Asset Pricing, Bubbles, Financial Markets

Intermediate Macroeconomics - UCLA - Econ 102

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UCLA

December 6, 2020

Section 1

Rational "Bubbles" for Infinite Assets

Presentation

- There are many readings attached to this lecture, mostly coming from *The Economist* magazine.
- This is (again) one of my pet theories - the title of my Ph.D. dissertation was "Bubbles and Asset Supply" (Geerolf, 2013). It is not universally accepted in the profession, although it is probably more popular in the investment community. Again, there are many controversies in economics, and whether "rational bubbles" are a possibility is one.
- "Rational bubbles" sounds like an oxymoron:
  - "Bubbles" usually refer to something irrational, perhaps even stupid. Robert Shiller: "irrational exuberance."
  - There is some reason why people buy overvalued assets, they are not being "stupid." Low rates and high returns: the "bull market in everything."

Financial economics

- There is a view in finance called "efficient markets."
- Indeed, there are many arbitrage relationships which are satisfied on financial markets. This does not imply that financial markets are efficient. Larry Summers (1985) once mocked finance professors likening financial economics to ketchup economics: "Nonetheless ketchup economists have an impressive research program, focusing on the scope for excess opportunities in the ketchup market. They have shown that two quart bottles of ketchup invariably sell for twice as much as one quart bottles of ketchup except for deviations traceable to transactions costs and conclude from this that the ketchup market is perfectly efficient."
- It is very hard to make sense of the huge fluctuations in stock prices, using "fundamentals" (the discounted sum of dividends)
- It is also very hard to explain why the so-called equity premium is so high: why equities have done so well (in the U.S.) compared to bonds.
- So in my view, there is ample room for "rational bubbles."

Low rates lead to high returns?

- *Reading*: "Should egalitarians fear low interest rates?" *The Economist*, July 11, 2019.
- Keynes thought that a "savings glut" would lead to lower rates of return on capital, and erode investors' bargaining power.
- The end result should be the **"euthanasia of the rentier"**.
- Recent episode of low interest rates suggests that in fact, they lead to soaring stock and real estate markets, thereby exacerbating wealth inequality. Therefore, when interest rates go down, the return on *existing* assets potentially goes up.

Rational bubbles: the missing link?

- J.M. Keynes was indeed missing the potential for "rational bubbles": as interest rates would become lower than g, asset prices and real estate prices could potentially **become** overvalued, **maintaining and even boosting the returns of the investor class**, even as interest rates stayed low. In the lecture on overlapping-generations models, we have seen that savings glut are a possibility when interest rates are low.
- As *The Economist* explains, the corresponding boost in house prices has also added to substantial intergenerational tension, as this corresponds to a transfer from the "young" to the "old" generation (#okboomer).
- The Economist article: "Kicking down the road down an endless road," *The Economist*, September 2, 2017. This can also explain why banks lent so much: there was no other game in town.

Kicking down the road down an endless road

eventually bind and that accounts must be settled at the end of the day. But what if the end never quite arrives?

Such parables may seem too contrived to be illuminating. Surely the islanders benefit from a Ponzi scheme only because the story arbitrarily denies them any way to save for their future. If the young could instead acquire a durable asset, they could take care of themselves in their old age by selling it for the things they need. Instead of eating a cacao fruit, islanders could plant it to grow a new tree, which they could later rent or sell to young climbers when they retire.

In most cases, this kind of saving and investing does indeed serve people far better. Capital accumulation enlarges the economy's productive capacity, thereby creating wealth, unlike Ponzi schemes, which merely spread it around. Saving and investing both store value and add to it, turning one cacao fruit into a whole tree. Retirees can therefore expect to get more out of their investment than they put in.

ous example of such a scheme. Government debt can play a similar role (a possibility entertained by Peter Diamond of MIT in a 1965 paper building on Samuelson's insights). If the government does not want to extract social-security contributions from the young, it can sell them long-term bonds instead. When these bonds mature, the government can repay them by selling a fresh round of bonds to the next, richer generation.

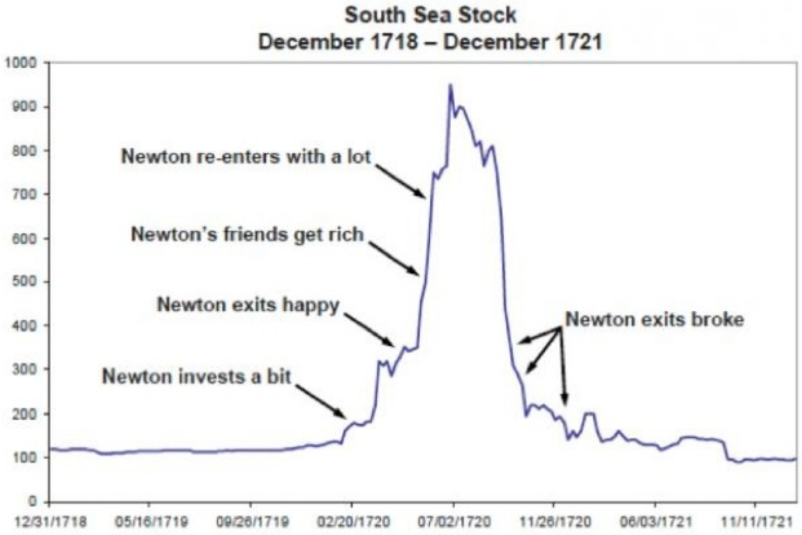
A third, more anarchic way to transfer resources from young to old is a speculative bubble. In a bubble, people pay over the odds for an asset, such as a house, in the belief that subsequent investors will pay a higher price still. The overpayment amounts to a contribution to a Ponzi scheme, redeemed not by the earnings of the underlying asset, but by overpayments from later investors. If each generation is collectively richer than the last, then the asset's price can keep rising even if each buyer sinks only the same percentage of their (rising) income into it.

principles are efficient not maleficent. But are those conditions ever found in the real world? One way to look for them is to compare interest rates (which represent the return on capital) and GDP growth rates (which reflect both population growth and increases in income per person). An alternative, stiffer test (which works well under certain assumptions) is to compare investment and profits. If national investment is greater than profits, a country is ploughing more into its stock of capital than it earns from it. It is as if the islanders are replanting all of the fruit they collect from the additional trees they have cultivated (minus whatever fruit they need to compensate themselves for their labour) plus a few more. The economy's efforts to save and invest for the future are overloading the available vehicles for thrift.

Economists used to be confident that most economies were on the right side of this test, earning far more in profit than they invested. Recent research is less definitive. François Geerolf of the University of

First Bubble: Tulip Bubble

South Sea Bubble



Source(s): Marc Faber, Jeremy Grantham, Sir Isaac Newton

2001 Internet “Bubble”: IPO of Pets.com

10 Biggest IPO Flops in History

BY DAVE ROOS

7 Pets.com

« PREV NEXT »

The infamous Pets.com sock puppet. This little critter was popular enough to fly in the Macy's Thanksgiving Day

Few dot-com flameouts were as public and well-publicized as Pets.com. Pets.com was one of four (yes, four) online pet stores that arose during the Internet boom of the late 1990s. Pets.com made its name through a witty advertising campaign featuring an exuberant stoner-dude sock puppet and the slogan, "Pets.com. Because pets can't drive." The sock puppet was so popular it was turned into a balloon for the 1999 Macy's Thanksgiving Day Parade.

Blind to the fact that pet supplies made for lousy online sales (imagine the shipping costs on a 50-pound bag of dog food), Pets.com attracted big-name investors like Amazon.com, which came to own a 30 percent stake in the San Francisco-based company.

Art as a store of value ?

Jean-Michel Basquiat | Andy Warhol | Banksy | Kaws | Yayoi Kusama | George Condo

Repeat Sales History

Purchase Price	$20.9k
Sale Price	$110.5m

Purchase Price	$8.1k
Sale Price	$3.6m

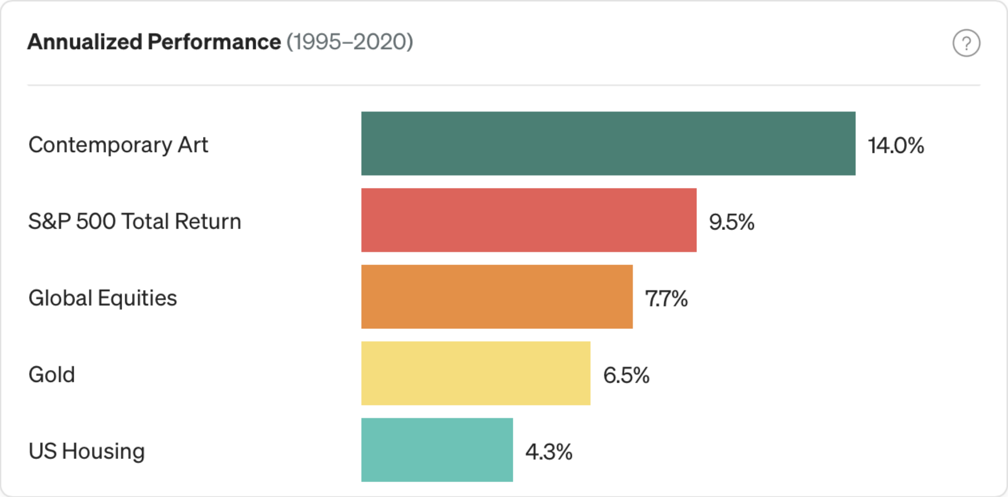
Purchase Price	$122.4k
Sale Price	$29.3m

Purchase Price	$110.0k

Purchase Price	$5.5k

Purchase Price	$70.0k

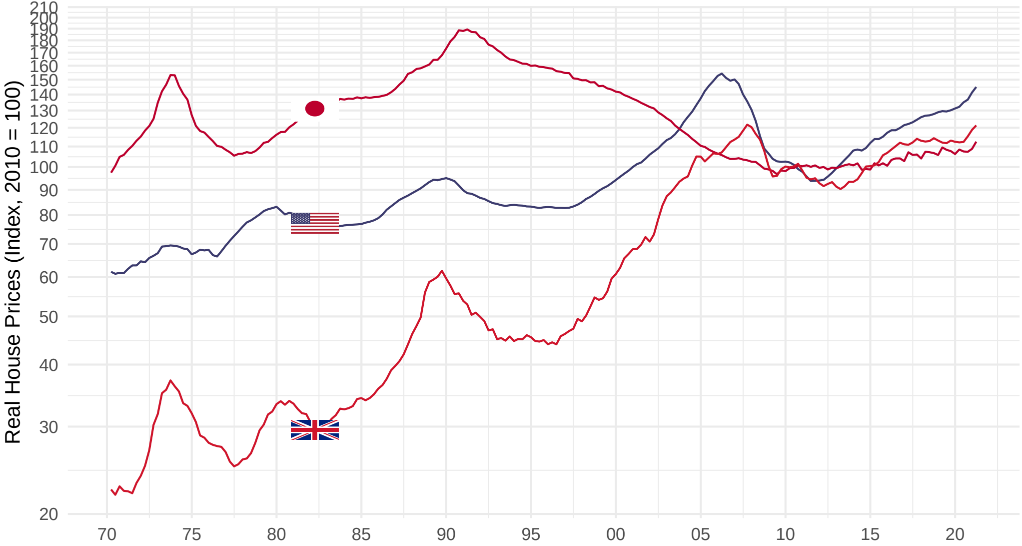
S&P 500, Art, Real Estate, Gold



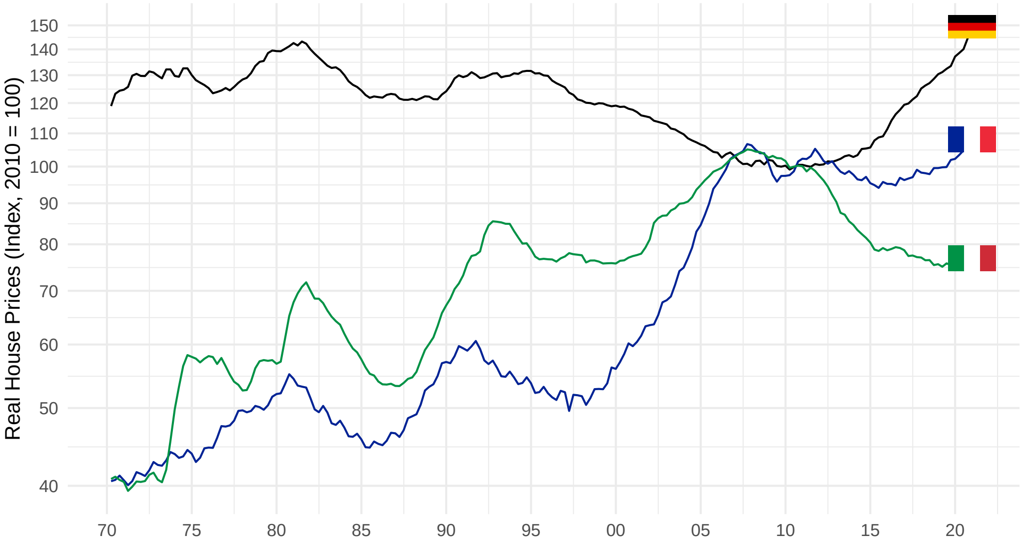
Section 2

Some Data on House Price “Bubbles”

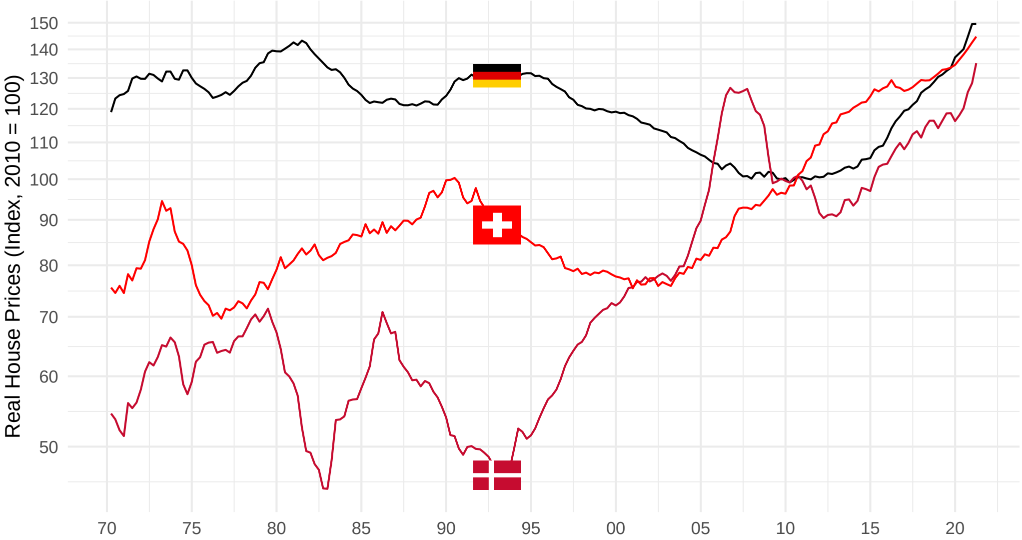
Japan, United States, United Kingdom



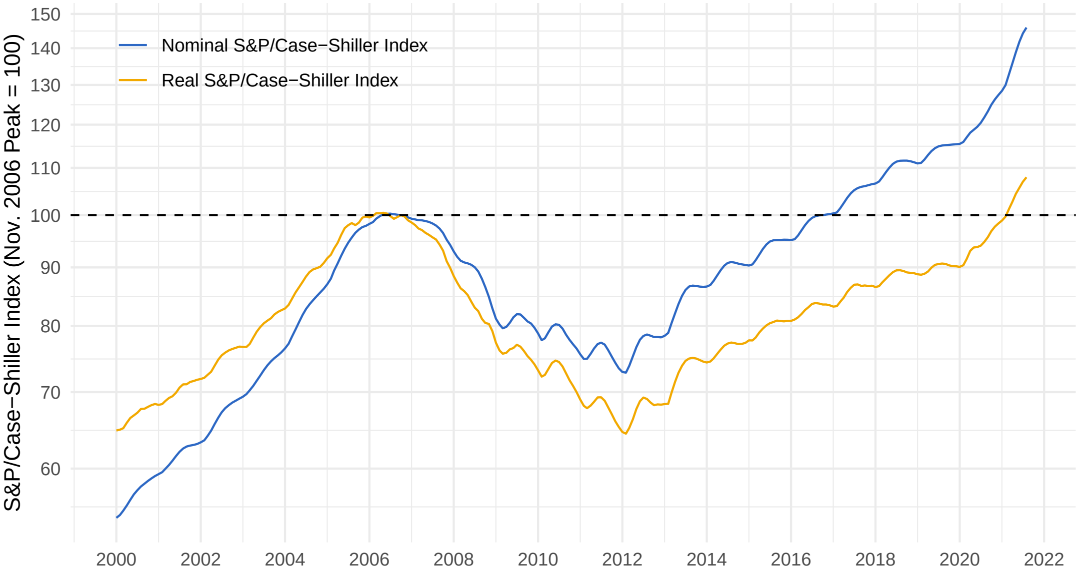
Germany, France, Italy



Denmark, Germany, Switzerland



In the U.S., house prices are back



Section 3

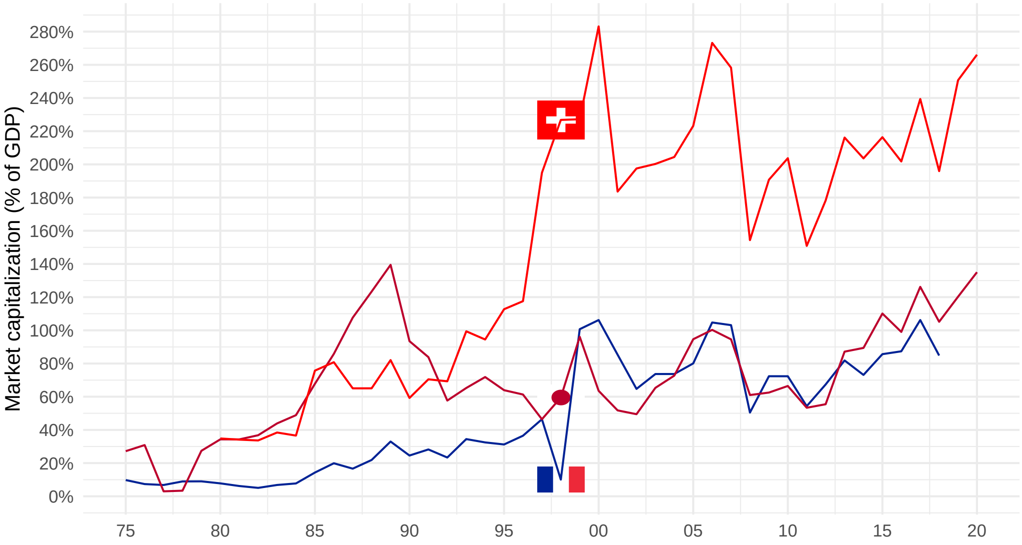
Stock Price "Bubbles" - Data on Stock Prices

Japan, Switzerland, France

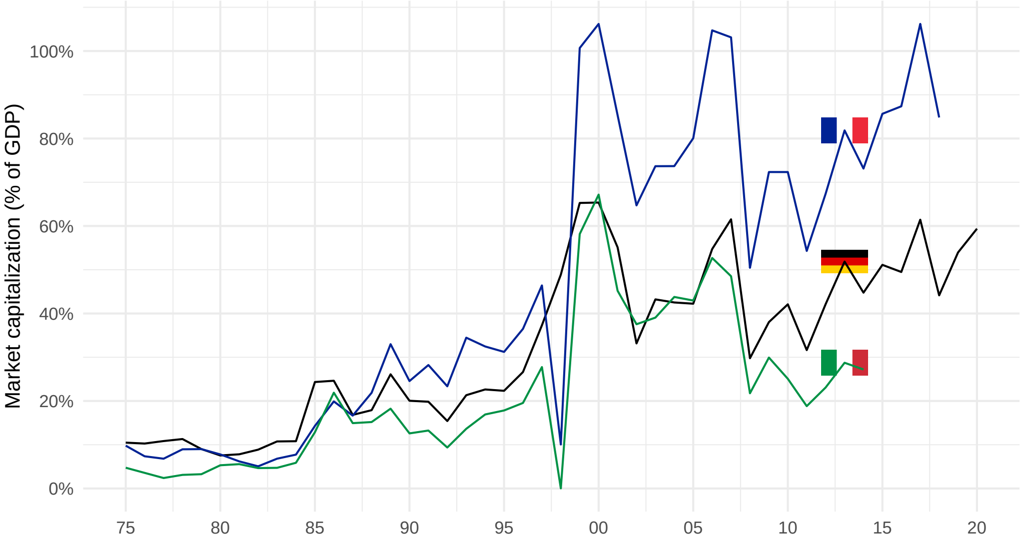
Section 4

Stock Price "Bubbles" - Data on Market Capitalization

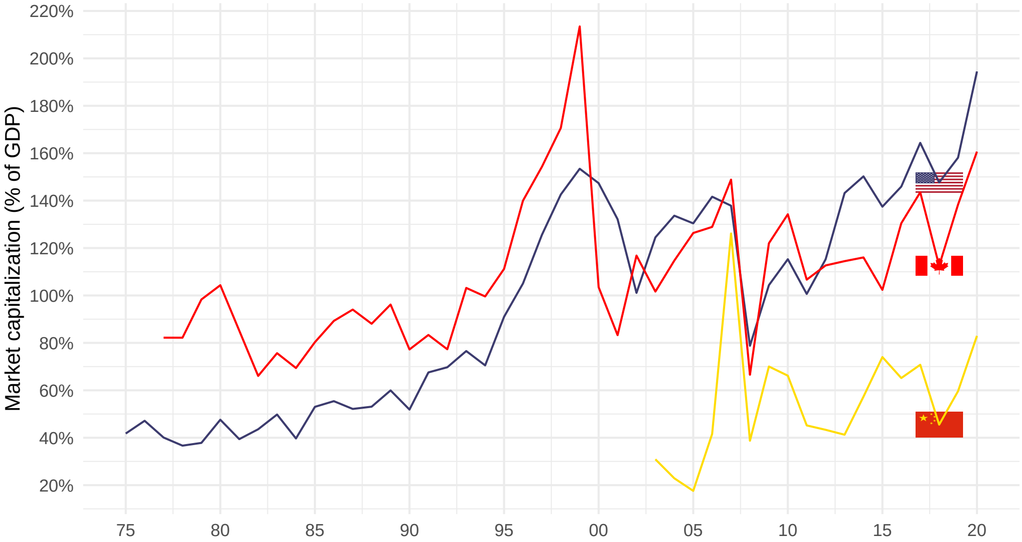
Japan, Switzerland, France



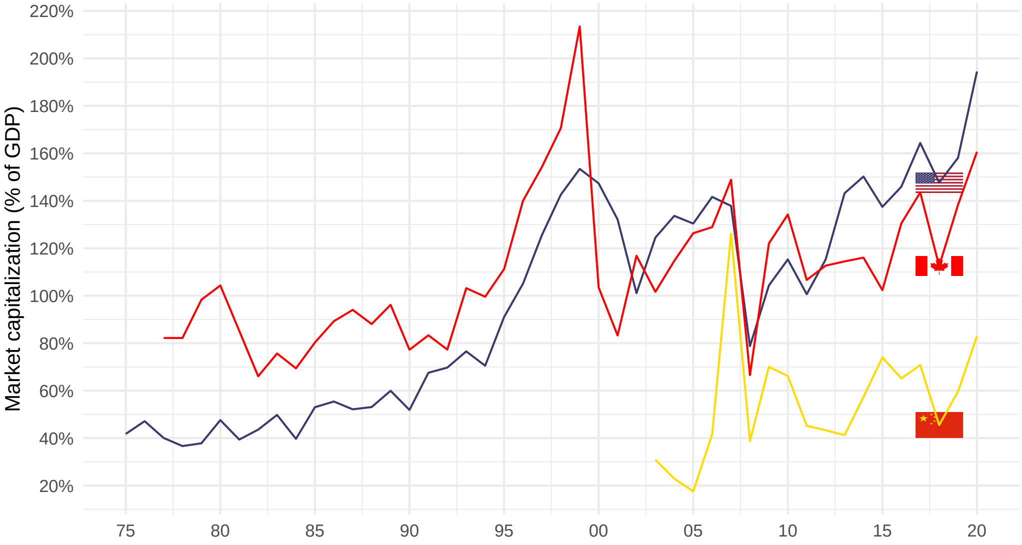
France, Germany, Italy



China, United States, Canada



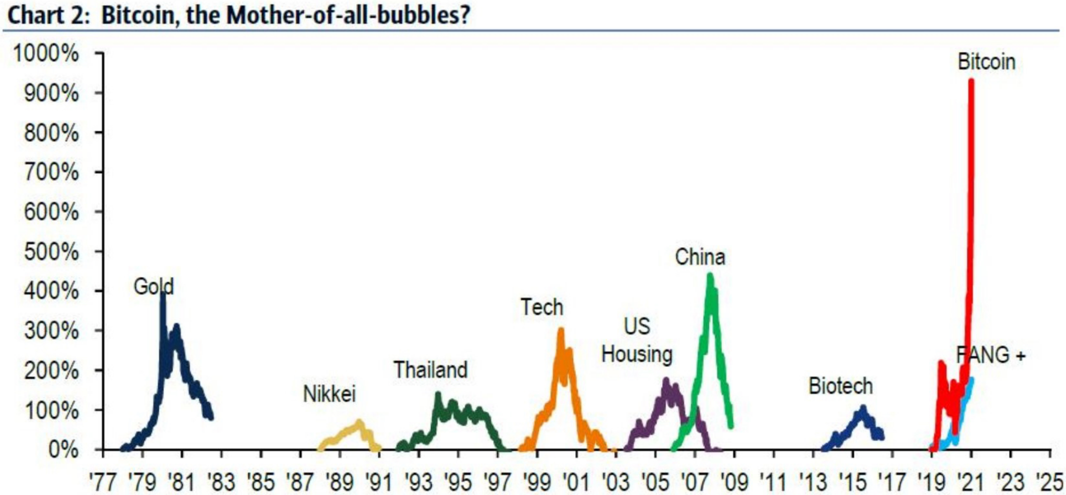
China, United States, Canada



Section 5

"Bubbles" everywhere

Bitcoin Mother of all bubbles



Source: BofA Global Investment Strategy, Bloomberg ; Note: Gold (XAU Curncy), Japanese Equities (NKY Index), Thai Equities (SET Index), Tech (NDX Index), US Housing (S5HOME Index), Commodities (SHCOMP Index), Biotech (NBI Index), FANG + (NYFANG Index), Bitcoin (XBTUSD Curncy)

Declares Ponzi is now Hopelessly Insolvent

"Sleepers, Awake! The Night Is Slowly Dying. The Dawn Is Breaking on a Thousand Hills. The Truth Is Trickling in a Thousand Rills."

The Post's New Serial
THE BLACK SHEEP
On Page 4 of Today's Post

The Boston Post

EXTRA

MONDAY, AUGUST 2, 1920

DECLARES PONZI IS NOW HOPELESSLY INSOLVENT

Publicity Expert Employed by "Wizard" Says He Has Not Sufficient Funds to Meet His Notes—States He Has Sent No Money to Europe Nor Received Money From Europe Recently

DEBS REFUSES TO BE FREED

NEW MOVE TO FOIL MANNIX

Liner Baltic Likely to Be Sent Direct to Liverpool---Celtic Also Cuts Queenstown

POISON AS ANTIDOTE FOR LOVE

Lynn Woman Found Man She Loved 'Liked Another Better'

HOLD SOLDIER FOR MURDER

Camp Devens Sergeant Identified by Wife of Slain Leominster Policeman as Murderer

WOMAN DIES FROM BURNS

Money in Banks Taken From Investors

Tells of Visits to Officials Last Monday

By WILLIAM H. McMASTERS

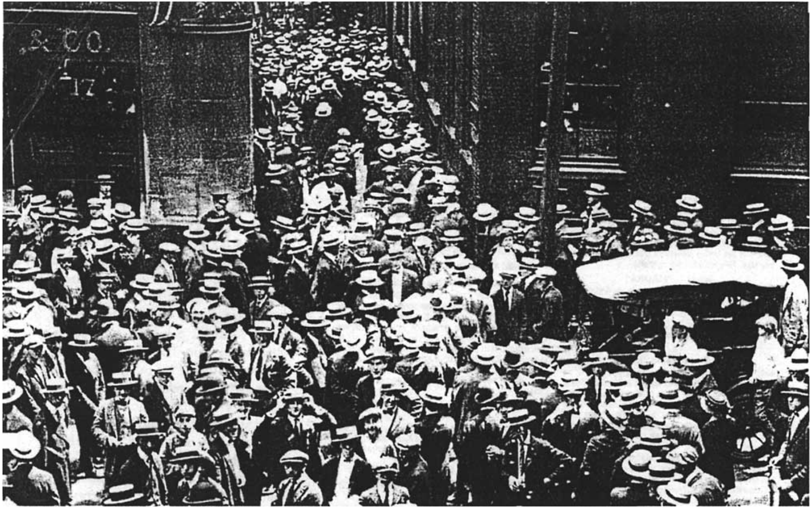
TREMONT DAY

today. This is the first banking day of the month and popular custom has decreed that the first banking day of the month shall be Tremont Day and observed by opening an account with us.

Deposits made today go on interest as from the first and may be withdrawn at any time practically without loss of interest.

VACATION SAVINGS CLUB
NOW OPEN
SUFFOLK SAVINGS BANK

Ponzi investors try to retrieve money



Keynes again, Chapter 12

finance, Americans are apt to be unduly interested in discovering what average opinion believes average opinion to be; and this national weakness finds its nemesis in the stock market. It is rare, one is told, for an American to invest, as many Englishmen still do, 'for income'; and he will not readily purchase an investment except in the hope of capital appreciation. This is only another way of saying that, when he purchases an investment, the American is attaching his hopes, not so much to its prospective yield, as to a favourable change in the conventional basis of valuation, i.e. that he is, in the above sense, a speculator. Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done. The measure of

Declares Ponzi is now Hopelessly Insolvent

People Fear They've Got Too Much Cash in Their Bank Accounts

Donald Moore

Bookmark

Published on July 31 2020, 2:45 PM
Last Updated on August 01 2020, 6:55 PM

(Bloomberg) -- The savers are getting restless.

Running out of guaranteed ways to get meaningful returns, some people are increasingly being tempted to raid their interest-earning cash savings to load up on assets such as bitcoin, gold and stocks. The comfortable, if small, returns of high-yield savings accounts are looking less palatable as volatile assets take off.

Economist cover

Briefing Asset prices

The Economist October 7th 2017

The bubble without any fizz

Low interest rates have made more or less all investments expensive

USUALLY, when asset prices boom, people get excited. As America's stockmarkets scaled wild peaks in 1929 and 1999 they did so amid feverish enthusiasm. Search for such euphoria on Wall Street today and you will come back empty-handed. Look at underlying numbers, though, and it is at first hard to see why. Over the

vestments and which they may not fully understand, any more than they understood the risks of mortgage-backed securities and other instruments in the run up to the financial crisis ten years ago. And the underlying driver of this oddly broad bull market, low long-term real interest rates, has conflicting explanations—some com-

profits is currently uncommonly expensive (see chart 1).

This year's rise in American equities—the S&P 500 is 13% higher than it was on January 1st—has been almost matched by stockmarkets in Europe and Japan, and outpaced by those in emerging markets. When measured against a benchmark similar to CAPE, European and emerging-market stockmarkets are not as strikingly priced as American ones. But they are handily above their long-run average. They can no longer be regarded as cheap, even if they are not as expensive-looking as American stocks.

Or take property. In countries that were unscathed by the global financial crisis,

Too much cash is chasing too few desirable assets

Investors say negative real yields are driving the 'everything rally'

Concerns start to grow among analysts over the longer-term inflation outlook

Swaths of the Treasury market are expected to lose money, in real terms, over the next decade © FT montage

Tommy Stubbington and **Robin Wigglesworth** AUGUST 7 2020

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A collapse in real yields — the return that bond investors can expect once inflation is taken into account — is rippling through global financial markets and driving record rallies in assets from gold to technology stocks, investors say.

Too much cash is chasing too few desirable assets

With no productive use of liquidity, money is going into market speculation driving recovery in asset prices

JOHN DIZARD + Add to myFT

'Gold sounds like a great hedge for uncertain times, but you are better off with an ETF', says John Dizard © Ahmed Yosri/Reuters

John Dizard MAY 8 2020

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Portfolio managers and asset allocators in the post-Covid-19, post-crash, post-central bank intervention moment have a problem deciding what to do with their money.

People fear they've got too much cash

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Too much money chasing too few assets

Global Financial Stability Report October 2017: Is Growth at Risk?

October 3, 2017

Description:

The October 2017 *Global Financial Stability Report* (GFSR) finds that the global financial system continues to strengthen in response to extraordinary policy support, regulatory enhancements, and the cyclical upturn in growth. Global bank balance sheets are stronger because of improved capital and liquidity buffers, amid tighter regulation and heightened market scrutiny. However, some banks are still grappling with legacy issues and business model challenges, where progress has been uneven. The environment of continuing monetary accommodation—necessary to support activity and boost inflation—may lead to a continued search for yield where there is too much money chasing too few yielding assets, pushing investors beyond their traditional habitats. As the search for yield intensifies, vulnerabilities are shifting to the nonbank sector and market risks are rising. This may lead to a further compression of risk compensation in markets and higher leverage in the nonfinancial sector. These challenges must

Danes get 20-year 0% Mortgages

Living

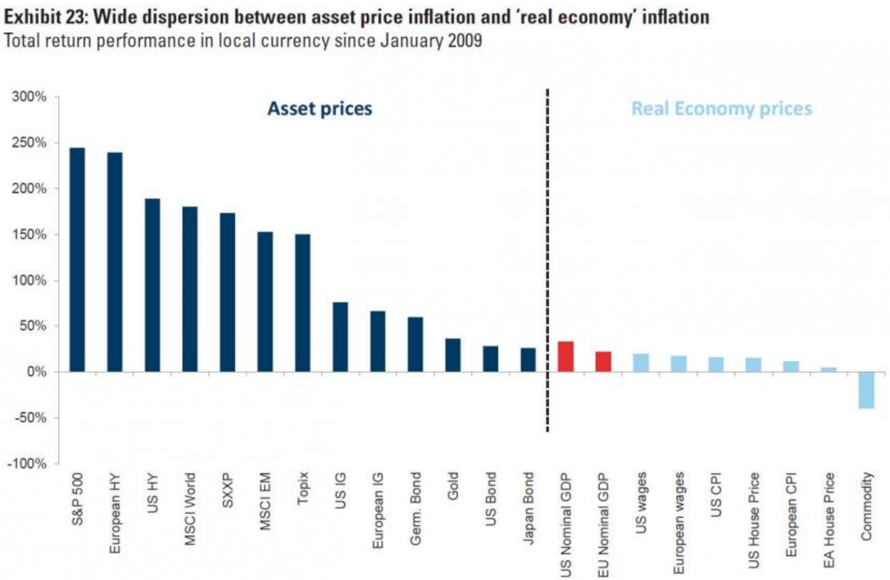
Danes Get 20-Year 0% Mortgages

By Frances Schwartzkopff
January 5, 2021, 11:23 AM GMT+1
Updated on January 5, 2021, 4:27 PM GMT+1

The country with the longest history of negative central bank rates is offering homeowners 20-year loans at a fixed interest rate of zero.

Customers at the Danish home-finance unit of Nordea Bank Abp can, as of Tuesday, get the mortgages, which will carry a lower coupon than benchmark U.S. 10-year Treasuries. At least two other banks have since said they'll do the same.

Inflation of different asset prices



Private equity: flood of cash and buyout bubble fears

Private equity: flood of cash triggers buyout bubble fears

The buyout sector is on a tear as investors hunt for higher returns. But some fear a dangerous new cycle

Save

Javier Espinoza in London JANUARY 23 2018

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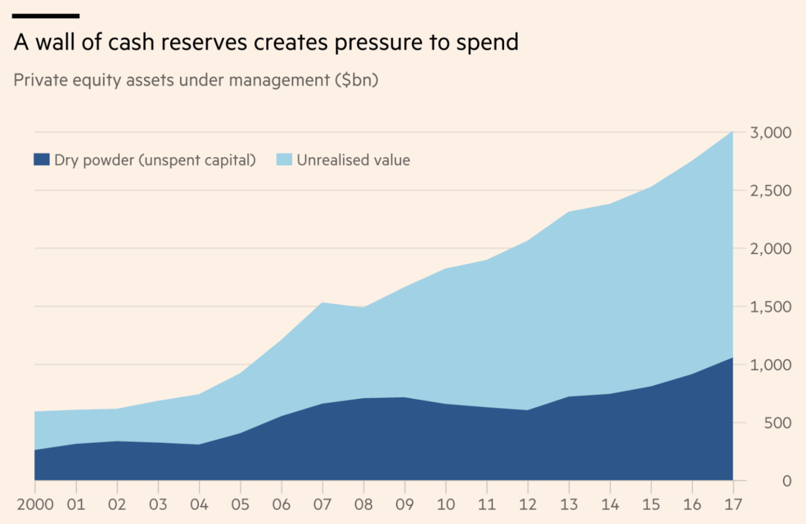
The investment industry usually operates on a simple piece of logic: money managers pitch to their clients and persuade them to stump up cash. But when CVC Capital Partners, the private equity group best known for the 2005 takeover of Formula One, set out to raise a new fund last year, the investors were the ones begging to gain access.

Private equity: wall of cash reserves



Also in China

Asset Bubbles From Stocks to Bonds to Iron Ore Threaten China

Investment binge fueled by easy credit and fiscal stimulus increases volatility; prices surge, then slide

By John Lyons and Shen Hong
Updated Nov. 1, 2016 1:13 am ET

SAVE SHARE TEXT 94

A succession of asset bubbles has formed in China, caused by a torrent of speculative money sloshing from stocks to bonds to commodities.

The biggest apparent bubble is in housing, but prices have surged for niche assets, too, such as calligraphy, antiques and art. In May, futures prices for

Section 6

"Bubbles" in Sovereign Debt

Investment Bubble ?

Opinion **Sovereign bonds**

The rush for Argentina's 100-year bond points to an investment bubble

Demand for debt intensifies as QE policies inject liquidity into the markets

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IMF Aid Requested

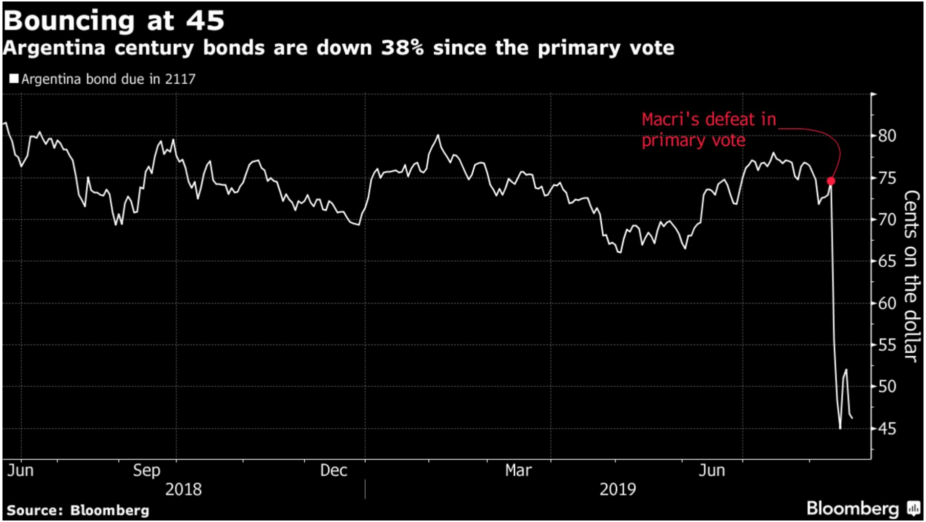
Business

Argentina Century Bond Yield Jumps After IMF Aid Requested

By Carolina Millan

May 9, 2018, 11:00 AM GMT+2

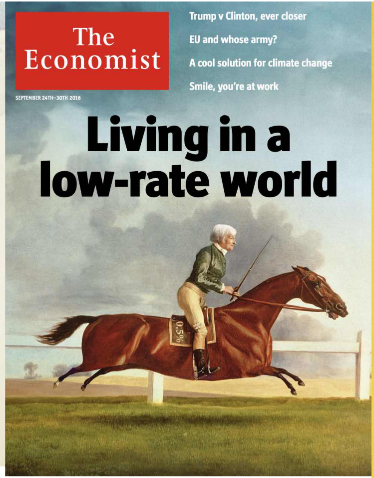
Primary Vote in Argentina



"Rational bubble" in Public Debt ?

- Again, as I told you, I do not believe that public debt is a big issue. You can really think of public debt as a bubble.
- Public debt is a stable alternative to private bubbles, either credit or housing / equity.
- Is the problem in booms or in busts ?
- Very much the question between Austrian and Keynesian economics. Watch the video which follows, which you might already know about.
- Also watch the debate with Furman, Summers, Bernanke, Rogoff and Blanchard, who almost reach an agreement that public debt is probably not that bad.

Economist cover



Section 7

Videos

Hayek VS Keynes - Fear the boom and bust

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/econ102/handouts/asset-pricing.html"
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Discussion on Public Debt at PIIE

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/econ102/handouts/asset-pricing.html"
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