The Evolving Core of Usable Macroeconomics for Policymakers

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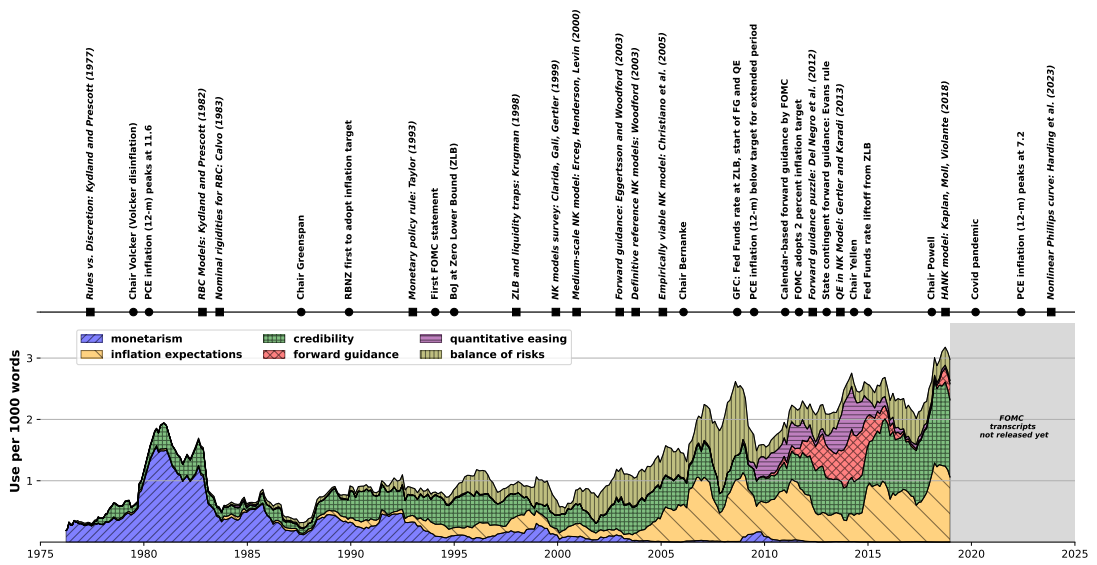
Evolving Core: Language, Events, and Theory



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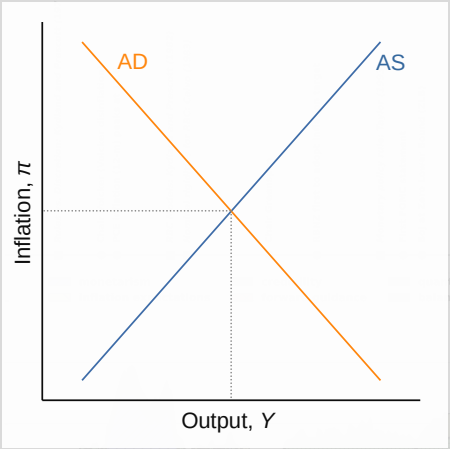
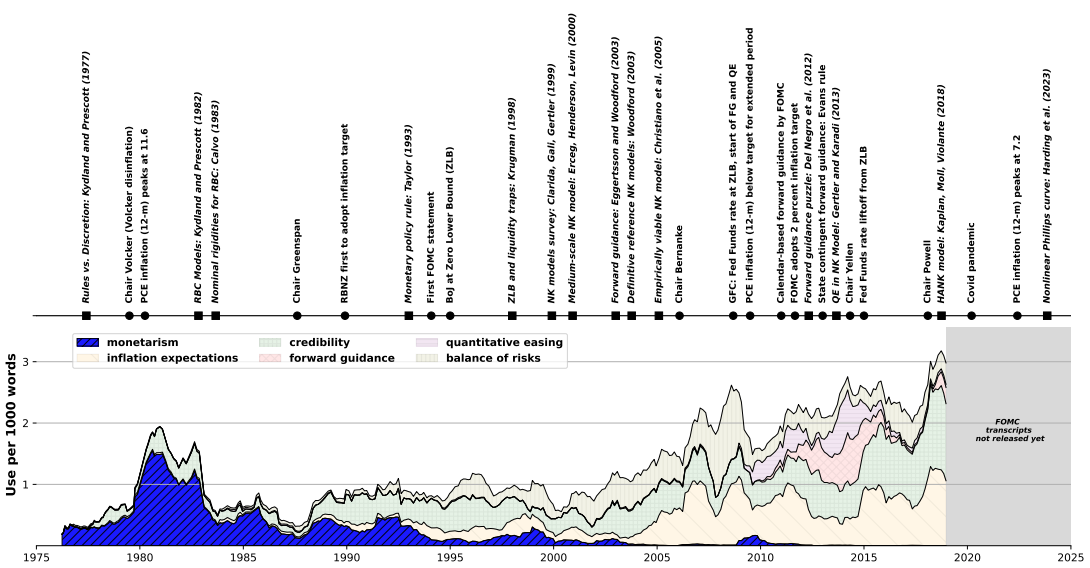


- AS-AD framework remains central.
- Contributions to a similar “Core of Macroeconomics” Papers and Proceedings session in 1997 were also grounded in it.
- New models have refined the AS-AD framework with microfoundations in a DSGE context, making expectations endogenous and enabling analyses of dynamics and optimal policy.

Monetarism main paradigm in ’70s, ’80s, and early ’90s



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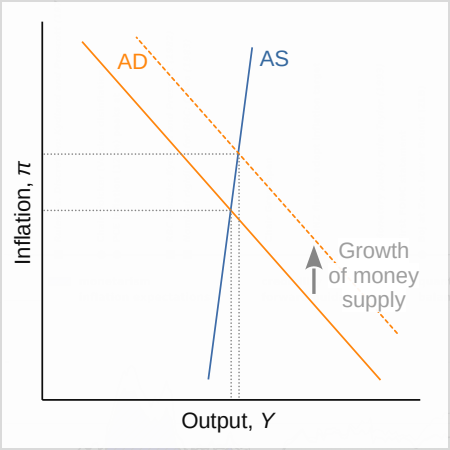

- Inflation being a monetary phenomenon, determined by the growth rate of the money supply in combination with nominal rigidities.

  Friedman (1968)

- Central to monetarist view: Changes in the money supply shift the AD curve along a fixed, nearly vertical AS curve, and monetary policy has limited or no short-run effects on economic activity.

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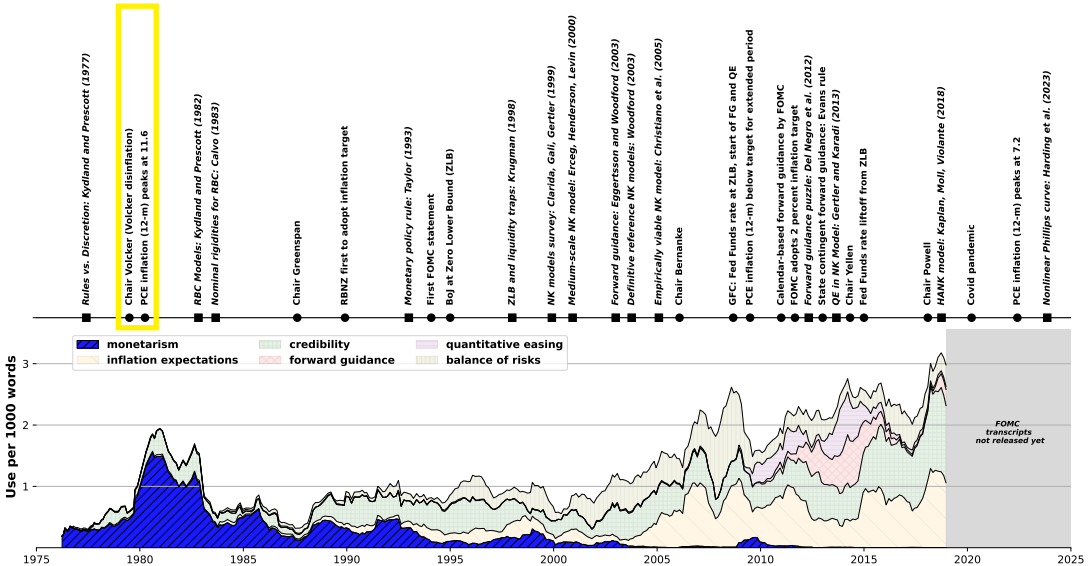

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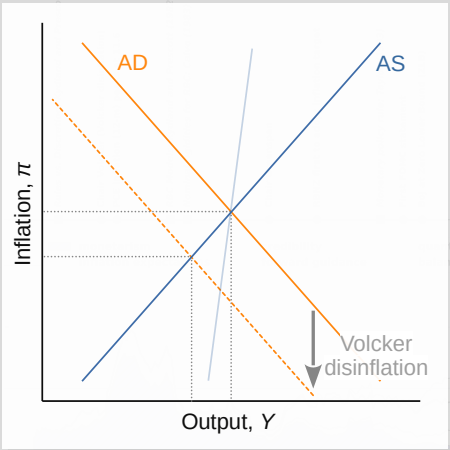
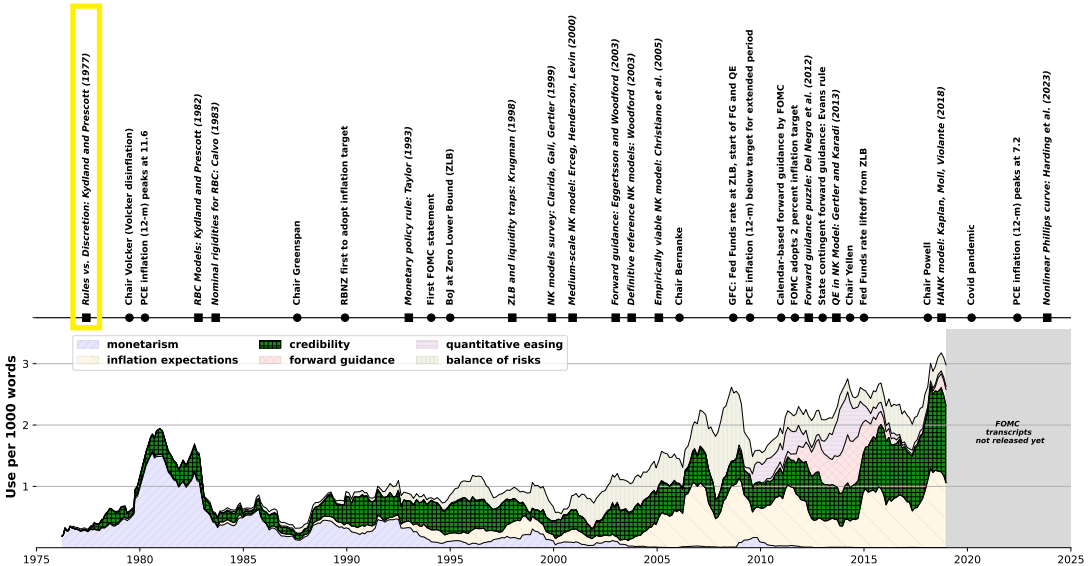


- Deep recessions of the early 1980s, during the Volcker disinflation, suggested that the AS curve was less steep than previously thought.

Credibility gained prominence after Kydland and Prescott (1977)



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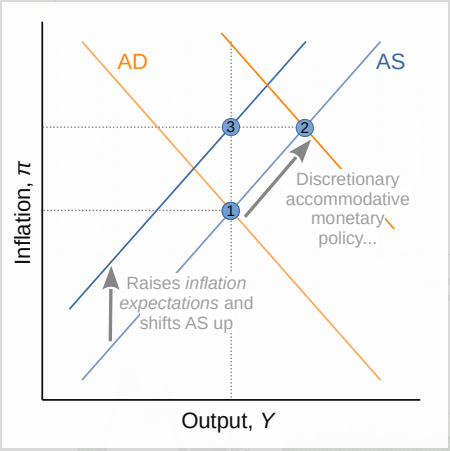

- Kydland and Prescott (1977) (KP) argued that the position of the AS curve is not fixed but depends on the *credibility* of the central bank.
- Rules are preferred over discretion.
- Under discretion, central banks might be tempted to pursue policies that are optimal in the short run but raise inflation expectations, shift the AS curve upward, and result in higher inflation over time.

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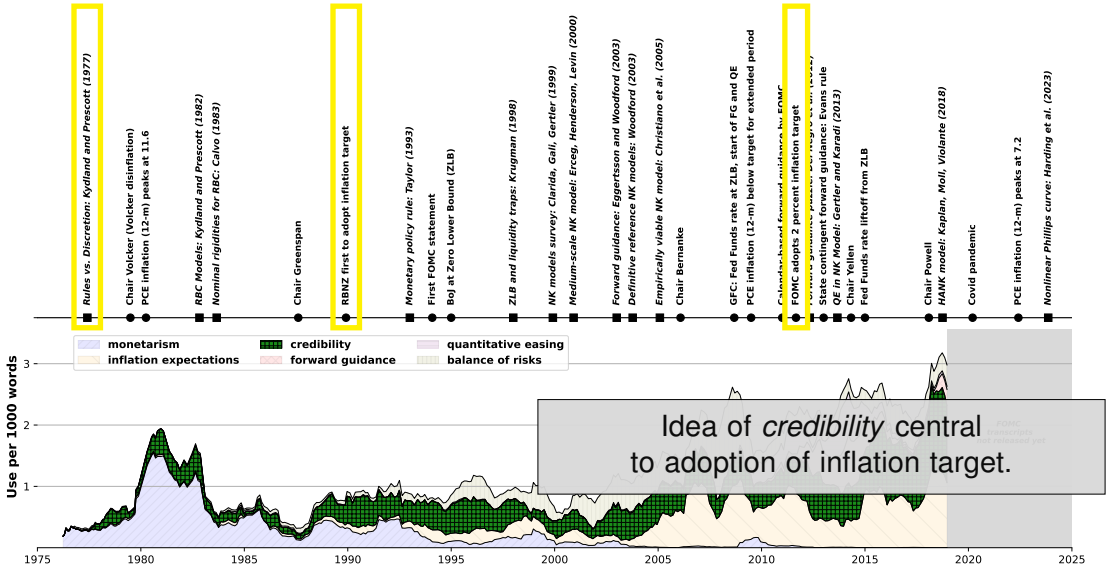
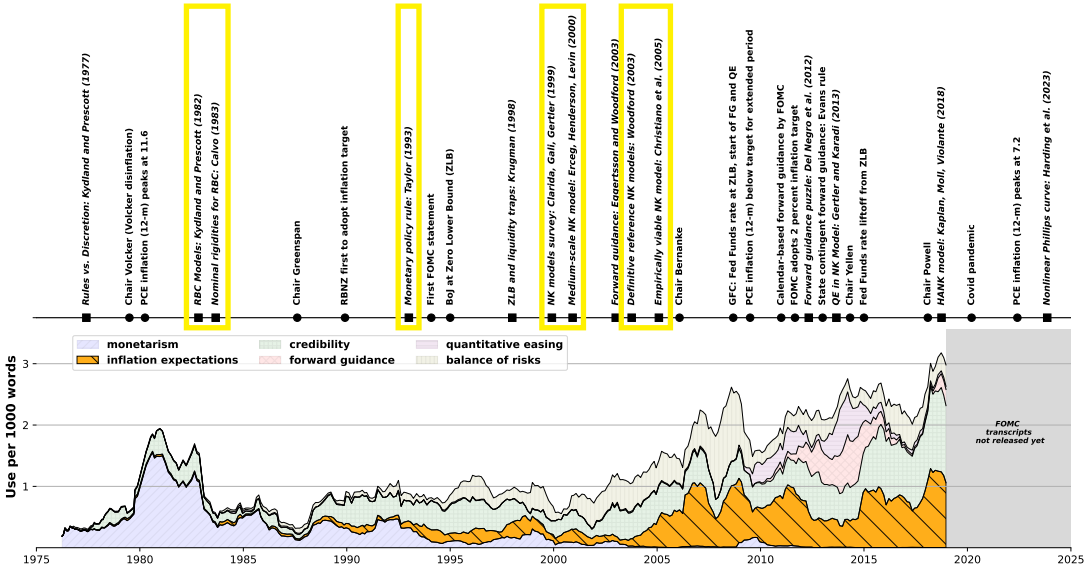


Idea of *credibility* central to adoption of inflation target.

Inflation expectations focus after introduction of NK model



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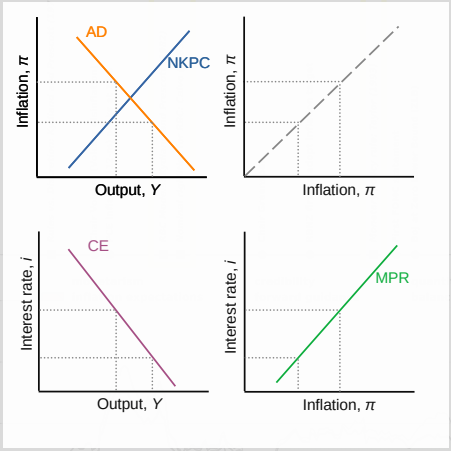
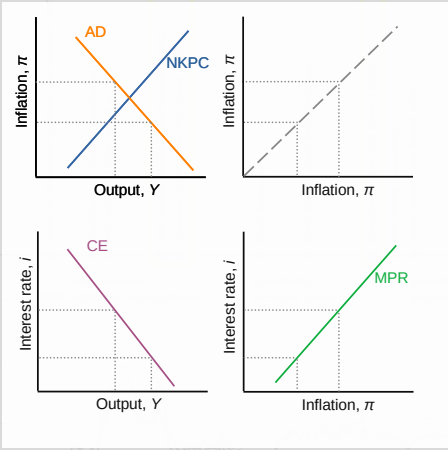


NK model...

- is core of most modern macroeconomic models of monetary policy.
- is a microfounded DSGE model of what determines the position of the AS and AD curves and how they are affected by the central bank's policy rule.
- combines RBC framework with models of nominal rigidities.

Kydland and Prescott (1982), Calvo (1983)

Inflation expectations focus after introduction of NK model



Three-equation NK model consists of:

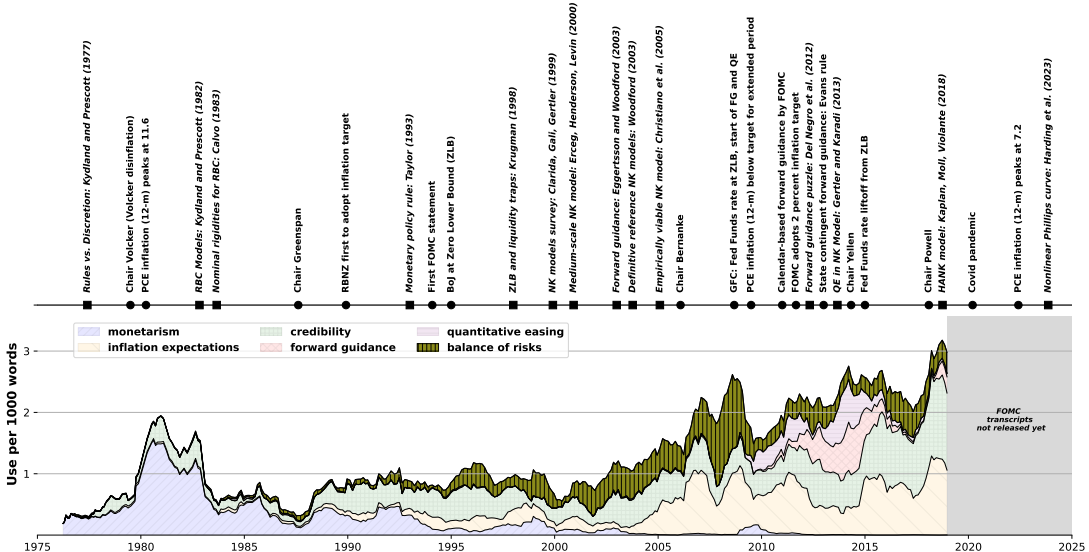
- NKPC: Forward-looking price-setting decisions depend on current costs and *inflation expectations*. NK version of AS curve.
- Policy rule (MPR): Most commonly used is Taylor rule.

Taylor (1993)

- Consumption Euler (CE) equation: Determines position and slope of NK version of AD curve.

Gertler *et al.* (1999) and Woodford (2003) for expositions of model

Balance of risks and monetary policy scenario analyses

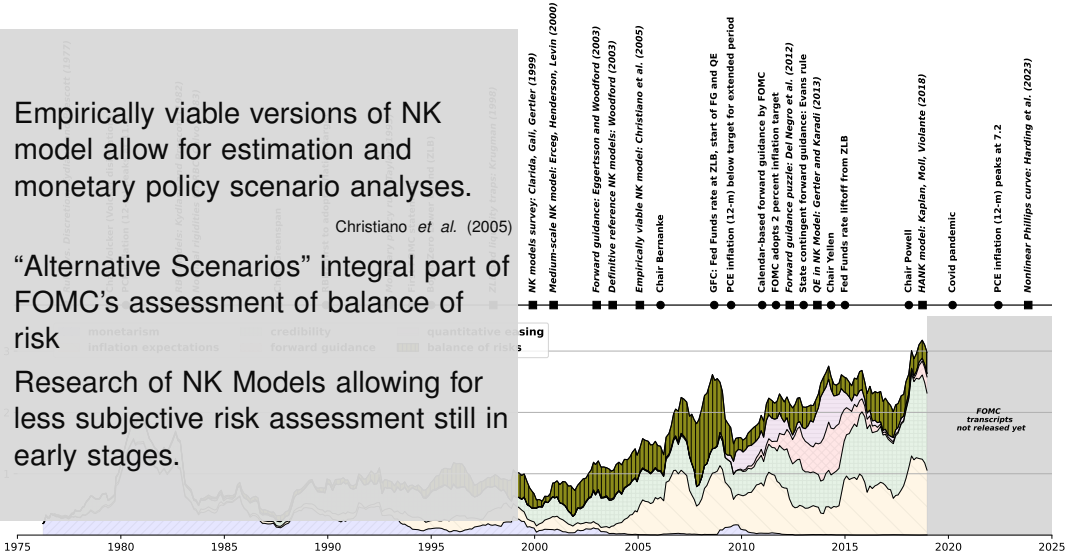


Balance of risks and monetary policy scenario analyses

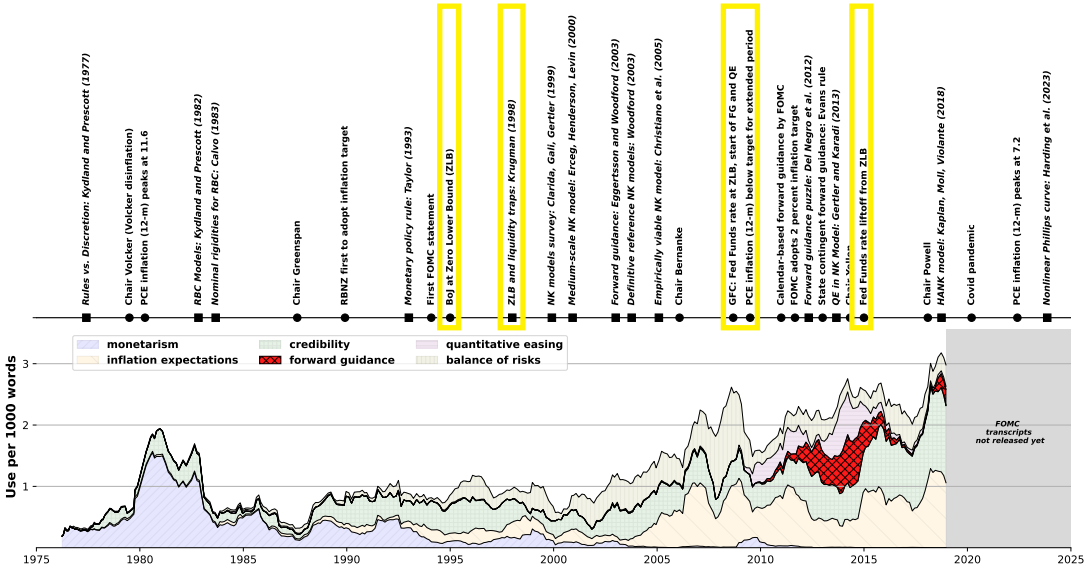
- Empirically viable versions of NK model allow for estimation and monetary policy scenario analyses.

  Christiano *et al.* (2005)

- "Alternative Scenarios" integral part of FOMC's assessment of balance of risk
- Research of NK Models allowing for less subjective risk assessment still in early stages.



Concern about ZLB and deflationary pressures due to liquidity trap



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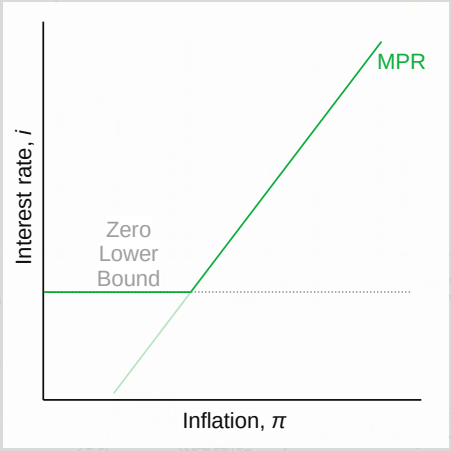
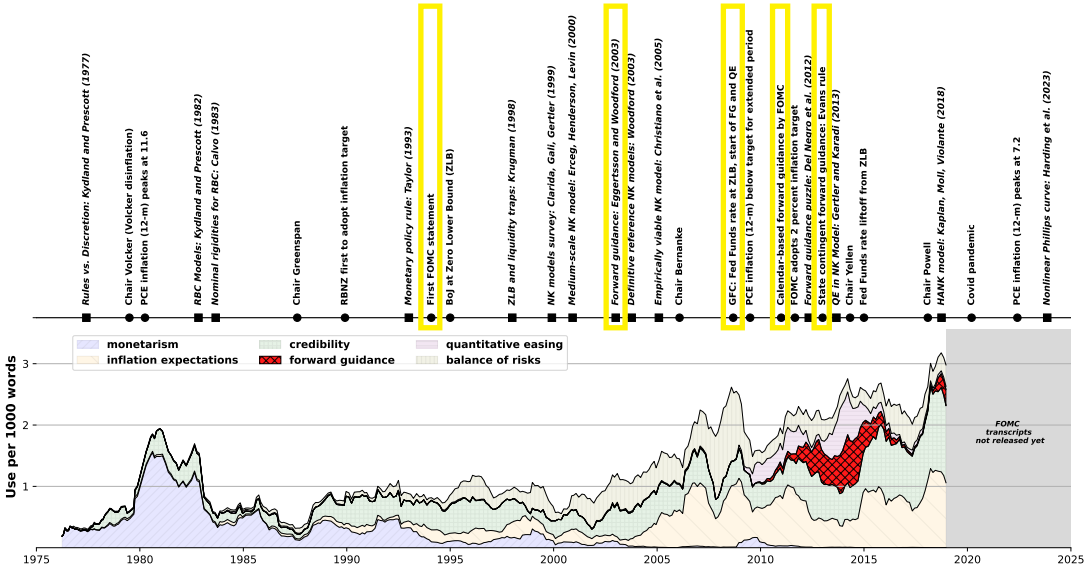


- Taylor rule does not take into account that central banks cannot set the nominal interest rate (much) below zero.
- Concern that doing nothing at ZLB results in a liquidity trap: a deflationary spiral in which households hold on to their money as price declines mean its purchasing power will be higher in the future than it is now.

Krugman (1998)

Forward guidance to avoid liquidity trap in ZLB

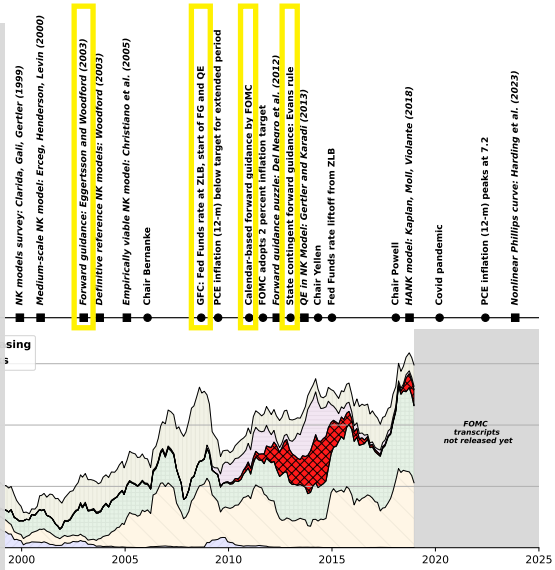


Forward guidance to avoid liquidity trap in ZLB

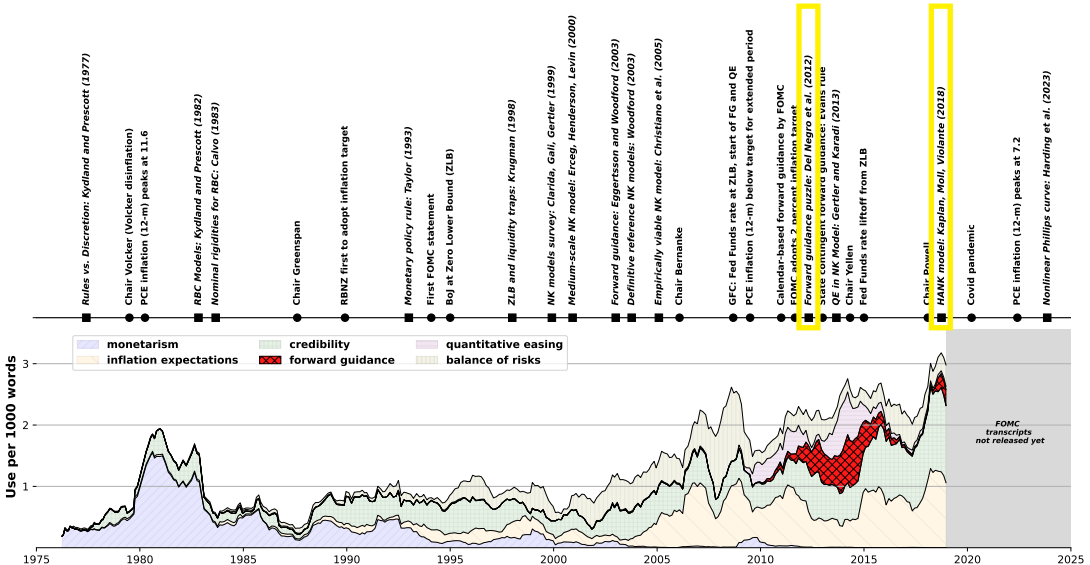
- One way to prevent this from happening is through the central bank's use of *forward guidance*.

  Eggertsson and Woodford (2003)

- When monetary policy options are constrained by the ZLB, the central bank can commit to future actions that raise inflation expectations.
- Specific strategy is pledge to maintain interest rates at the ZLB for an extended period, even after economic recovery and a rise in inflation have occurred.



FG Puzzle: Reconsidering Consumption Euler equation



FG Puzzle: Reconsidering Consumption Euler equation

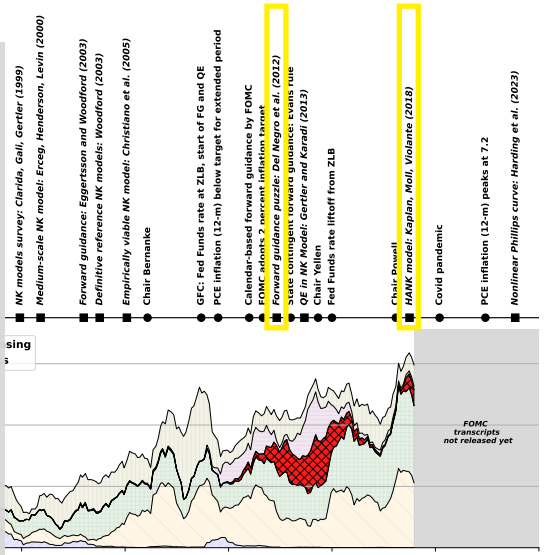
- In the NK model FG is an extremely powerful tool; impact increasing the further ahead the central bank provides such guidance.

  Del Negro *et al.* (2012)

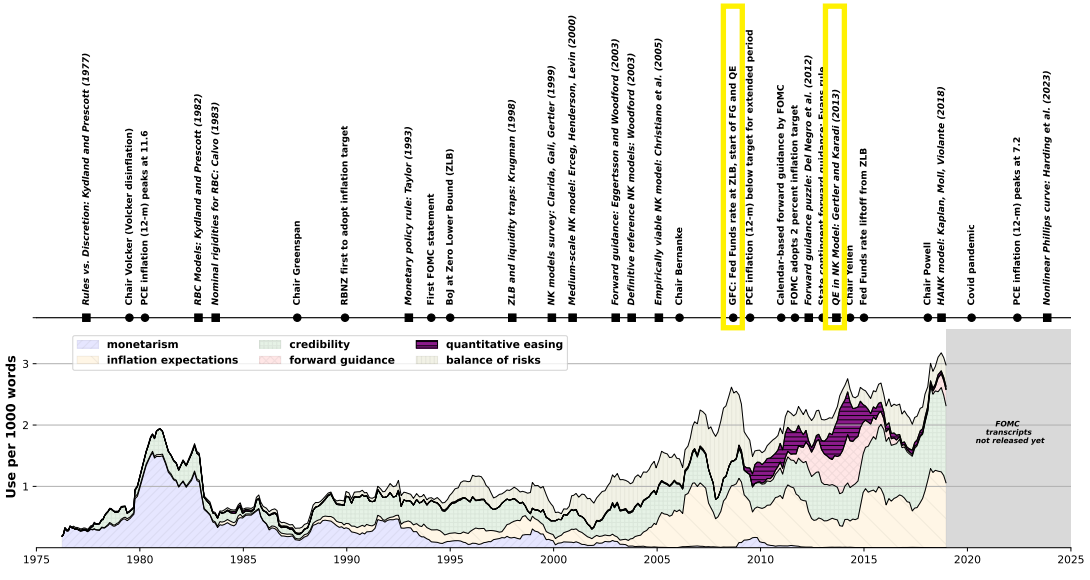
- Inspired models that include a fraction of households that are borrowing constrained.

  Kaplan *et al.* (2018) most prominent example

- Resulted in thriving literature on HANK models and distributional effects on monetary transmission.



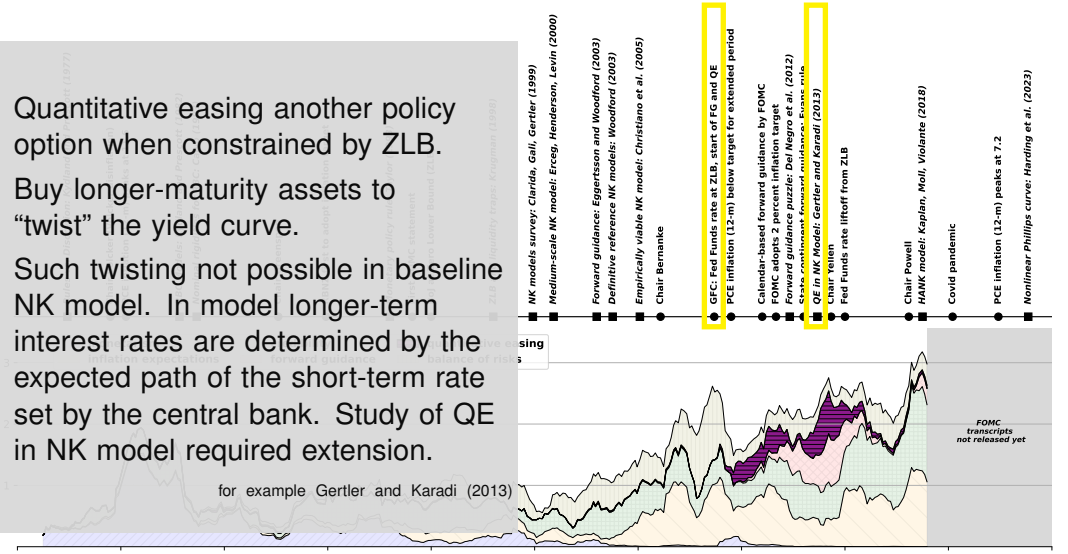
Quantitative easing to lower longer-term interest rates in ZLB



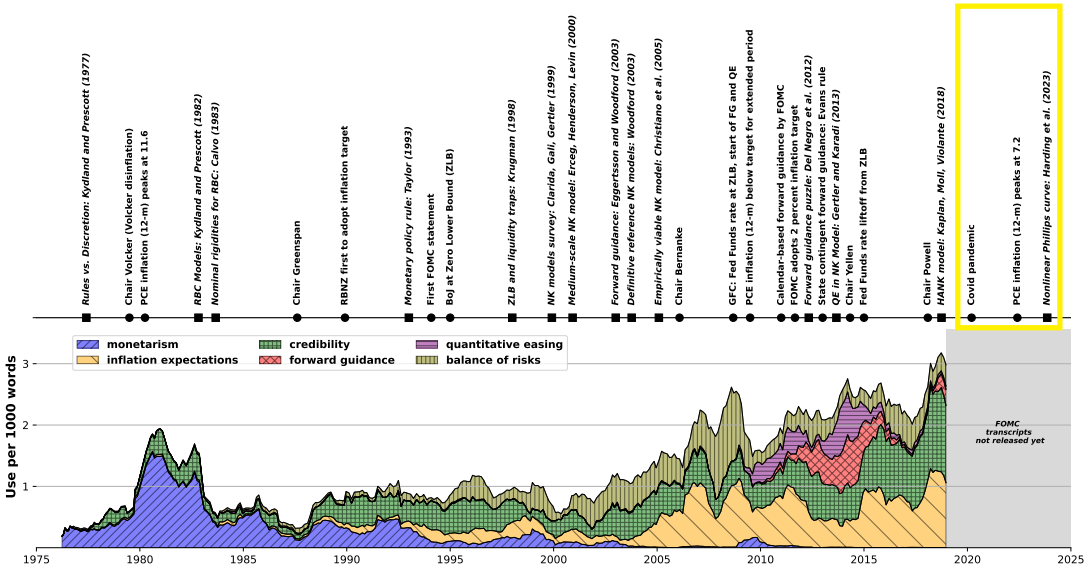
Quantitative easing to lower longer-term interest rates in ZLB

- Quantitative easing another policy option when constrained by ZLB.
- Buy longer-maturity assets to "twist" the yield curve.
- Such twisting not possible in baseline NK model. In model longer-term interest rates are determined by the expected path of the short-term rate set by the central bank. Study of QE in NK model required extension.

for example Gertler and Karadi (2013)



Covid-era inspired theories of non-linearities in NKPC



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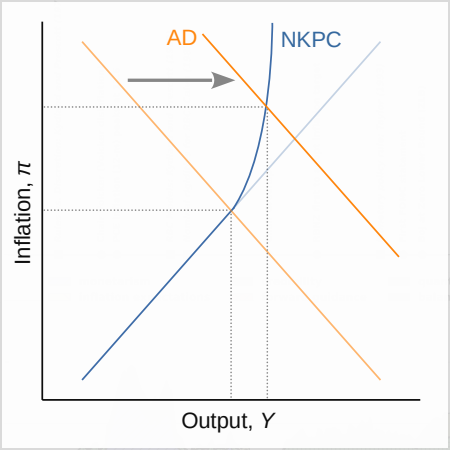
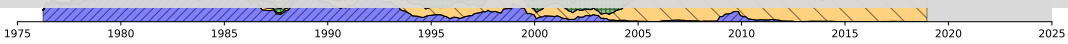


- Since 2020, the focus has shifted from concerns about low inflation and the liquidity trap to explaining the surge and rapid decline in inflation post-Covid.
- One active area of research is on non-linearities in the NKPC

e.g. Harding *et al.* (2023)

- Research agenda still in infancy... but possibly the next step in the evolution of core macro for policymakers...



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