Policy responses to asset price bubbles in Japan and the U.S.: The myth and the reality*

Remarks by
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at the IESE and Columbia SIPA conference "Next Steps in Macroprudential Policies"
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At the Jackson Hole conference in summer 2003, Michael Mussa and Ben Bernanke both called Japan their "poster child" in the policy debate about the use of monetary policy to address asset price bubbles (Federal Reserve Bank of Kansas City, 2003).

Mussa said, "It seems to me that the poster child for discussing why monetary policy should, in selected instances, pay serious attention to asset-price distortions on the upside is not the United States in the late 1990s. It is Japan at the end of the 1980s. . . . Looking at a CPI inflation rate that remained very low saw an enormous explosion of asset prices, real estate prices, and enormous growth of credit. If that price bubble collapsed, there was going to be serious macroeconomic problems."

Bernanke rebutted: "I am astonished by Michael Mussa citing Japan as a poster child for this paper [Borio and White (2004), who argued for monetary policy leaning against the growth of financial imbalances]. It is just the opposite. . . . The only place that monetary policy played a role was that in 1989 it intentionally tried to prick the bubble. It raised interest rates sharply in precisely the kind of program that is being suggested here. It did succeed in pricking the bubble. Asset prices collapsed and they had a 14-year depression."

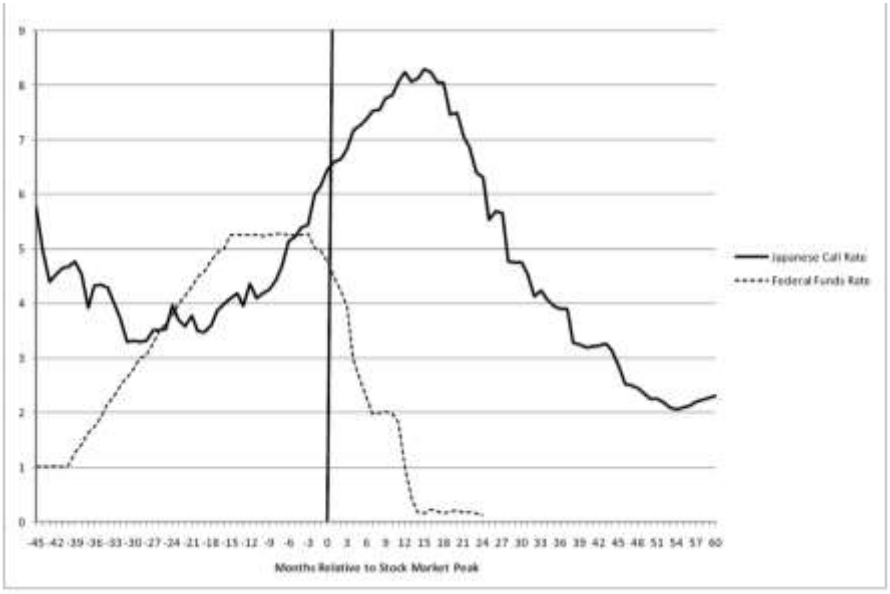
The Oxford Advanced Learner's Dictionary explains a poster child as "a child with a particular illness or problem whose picture appears on a poster advertising an organization that helps children with that illness or problem." The two prominent doctors seem to have agreed that the child had an illness, but not whether the poster depicting her should be used to advertise the lean-against-the-wind school of thought or the clean-up-the-mess-afterwards one. Should Japanese monetary policy have paid more attention to asset-price distortions or less?

Too little, too late?

Today many believe that Japan's responses to the boom and the bust in the late 1980s and the early 1990s were too little, too late, while the U.S. responses in the 2000s were decisive and timely. This was the case with the bailing out of large banks using public funds and the recognition and resolution of bad assets. This also seems to be the case with monetary policy if we look at Figure 1, taken from Hamada, Kashyap and Weinstein (2011). The Federal Fund rate appears to have moved pre-emptively and the Japanese call rate belatedly.

* The views expressed here are the author's only and not necessarily represent those of Financial Services Agency

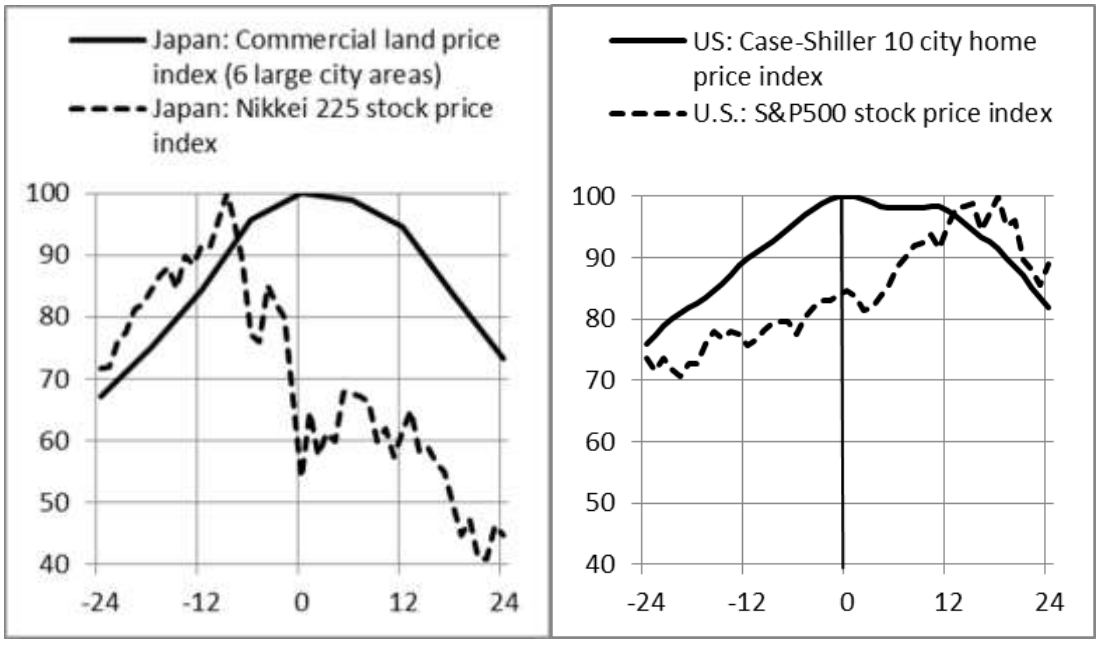
Figure 1: Policy rate moves in Japan and the U.S., shown with the horizontal axis indicating months relative to the *stock* price peak



Source: Hamada, Kashyap and Weinstein (2011)

Figure 1 uses the stock market price peak date as the benchmark in comparing the two episodes. But the sequences of stock and real estate price peaks were reverse in the two countries. In Japan, the stock price peaked first, while in the U.S. the real estate price peak came first, as shown in Figure 2.

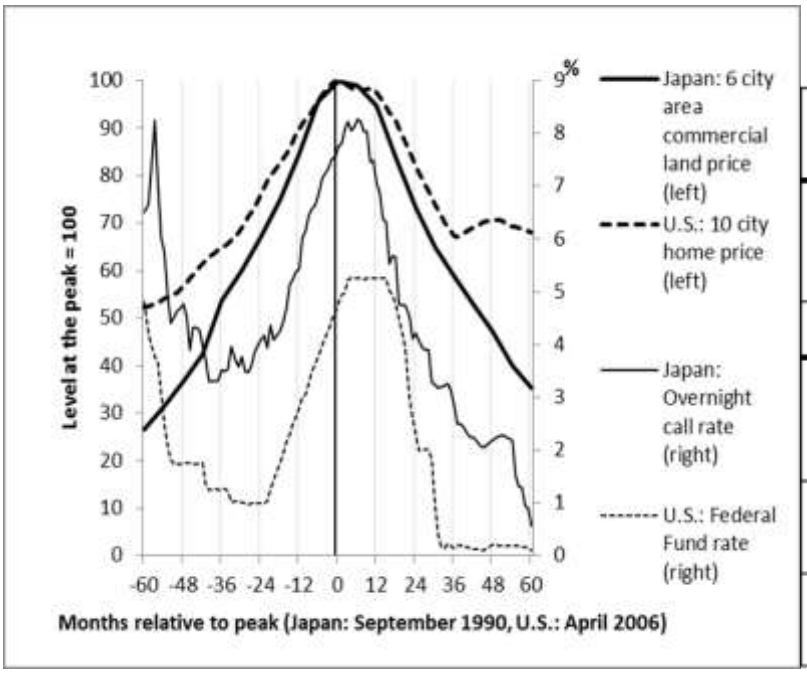
Figure 2: Sequences of stock and real estate price peaks



Source: Himino (2016)

And we know that what mattered most for financial stability were the real estate bubbles, not the stock price ones. So, let's see how it looks if we use the real estate price peak dates as benchmarks (Figure 3).

Figure 3: Policy rate moves in Japan and the U.S., shown with the horizontal axis indicating month relative to the *real estate* price peak



	Japan	U.S.
From the start of tightening to the real estate peak	27 months	21 months
Tightened by	480bp	425bp
From the real estate peak to the start of easing	10 months	17 months
Eased during the first year by	350bp	325bp
During the first two years by	505bp	510bp

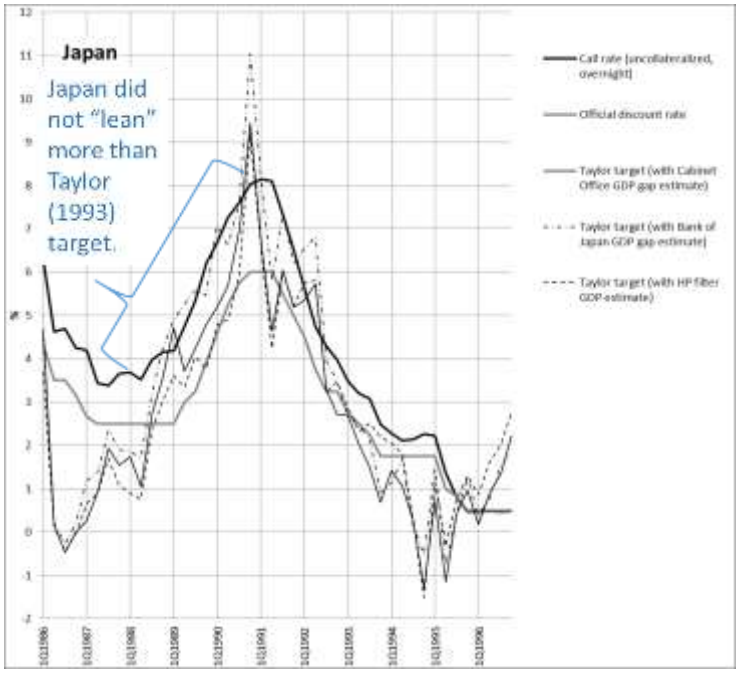
Source: Himino (2016)

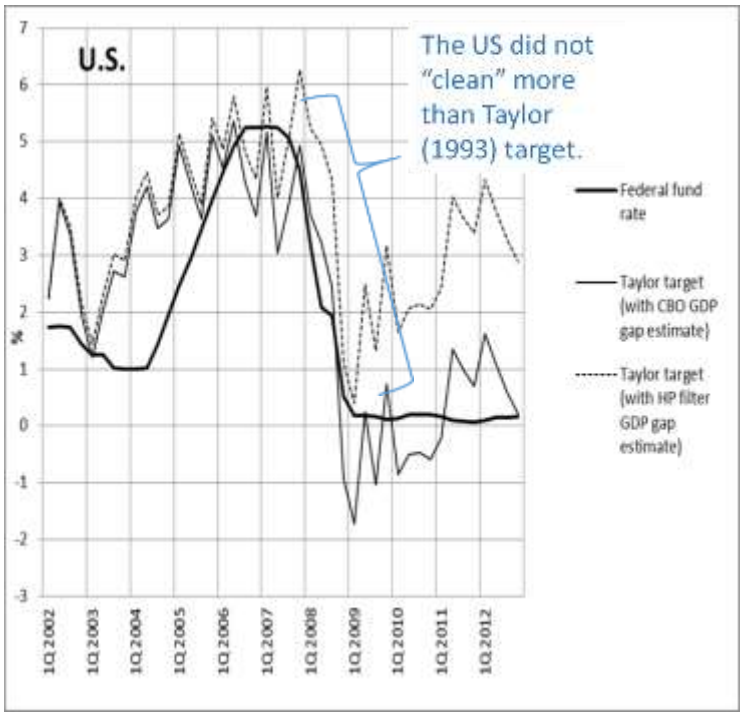
Japan started to tighten 27 months before the real estate price peak, while for the U.S. it was 21 months. Japan tightened by 480 basis points and the U.S. by 425 basis points. Japan started to ease 10 months after the real estate price peak, while the U.S. did so 17 months after. Japan eased by 350 basis points during the first year of easing, and the U.S. by 325 basis points; Japan by 505 basis points in the first two years and the U.S. by 510 basis points. The Japanese response was a half year more prompt and slightly more aggressive than the U.S. But, more importantly, the two look quite similar.

Clean or lean?

One may say, however, that we should look at how much more the central banks did in addition to what was justified by the inflation and output condition at the time, rather than the absolute size of tightening and easing. Figure 4 compares the target rates suggested by the Taylor rule as proposed in Taylor (1993) (thin lines) and the actual policy rates (thick lines). Multiple target rates are shown using different estimates of the GDP gap.

Figure 4: Actual policy rates compared with Taylor targets





Source: Himino (2016)

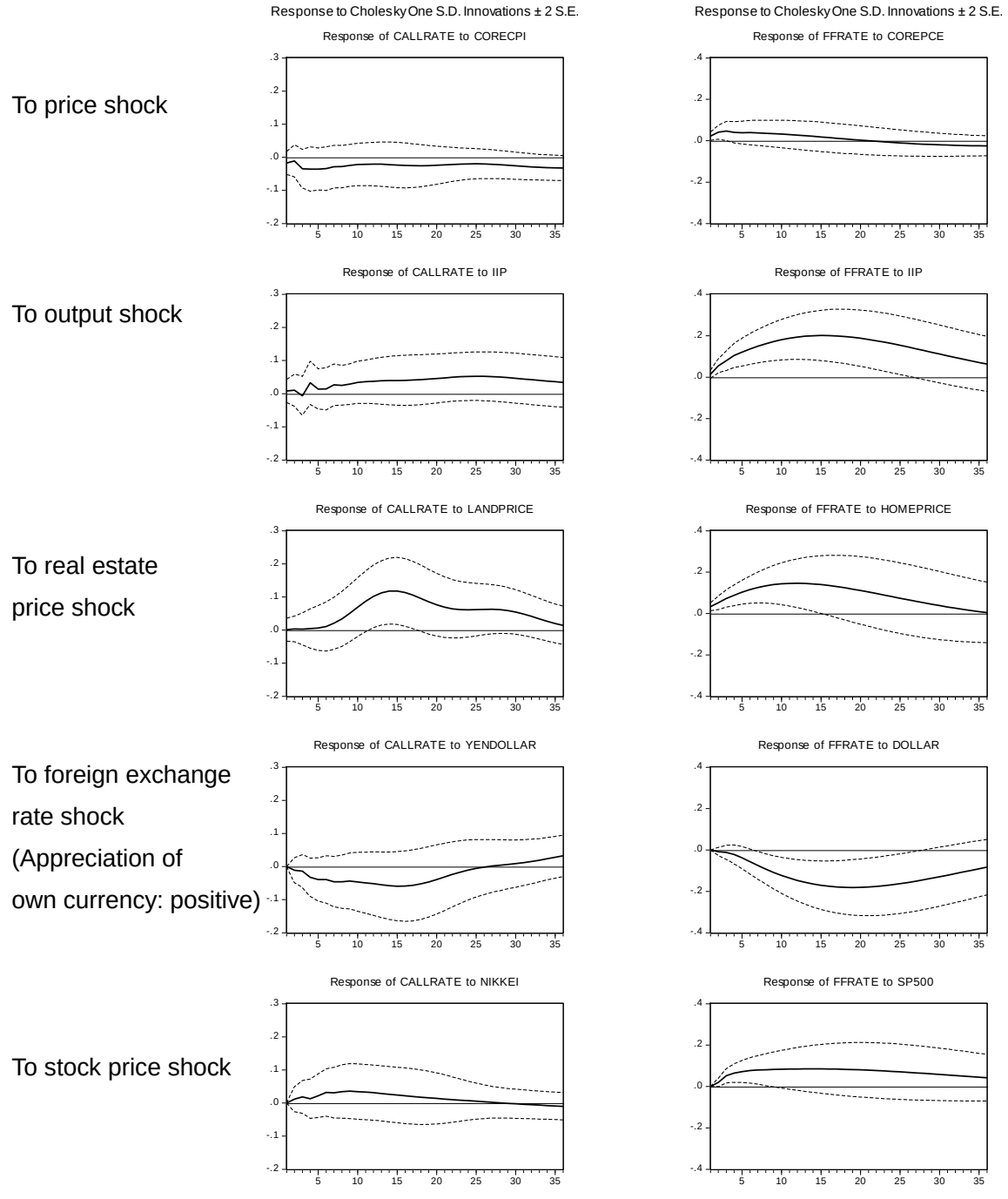
Many, including Bernanke cited above, believe that the Bank of Japan leaned to prick the bubble. But Japan did not lean more than the Taylor target. The Federal Reserve advocated that leaning was harmful and that cleaning after the bust was enough. The U.S., however, did not clean more than the Taylor target.

I have also constructed a six factor Vector Auto-Regression (VAR) model for the period covering the boom and the bust for Japan and for the U.S. Both the Bank of Japan and the Federal Reserve seem to have reacted to a real estate price shock similarly. Responses to other shocks were also broadly comparable (Figure 5a).

Figure 5: Monetary policy responses to a real estate price shock, price and output responses to a real estate price shock, and real estate price responses to a monetary policy shock

Japan (Mar. 1986 – Sept. 1997) U.S. (Jan. 1987 – Aug. 2008)

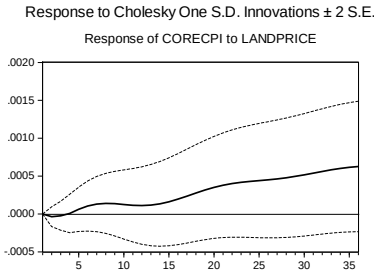
Figure 5a: Policy rate responses

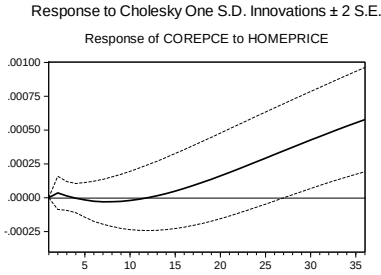


Japan (Mar. 1986 – Sept. 1997) U.S. (Jan. 1987 – Aug. 2008)

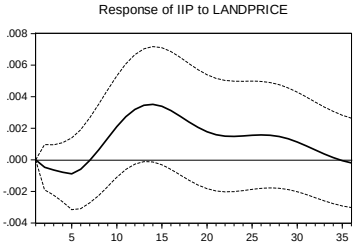
Figure 5b: Responses to real estate price shocks

Of price





Of output



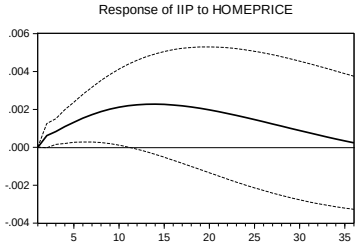
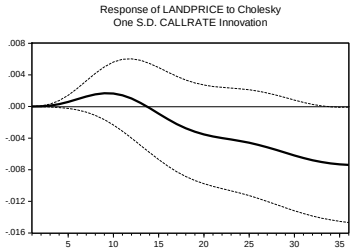
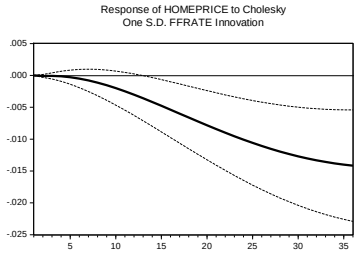


Figure 5c: Responses of real estate price to policy rate shocks





Note: Responses to one standard deviation shock. Dotted lines show interval with two standard deviations in responses.
Source: Himino (2016)

Figure 4 suggests the two central banks acted in line with the Taylor rule, which looks only at inflation and output. Figure 5a suggests both responded to a real estate price shock. How can the two findings be reconciled? The impulse response analysis shows that monetary policy responded to a real estate price shock with a one year lag (Figure 5a). Output also responded to a real estate price shock with a one year lag, and general prices responded to a real estate price shock with a two year lag (Figure 5b). The real estate price may have worked as a forward looking indicator of the future price and output moves and thus helped the central banks to move consistently with the contemporaneous inflation and output.

But the impulse response analysis also suggests that it took two years before the full effects of a monetary policy shock on real estate prices were realized (Figure 5c). This means that a real estate price shock gets feedback effects via monetary policy responses three years after. The timely clean policy may thus have worked as a belated lean.

There was a difference in rhetoric: the Bank of Japan used lean-style languages and the Federal Reserve advocated a clean doctrine. The behaviour, however, did not differ much, and betrayed the rhetoric.

Prudential policy

Now let's turn our eyes to prudential policy measures. The Japanese banking regulator issued qualitative guidelines on residential and commercial mortgage lending already in 1986, four years before the real estate price peak. It added layers of guidance as the bubble grew, strengthening language and intensifying monitoring activities. Only after the burst of the stock market bubble, did it implement a quantitative measure limiting increases in the concentration of real estate related lending. The land price in large cities started to collapse a half year after the issuance of the measure.

In the U.S., the federal regulators started to issue interagency guidelines in 1999, seven years before the residential real estate price peak and eight years before the commercial real estate price peak. They continued to add guidelines as the bubble grew, and after the residential real estate price peak in April 2006, implemented quantitative restrictions on commercial real estate related lending. A half year after the start of the restriction, the commercial real estate price peaked.

The prudential policies in the two countries share many things in common: Regulators started to introduce qualitative guidance very early in the boom, added layers of guidance as the bubble grew, and only after the initial signs of a bust, introduced quantitative limits, finishing off the boom and deepening the bust.

The Japanese quantitative restriction in 1990 was prompted mainly by the public anger against the unfair distributional effects of the land price boom. The U.S. interagency guidance in 2006 listed micro-prudential purposes (sound risk management practices and proper evaluation of capital adequacy). Neither referred to any macro-prudential objectives, but clearly both had macro-prudential effects.

How not to be too late

As seen above, the "lean" Japan and the "clean" U.S. behaved similarly and both lagged behind the real estate price moves to amplify the cycles. The two episodes seem to show that the timeliness of the policy responses may matter more than how they are explained or labelled: clean or lean, micro- or macro-prudential.

But, if timeliness does matter, how can one be timelier the next time? There is no easy answer, but the following four points may address some of the causes of the delays observed during the last Japanese episode (Himino, 2016).

Sequence: Prices of different asset classes peak with different sequences in each episode. Don't presume a specific sequence.

Statistics: More frequent publications of accurate statistics with smaller delays would help, particularly on real estate prices.

Earlier phases matter: Policy actions needed to minimize the impacts of the boom and the bust often had conflicts with other high priority policy objectives at the time. Earlier phases matter if we are to secure the necessary wriggle room in the critical phase. We need to try to limit the swing throughout a credit cycle.

Constructive engagement: In some cases in Japan, experts seem to have known better than the public but in other cases the relationship was reverse. Experts should engage constructively with the public, not taking it as a matter of giving-in or not.

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