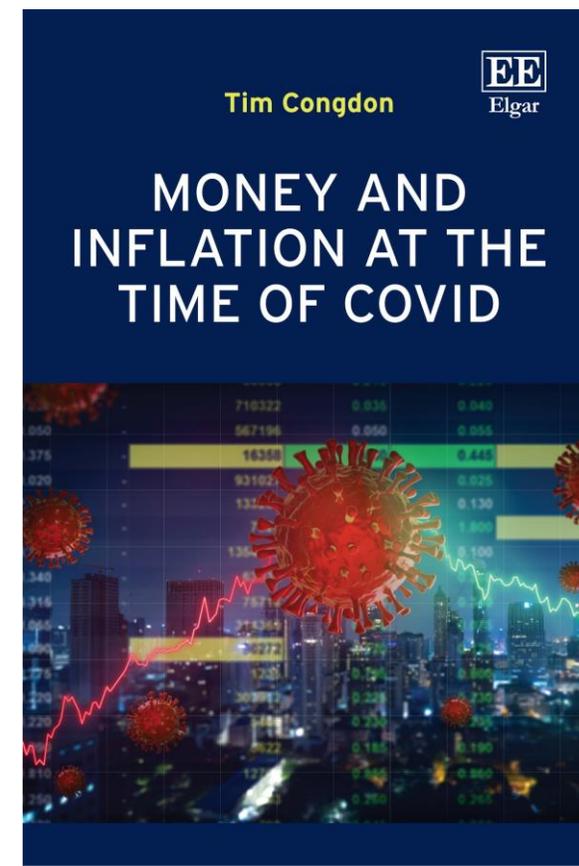
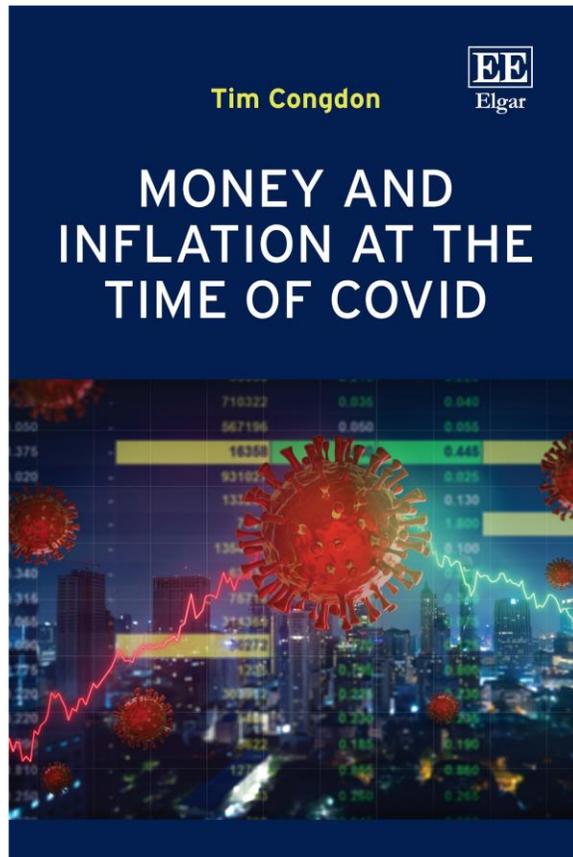


Why I have written *Money and Inflation at the Time of Covid*, and what it is about

*A presentation by Professor Tim Congdon CBE,
Chair of the Institute of International Monetary
Research,
in September 2025*

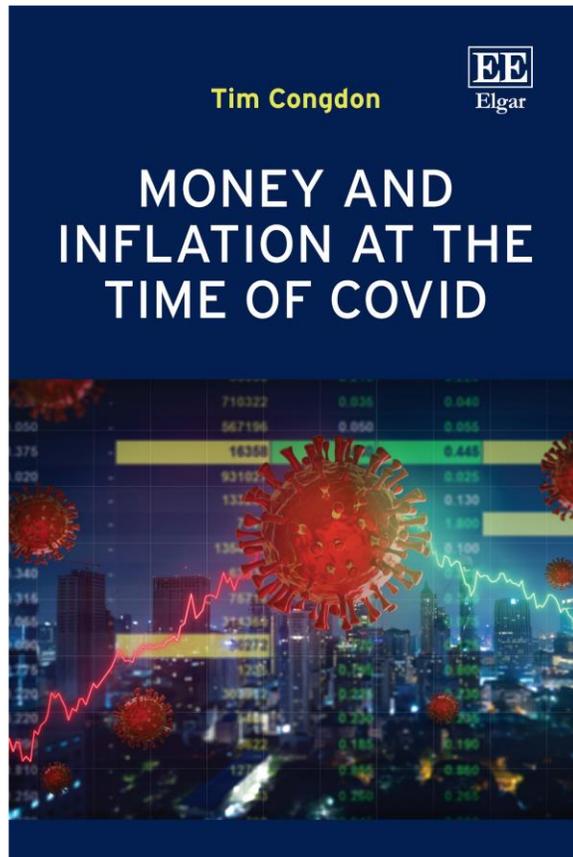




My aim in

Money and Inflation at the Time of Covid

The Covid pandemic provided an unusually clear test – a virtual ‘laboratory experiment’ – in macroeconomics. The overwhelming majority of economists in spring and summer 2020 expected the pandemic to lead to years of disinflation or even outright deflation. By contrast, I forecast a serious inflation flare-up over the next two/three years. I was right and my profession was wrong. The aim of my book is to explain why I was right.



My aim in

Money and Inflation at the Time of Covid

My book is split into two. The first half is about my analytical framework – or ‘theory’, if you wish; the second is concerned with the application of the theory to the main economies in the early 2020s, during and after the Covid medical emergency. My theory is a version of the quantity theory of money. It has debts to many previous economists, but in some respects – and taken as a whole – it is distinctively my own.

Examples of woefully bad forecasts from leading figures in macroeconomics

- Three prominent figures in modern macroeconomics and macro policy-making are chosen here. But to a degree this is unfair. Virtually all economists were wrong about inflation in the early 2020s. This is evident
 - In the behaviour of bond and money markets in late 2020 and early 2021, since money market rates and bond yields were typically lower in this period than in late 2019, despite the money growth explosion, and
 - In publications from all the relevant international organizations, i.e., the IMF, the OECD, the BIS, as well as the national central banks of the so-called 'leading nations'.

Richard Clarida in a speech on 21 May 2020 to the Economic Club of New York



“...[T]he COVID-19 contagion shock will be disinflationary, not just over the next few months but over the next few years.”

- i.e., presumably out to 2023 and 2024, perhaps even 2025 and 2026.

Richard Clarida, vice-chair of the Federal Reserve, in remarks to the Economic Club of New York on 21 May 2020

Isabel Schnabel on 27 June 2020 in speech given to Petersberger Sommerdialog in Frankfurt



“Inflation could remain at close to 0 per cent well into the next year, **and even negative inflation rates are possible**...[C]ore inflation, which excludes food and energy prices, will remain below projections from us as recently as March, **and will do so for a very long time**...The Governing Council of the ECB unanimously agreed [at its latest meeting, on 3 – 4 June] that the danger of such low inflation taking hold and leading to lower wages, growth and investment was too high.”

Olivier Blanchard in a 24 April 2020 column for the Vox CEPR Policy Portal

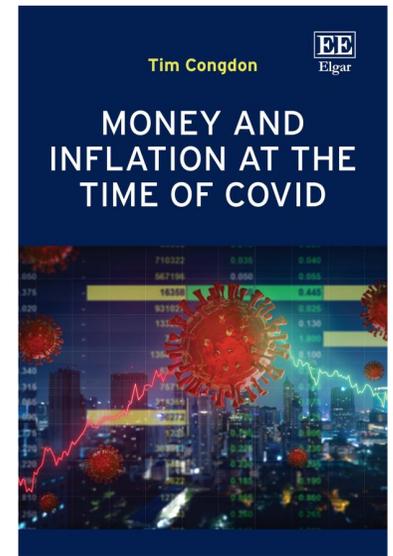


“Will falling commodity prices, stumbling oil prices, and a depressed labour market bring low inflation and perhaps even deflation, or will very large increases in fiscal deficits and central bank balance sheets bring inflation? **This column argues that it is hard to see strong demand leading to inflation. Precautionary saving is likely to play a lasting role, leading to low consumption, and uncertainty is likely to lead to low investment.** The challenge for monetary and fiscal policy is thus likely to be to sustain demand and avoid deflation rather than the reverse.”

- Olivier Blanchard ‘Is there deflation or inflation in our future?’, blog on Vox EU portal for 24 Apr 2020, available at <https://cepr.org/voxeu/columns/there-deflation-or-inflation-our-future> .

Examples of woefully bad forecasts from leading figures in macroeconomics

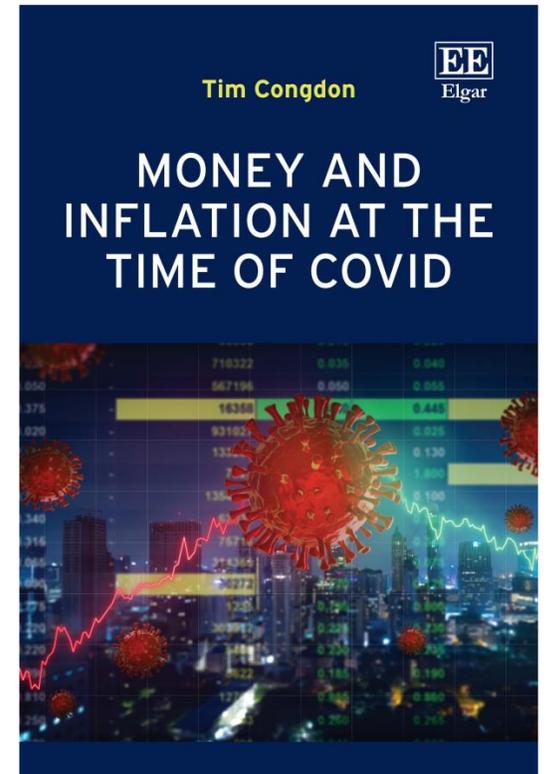
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They are not the main targets of my book, but I am no fan of the 'rational expectations' ideas of Robert Lucas (Chicago) and the related 'market monetarism' of Scott Sumner and others. See my comments in section VIII of Chapter I of 'Money and Inflation at the Time of Covid'.

My position on 'rational expectations' and the related school of 'market monetarism'

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My position – ‘broad-money monetarism’

- Given at start of Chapters 5, as follows

“...**[E]quilibrium** national income depends on the interaction between private sector agents’ money-holding preferences and the quantity of money, **broadly-defined**. The quantity of money in turn depends on **the banking system’s extension of credit to the state and the private sector**. The banking system consists of *both* commercial banks *and* a central bank. The commercial banks, are motivated mostly by profit, extending credit subject to liquidity and solvency constraints; the central bank, acting as banker to both the state and the banking system, is motivated not by profit, but by – among other things – the objective of monetary stability.

“In the author’s view, the above approach to the determination of national income should not be controversial. **By implication, the behaviour of the quantity of money is fundamental to macroeconomic analysis, prognosis and prescription.**”



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“In the author’s view, the above approach to the determination of national income should not be controversial. **By implication, the behaviour of the quantity of money is fundamental to macroeconomic prognosis and prescription.**”

In my view, the position I hold is standard monetary economics and it should not be controversial. But perhaps I must clarify something.

The quantity theory of money is about the determination of *equilibrium* national income

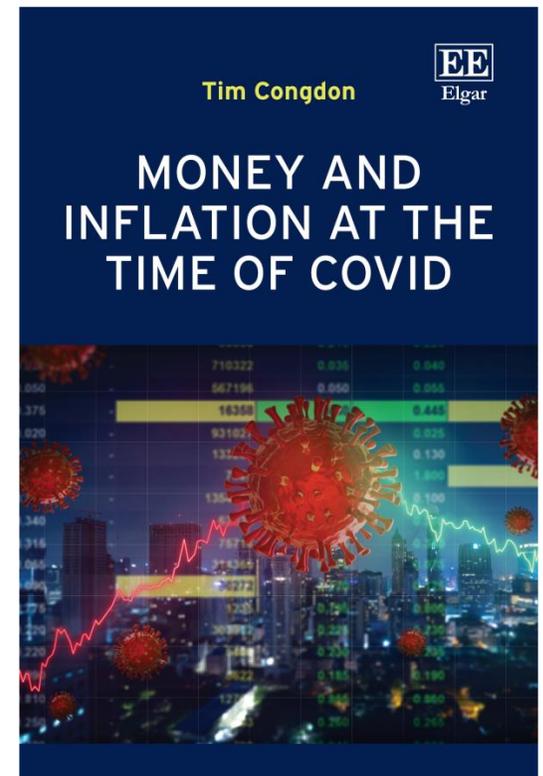
- In its $MV = PT$ form, the quantity theory of money is an identity. It becomes substantive as a theory with the claim that the key agents (in the non-bank private sector) have stable money-holding preferences. If certain conditions are met, the desired ratio of money to income is indeed a constant. The conditions are rarely met in practice. However, in empirical work, the implied propositions are that **a. changes in velocity are small relative to changes in the quantity of money and in nominal national income, over the medium and long runs**, and b. any changes in velocity can be explained by routine economic analysis of the determinants of money-holding behaviour. These propositions are confirmed – time and time again – in analyses of real-world data.

The quantity theory of money is about the determination of *equilibrium* national income

- But the qualification about ‘the medium and long runs’ is fundamental. In the cyclical short run shocks to the quantity of money (and sometimes to money-holding behaviour) cause the economy to be out of equilibrium, to suffer – in other words – from ‘**monetary disequilibrium**’. **The economy then has too large or too small money balances relative to the prevailing levels of national income.**
- The symptoms of monetary disequilibrium include large fluctuations in asset prices (esp., the stock market and real estate prices, including house prices) and associated swings in aggregate demand, notably investment and stock-building. The transmission mechanism(s) from money to the economy is/are then at work to restore monetary equilibrium.

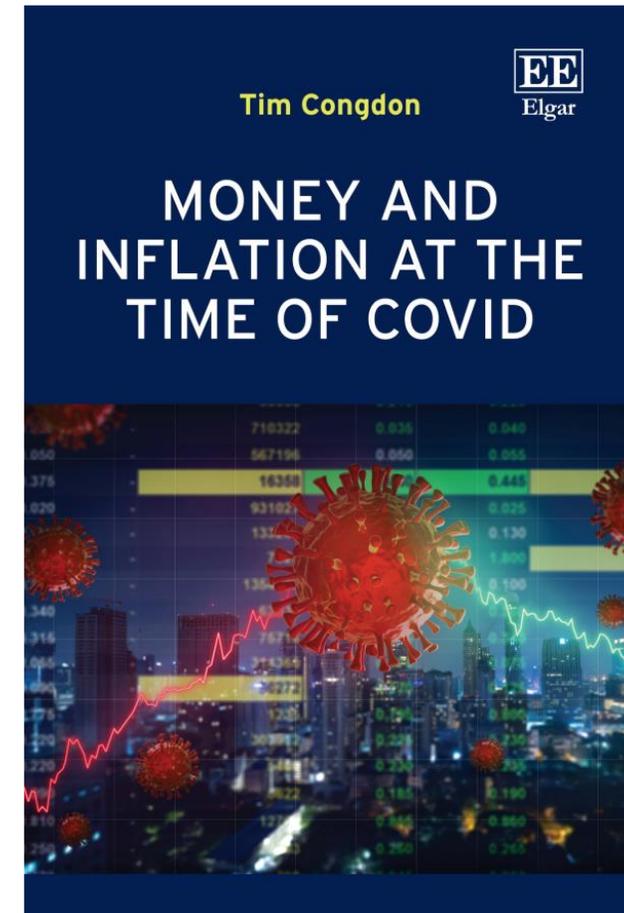
The quantity theory of money is about the determination of *equilibrium* national income

- The money growth explosion of spring and summer 2020 (in the USA and elsewhere) was a classic example of – indeed, almost a laboratory experiment about – **‘monetary disequilibrium’**. Leading economies – the USA in particular, but not only the USA - had **too large money balances relative to the prevailing level of national income**. I forecast that the collapse in money velocity in 2020 would be followed by two/three years of rising velocity, as agents’ stable money-holding preferences took over. I further forecast the inflation flare-up. (See in particular Chapters 5 and 6 of *Money and Inflation at the Time of Covid*.)



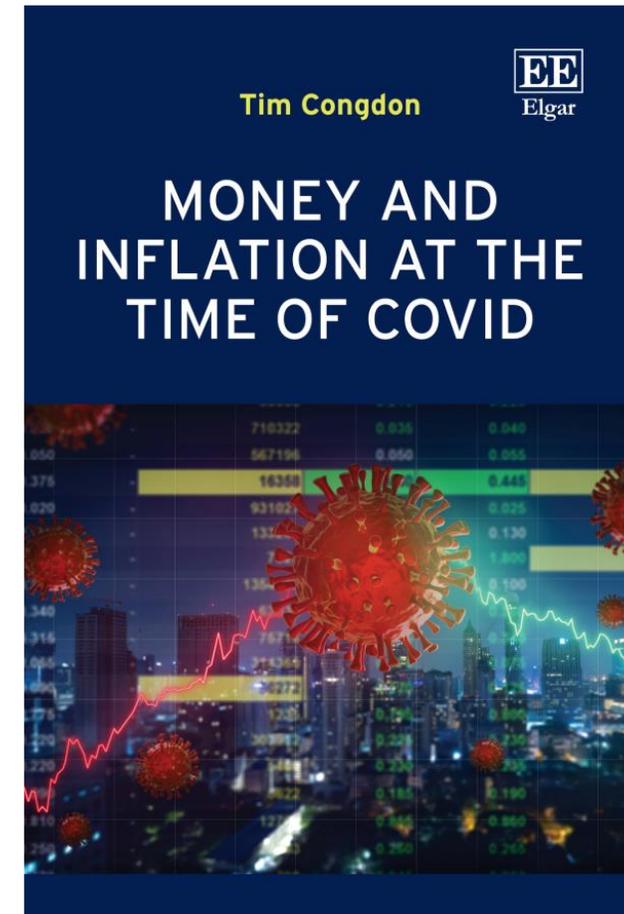
The quantity theory of money is about the determination of *equilibrium* national income

- The symptoms of monetary disequilibrium **in late 2021 and 2022 included buoyancy in share prices and strong rises in house prices**, which were accompanied by resurgent consumption as the Covid pandemic came under control. These patterns exemplified the transmission mechanism(s) from money to the economy discussed in Chapters 1 and 3 of *Money and Inflation at the Time of Covid*. They were found in the USA especially, but also in other economies.

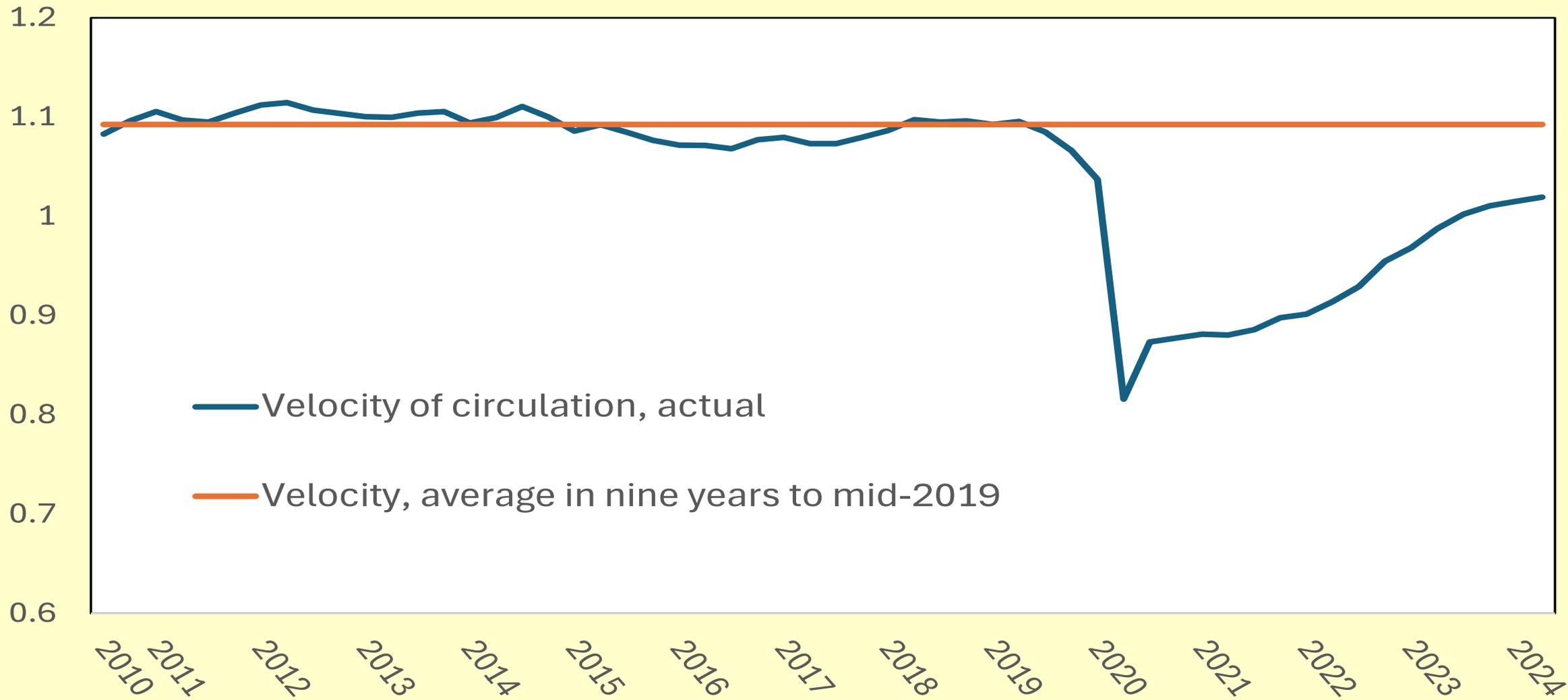


The quantity theory of money is about the determination of *equilibrium* national income

- Readers of my book might ask, ‘Ok, but the proof of the pudding is in the eating. **After the collapse in the income velocity of money in 2020 did it return to its pre-Covid levels in the next few years?**’.
- A return to the pre-Covid levels of velocity was the crux of the analysis which justified my forecast of an inflation flare-up in late 2021 and 2022. Is this what happened in practice? The answer is given in the final chapter – Chapter 10 – of *Money and Inflation at the Time of Covid*.



Income velocity of the USA's M3 measure, in the 2010s and the Covid-affected early 2020s



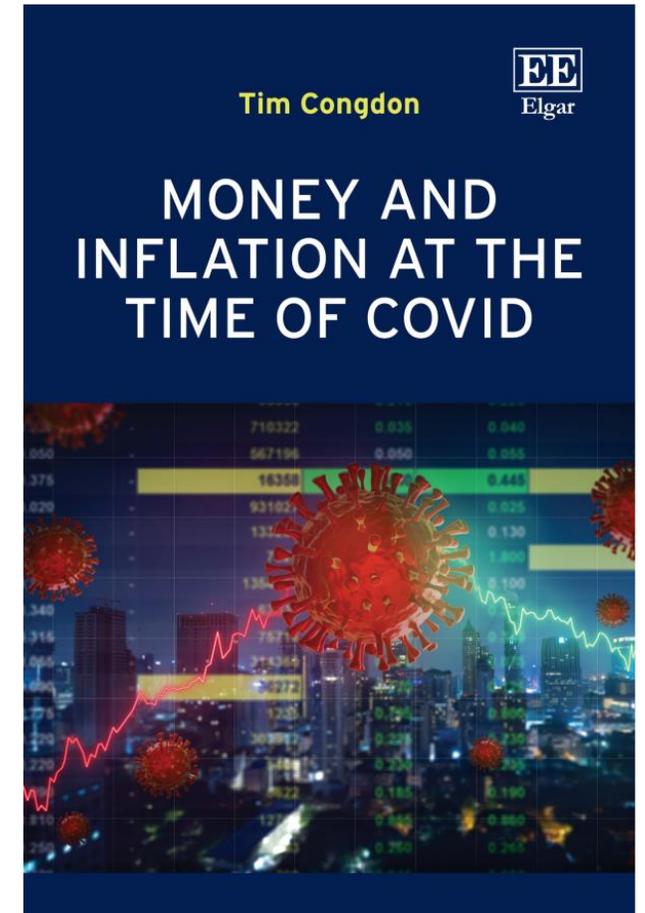
Changes in velocity in the four years from Q2 2020

		Velocity, actual, in quarter	Change in velocity on year earlier, %	Did velocity increase in the year?
USA	Q2 2020	0.82		
	Q2 2021	0.88	7.9	
	Q2 2022	0.91	3.8	
	Q2 2023	0.99	8.1	
	Q2 2024	1.02	3.2	
Eurozone	Q2 2020	0.76		
	Q2 2021	0.82	7.6	
	Q2 2022	0.84	2.7	
	Q2 2023	0.90	6.4	
	Q2 2024	0.92	1.9	
UK	Q2 2020	0.78		
	Q2 2021	0.86	9.9	
	Q2 2022	0.90	4.6	
	Q2 2023	0.97	7.9	
	Q2 2024	0.99	1.9	

My disagreements, which help to understand what is new in *Money and Inflation at the Time of Covid*

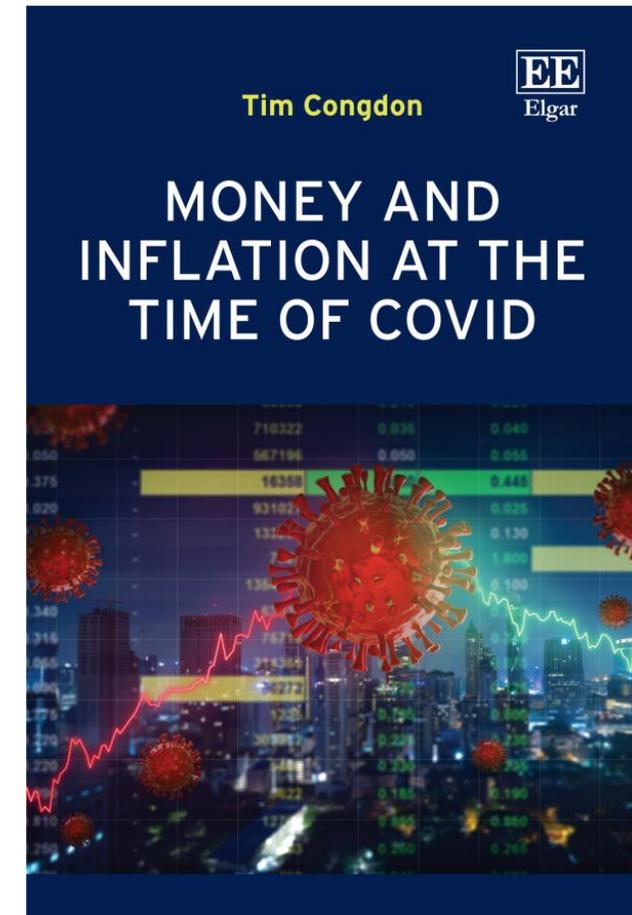
- My focus is on the relationship between the quantity of money, broadly-defined, and nominal national income (and nominal national wealth, too, which is a long story).
- **I dislike two alternatives which I call**
 - **Monetary-base monetarism, and**
 - **Narrow-money monetarism.**

Both of these were associated with the Chicago School monetarism of the late 20th century and, hence, Milton Friedman. In Chapter 2 I set out my differences from Friedman **and also argue that Chicago School monetarism is dead.**



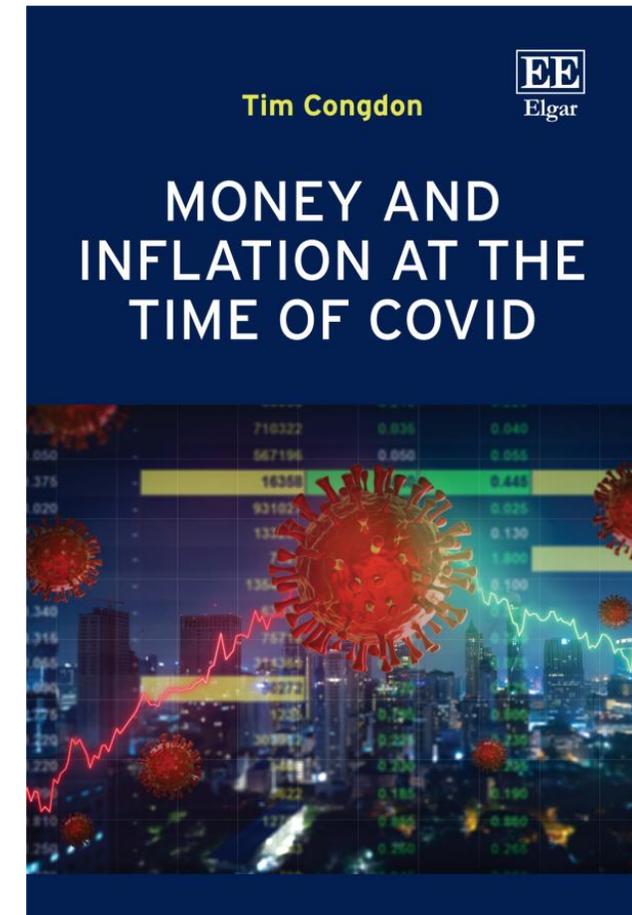
My disagreements, which help to understand what is new in *Money and Inflation at the Time of Covid*

- My disagreement with Friedman (and others, mostly American, who thought – and even now still think – in the same way) is particularly about the determination of the quantity of money. **I reject the view that the quantity of money should be seen as a stable multiple of the monetary base.**
- Instead changes in the quantity of money are determined by new credit extension – to the state as well as the private sector – by the banking system. Such credit extension by commercial banks is constrained by the risks of inadequate liquidity (including cash) and solvency (i.e., banks' equity capital, above all). Certainly the monetary base matters, but central banks try to make sure that solvent commercial banks can always obtain cash. **The more fundamental constraint on commercial banks is their solvency/capital, and this aspect of the subject is virtually ignored by Chicago and Friedman.**

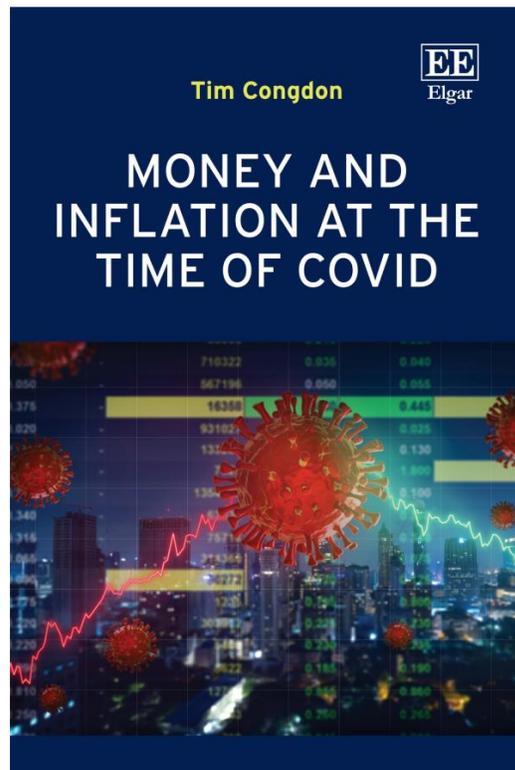


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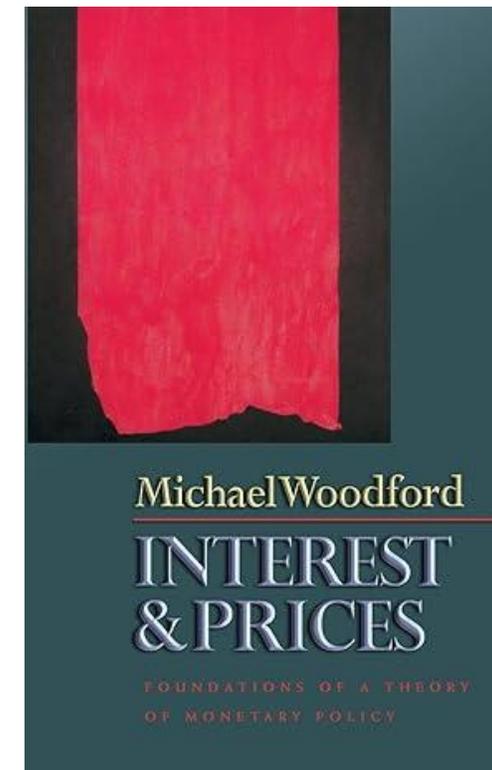
- But the most serious disagreements between me and the rest of the economics profession are with those who call themselves ‘Keynesians’. In the 21st century central bank research has revolved around a 2003 book called *Interest and Prices* by Michael Woodford, often seen as epitomizing ‘New Keynesianism’.
- Woodford claims that inflation can be analysed without reference to any money aggregate, but instead by considering the relationship between slack in the economy (as measured by a so-called ‘output gap’) and in labour markets (as measured by unemployment). Further, in his view monetary policy can be defined by a central bank decision’s on its rate of interest. **By implication, money aggregates can be ignored.**



An intellectual duel? – the two books are at opposite ends of an analytical spectrum

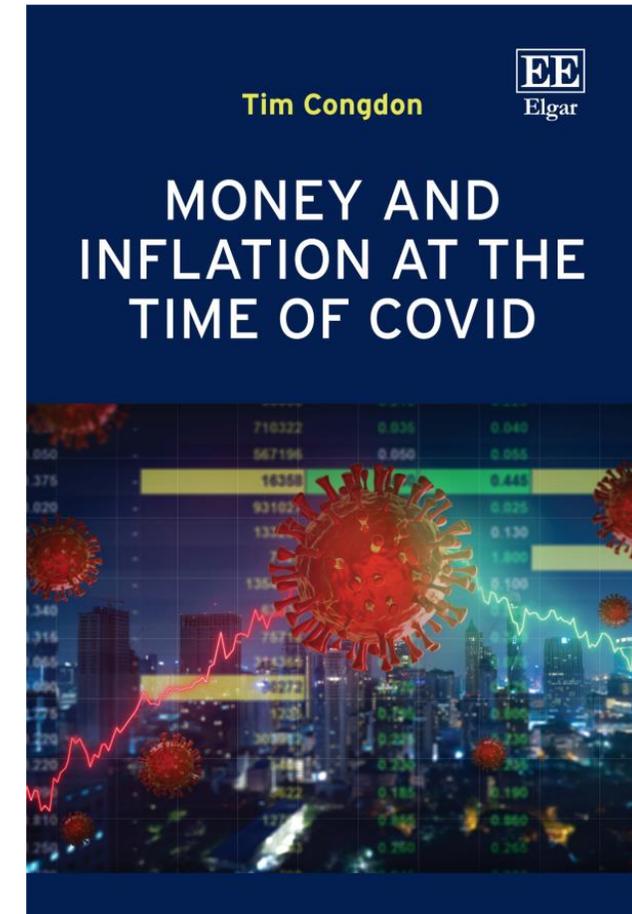


versus



My disagreements, which help to understand what is new in *Money and Inflation at the Time of Covid*

- Woodford's work has led to what I call 'interest-rate-only macroeconomics'. At the heart of New Keynesianism is a three-equation model, in which the so-called 'IS function' is the *only* relationship relevant to the determination of aggregate demand (and hence to changes in the output gap, which affects inflation).
- **In *Money and Inflation at the Time of Covid* I say that**
 - **Interest-rate-only macroeconomics, and**
 - **The lionization of the IS function in New Keynesianism****are the key ideas to blame for the failure of the economics profession to forecast and understand the inflation flare-up of the early 2020s.**



My disagreements, which help to understand what is new in *Money and Inflation at the Time of Covid*

- In Keynes' own work 'the rate of interest' means the yield on bonds, and so it does also in the IS-LM framework introduced by John Hicks in a famous 1937 review article of Keynes' *General Theory*.
- In my view **it is preposterous to limit the effect of changes in the quantity of money on asset markets to the effect of bonds. The effect of such changes on the prices of corporate equity and real estate is far more important.**
- In Table 1.4 in Chapter 1, I show that for the US household sector, in late 2020 and 2021, changes in the values of 'variable-income assets' were a multiple, sometimes of over 1,000 times, of changes in the value of bonds. Which mattered more to people's behaviour?

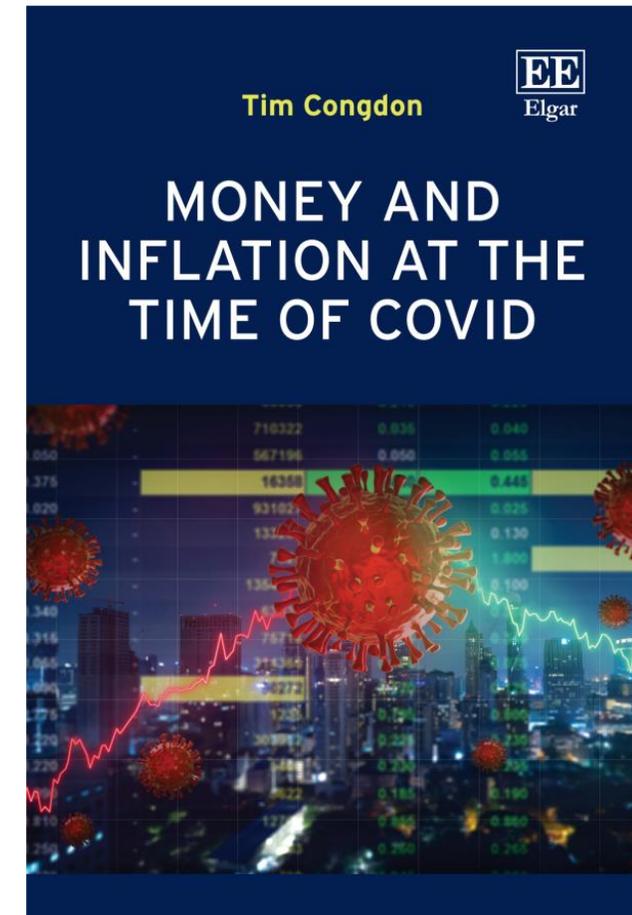


Table 1.4: Capital gains and losses on major asset classes in the USA's Covid-related business cycle

Net holding gains (in billions of \$s) from:

	Real estate	Corporate equities	Mutual fund shares	Equity in non-corporate businesses	Variable-income assets	Debt securities	Change in value of variable-income assets as multiple of that in value of debt securities, without regard to sign
2020:Q1	633	-4,798	-1,593	264	-5,494	121	45
2020:Q2	610	3,518	1,223	68	5,419	52	104
2020:Q3	722	1,768	532	294	3,316	-2	1,638
2020:Q4	983	3,847	977	418	6,226	5	1,205
2021:Q1	1,243	1,800	332	483	3,857	-122	32
2021:Q2	1,759	1,769	587	663	4,779	36	131
2021:Q3	1,887	188	-83	864	2,856	-32	90
2021:Q4	770	1,278	446	596	3,089	-5	685
2022:Q1	3,303	-1,018	-804	568	2,049	-200	10
2022:Q2	2,135	-5,108	-1,493	673	-3,794	-122	31
2022:Q3	-1,254	-1,016	-557	209	-2,618	-145	18
2022:Q4	-978	1,182	534	-197	541	54	10

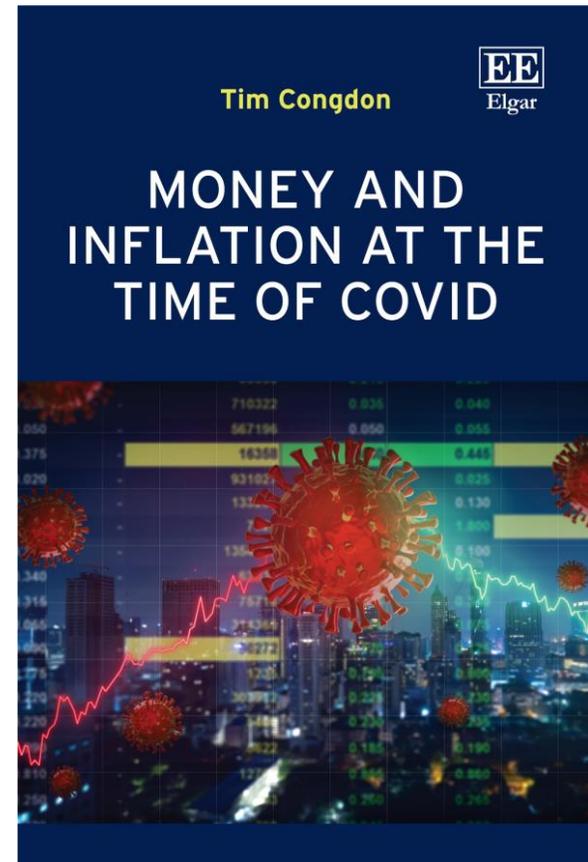
Personal disposable income was \$16,388.6 billion in 2019 and \$18,523.6 billion in 2022.

The value of variable-income assets in the US economy is taken to be the sum of the four columns in the left of the table. This is for illustration. Other variable-income assets could be included.

Source: US Federal Reserve *Financial Accounts of the United States* (June 2023 release), Table R101, p. 141.

My disagreements, which help to understand what is new in *Money and Inflation at the Time of Covid*

- Further, in any economy where agents are balancing money against equities and real estate in their portfolios, **such Keynesian ideas as ‘the liquidity trap’ and ‘the zero bound’ are merely silly**. They are phantoms of the Keynesian imagination and no real-world relevance.
- Crucially, monetary policy can always defeat recession, while Friedman was right to claim that ‘inflation is always and everywhere a monetary phenomenon’. Indeed, **the inflation flare-up of the early 2020s was a clear demonstration of the continuing relevance and validity of Friedman’s dictum and of quantity-theoretic analyses more generally**.



Two warnings: to the economics profession

- The failure of the economics profession to warn about inflation from spring 2020 – immediately, as key policy announcements were made – was, in my view, very shocking. **It really was true that leaders of macroeconomic opinion hadn't a clue.** My correct forecasts were a straightforward application of a theory which is simple in essence and valid as a matter of fact. **Another failure of this sort will even further discredit the economics profession in the eyes of non-economists, including – I fear – populist politicians on both the left and right. I regard this as a tragedy.** Bluntly, the economics profession must sort out the theory of inflation so that its blunders in the early 2020s are not repeated.

Two warnings: to central banks

- The failure of the economics profession to warn about inflation from spring 2020 has major implications for the structure of policy-making. **Central banks were wrong – and, very understandably, the independence of central banks has come under threat, not least in the USA with the 2nd Trump Presidency.**
- Central banks have not accepted that the inflation was caused by their own actions, i.e., the engineering of excess money growth in 2020 and, to some extent, 2021. **Instead they have blamed ‘external cost shocks’ or something of the sort. This attempt to escape blame is every bit as bad as their intellectual failure on the causes of inflation.** The independence of central banks will come under further pressure – and the top central bankers of today must be heavily criticised for their involvement in the mistakes of the early 2020s, although much of the trouble stems from **the chaos in macroeconomic thought in the early 21st century.**