INSTITUTE OF INTERNATIONAL MONETARY RESEARCH

Analysis and insight into trends in money and banking, and their impact on the world's leading economies

www.mv-pt.org

# How are house prices determined? :

## plus remarks on the current US house price explosion

*A presentation by Professor Tim Congdon CBE,*

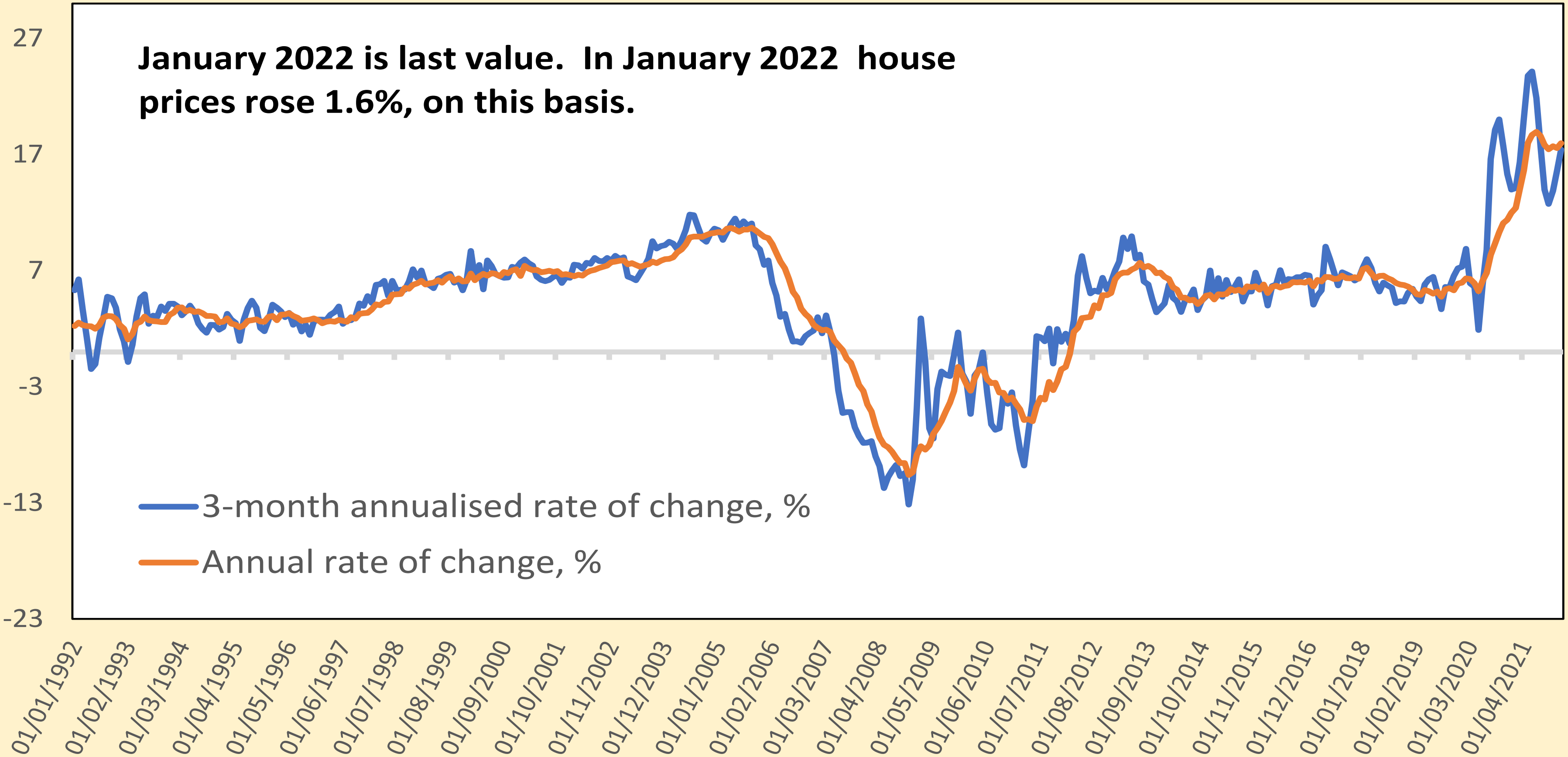
*Chair of the Institute of International Monetary Research,*

*in April 2022*

## US house price inflation: current boom bigger than that before the Great Recession

*Changes in purchase-only* ***house price index****, monthly data*

Source: Federal Finance Housing Agency



# US housing market red hot at start of 2022

- According to the monthly ‘purchase only’ index prepared by the Federal Housing Finance Agency, house prices rose by 1.6% in January.
- In the year to January, on this basis house prices rose by 18.0%.
- In the three months to January, they went up by 4.1% or at an annualised rate of 17.4%.
- **Why? On what basis can Covid-19 have been positive for the American housing market?**

# Why have US house prices exploded? Is there a theory of house price determination to help?

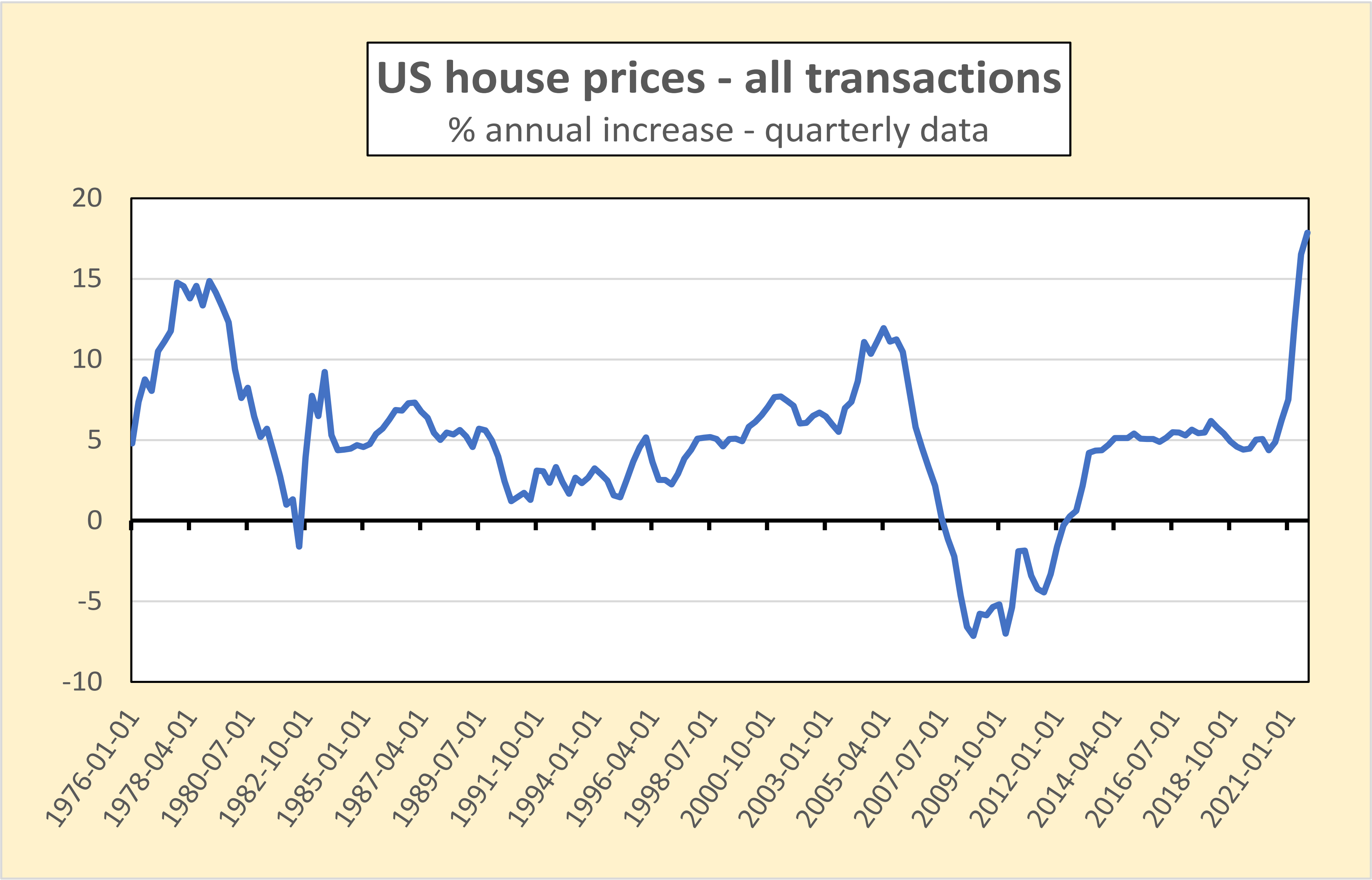
Journal of Economic Literature 2021, 59(3), 773–864
https://doi.org/10.1257/jel.20201325

What Drives House Price Cycles? International Experience and Policy Issues

John V. Duca and John Muellbauer with Anthony Murphy

"A striking aspect of recent research is a growing consensus that **credit supply shifts** are a principal driver of house prices…"

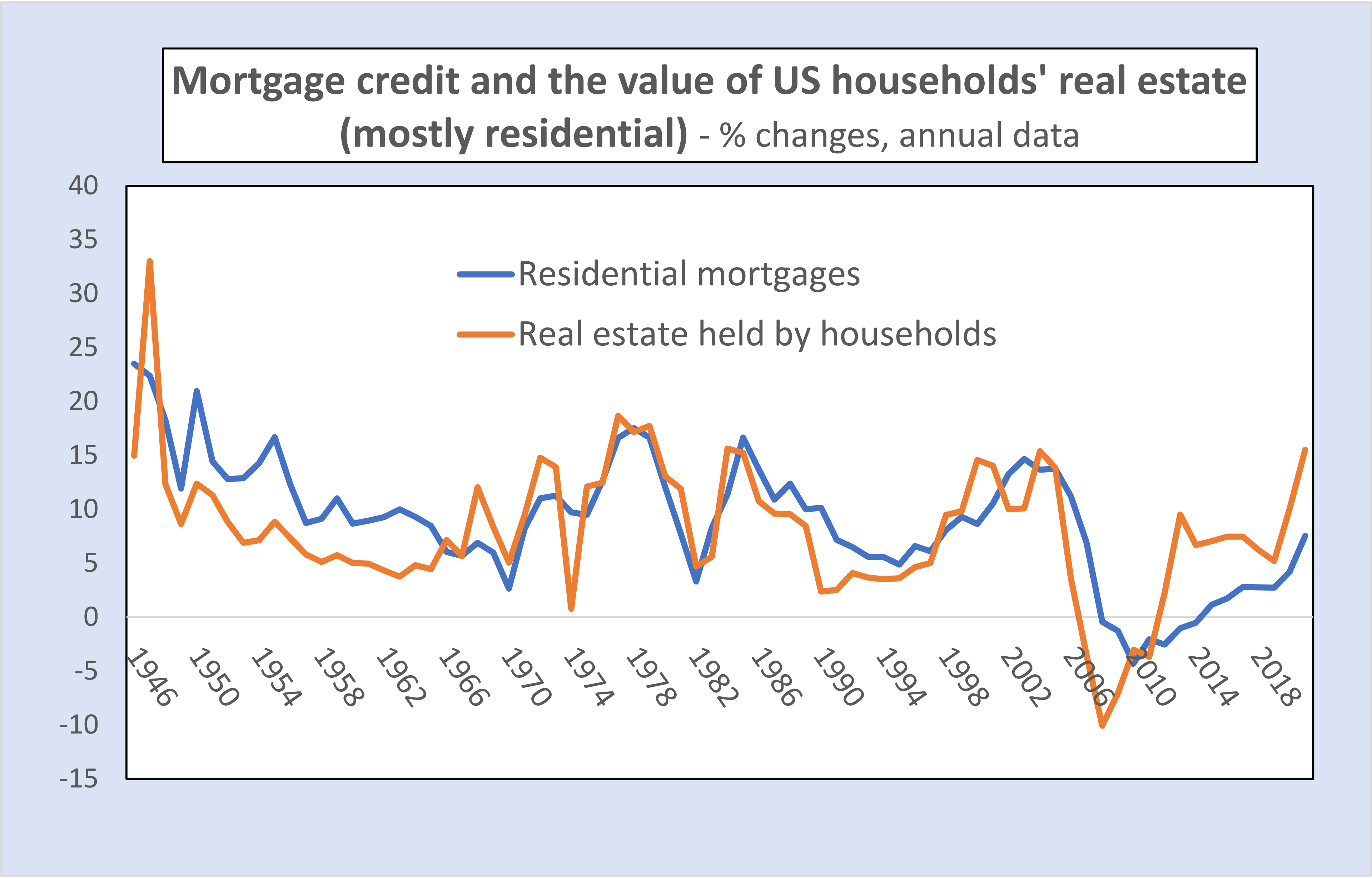
- p. 841.



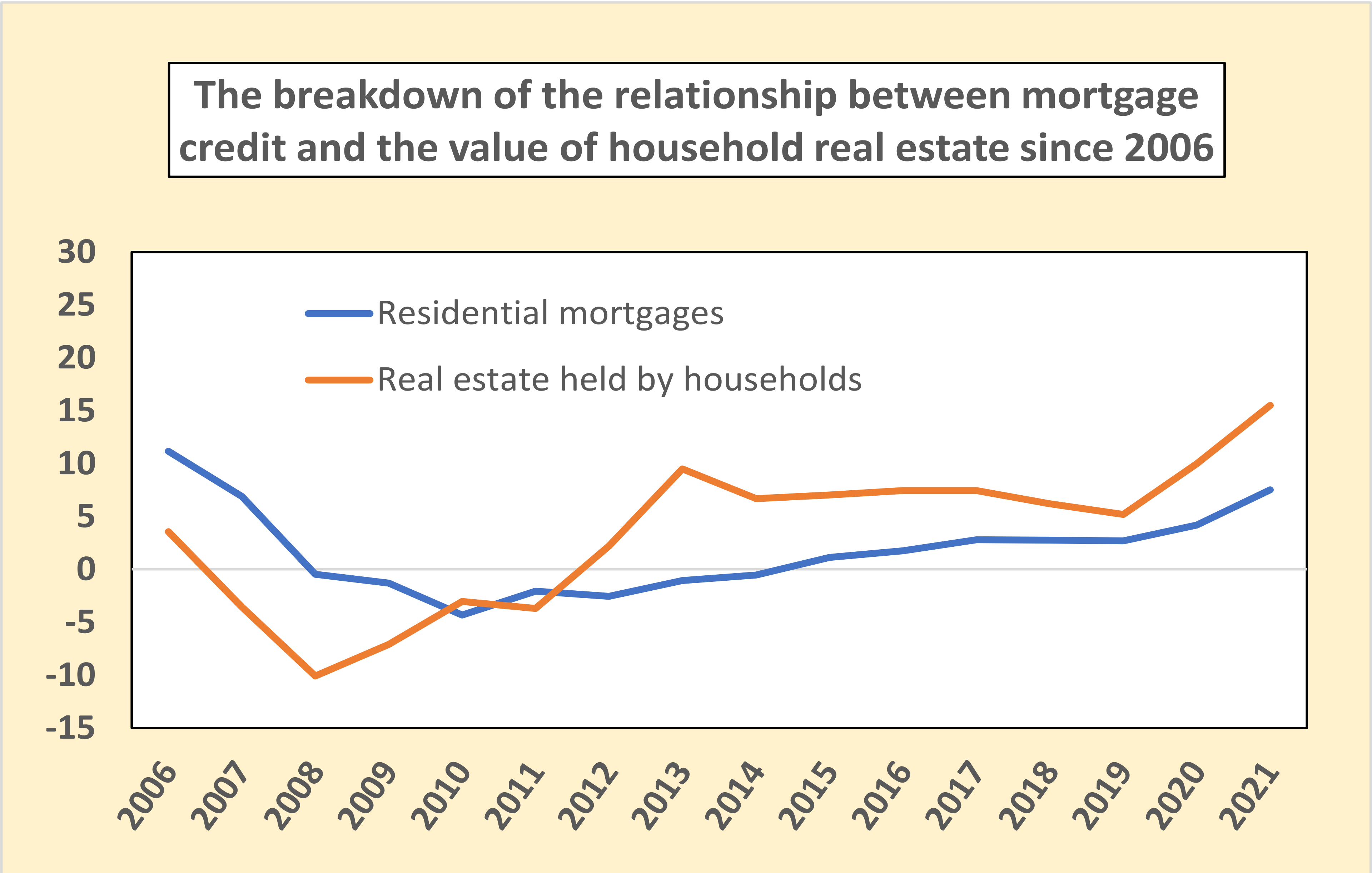
US house prices - all transactions
% annual increase - quarterly data
20
15
10
5
0
-5
-10
1976-01-01
1978-04-01
1980-07-01
1982-10-01
1985-01-01
1987-04-01
1989-07-01
1991-10-01
1994-01-01
1996-04-01
1998-07-01
2000-10-01
2003-01-01
2005-04-01
2007-07-01
2009-10-01
2012-01-01
2014-04-01
2016-07-01
2018-10-01
2021-01-01

# US house prices: setting new records

- The increase in US house prices in the year to the final quarter of 2021 was the highest, according to this chart, since 1975. But in no year from the 1950s to 1975 would a larger increase have been recorded.
- 1947 did see an even more spectacular rate of house price appreciation, which reflected the ending of controls after the Second World War and – arguably – the excess money balances inherited from it.
- **But has it been the flow of new credit driving house price inflation? Or has it been a case of too much money chasing too few assets? We have a 'credit vs. money' debate?**



Mortgage credit and the value of US households' real estate (mostly residential) - % changes, annual data
Residential mortgages
Real estate held by households
40
35
30
25
20
15
10
5
0
-5
-10
-15
1946
1950
1954
1958
1962
1966
1970
1974
1978
1982
1986
1990
1994
1998
2002
2006
2010
2014
2018


The breakdown of the relationship between mortgage credit and the value of household real estate since 2006
30
25
20
15
10
5
0
-5
-10
-15
Residential mortgages
Real estate held by households
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021

# Economic theory and *nominal* asset price determination — 1

Economic theory provides:

- **A theory of the determination of bond yields by the quantity of money**, in Keynes' liquidity preference theory of 'the rate of interest' (in his 1936 *General Theory*), and
- **A theory of the determination of level of equity prices by the quantity of money**, in Keynes' 1930 *Treatise on Money*, as noticed by Tim Congdon in a 2021 article in *The Journal of Economic Affairs.*

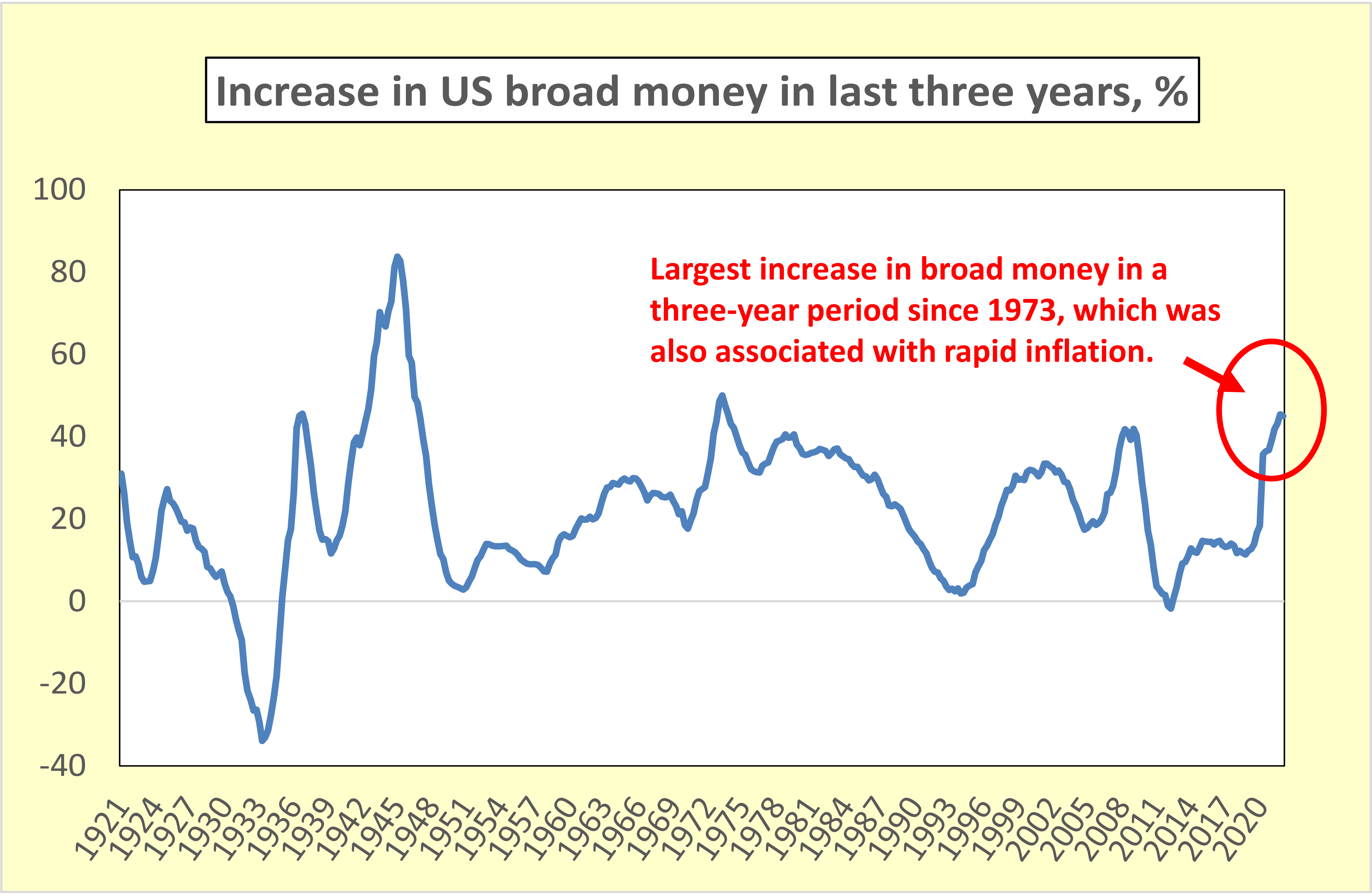
**But it does *not* have a widely-accepted theory of the determination of the value of the stock of property/real estate assets,** both residential and commercial.

# Economic theory and *nominal* asset price determination — 2

- But a theory of the determination of the value of property/real estate assets is – almost certainly – much more important to understanding cyclical fluctuations in demand and output than theories about bond yields and equity markets.
- **Housing is far more important in household sector balance sheets than directly-held bonds, and it is also more important – in most countries – than corporate equity.**

# Economic theory and *nominal* asset price determination — 3

- **My proposal is that the nominal value of property/real estate assets – like those of bonds and corporate equity *as asset classes* – is determined by the quantity of money.**
- Wealth holders can hold any of money, property/real estate and assets other than either money or property/real estate. Wealth holders are constantly comparing the major asset classes for prospective return.
- Portfolios are being re-balanced every day. Prospective returns at the margin on property/real estate cannot for long be very different from those on equities, farmland, etc. (Money is held – despite its low prospective return – because of its liquidity attributes.)
- Some investors in the housing market have no gearing whatsoever. For them 'credit conditions' cannot be relevant.


Increase in US broad money in last three years, %
100
80
60
40
20
0
-20
-40
1921
1924
1927
1930
1933
1936
1939
1942
1945
1948
1951
1954
1957
1960
1963
1966
1969
1972
1975
1978
1981
1984
1987
1990
1993
1996
1999
2002
2005
2008
2011
2014
2017
2020
Largest increase in broad money in a three-year period since 1973, which was also associated with rapid inflation.

# Episodes of rapid house price inflation

- Past episodes of rapid US house price inflation were
  - just after the Second World War (in 1946 and 1947),
  - in the late 1960s and 1970s (particularly the mid-1970s), and
  - in the 2003-06 period associated with the boom in sub-prime lending.
- **The current episode matches them easily, in scale and intensity.**
- **The post- 1945 house price boom and the house price boom of the 1970s followed rapid wartime growth of the quantity of money, and were associated with general inflation.** The only episode that doesn’t fit a monetary explanation of house price movements is the sub-prime lending period ahead of the Great Financial Crisis.

# Episodes of rapid house price inflation

- Rapid house price inflation is associated usually with rapid increases in consumer and producer price indices, suggesting a common cause.
- **Much current 'analysis' argues that the high inflation now being recorded is due to energy price movements, supply-side disruption, 'Ukraine', etc. This sort of 'analysis' comes from central banks, among others.**
- **Analysis that focuses on particular products and markets diverts attention from monetary policy, including the behaviour of the quantity of money. *Central banks are therefore exonerated of inflation.* DON'T TRUST ANALYSIS OF THIS SORT.**

# Episodes of rapid house price inflation

- **First, it is preposterous to blame large increases in the price of houses in, say, the American Mid-West on movements in the international price of oil, gas and wheat… Asset prices and the prices of goods and services may have a common cause, in the behaviour of the quantity of money. But current cost developments cannot affect the price of existing assets, such as houses.**
- **Second, 'Ukraine' is now being used to explain inflation. But big gains in US house prices *in the year to January 2022* certainly cannot be attributed to the Russian invasion of the Ukraine, which started *on 24th February 2022*.**

# The message for policy?

**The current inflation episode – like the many that have preceded it – argues that central banks, including the US Federal Reserve, should maintain low and stable growth of the quantity of money, broadly-defined. That is the key to price stability, as well as steady growth of demand and output.**