

**Plagiarism: an exercise in spotting it**  
**Source Materials**  
 (to help identify the plagiarism)

Bailey, *Economics of Financial Markets*, p. 237:

**10.4 Extreme asset price fluctuations**

Asset price volatility sometimes takes the form of spectacular increases in prices followed by equally spectacular collapses. Many such historical episodes have been documented, each with its own unique characteristics, some more extraordinary than others. Typically they include: (a) a period of manic optimism or frenzy (in which the majority of investors convince themselves that increasing asset prices really are justified by ‘fundamentals’); (b) a crisis of confidence (at the juncture of price increases and declines); (c) blatant fraud (which may instigate the crisis of confidence, or which is blamed, *ex post*, for the crisis); and (d) intense pessimism accompanied by economic distress (during which the majority opinion is that low prices are justified by ‘fundamentals’ – and, by implication, that the earlier optimism was misplaced).

From at least the seventeenth century these phenomena have commonly been called ‘bubbles’, though in the modern literature the word is used in a very specific sense, discussed further below. Closely related phenomena emerge from ‘Ponzi schemes’, also considered separately below. Yet other incidents are associated with speculative manias or wild bouts of optimism and pessimism in a single market, or a closely aligned set of markets. Rather than attempting to construct a taxonomy of all these events, there follows an overview of some of the most notorious historical examples.

Bailey, *Economics of Financial Markets*, p. 241:

**10.4.2 Bubbles**

The concept of a financial bubble has been given a more formal interpretation in economic research than in the rather imprecise senses used so far. This interpretation stems from a recognition that the NPV relationship,  $p_t = \sum_{i=1}^{\infty} \delta_{t+i} d_{t+i}$  (10.8), is only one of the solutions to the condition linking prices across time, namely  $p_t = (d_{t+1} + p_{t+1})/(1+r)$  (10.2).<sup>16</sup> To construct other solutions, suppose that  $b_t, b_{t+1}, \dots, b_{t+i}, \dots$  is any sequence of numbers satisfying  $b_{t+1} = (1+r)b_t$ . Now rewrite the NPV relationship as

$$p_t = \sum_{i=1}^{\infty} \delta_{t+i} d_{t+i} + b_t \quad (10.19)$$

It can also be checked that (10.19) satisfies  $p_t = (d_{t+1} + p_{t+1})/(1+r)$ . Hence, because  $b_t$  is arbitrary, the NPV relationship is not unique.

**bubbles.** A bubble may be defined loosely as a sharp rise in price of an asset or a range of assets in a continuous process, with the initial rise generating expectations of further rises and attracting new buyers – generally speculators interested in profits from trading in the asset rather than its use or earning capacity. The rise is usually followed by a reversal of expectations and a sharp decline in price often resulting in financial crisis. A boom is a more extended and gentler rise in prices, production and profits than a bubble, and may be followed by crisis, sometimes taking the form of a crash (or panic) or alternatively by a gentle subsidence of the boom without crisis.

Bubbles have existed historically, at least in the eyes of

At the time of writing, the theoretical literature has yet to converge on an agreed definition of bubbles, and on whether they are possible. Virtually the same authors who could not reject the no-bubbles hypothesis in the German inflation of 1923 one year, managed to do so a year later (Flood and Garber 1980). Another pair of theorists has demonstrated mathematically that rational bubbles can exist after putting aside 'irrational bubbles' on the grounds not of their non-existence but of the difficulty of the mathematics involved (Blanchard and Watson 1982).

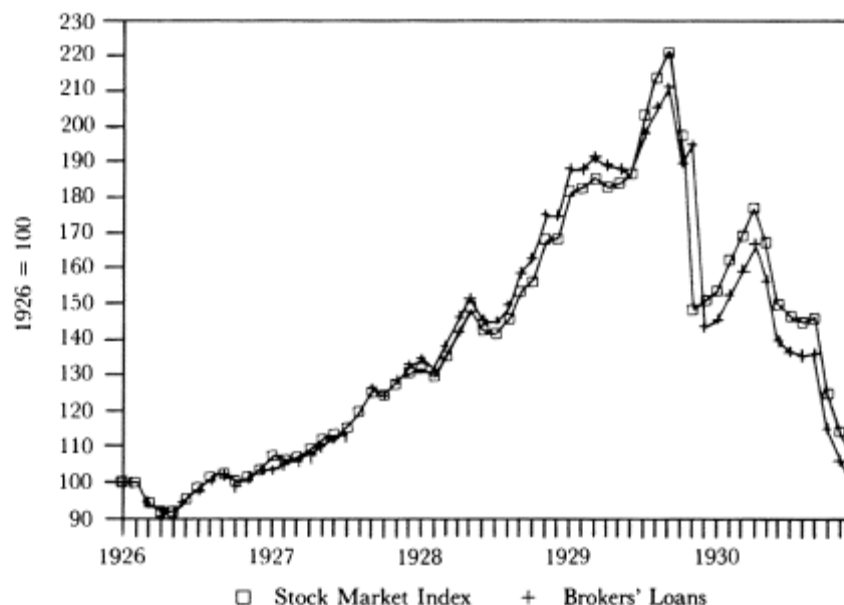
Short of bubbles, manias and irrationality are periods of euphoria which produce positive feedback, price increases greater than justified by market fundamentals, and booms of

White, E. N. (1990) "The Stock Market Boom and Crash of 1929 Revisited", pp. 67, 68, 74, 75:

Galbraith's classic book still provides the most commonly accepted explanation of the 1929 boom and crash. He argues that a bubble in the stock market was formed during the rapid economic growth of the 1920s. Galbraith emphasizes the irrational element—the mania—that induced the public to invest in the bull market. The rise in the stock market, according to Galbraith's account (1954 and 1988, pp. xii–xiii) depended on "the vested interest in euphoria [that] leads men and women, individuals and institutions to believe that all will be better, that they are meant to be richer and to dismiss as intellectually deficient what is in conflict with that conviction." This eagerness to buy stocks was then fueled by an expansion of credit in the form of brokers' loans that encouraged investors to become dangerously leveraged.

Many economic historians believe that the expansion of brokers' loans helped to create the bubble.<sup>9</sup> Kindleberger argues that stock market credit was a key element in generating the mania. Galbraith sees the ability to purchase stock on margin as a great speculative lure. A buyer needed only to provide a fraction of the required funds, borrow the rest and enjoy the full capital gain less the interest on the borrowed funds. Even Irving Fisher believed that ability to borrow money encouraged "unwise speculation."

#### Stock Prices and Brokers' Loans

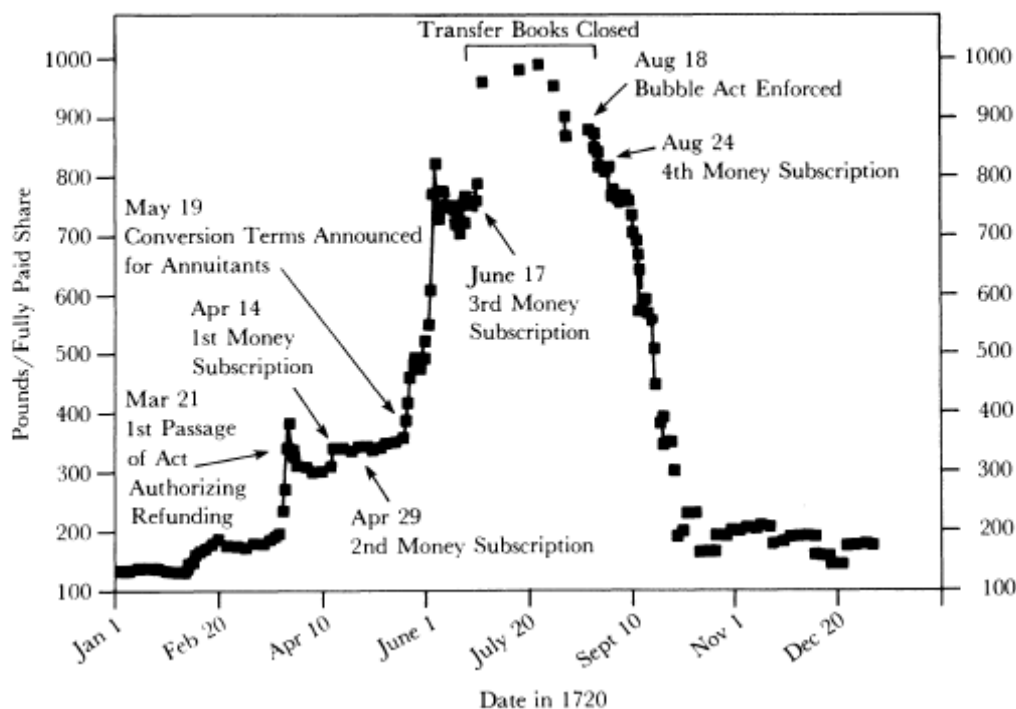


Source: Board of Governors of the Federal Reserve system (1943) and the New York Stock Exchange *Year Book* (1931).

Garber, P. M. (1990) "Famous First Bubbles", pp. 50, 51

Figure 3

### South Sea Shares



#### The Price Collapse

South Sea share prices collapsed from about 775 on August 31 to about 290 on October 1, 1720. Shares outstanding or to be issued to the public after subscribers were entered on Company registers numbered 212,012. Thus, the market value of all shares on August 31 was 164 million pounds and about 103 million pounds of that total evaporated in one month, an amount exceeding twice the value of the original, burdensome government debt.

Researchers of the episode like Dickson (1967, pp. 148–152), Scott (1911, vol. III, pp. 324–328) and Neal (1988) are vague about the reason for the speed and magnitude of the decline, though they generally attribute it to the appearance of a liquidity crisis. The South Sea speculation had triggered a simultaneous upsurge in the prices of other Companies along with the creation of numerous “bubble companies.” The emergence of these companies, many of which were fraudulent, generated most of the amusing anecdotes that have been transmitted to us about this speculation. Many of the companies born in the 1720 speculation were quite sound, however, notably the Royal Assurance Company and the London Assurance Company. The channeling of capital into these companies alarmed the directors of the South Sea Company, who, having paid a high price to buy the Parliament, did not wish to see potential South Sea profits dissipated by the entry of unauthorized commercial corporations. Consequently, Parliament passed the Bubble Act in June 1720 to ban the formation of unauthorized corporations or the extension of existing corporate charters into new, unauthorized ventures.

A website URL: <http://www.ecb.int/press/key/date/2005/html/sp050608.en.html>