



INSTITUTE OF
INTERNATIONAL
MONETARY RESEARCH

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

Why didn't QE spark inflation after 2009? And what is different now?

*February 2021 presentation
by Professor Tim Congdon CBE,
Chairman of the Institute of International Monetary Research
at the University of Buckingham*



Mr. Evans – in *The Daily Telegraph* of 12th February – asks an interesting question, even if he doesn't reach the right answer.

Quantitative Easing Inquiry

The Committee will examine Quantitative Easing in the context of the Bank of England's operational independence, its accountability and the transparency of its decision-making. The Committee will also examine the economic effects of Quantitative Easing, what risks are entailed, its distributional impacts and the future of the programme.



The current enquiry by the House of Lords Economic Affairs Committee into QE will cover similar ground to that in a debate in the early 2010s between Tim Congdon and Liam Halligan – in *The Sunday Telegraph, Standpoint* magazine and to some extent *The Spectator* – about whether the Bank of England's QE programmes would lead to rapid inflation. (Congdon said they wouldn't; Halligan said they would. Congdon was right.)

What does the quantity theory of money claim?

- The central claim of the QTM is that the price level of goods and services depends on the quantity of money relative to the quantity of goods and services.
- So the answer to the question, ‘what is the cause of inflation (i.e., a rise in the price level)?’ is straightforward.

‘Inflation is caused by excessive growth of the quantity of money.’

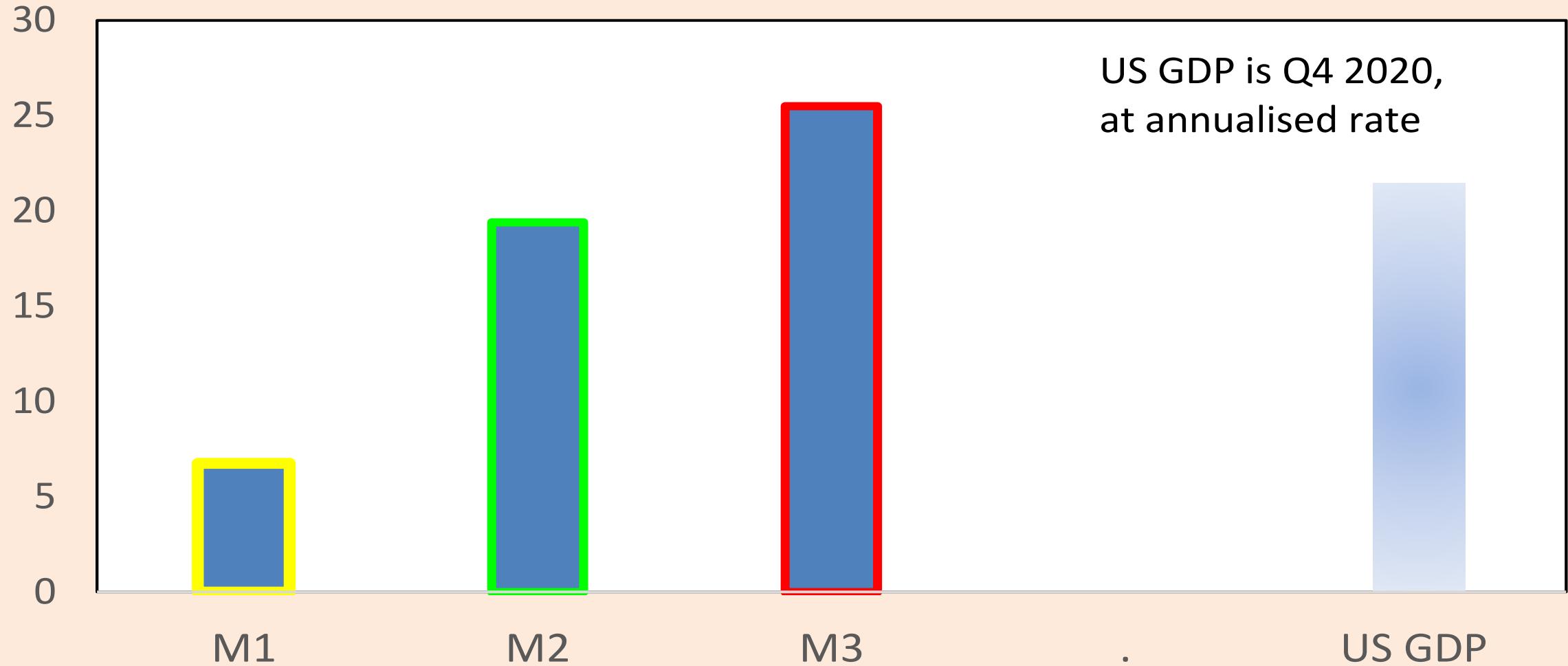
The quantity theory of money: what does it say about inflation?

- But there is more than one concept of the quantity of money. Money can be narrowly-defined (M1), to include only money balances that are available for spending without notice; or it can be broadly-defined (M2, M3 or M4), to include deposits where the holder has to give notice of an intention to spend (or to let the notice period run off). Some economists even regard the central bank's own liabilities (i.e., the 'monetary base', sometimes M0) as a valid measure of money.

'If inflation is caused by excessive growth of "the quantity of money", which concept of money does the causing?'

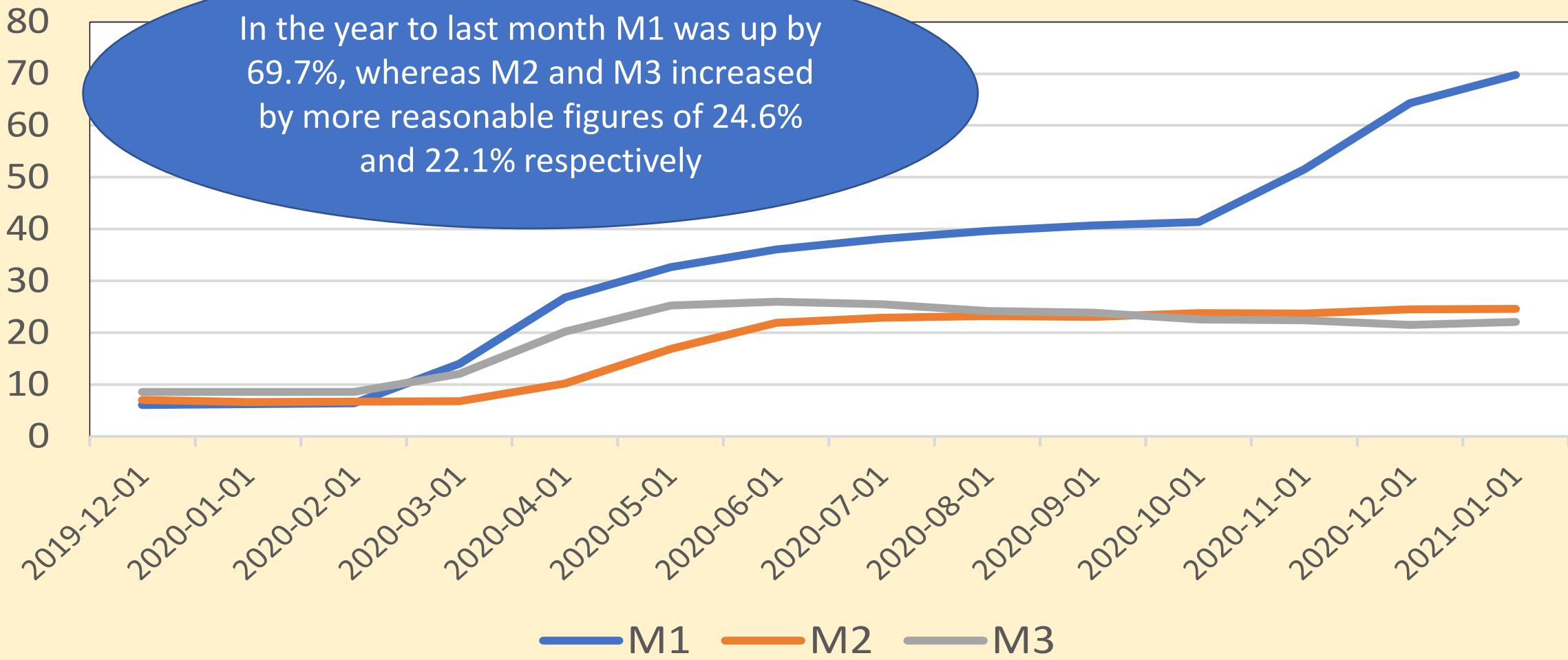
US money aggregates, in January 2021

- in \$ trillions



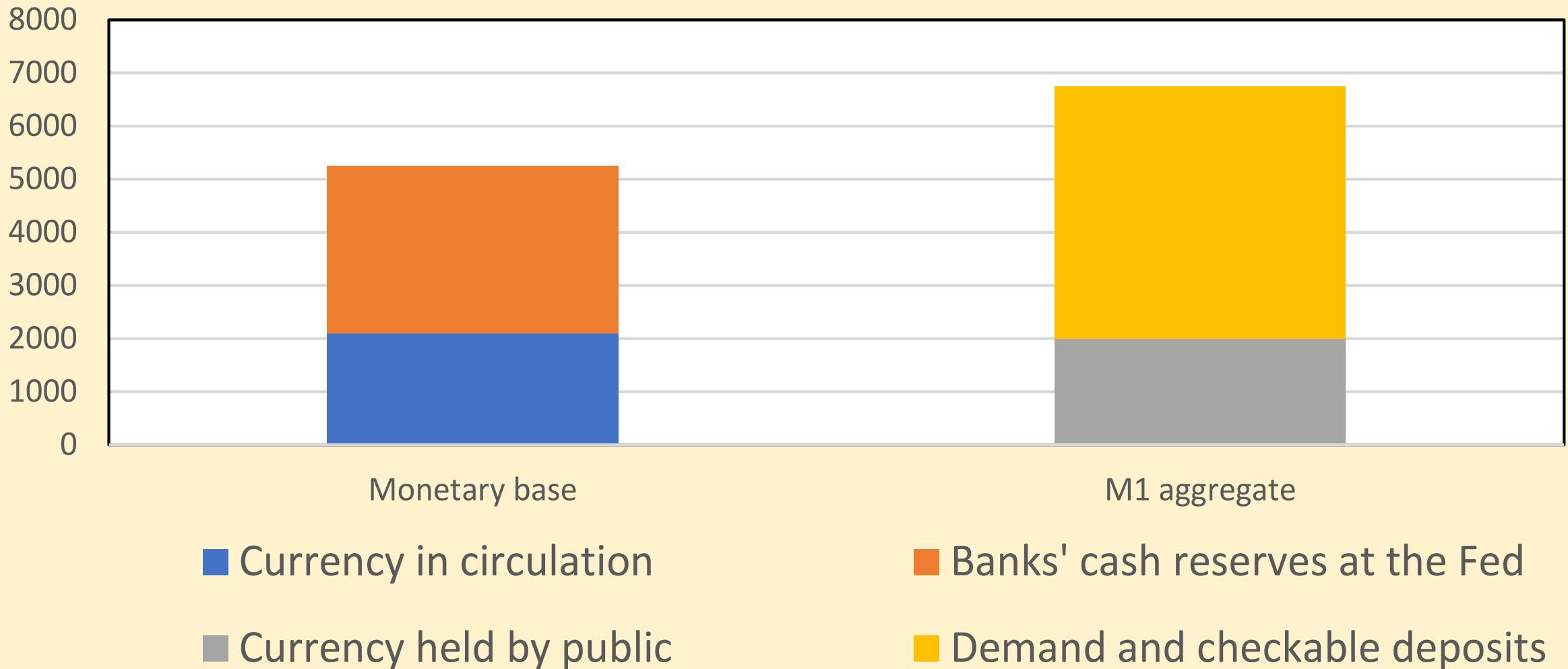
US money aggregates, in January 2021

- % annual increase



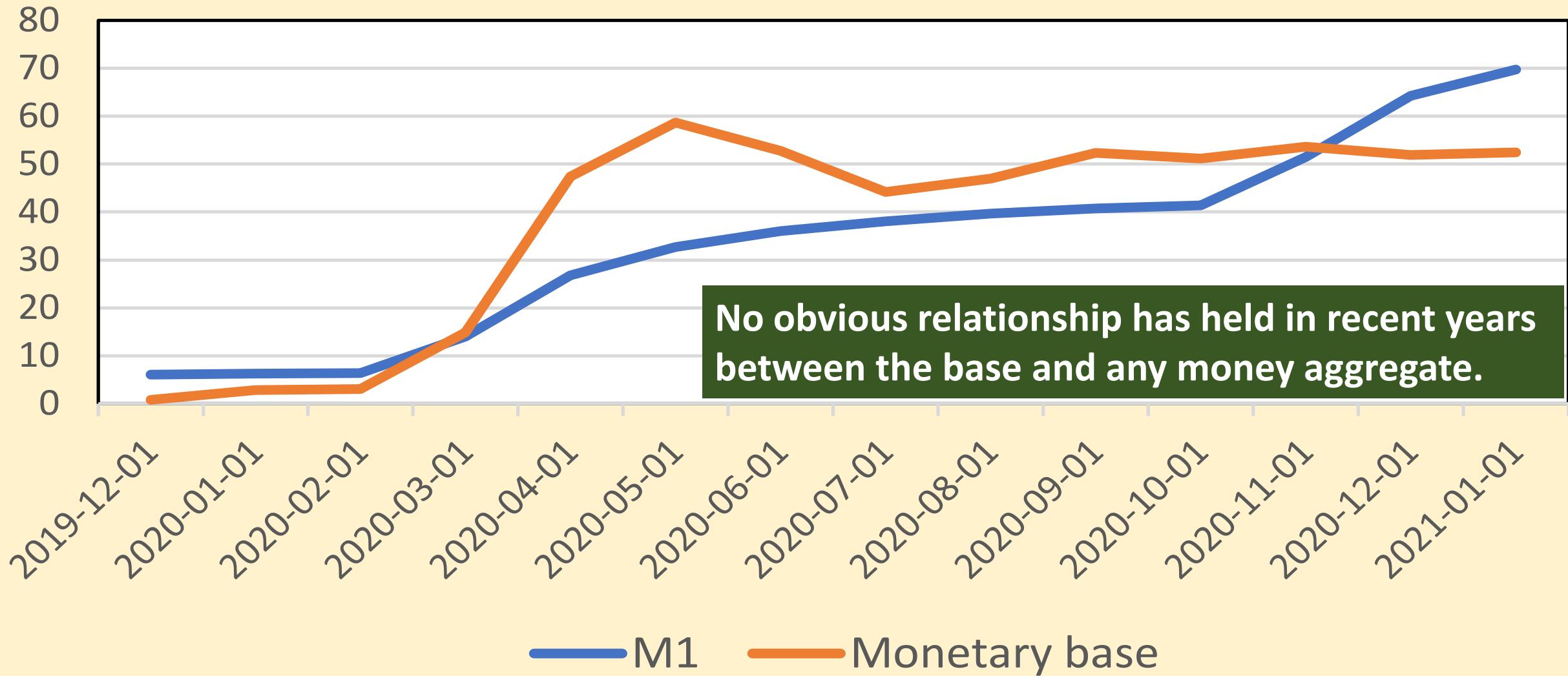
The monetary base and M1 in the USA

- in \$b., January 2021



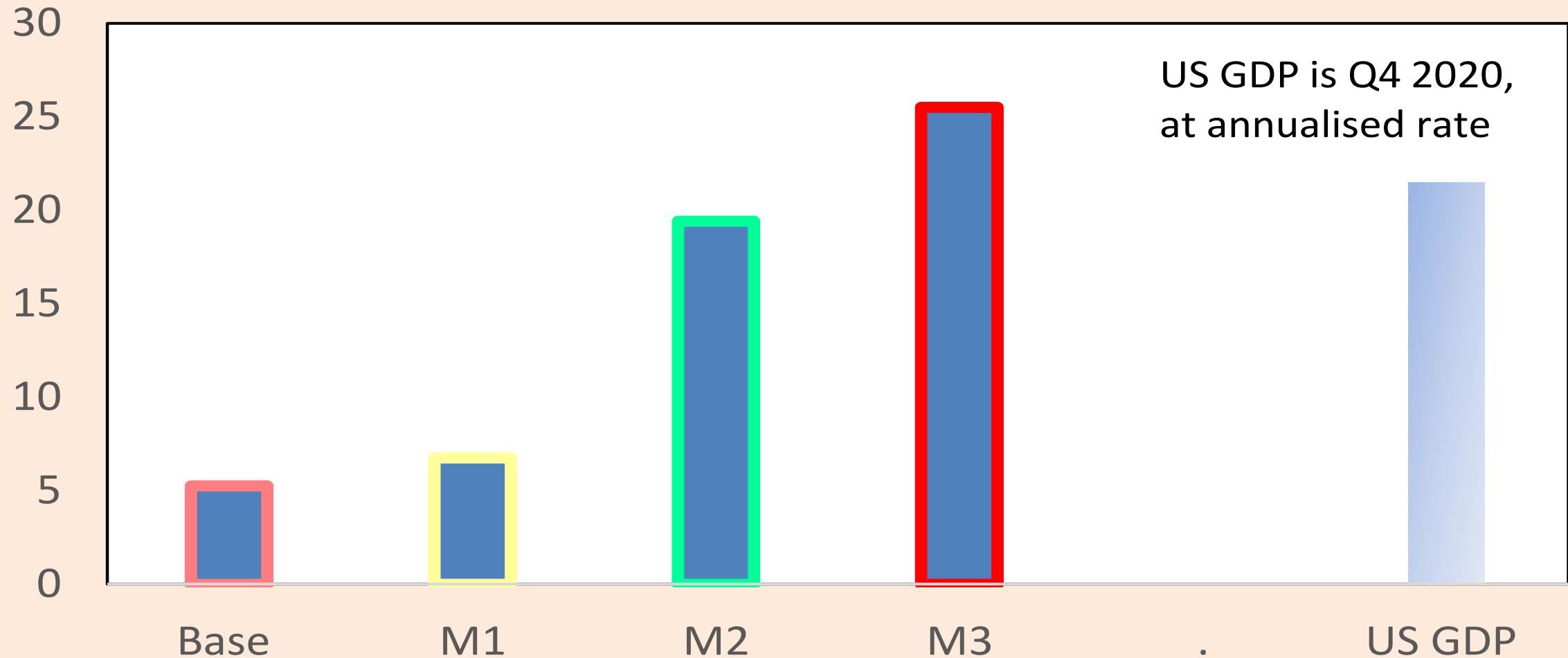
The monetary base and M1 in the USA

- % annual increase



US money aggregates and the base

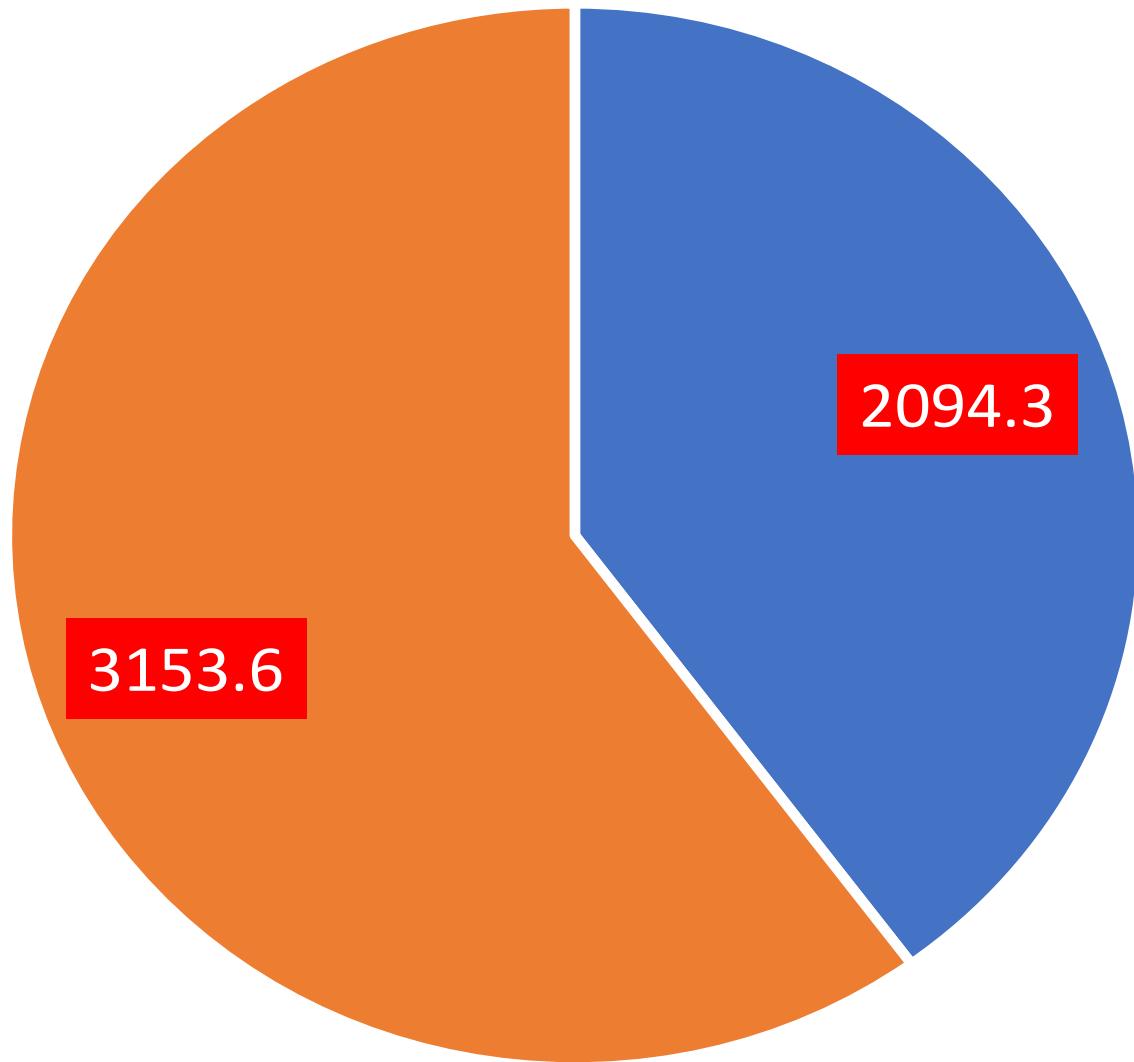
- in January 2021, in \$ trillions



The ‘which aggregate?’ debate: Criteria for selecting the right aggregate in monetary analysis

Over 80% of expenditure (or ‘aggregate demand’) in a typical modern capitalist economy is by the private sector, where all agents (households, companies and financial institutions) hold money balances.

1. **The right aggregate is one that influences that 80% of aggregate demand**, either directly..... or indirectly (because, above all, money affects asset prices and national wealth affects expenditure).
2. **The relationship between money and expenditure must not appear to be magic – or to pop out of ‘a black box’.** (Paul Samuelson alleged that the money/expenditure relationship in Friedman and Schwartz’s 1963 *Monetary History* was a black box.)
3. **The direction of causation must be predominantly from money to wealth portfolios and expenditure**, not the other way round.



■ Currency in circulation

■ Banks' cash reserves at the Fed

Is the monetary base the aggregate that we want?

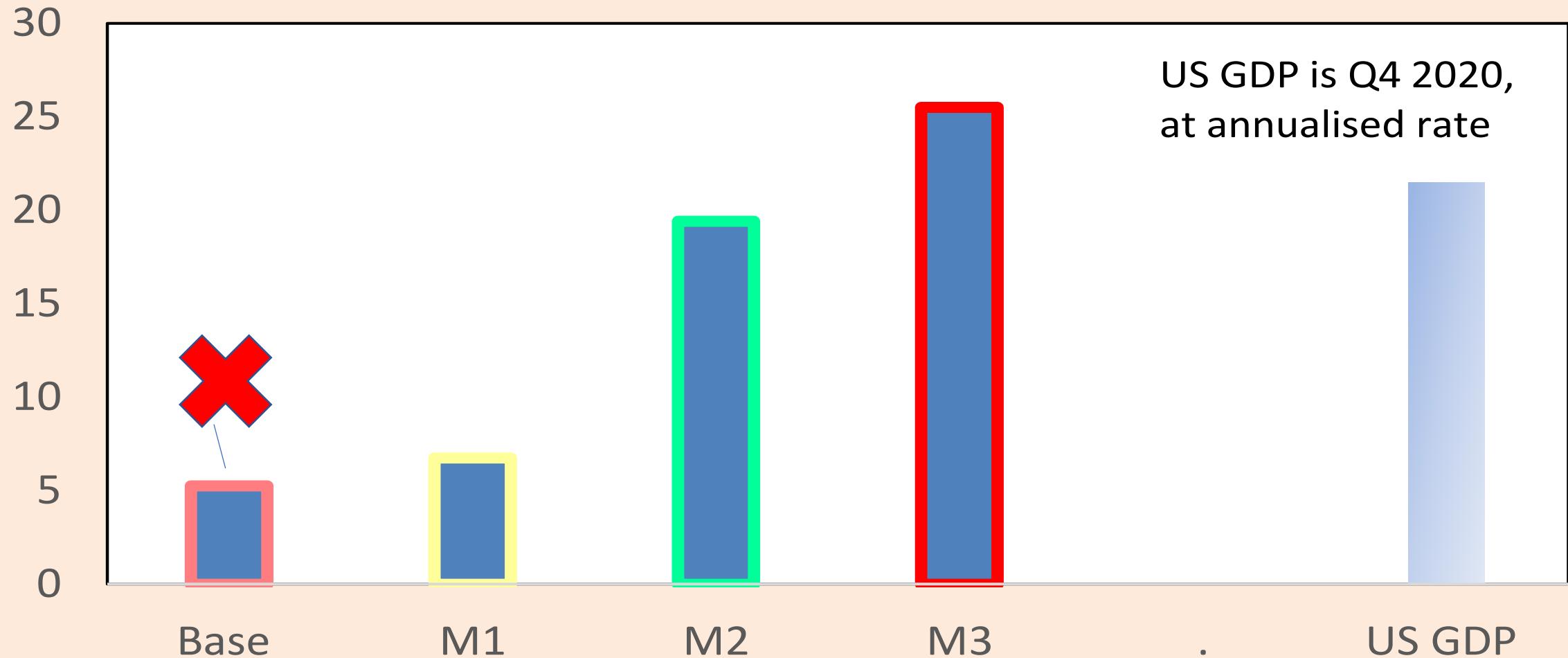
- Data are in \$b. and are for the USA in January 2021

The monetary base does not meet our criteria

- Notes and coin in circulation – ‘cash’, in the strict sense – accounts **for less than 1% of the value of all transactions**. Most transactions are by means of electronic instructions to make payments from bank deposits.
- Banks themselves account for a small share of total expenditure. They pay their staff and meet the costs of their payments infrastructure, but **these are usually under 3% of national expenditure**. In any case the level of their cash reserves isn’t the key influence on such expenditure.
- The monetary base does matter, **to the extent that it influences the quantity of money.....BUT IT IS THE QUANTITY OF MONEY THAT IS THEN THE CRUCIAL VARIABLE IN MACRO ANALYSIS.....**

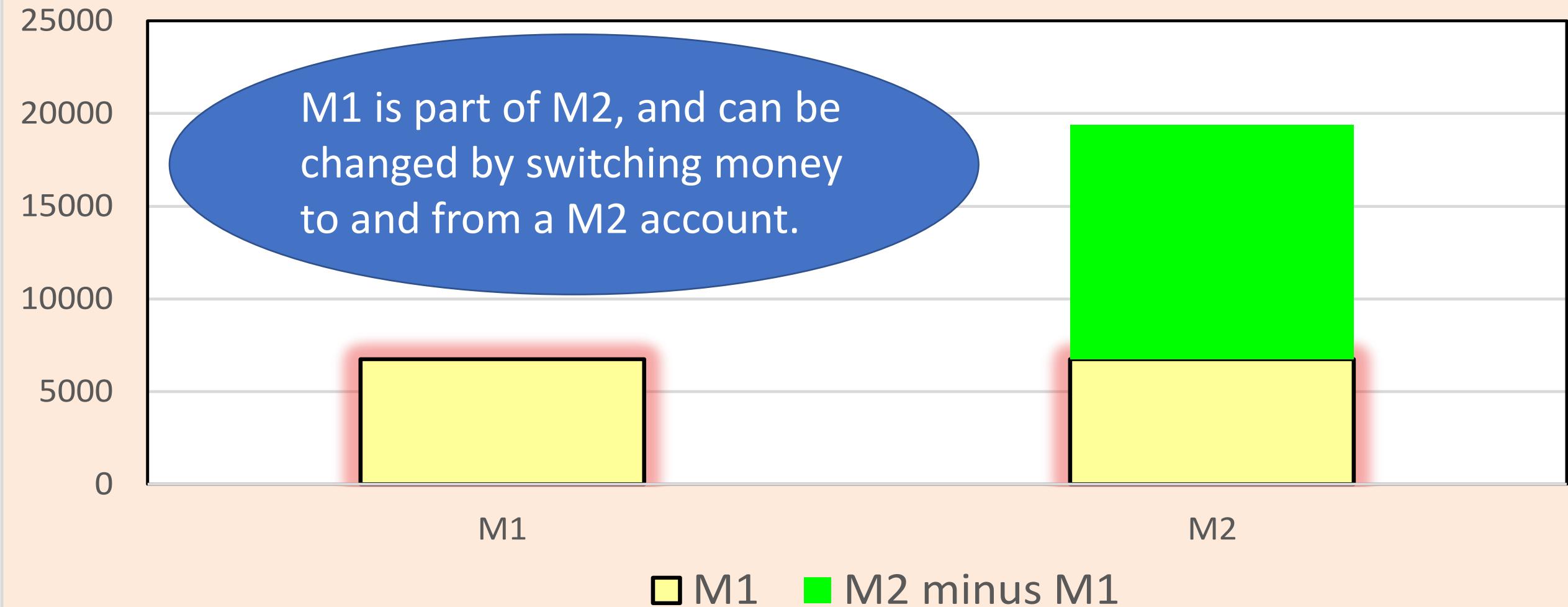
US money aggregates and the base

- in January 2021, in \$ trillions



The relationship between M1 and M2

- *US data for January 2021, in \$b.*

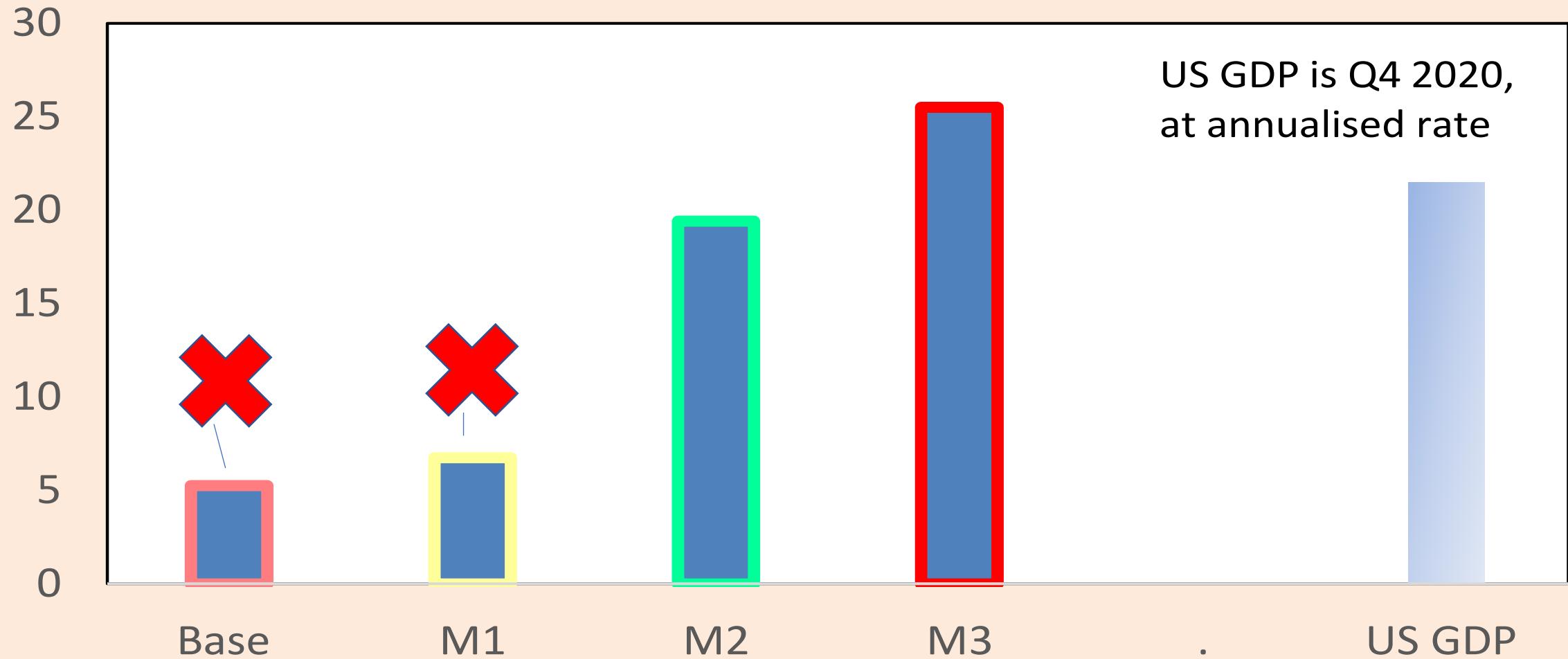


The trouble with any narrow aggregate like M1 is that it can change because of a switch between a bank account in M1 and a bank account outside it. **Such switches may cause large fluctuations in M1 which have no significance for the future course of national income and wealth.** Indeed, they may sometimes be caused by past and recent developments in national income and wealth. The direction of causation is wrong.

What about M1?

US money aggregates and the base

- in January 2021, in \$ trillions

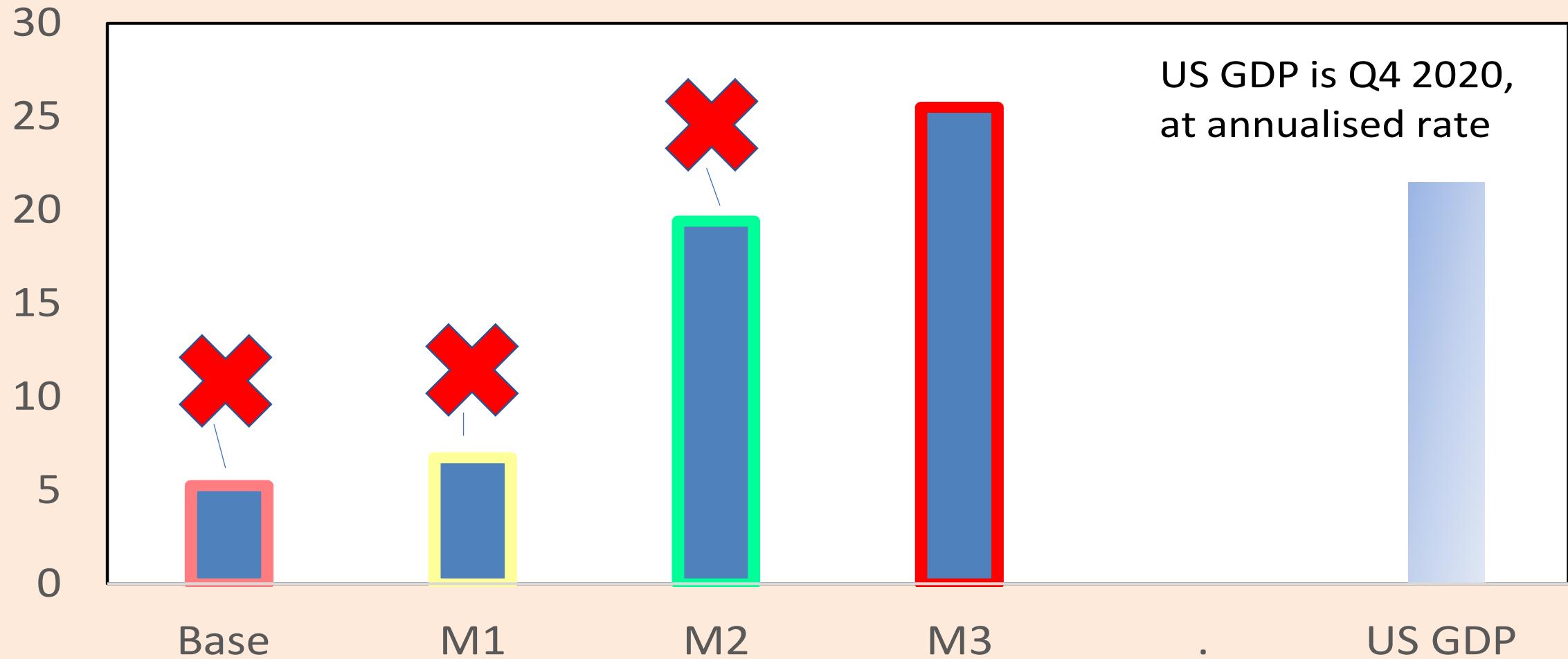


The same argument applies to M2, if with less force. It is smaller than M3 and its value can change because of a switch between a bank account in M2 and a bank account outside it. **Such switches may cause large fluctuations in M2 which have no significance for the future course of national income and wealth.** Indeed, they may sometimes be caused by past and recent developments in national income and wealth. The direction of causation is wrong.

What about M2?

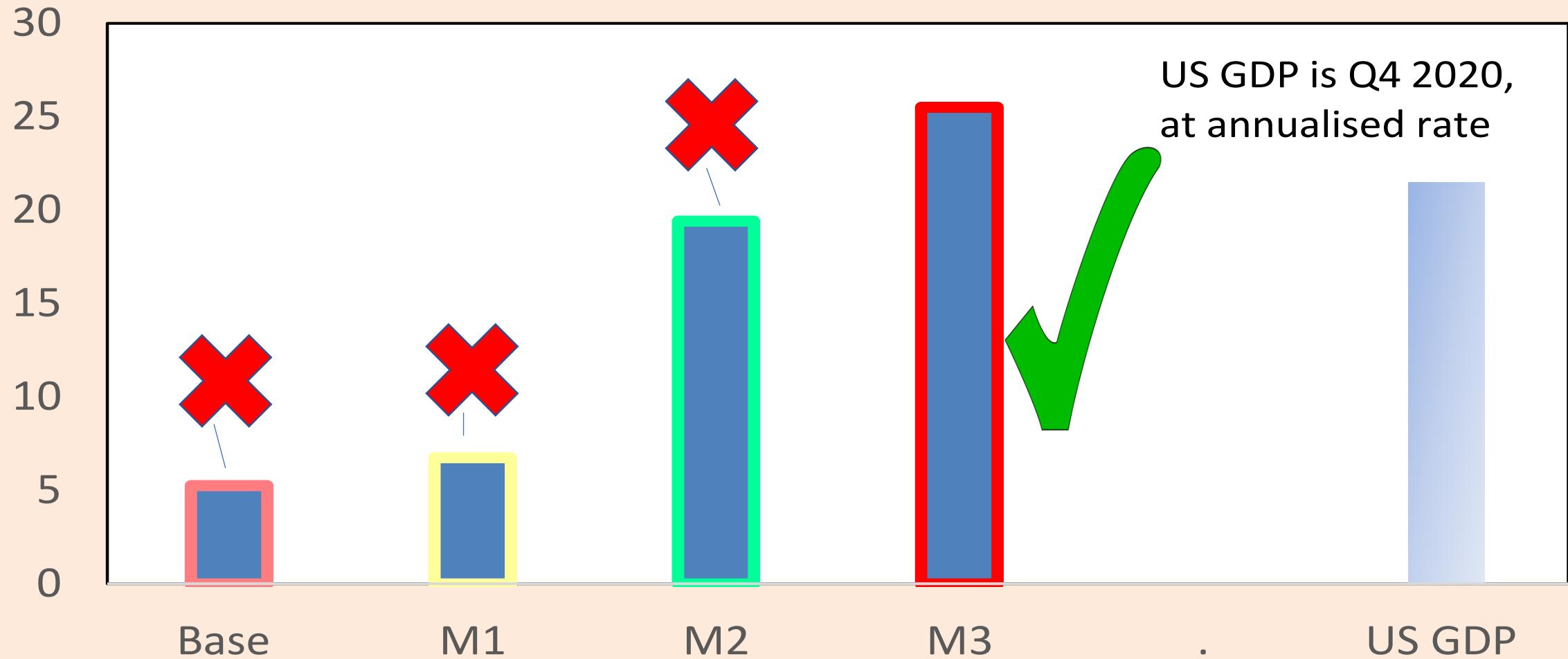
US money aggregates and the base

- in January 2021, in \$ trillions



US money aggregates and the base

- in January 2021, in \$ trillions



M3 is a broadly-defined, *all-inclusive* measure of money. If it is too large or small relative to the desired level, it cannot be changed by a switch into or from another money balance. It cannot be so changed *by definition*.

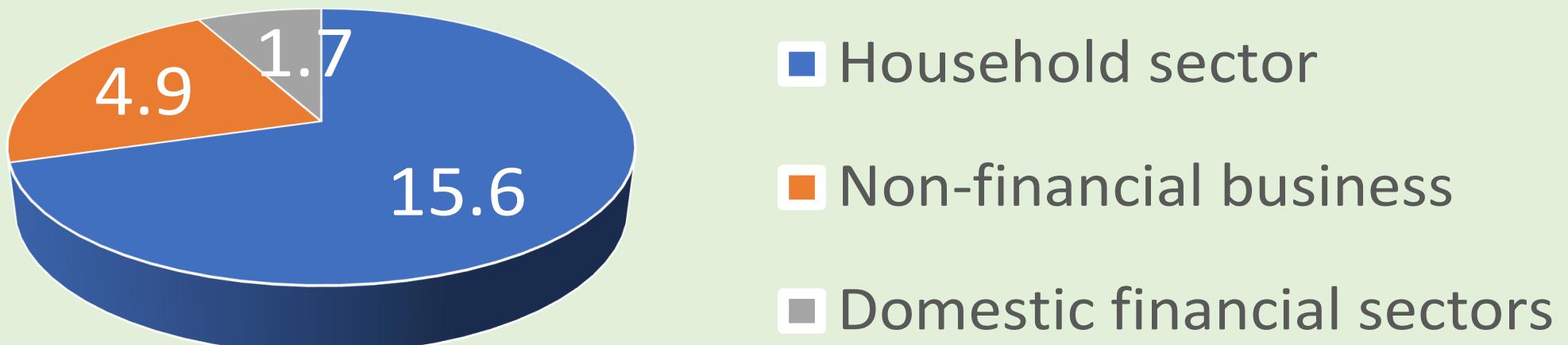
If it is too large or small relative to the desired level (i.e., relative to income or wealth), and if it takes a given value, national income and/or wealth must change to restore equilibrium. This is therefore the correct aggregate to use in macroeconomic analysis.

What about M3?

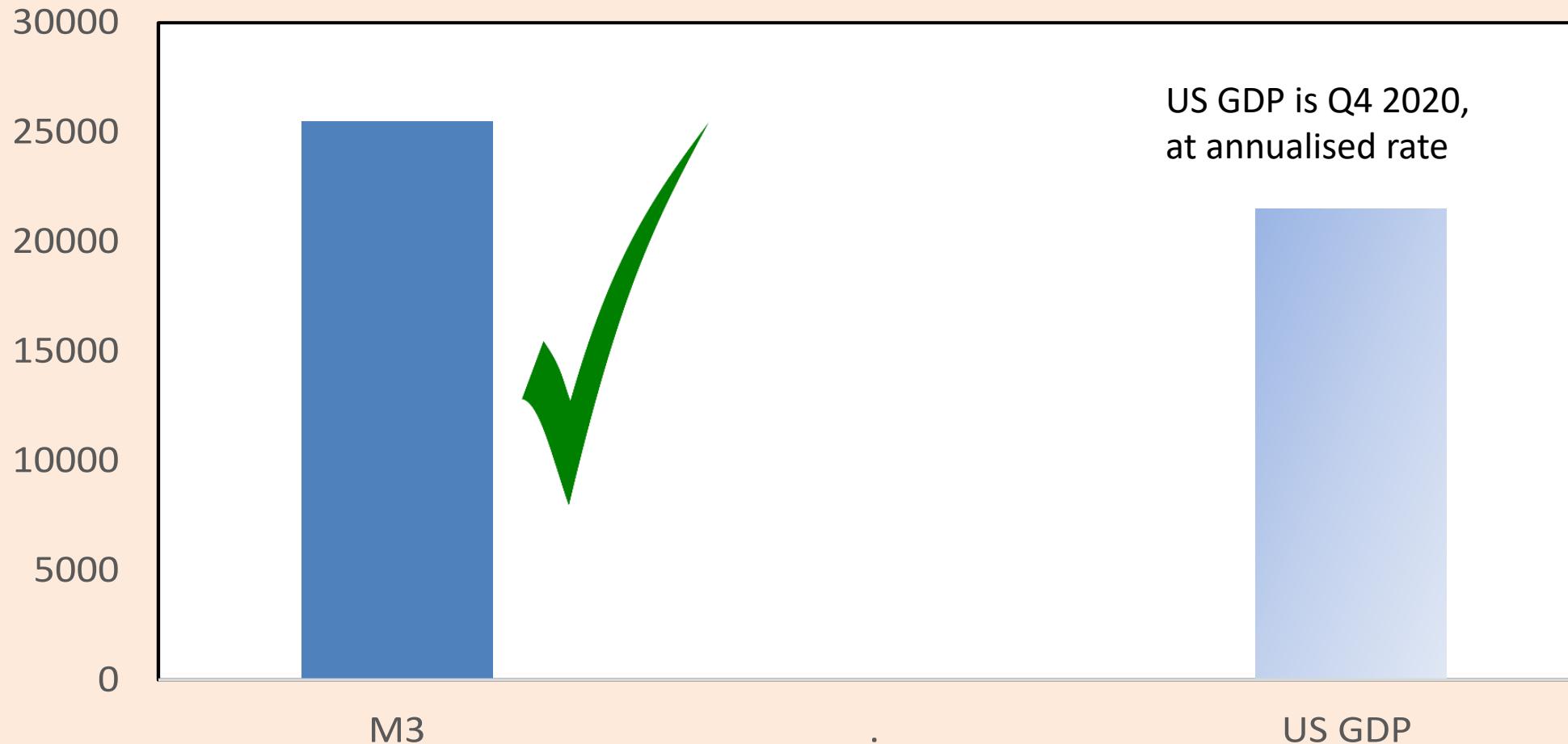
Deposit totals held by sector, in Q2 2020

- in \$ trillions

The money balances - i.e., bank deposits, mostly - held by households, companies and financial institutions can be related to their wealth portfolios and expenditure. The analysis is *not* inside a black box.



**Broadly-defined money is the correct aggregate
to use in macroeconomic analysis**
- in January 2021, in \$ billions



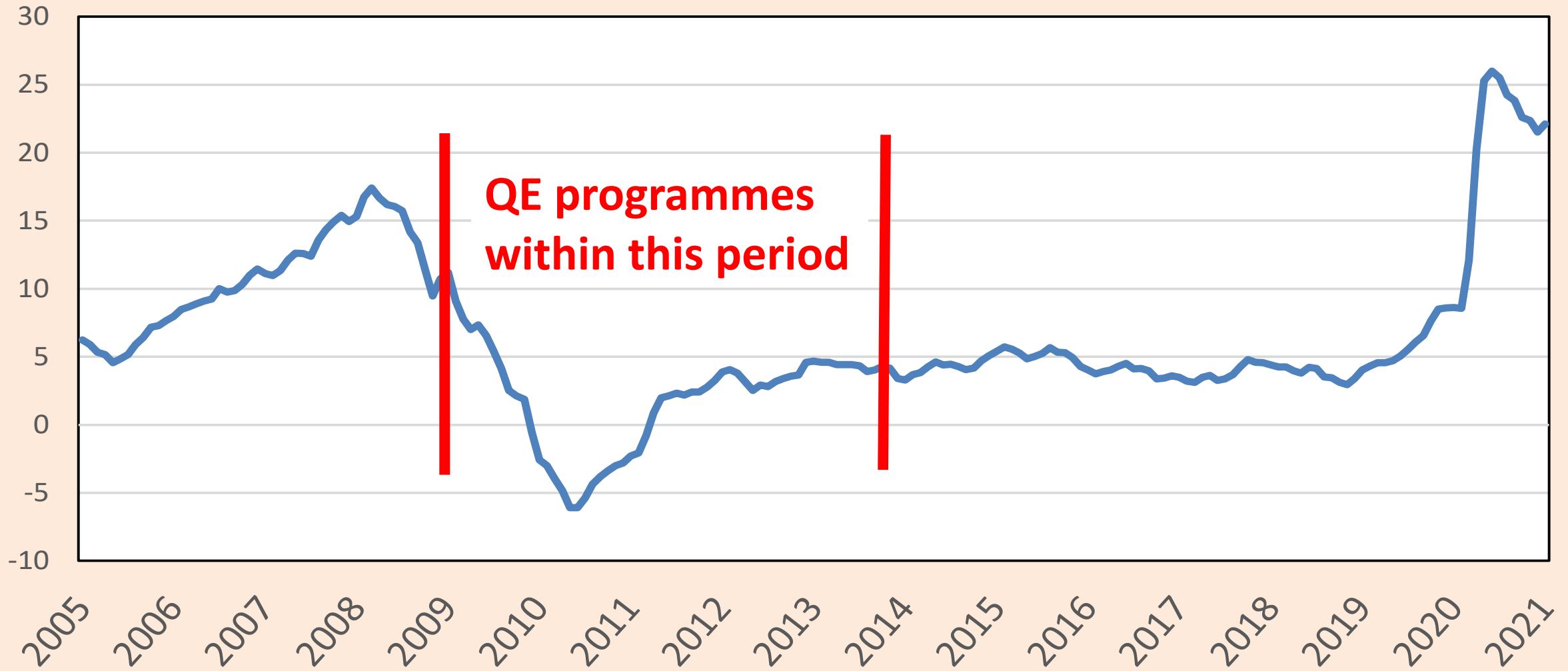
The quantity theory of money: what does it say about inflation?

Both the monetary base and narrow money measures (which by definition do not include all money balances) do not meet our criteria to be satisfactory money aggregates. A broadly-defined, all-inclusive, measure of money does meet those criteria.

→ **‘Inflation is caused by excessive growth of the quantity of money, *on the broadly-defined definition*, which includes all money balances.’**

Broad money in the USA, 2005 - 2021

M3 change - annual %



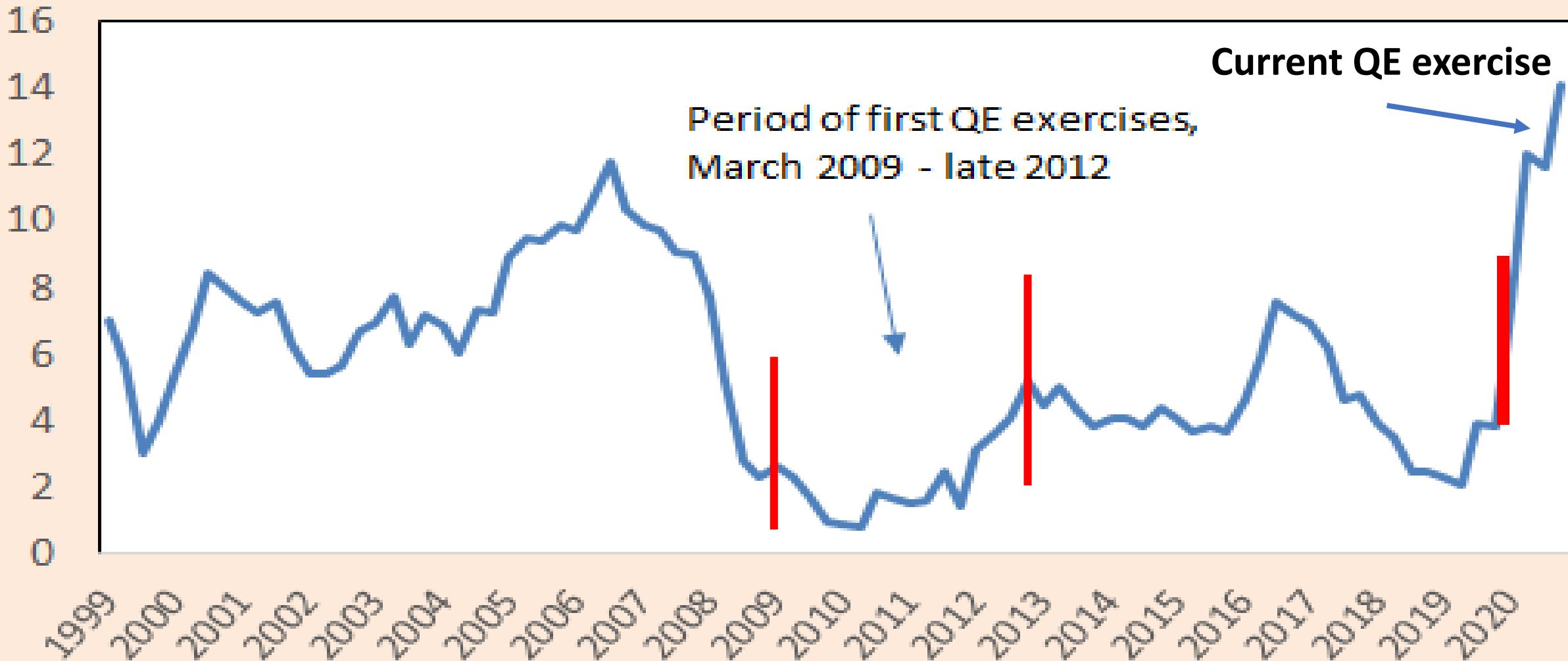
QE in the USA



- **1st period – December 2008 – December 2013.** Three episodes of QE were conducted in this five-year period, **when the average annual growth rate of M3 broad money was 2.2%**, one of the lowest figures over a five-year period in modern US experience. ***No wonder inflation stayed under control!***
- **Current period –** Since March 2020 the Federal Reserve has been purchasing assets, as well as providing monetary financing of a very large budget deficit. **The annual rate of broad money growth was 26% in June 2020, the highest figure since the Second World War, and it is still over 20% today (February 2021). A significant rise in inflation, to an annual rate of over 5%, is likely.** (In 1947 the USA suffered inflation of over 20%.)

Broad money growth in the UK

M4x - annual % change



QE in the UK



- **Ist period – March 2009 – Late 2012.** Despite QE operations (which added over £300b. to the quantity of money), broad money growth was very low in this period. **Typically it was under 3% a year. No wonder inflation stayed under control!**
- **Current period –** Since March 2020 the Bank of England has been purchasing assets, as well as providing monetary financing of a very large budget deficit. **The annual rate of broad money growth has reached 14% - far above the trend rate of output growth (perhaps 1% a year) – and a significant rise in inflation, to an annual rate of over 5%, is likely.**

QE and inflation: general rules

- The presence or absence of QE does not by itself determine the inflation rate.
- Inflation is caused by excessive growth of the quantity of money, broadly-defined, relative to the trend rate of growth of output.