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2000–2003 real estate bubble in the UK but not in the USA

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Abstract

In the aftermath of the burst of the "new economy" bubble in 2000, the Federal Reserve aggressively reduced short-term rates yields in less than 2 years from $6^{1/2}$ to $1^{1/4}$% in an attempt to coax forth a stronger recovery of the US economy. But, there is growing apprehension that this is creating a new bubble in real estate, as strong housing demand is fuelled by historically low mortgage rates. Are we going from Charybdis to Scylla? This question is all the more excruciating at a time when many other indicators suggest a significant deflationary risk. Using economic data, Federal Reserve Chairman A. Greenspan and Governor D.L. Kohn dismissed recently this possibility. Using the theory of critical phenomena resulting from positive feedbacks in markets, we confirm this view point for the US but find that mayhem may be in store for the UK: we unearth the unmistakable signatures (log-periodicity and power law super-exponential acceleration) of a strong unsustainable bubble there, which could burst around the end of the year 2003.

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1. Introduction

While the US economy has generally been contracting in the last 2 years, real estate has been growing: house prices have been rising at a rate of about 2% a year faster than income gains. Real consumer outlays and spending on residential construction each rose about 3% during 2001. Meanwhile, the gross domestic product (GDP) fell about one-half percent, a drop that would have been far worse without a strong real estate sector. While stock market losses have destroyed maybe as much as $US 5 trillion in investor wealth since the market's peak, there has been an offsetting effect in the real estate market. Home equity has gained about $US 1.7 trillion in the same period, according to the chief economist at the biggest US mortgage firm, Fannie Mae. Since, according to the Federal Reserve, home values have double the impact on consumer spending that stock values have via the "richness effect," the housing boom has offset almost two-third of the stock market losses on the economy.

Such offsets have triggered talks about a real estate bubble in the US. Investment weekly Barron's claimed to spot a "bubble mentality" last April 2002 and analysts are increasingly scrutinizing the possible evidence. A managing director of Pacific Investment Management Co. (PIMCO), the largest America bond fund, agrees there is "potential for a bubble in the US residential property market" as a result of the lowest mortgage rates since the 1960s. The statistics released every month continue to confirm that "the housing sector continues to defy all odds," in the words of the chief economist for the National Association of Realtors, David Lereah. Sales of existing housing have been and are continuing to run at a robust if not enthusiastic pace. Total mortgage debt outstanding has risen sharply during the last decade. While the total was about $US 2.7 trillion in the first quarter of 1990, by the fourth quarter of 1999, it had almost doubled, to $US 5.2 trillion. As a comparison, the total amount of cumulative borrowing by the Federal Treasury (the national debt) was about $US 5.7 trillion in August 2000. American mortgages are on the path of becoming the single largest class of fixed income securities on the planet. Add to these elements that the demand for mortgage borrowing outstrips aggregate domestic saving (which is currently negative and has reached in the last months the lowest level since record keeping began in 1959). This negative saving rate combined with the continuing rapid growth of mortgage borrowing implies that there must be a reduction in non-mortgage lending or an increase in fund flows from abroad or both [1]. This may lead to an increased instability through globalization, resulting from the behavior of international investors [2]. To make things look even worse, the real estate bubble is part of a general huge credit "bubble" that has developed steadily over the last decades, which includes the various US federal money supply, the personal, municipal, corporate debt and federal debts (estimated by some to add up to as much as several tens of trillion US dollars), which may not only drag down the recovery of the economy but also lead to vulnerability to exogenous crises.

But is there really a real estate bubble? The science of complexity, which studies the emergence of organization in systems as diverse as the human body (biology), the earth (geology) or the cosmos (astrophysics), suggests novel insights in this troubling