc* assumptions; (b) when it is watered down in this fashion, there is nothing new in performativity theory beyond what is summarized in the Thomas Theorem, except perhaps for performativity theory's emphasis on the role of "artifacts" in facilitating self-fulfilling prophecies. It is not clear, however, who thought that artifacts were unimportant.

⁸ Performativity theorists sometimes seem to imply that it is a contribution merely to identify self-fulfilling properties in social theories. But in fact, this idea is basic to social science. As Hollis (1987: 4) put it, "Social theory, being itself in circulation among its subjects, is tied to its own tail.... That molecules have no thoughts about molecules must be of great relief to the physicist." And Keynes (1936: 383) famously applied this idea to economics itself, even presaging the radical (and therefore problematic) constructionism of performativity theory: "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist." So the only novelty of performativity theory seems to be the extremity of its commitment to constructionism; and as I point out, this extremism is highly problematic.

⁹ As Mirowski and Nik-Khah (2007) note, performativity theory also has difficulty with the persistence of internal agreements among economists and the fact that most economic theories have too little specificity to have clear practical implications.

“one of the great problems of constructionism (is that) it does not in fact have a politics...” By focusing solely on the idea that ideas can shape reality, pure constructionism cannot tell us what those ideas should be and it abdicates responsibility for identifying the reality for which we should strive. Indeed, the pure constructionism of performativity theory and the pure realism of Greenspan (where pure realism is defined as a position that holds that dominant valuations are accurate reflections of objective conditions) are *identical in their practical implications*. The pure realist regards dominant interpretations as the best possible, thereby renouncing responsibility for challenging them or proposing alternative mechanisms for arriving at such interpretations. By contrast, the pure constructionist has no particular affection for dominant interpretations. But neither does she have a basis for challenging them or suggesting alternative arrangements since he believes all interpretations to be equally (in)valid. Were the pure constructionist to prefer an alternative to the dominant interpretation, how might she argue for it? How might a performativity theorist diagnose a bubble? Thus, insofar as some sociologists of finance have essentially adopted the orientation of Wilde’s cynic, it is evident that that were they ever put in charge, such cynicism would not serve us any better than did Greenspan’s naïveté.¹⁰ But then, and especially since the Thomas Theorem does indeed apply to financial markets, what *should* be our orientation to the relationship between price and value?

A Proposed Sociological Answer to the Challenge

In the remainder of this postscript, I will formulate an answer to this question, one that is shaped principally by a growing line of work in sociology and allied social sciences¹¹ that makes

¹⁰ This critique may seem misplaced in that almost none of the contributors to this volume cite performativity theory and my suspicion is that none would endorse a pure constructionist position. But in my view, this silence is unfortunate. Just as we call for banks to recognize the bad loans on their books, and we call for economists to slough off their naïve market fundamentalism, we should look inward and recognize our own errors. As discussed below, silence prevents learning. Note that the main exception to the silence in this volume concerning performativity theory is Rona-Tas and Hiss’s discussion (cited approvingly by Perrow) of how credit ratings had self-fulfilling and self-frustrating aspects. But: (a) such mechanisms are well-known from outside performativity theory; and (b) in order to characterize why these ratings turned out to be inaccurate, Rona-Tas and Hiss must smuggle in realist ideas that are foreign to performativity theory. Essentially, performativity theory adds nothing to their (otherwise quite reasonable) analysis.

¹¹ This literature has important precedents in such work as Goffman (1967) on face work; Meyer (1977; Meyer and Rowan 1977) on institutionalized myths and decoupling; and Allport (1937) on pluralistic ignorance. Recent literature that is consistent with the summary points in this paragraph include Adut (2008, 2009); Canales (2008);

four related points: (a) that the shared interpretations and valuations that facilitate social coordination are rooted in *common knowledge* (what everyone knows that what everyone knows that...); (b) that common knowledge may differ significantly from *private beliefs*, which are based on direct experience with the object or asset that is subject to interpretation or valuation, and which are not necessarily articulated publicly¹²; (c) when private beliefs are significantly at variance from common knowledge, the stability of reigning interpretations and valuations is threatened by the public broadcast of such dissent; and (d) these disruptions become more likely insofar as the possessors of discrepant private beliefs start to suspect that they may gain from publicizing it. Put in terms of the fable of the emperor's new clothes (cf., Centola, Willer, and Macy 2005), this perspective reminds us that those who view naked emperors do see that they are naked even when they act as if they are wearing finery, and that all it takes is the publication of private doubts for his nakedness to be clear to everyone. And this conclusion directs our attention to the social conditions that support such publication.

To see how this perspective helps bring together elements of realism, constructionism, and contrarianism to build a more productive way to address our challenge, consider the following remarks, each made by economists who are prominent both in their discipline and in the shaping of policy:

...from 2002 to early 2006, (the) ratio (of house prices to rents) soared to about 90 percent, far outstripping any previous level. Nonetheless, some experts doubted that a bubble existed. That said, by 2005 I think most people understood that—at a minimum—there was substantial risk that houses had become overvalued.
 -- Yellen (2009: 9-10)

Most of the institutional investors who thought that risk was mispriced were nevertheless reluctant to invest on that view because of the cost of carrying that trade. Since virtually all such

Chwe (2001); Centola, Willer, and Macy (2005); Kane and Park (2009); Kuran (1998); Ridgeway and Correll (2006); Ridgeway et al. 2010; Swidler (2001); Winship (2004); Zerubavel (2008); Zuckerman (2008c); Zuckerman (2010a) and Zuckerman (2010b). For application to financial markets, see Hertzberg, Liberti, and Paravisini (2008), Miller (1977) and Gorton (2008).

¹² The reluctance to articulate private beliefs derives in part from fears that these beliefs are not shared—and this in turn lowers the typical dissenter's confidence in his dissent. Thanks to Rodrigo Canales for emphasizing this point to me.

institutional investors are agents and not principals, they could not afford to take a position that involved a series of short term losses. They would appear to be better investment managers by focusing on the short term gains that could be achieved by going with the herd to enhance yield by assuming increased credit risk. But these investors also shared a widespread feeling that the day would come when it would be appropriate to switch sides, selling high risk bonds and reversing their credit derivative positions to become sellers of risk. No one knew just what would signal the time to change.

-- Feldstein (2007: 4)

These remarks deserve attention for two reasons. First, Yellen provides the classic fundamental basis for assessing the “intrinsic value” of real estate—i.e., comparing prices to rents (see Shiller 2005). The logic of this approach is straightforward: insofar as a piece of real estate is selling below what an owner could earn by renting it out, we can expect it to attract buyers who seek to profit from the difference; and this in turn will bid the price higher. Conversely, if the price is high relative to what it would fetch as a rental property, we would expect it to attract fewer buyers (and we can expect would-be buyers to rent comparable properties instead). Furthermore, we can also expect real estate market participants to observe such dynamics, thereby closing the gap between price and rent in the next go-around. Note further that if this logic seems reasonable, this means that the logic underlying the EMH is reasonable (even if this logic is taken much too far by EMH proponents). In particular, the rationale for why rental prices govern real estate prices is based on the two mechanisms underlying the EMH (see Brav and Heaton 2002; Zuckerman 2004)-- *arbitrage* (whereby those market participants who have a more accurate sense of value act to correct any mispricing) and *learning* (whereby market participants collectively learn over time-- sometimes quite long [Zuckerman and Rao 2004]-- how best to value an asset, in part by observing successful acts of arbitrage).

Second, Yellen and Feldstein draw a portrait of investor beliefs that is consistent with the perspective I summarized at the outset of this section, but which is sharply at odds with the portrait of fools that dominates this volume (Perrow’s chapter is an exception). Rather than being collectively deluded, Yellen suggests that in fact “most people” harbored doubts about real estate prices and only “some experts” thought that prices were appropriate. And Feldstein

thinks that most investors doubted prices but were hampered from acting upon such doubts. The quote from Paolo Pellegrini in the second epigraphical selection provides additional foundation for this view. Not only did the contrarians on the real estate bubble think that the emperor was not wearing any clothes, at least some of them (Pellegrini, in particular) suspected that the emperor's courtiers and lackeys also saw the emperor as naked; they just had too much invested in the emperor's continued rule and hoped they would have time to slink away before the open secret became common knowledge. While these accounts are anecdotal, I have (as Perrow notes) presented more systematic evidence that supports this view (see Zuckerman 2008a), which I reproduce in table 1. Based on these data, it would appear that there was considerable discussion of the possibility that the U.S. real estate market was in a bubble, much of it fueled by the ratios that Yellen cites. Note further that prominent observers (e.g., Grant 2008; Shiller 2005) correctly diagnosed the bubble and predicted that it would cause significant dislocations.

But this raises obvious questions. If there was so much skepticism about the price level, and especially if this concern was well-founded, why did the bubble continue to inflate? Such pessimism on real estate thus appears to be cheap talk-- if contrarian sentiment was indeed rampant, it was not acted upon, and so was seemingly irrelevant. Put differently, this failure to act suggests that skeptical investors did not act to arbitrage between price and value, as the EMH would assume; and this in turn, short-circuited the learning process. But why?

Before addressing the question of why the arbitrage and learning mechanisms might not have functioned to incorporate pessimism into prices, it is important to underline why we should care. Note that, implicit in Greenspan's response to the would-be contrarian-interventionist is an important challenge: if a central banker regards himself as smarter than the market during bubbles, why is he not smarter than the market all the time? And if a central banker is always smarter than the market, why do we need markets? There is no point having securities markets unless we think that such markets will generally allocate capital more efficiently than a central planner/regulator. As noted above, none of the contributors to our volume suggests that we eliminate securities markets. And this fact--as well as the likelihood that all the contributors invest their personal portfolios in securities markets-- suggests that

they *agree with Greenspan* that securities markets often function well enough to produce prices that are reasonable and reliable reflections of underlying value. Furthermore, I would submit that this is for good reason: it reflects the recognition that the mechanisms of arbitrage and learning often do work to eliminate gaps between price and value. Who among us does not recognize that if General Electric shares were selling for an implied market value of \$100, its shares would soon be bid up to a point that more closely approximates the value of its cash flows?

Moreover, and crucially, insofar as gaps between price and value are not eliminated in this fashion, *this should bother us*. That is, the reason for having securities markets is because we expect the mechanisms of arbitrage and learning to produce prices that are more accurate than a central planner would arrive at on his own. Greenspan's mistake was to assume that these mechanisms operate naturally. But as Schneiberg and Bartley (this volume, p.3) stress, "regulation constitutes markets," and this means that we must select a regulatory stance that constitutes the kind of market that we seek. In particular, the regulatory challenge is to diagnose and fix the features of market architecture that prevented arbitrage and learning from doing the work that is the very basis for having securities markets in the first place.

Let us then diagnose why these mechanisms did not operate to prevent the real estate bubble of the mid-2000s. I believe that the reason is quite straightforward: the institutional infrastructure of our securities markets have in fact tended to provide weaker support for arbitrage (and therefore learning) than was supposed by proponents of the EMH (Keynes 1936; Shleifer and Vishny 1997). Moreover, the weakness of support for arbitrage has been asymmetric in that it is biased towards optimists/bulls and against pessimists/bears (see Zuckerman 2008b), with such bias was particularly strong in the U.S. real estate markets (and the mortgage securities markets that drove them) during the rise of the bubble. In short, the reason why the bubble continued to inflate despite widespread skepticism was that *there was little or nothing a pessimist could do to act upon his pessimism; and this in turn meant that while people could say that the emperor wore no clothes, they could not say it in a way that could be regarded as a sincere expression of doubt (i.e., not cheap talk)*.

Before supporting this statement in the case of U.S. real estate markets, consider first the case of the stock market. As the price of a stock sinks ever lower, it becomes increasingly likely that someone will buy controlling interest in the company and attempt to profit from the difference between the share price and the cash flows that are now controlled. But as the price of its shares rise higher, what can a bear do once he has sold his shares in order to arbitrage between the high price and her estimate of value, which is below the price? An institution does exist that supports such bears—i.e., he may “short-sell” the stock, by borrowing shares from others and selling them at the high price, waiting to buy them back (and returning them to the original owner) at a lower price. However, “shorting” in a bull market is inherently a riskier proposition than is buying in a bear market. The former is a speculative maneuver (see Keynes 1936) that succeeds only if the market moves in the expected direction within the speculator’s time-frame. Moreover, there are technical factors that greatly complicate the short-seller’s plans (e.g., there may be no shares to borrow if there are few in circulation; since the shares are borrowed on interest, the short-seller faces margin calls when the price moves in the opposite direction). By contrast, the bull who buys in a bear market can earn a profit simply by getting access to an income stream (via dividends or, if she buys the company outright, the cash flows themselves) that is worth more than the share price. Such a maneuver is not speculative (i.e., her returns do not depend on changes in price) and therefore she incurs no market risk.

And if it is difficult to short equities, it has historically been impossible to short real estate (Shiller 2005). Thus the striking quote in the first epigraphical selection to this postscript, which warrants attention because it was uttered by the man who was to make the greatest profit in financial history once it became possible to short the real estate market (first by buying insurance on bad mortgages via credit default swaps [CDS] and later selling the ABX index that reflected positions on these swaps and the underlying mortgages that they protected).¹³ But

¹³ As detailed by G. Zuckerman (2009), the introduction of a way to short real estate mortgages was riddled with many obstacles and risks. These included the need to create standardized legal structure to make CDS tradable/liquid (cf., Carruthers and Stinchcombe 1999; Espeland and Stevens 1998); and a change in the rules such that the CDS buyer did not have to own the bonds he was shorting. In addition, two key risks that generally apply to contrarianism (see Keynes 1936; Shleifer and Vishny 1997) certainly applied—i.e., the reputational costs of bucking convention and the uncertain time horizon pertaining to the returns from the contrarian position—as well as two obstacles to which Feldstein alludes—i.e., a willingness to incur “negative carry” [i.e., buying CDS was problematic for many investors because it requires premium payments, so the investor begins his trade with a

until 2006, it was effectively impossible to express a bearish position on real estate. As discussed above, someone who thinks the price level in his neighborhood is very high can sell his house and rent instead. But what if after doing so, he continues to remain bearish? There has historically been nothing he could do to act upon this view. By contrast, someone who is bullish on real estate always has something he can do to arbitrage between price and value—i.e., by buying the pieces of real estate he deems undervalued and renting them out to others, thereby profiting on the difference between the sales price and the rental income she receives (again, this is not a speculative maneuver and so she incurs no market risk). It should thus not be surprising that real estate markets are notoriously prone to bubbles. Historically, the only downward check on runaway prices was a lender's concerns about the value of the collateral and the income of the borrower. And these checks all but disappeared as the real estate market in the U.S. was transformed by the securitization of mortgages, such that "origination" of loans was decoupled from securitization and the servicing of loans.

Furthermore, the absence of a vehicle by which to express bearish sentiment implied that the extent of bearish sentiment was unknown—i.e., it was a classic situation of pluralistic ignorance in which it was widely suspected privately but not common knowledge that the emperor was naked. It was not until the introduction of the ABX indexes in January 2006 that there was a reasonably efficient way to short the market. Because CDS contracts were still relatively illiquid and traded over the counter rather than on public exchanges, investors who owned them could not obtain accurate pricing information (see G. Zuckerman 2009: 162-163; 204-217). This changed once investors could express their bearishness by selling the ABX index. And as Gorton (2008) argues convincingly, these indexes were crucial in creating common knowledge among market participants. Until that point, bearish positions were unknown to others; afterwards, the extent of pessimism became common knowledge, and this in turn seems to have spurred the run on these assets and the banks that held them.

loss]; and the fact that investing in derivatives was forbidden to many investors because they are institutional investors who had raised funds for different purposes. Zuckerman discusses each of these issues in detail as well as the difficulty that Paulson and other contrarians faced in raising special funds to invest in CDS on mortgage debt. (Full disclosure: Mr. Zuckerman and I are blood relatives and were housemates from 1970 to 1984. During much of this this period, we were also sometime-competitors/sometime-collaborators in the informal hedge funds we independently administered, each of which focused on taking long-positions in undervalued collectibles such as baseball cards).

This reasoning in turn helps explain why the investment banks may have held on to so much of the bad debt, a pattern that Fligstein and Goldstein rightly point out, certainly looks irrational. The answer is suggested by the end of the quote from Feldstein, coupled with the reasoning from the preceding analysis. As long as the bull market in real estate continued and the extent of bearishness was beset by pluralistic ignorance, an investment banker who doubted the value of these securities would have worried that he was alone in his doubts, and he could have reassured himself in his knowledge that if the market did turn, he would have the safety of numbers to excuse his folly. Moreover, there seemed to be sufficient liquidity in the market (i.e., ready buyers for the “toxic” debt) such that it was difficult to imagine that they could not get out in time if the market began to turn.

Conclusion: The Sociologist as Rationalist

I conclude by suggesting regulatory implications of the foregoing analysis as well as a proposed label for the stance I believe that sociologists should adopt in confronting the question/challenge I framed at the outset of this postscript. The general regulatory implication is that if we are to have securities markets, they must be organized in such a way as *to promote arbitrage and learning* rather than simply assuming that they will operate effectively (or being indifferent to the fact that they will often break down; cf., Krippner, this volume). Based on the reasoning in the prior section, at least two specific avenues for reform are suggested, one of which is (or should be) relatively straightforward and the other which is more unorthodox. I confess that I offer these prescriptions with some trepidation given the fact that I have no experience writing regulations for securities markets, and I am humble before the law of unintended consequences (Merton 1936). I thus suggest them in the expectation that the knowledgeable (and politically connected) reader who finds them useful will weigh them with political and practical considerations in the course of forming policy.

The straightforward prescription is to endorse Campbell’s and Perrow’s calls for the elimination of over-the-counter trading in securities. All securities must be exchanged on public exchanges so as to increase transparency and maximize common knowledge about investor sentiment, experience, and risk. The case for allowing over-the-counter trading is

essentially that executing such trades is more profitable for investment banks due to the very absence of transparent pricing, and these profits in turn provide an incentive for the banks to engage in financial engineering. But as the contributors to this volume and many other public commentators have pointed out, we can easily do with less financial engineering if this means a reduction in the negative externalities that are imposed by such engineering, especially if they are engineered to trade in opaque markets. As Campbell and Perrow note, if there is a place for cynicism, it is in how a cabal of economists and politicians (the majority of whom were Democrats) defended Wall Street's (narrowly construed) interests in thwarting Brooksley Born's heroic battle to bring transparency to derivatives markets. And it is our place to battle such cynicism.

Second, our markets must be organized in such a way as to encourage capital formation while being as evenhanded as possible in their treatment of bulls and bears. At least since the crash of 1929, short-sellers have been vilified as speculators who take advantage of others' misery.¹⁴ This is an unfortunate view. As I have pointed out, financial markets are prone to bubbles not for "natural" reasons but because their institutional infrastructure has been biased in favor of bulls. Speculation is inherently risky, and adopting a bearish position typically means that one must express one's beliefs via a speculative trade (gaining returns from the movement of price in the hoped-for direction). By contrast, bulls can act on their beliefs without regard to price movements; and even the speculative vehicles available to them have also typically been less risky than those available to bears (no need to borrow shares). And it is the absence of such bearish sentiment that is the fuel for bubbles (see Miller 1977). When bubbles finally burst, short-sellers do very well; but this is largely effect, not cause. The shorts are essentially the messenger whom we should not shoot. It is thus especially worrisome that as of this writing, the only regulatory reforms that have been enacted are those that *curb* short-selling. This is not to say that short-sellers should not face restrictions. It may make sense to structure markets so that they are biased towards capital-formation. However, history suggests that this

¹⁴ A contemporary example may be found in a London columnist's reaction to reports of John Paulson's winnings: "Prison isn't good enough for the short-selling fiend! He should be paraded down Fifth Avenue, naked, and then tied to a lamp-post so we can all take out our anger and despair on the grasping monster!" (Chris Blackhurst, London's Evening Standard, February 2, 2009, quoted in G. Zuckerman 2009, p.261)."

rationale is taken much too far with restrictions and risks attached to bears that make capital formation too easy at times, and misdirected into endeavors that are less deserving of such capital. Thus we must resist the temptation to give more than a slight advantage to bulls as this means that we are effectively privileging those who run with the herd over those who dare to challenge it.

I close with an ironic suggestion regarding the proper orientation of the sociologist towards the relation between price and value. To this point, I have essentially argued for a position that adopts: (a) the contrarian (or “sentimentalist”) thesis that there are objective criteria by which one can assess value more accurately than the current market price; (b) the constructionist (or “cynical”) thesis that prices are governed by commonly known beliefs that can vary substantially from the objective reality they purport to reflect; and (c) the realist (or “naïve”) thesis that the market comprises powerful mechanisms (arbitrage and learning) that, when working properly, produce reasonable prices by closing the gap between the contrarian’s private beliefs and common knowledge. More importantly, I have argued that we must focus on how to ensure that these mechanisms do work properly. In sum, if we are to take responsibility for governing our markets, the conclusion that markets behaved irrationally should concern us deeply. Our challenge is more specific than to “rethink market architecture”; we must unabashedly *take up the mantle of rationality* by intervening to make markets more rational. In a world of fools, cynics, sentimentalists, and naïfs, it is *we sociologists* who must be the *rationalists*.

To clarify my meaning, consider Arrow’s (1974, p. 16) line that “the economist thinks of himself as the guardian of rationality and the ascriber of rationality to others, and the prescriber of rationality to the social world.” Our experience with market fundamentalists as regulators suggests that if we blindly *ascribe* rationality to others, we have abdicated guardianship of the institutions by which we can effectively *prescribe* rationality to the social world. If rationality is to be found anywhere, it is a product of healthy institutions. To be sure, building institutions that facilitate rational allocation of resources is hard work. But if others shrink from this task, how can we not pick up the slack?

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Table 1:

Number of articles in U.S. publications mentioning the words “housing bubble” by year

Year	Mentions
1999	4
2000	1
2001	20
2002	827
2003	539
2004	641
2005	2973
2006	1921

Source: Factiva