

Another theory is that the concrete, the steel—ery expensive. But con-Another glib explanation ented in many countries while low interest rates e cut interest rates *many* ch concerted booms. r parts of the world? It is eople are worrying that dly as the dramatic 1980s ing in real terms for well r such price movements, a problem to which solu-

s into a longer historical ave scads of examples of in uptrend in home prices are they just imagining estate booms? An impor-lation is more entrenched efore.

rices

ay back to 1890 by link- ned to provide estimates

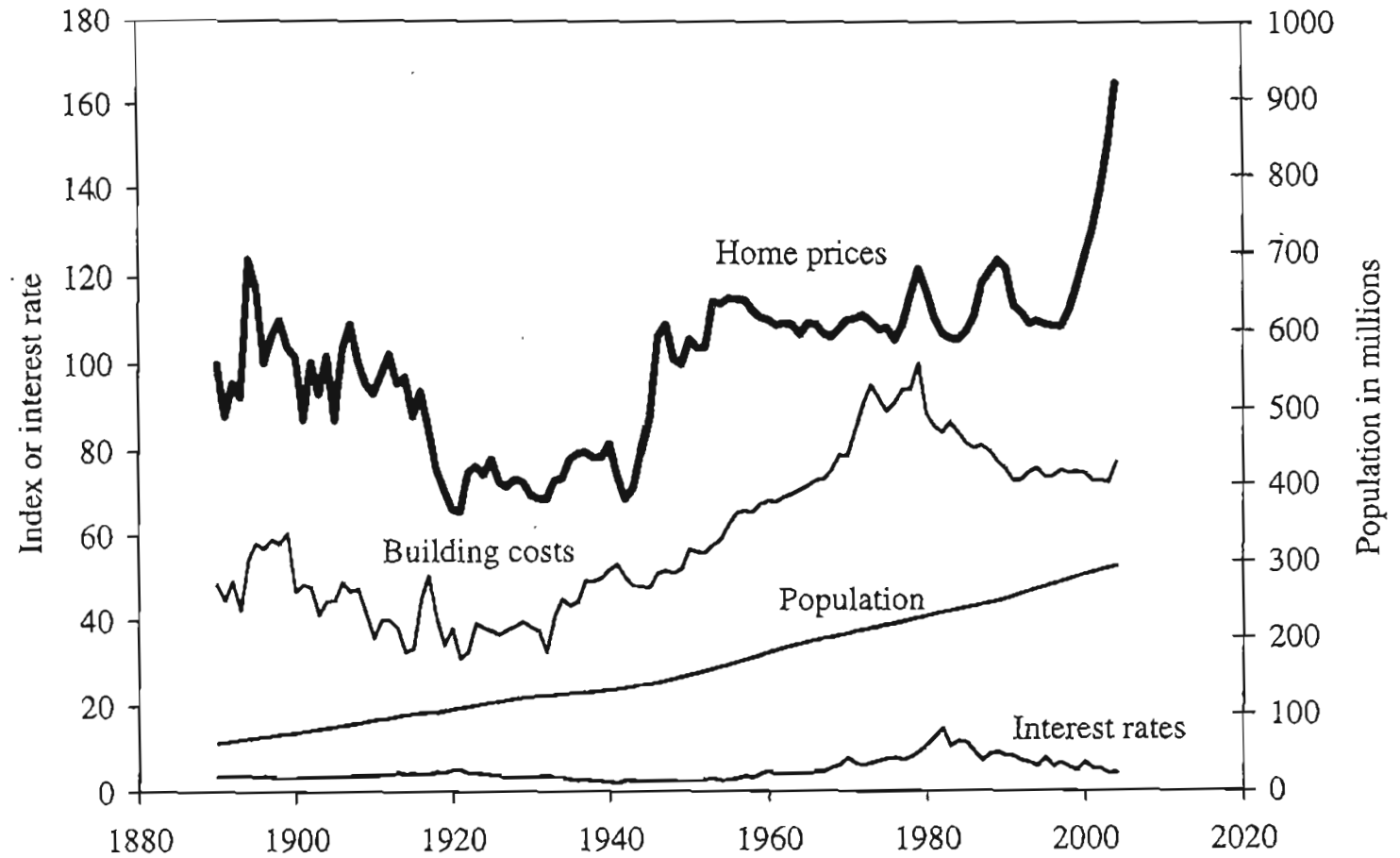
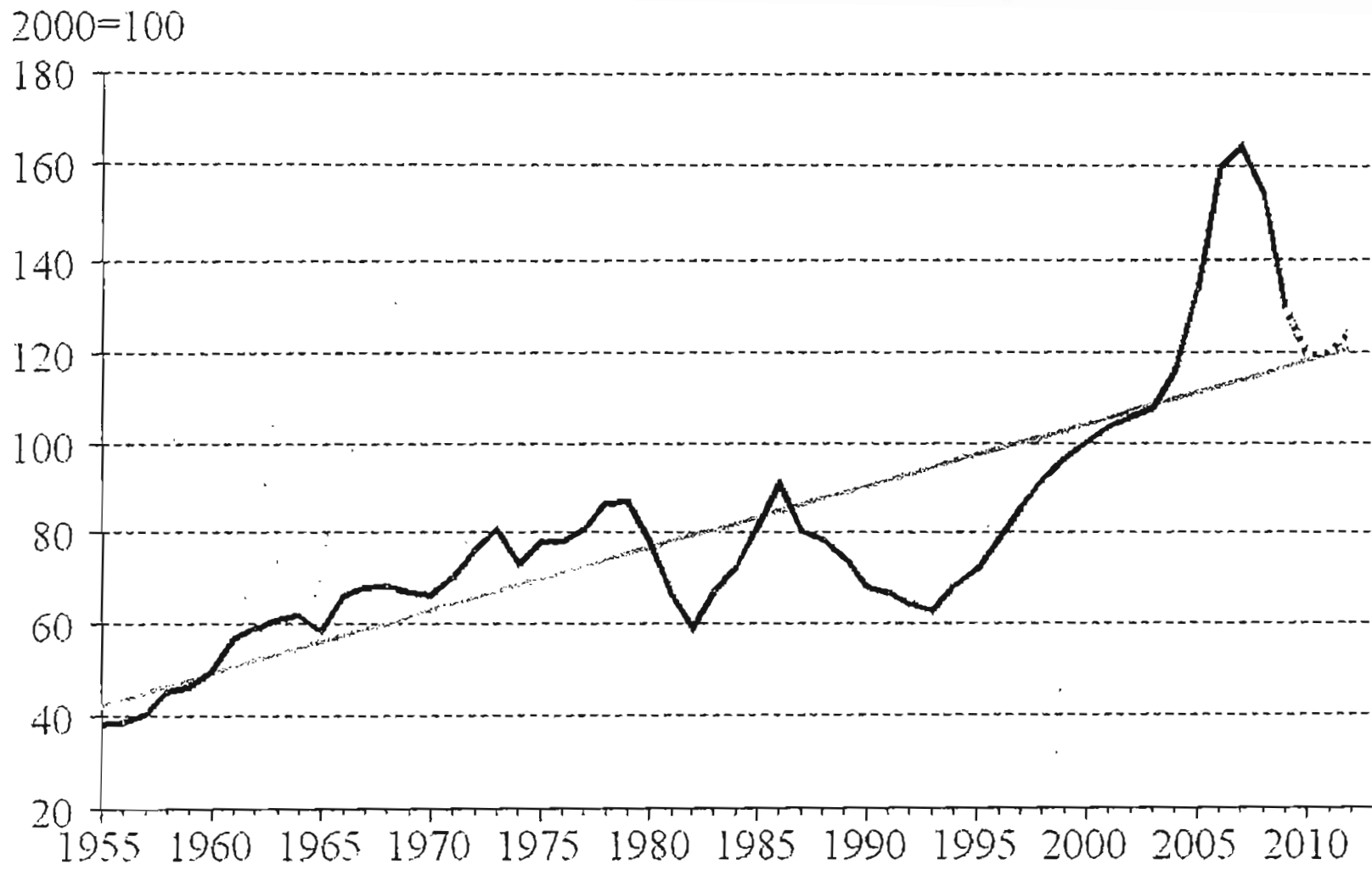


Figure 2.1
**U.S. Home Prices, Building Costs, Population,
and Interest Rates, 1890–2004**

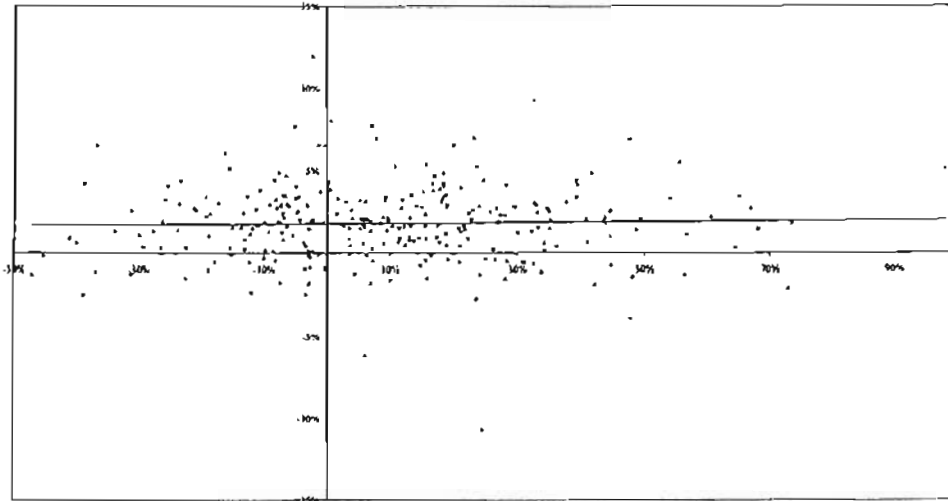
Heavy solid line (left scale): real (inflation-corrected) home price index, 1890 = 100, for the United States, constructed by the author from various existing indexes and raw data on home prices;³ thin line (left scale): real building cost index, 1979 = 100, constructed by the author from two published construction cost indexes;⁴ thin line (right scale): U.S. population in millions, from the U.S. Census; lowest line, thin line (left scale): long-term interest rate constructed by the author from two sources.⁵



Note: Den sorte kurve angiver kontantprisen på huse divideret med det generelle forbrugerprisindeks, mens den grå kurve angiver den trendmæssige udvikling. Tallene for 2009-12 (den stiplede del af den sorte kurve) er taget fra prognosen i den seneste vismandsrapport.

Figure 1
Overview of International Data
(All variables are real and are measured per capita)

A. Log Annual Change in Consumption vs. Log Change in Stock Market Wealth
Across Countries and Years



B. Log Annual Change in Consumption vs. Log Change in Housing Wealth
Across Countries and Years

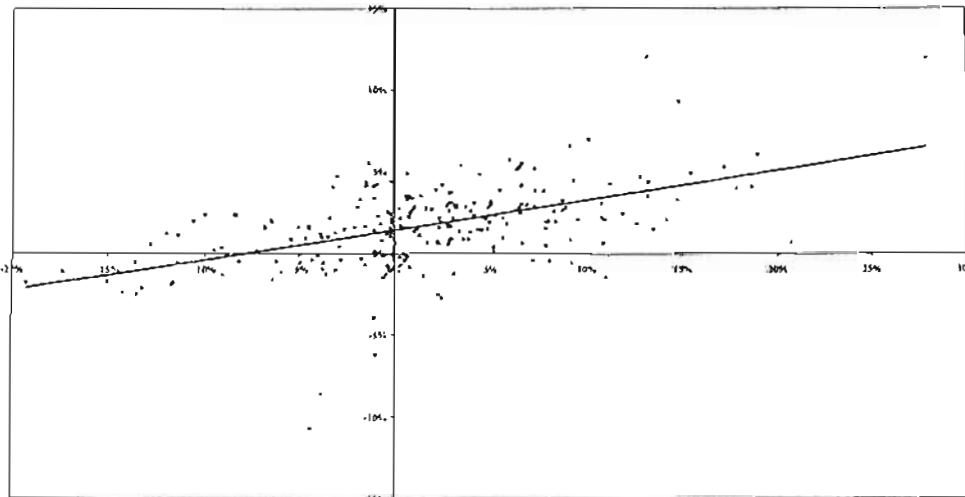
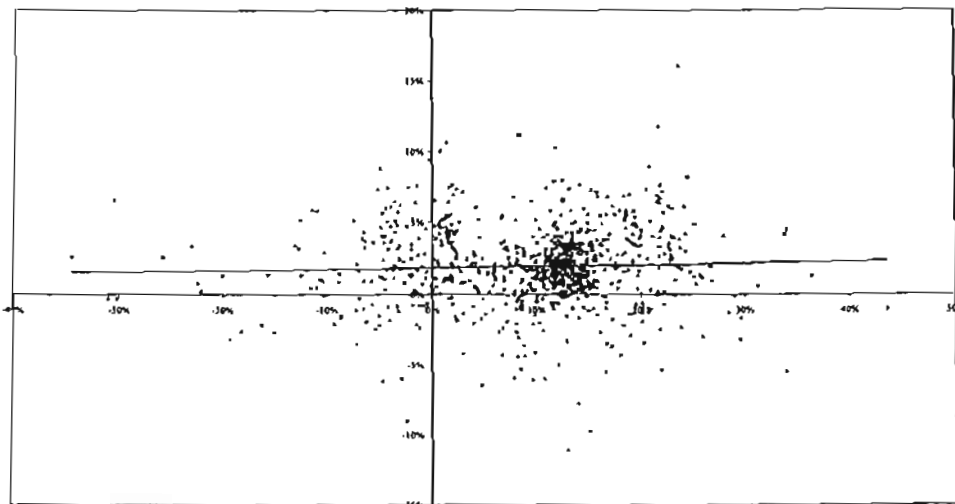
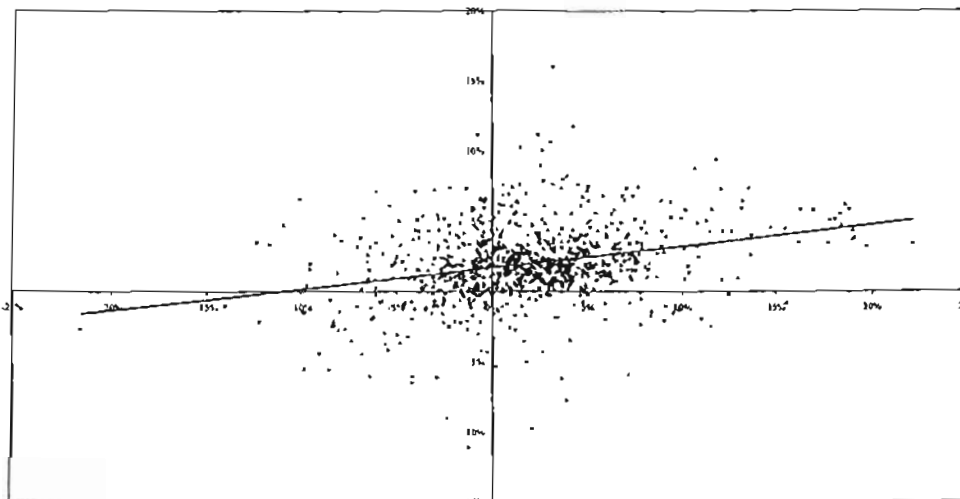


Figure 2
Overview of U.S. State Data
(All variables are real and are measured per capita)

A. Log Annual Change in Consumption vs. Log Change in Stock Market Wealth
Across States and Years



B. Log Annual Change in Consumption vs. Log Change in Housing Wealth
Across States and Years



Source: Shiller, second ed., 2005
Irrational Exuberance

THE STOCK MARKET IN HISTORICAL PERSPECTIVE

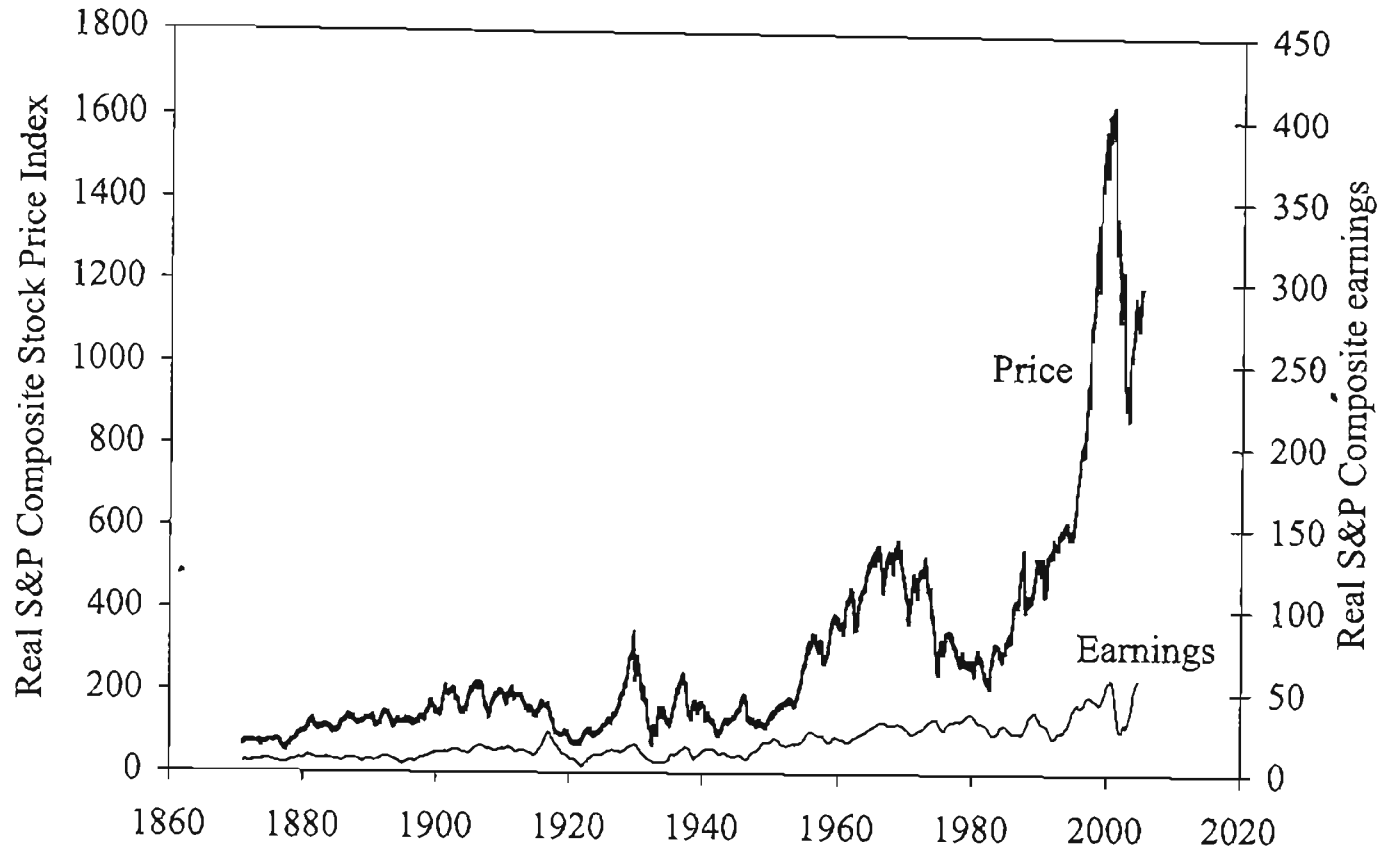


Figure 1.1

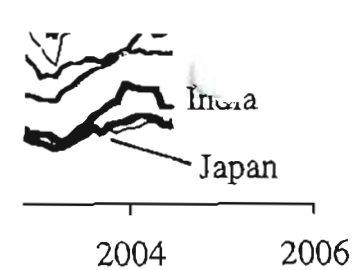
Stock Prices and Earnings, 1871-2005

Real (inflation-corrected) S&P Composite Stock Price Index, monthly, January 1871 through January 2005 (upper curve), and real S&P Composite earnings (lower curve), January 1871 to September 2004. Source: Author's calculations using data from S&P Statistical Service; U.S. Bureau of Labor Statistics; Cowles and associates, *Common Stock Indexes*; and Warren and Pearson, *Gold and Prices*. See also note 3.

HISTORICAL PERSPECTIVE

it surge in the stock market was palpably irrational in the 1920s. There was not the kind of speculative orgy that the storytellers, who chronicled the boom of the 1920s. Irrational exuberance is not a speculative orgy that seemed to have ended in the 1990s. It was more of a speculative bubble. Irrational exuberance seems to have begun when they get out of line. Irrational exuberance is not a speculative bubble. Irrational exuberance seems to have begun when they get out of line. Irrational exuberance is not a speculative bubble. Irrational exuberance seems to have begun when they get out of line.

1996 came near the beginning of a speculative bubble. The Industrial Average (from 1871 to early 1994). By March 1999, the index had risen to 11,722.98 in January 14, 2000. The market had



June 2004
 (espa), China (SE Shang
 Japan (Nikkei), Korea
 and the United States
 er price index for the
 erg and International

history for the S&P
 recently as compared
 aded up ever since it
 piking of prices in the
 price index looks like
 putter and crash. This
 ne millennium boom.⁴
 surrounding the peak
 As can be seen in Fig-
 late 1990s before they
 nts were generally less
 act seem to have been
 s persisted for over a

PRICE RATIO TO EARNINGS

Figure 1.3 shows the price-earnings ratio, that is, the real (inflation-corrected) S&P Composite Index divided by the ten-year moving average real earnings

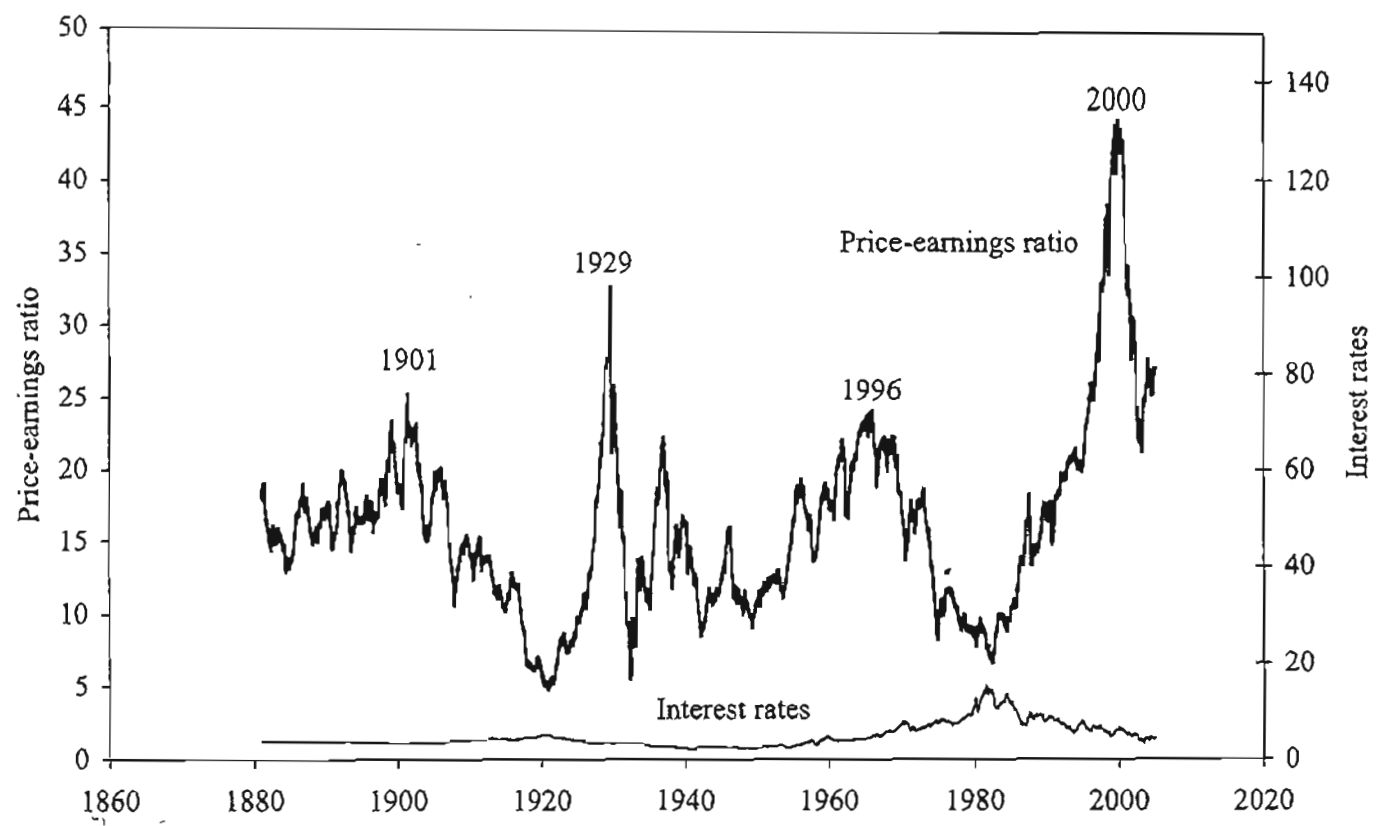


Figure 1.3

Price-Earnings Ratio and Interest Rates, 1881-2005

Price-earnings ratio, monthly, January 1881 to January 2005. Numerator: real (inflation-corrected) S&P Composite Stock Price Index, January. Denominator: moving average over preceding ten years of real S&P Composite earnings. Years of peaks are indicated. *Source:* Author's calculations using data shown in Figure 1.1. Interest rate is the yield of long-term U.S. government bonds (nominal), January 1881 to January 2005 (author's splicing of two historical long-term interest rate series).⁵