Recent Macroeconomic Developments: Pandemic & War

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Introduction

- Great Moderation: “boring” period for macroeconomics
- Combination of stable growth, inflation, and financial conditions
- GM ends with the Financial Crisis of 2007-08 and subsequent Great Recession
- Interesting macroeconomic developments since then

Introduction

This lecture:

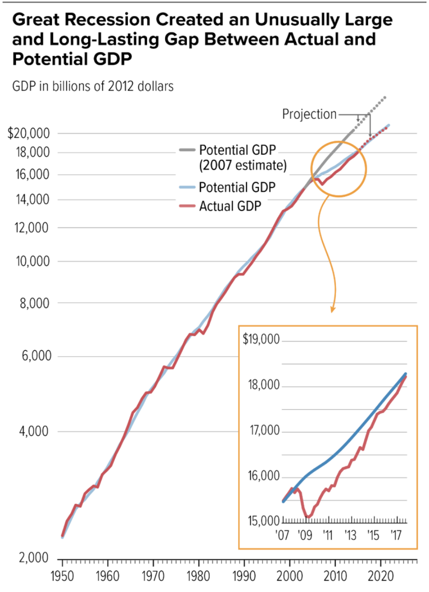
1. COVID-19: depression and recovery
2. Russian invasion of Ukraine and the threat of stagflation

1. COVID-19

Slow Recovery and Low Inflation

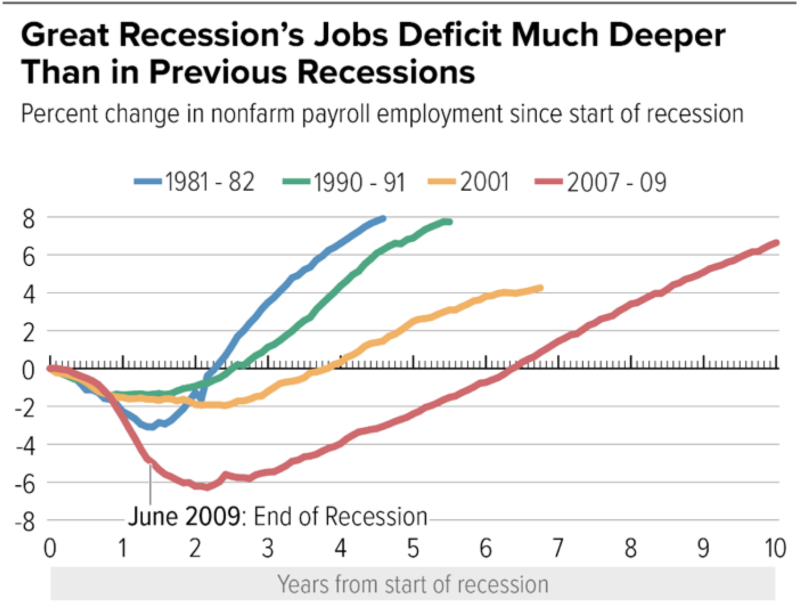
- On the eve of the pandemic, US economy was experiencing longest expansion on record: 128 months
- The recovery from the Great Recession had been relatively slow for historical standards
  - In terms of labor markets and GDP
- Inflation was low and stable: Fed had been struggling to hit the 2% inflation target

Slow Recovery in GDP

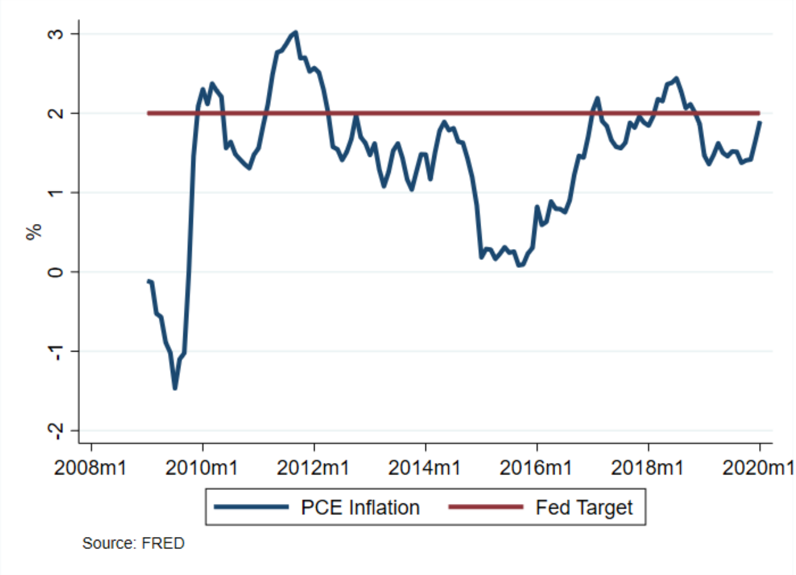


Note: CBO's 2007 projections of potential GDP only went through 2016 and are extrapolated

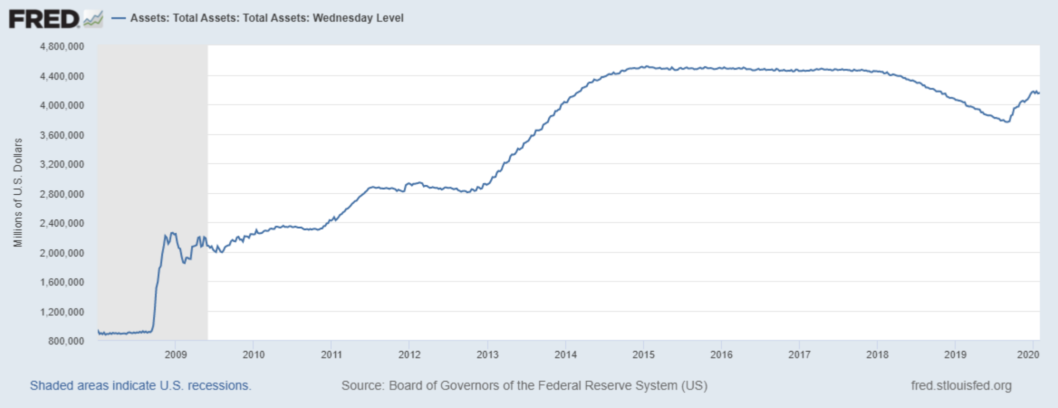
Slow Recovery in Labor Markets



Inflation consistently below target



In spite of large expansion in money supply



COVID-19 hits in February 2020

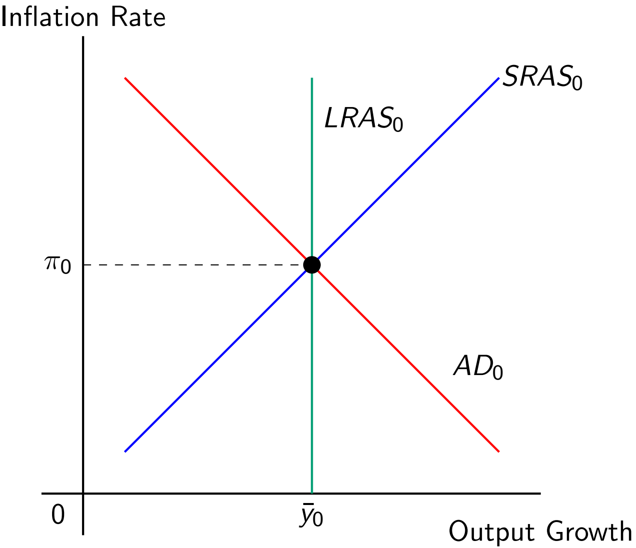
- News about COVID-19 spreading in China had been circulating since late 2019
- In early 2020 first cases are detected in the US West Coast and Central Europe
- Situation in Italy deteriorates quickly throughout February, health system hits capacity constraints
- Financial markets become more volatile at the end of February
- Lockdowns begin in March 2020

Financial Market Volatility

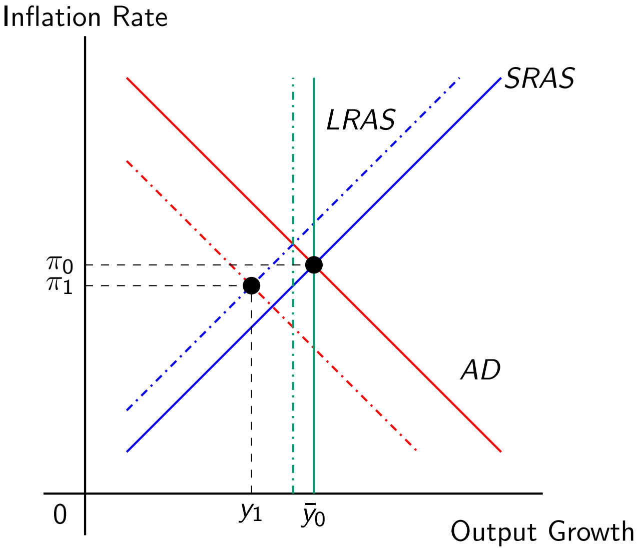
The Initial Impact

- People are afraid of the (at the time) uncertain effects of the virus
  - They stop going out
  - They shop around less, $C \downarrow$, especially for services. This contracts AD
  - They also don't want to go to work, $N^s \downarrow$. This contracts AS
  - Exits from labor force $+$ supply chain issues contract $LRAS$
- Government-mandated lockdowns exacerbate some of these forces
- The result is a large output recession, with an uncertain effect on the price level
  - That depends on whether AD contracted more than AS

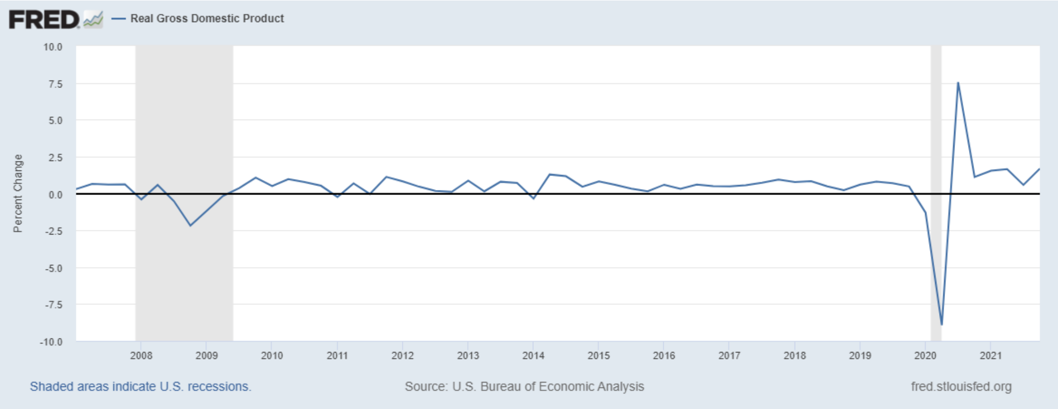
$AD - AS$ Model



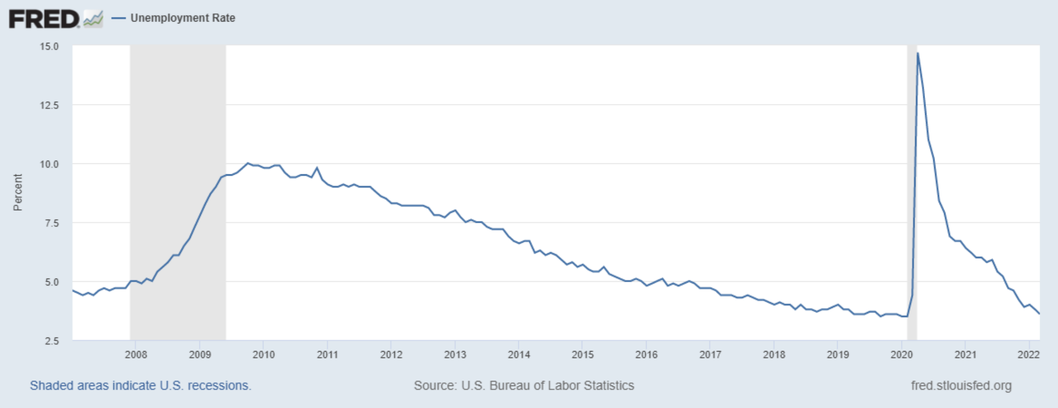
$AD - AS$ Model: COVID Shock



Large drop in real activity

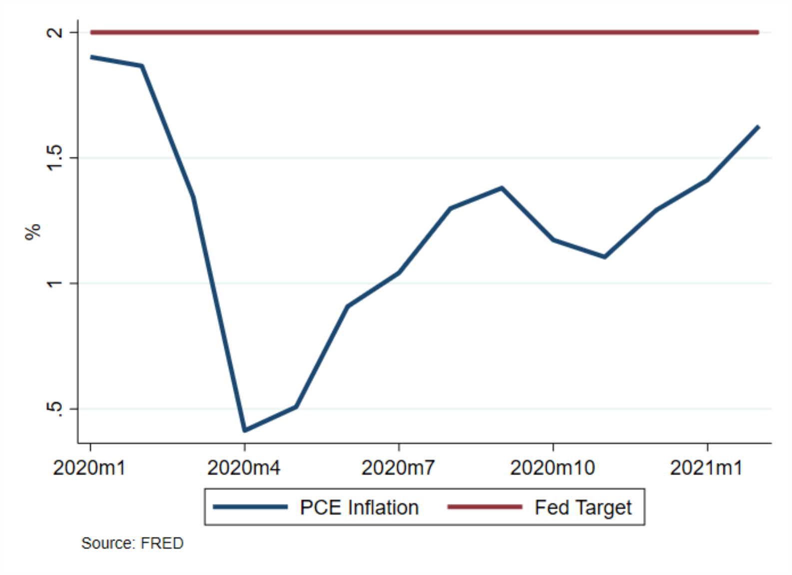


Large increase in unemployment



Large drop in labor force participation, $N^s \downarrow$

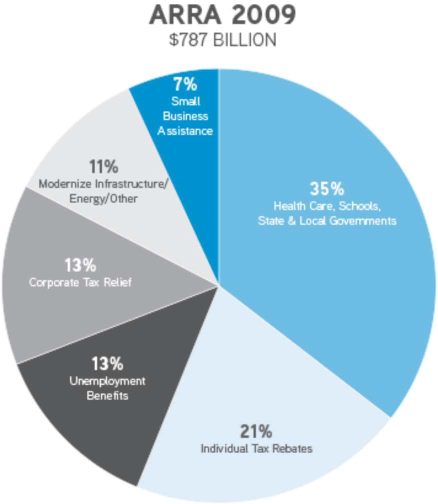
Inflation fell, suggesting larger shock to *AD*

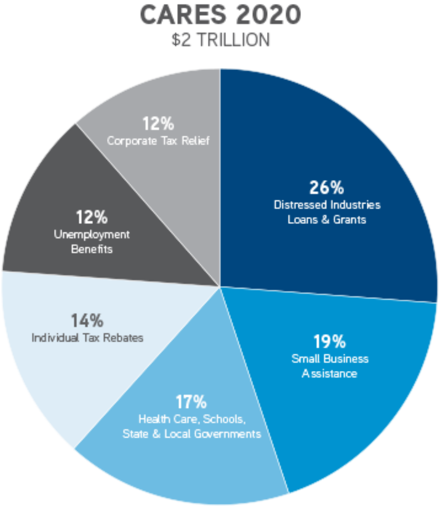


The Policy Response

- Both Fiscal and Monetary policy responded promptly to the crisis
- The Fed restored many of its GFC-era programs and created new liquidity facilities to support firms
- Congress passed the CARES Act in March 2020, one the largest fiscal stimulus package to that date
  - 2020 CARES Act: $ 2 trillion dollar package, 10% of GDP
  - Compare to 2009 ARRA (5.5% of GDP) and 1933 New Deal (40% of GDP)
- All these interventions helped expand aggregate demand

The CARES Act





Reopening and Recovery

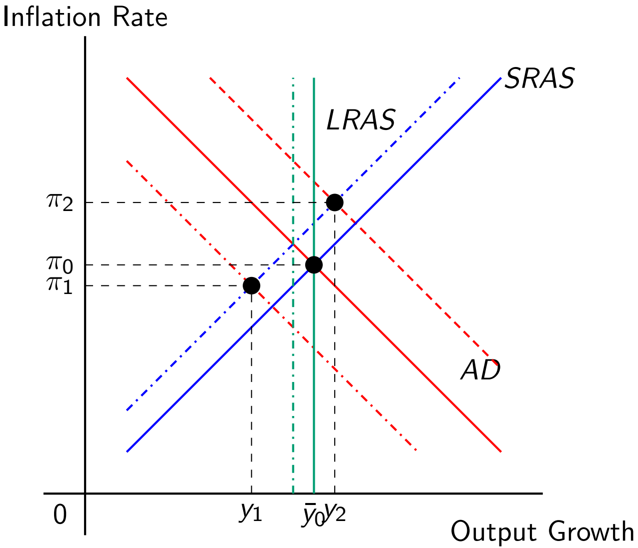
- Policymakers were extremely worried about the unemployed during the pandemic
- CARES Act featured large transfers to households
  - Large expansion of unemployment insurance benefits
  - Direct lump-sum transfers to families
- Personal disposable income soared during the pandemic

Real Personal Disposable Income

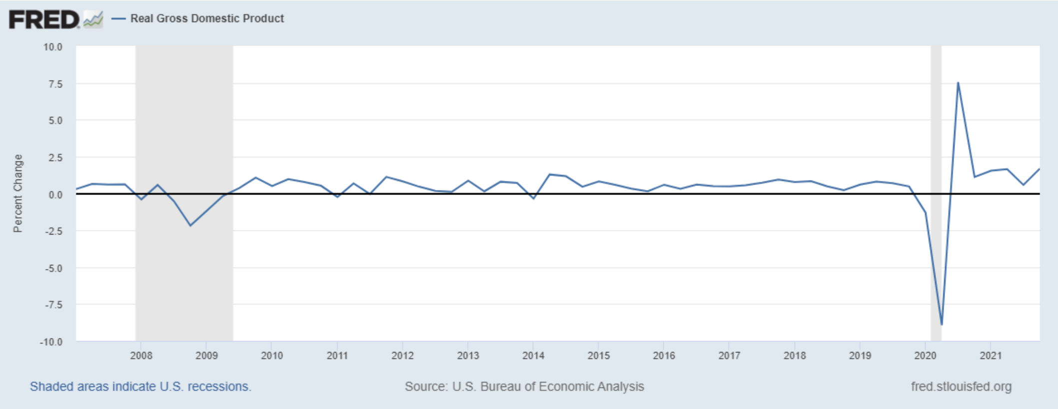
Reopening and Recovery

- Lower income households received a lot of direct transfers from the government
- At the same time, higher income households kept their jobs and enjoyed large asset valuation gains
  - Real returns on stocks and housing at historically high levels
- While the economy was "closed", there was nowhere to spend all that extra income
- "Pent-up demand": as soon as public health conditions normalized, people were ready to spend a lot
- This compounded the fiscal-monetary policy response to generate a large expansion of AD
- Even as aggregate supply conditions had not been fully restored

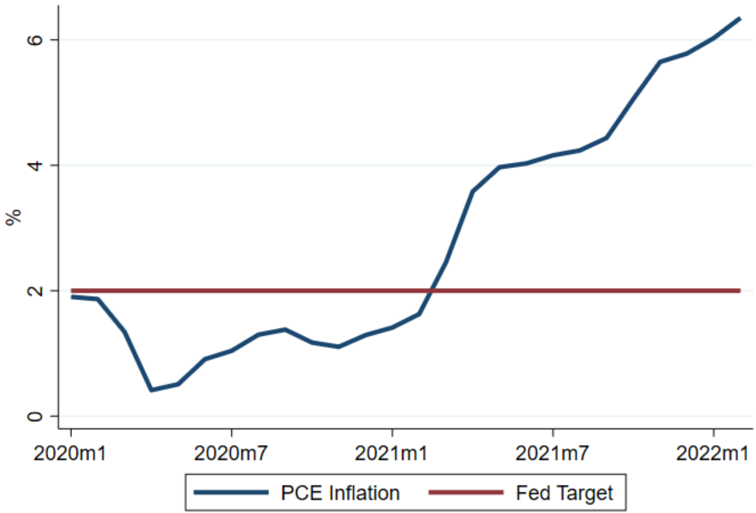
$AD - AS$ Model: Reopening and Recovery



Fast recovery of real activity



Inflation soaring



Source: FRED

Policy during the Recovery

Monetary Policy

- Most financial market assistance programs expired during 2020
- Asset purchases have also stopped
- Fed only started raising interest rates in 2022

Fiscal Policy

- Large stimulus during the recovery: American Rescue Plan of 2021, $ 1.9 trillion

Inflation during the Recovery

Why do we have high inflation? Possible combination of

1. Fast demand recovery (rise in disposable incomes, pent-up demand)
2. Fiscal stimulus
3. Monetary accommodation/stimulus
4. Continued supply issues (supply chain disruptions, drop in the labor force)

Supply-side issues likely to be exacerbated by recent geopolitical developments.

2. Russian Invasion of Ukraine

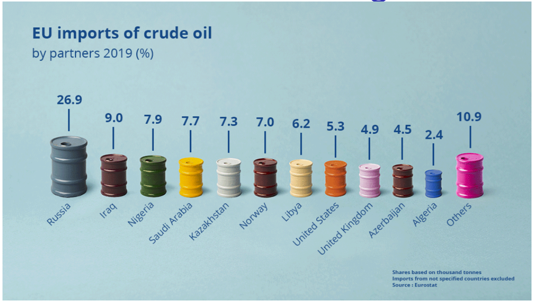
Russian Invasion of Ukraine

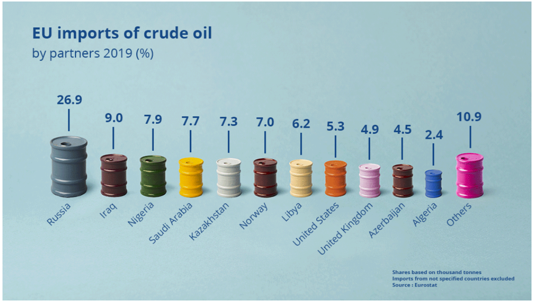
- Russia invaded Ukraine in February 2022
- Russia is one of the largest producers of oil and natural gas in the world
- Both Russia and Ukraine are major global producers of food products like grain
- Disruptions to fossil fuel and food production due to either war or sanctions likely to have an effect on the macroeconomic conditions of almost every country in the world

Importance of the Russian Economy

- 3rd largest oil producer, behind the US and Saudi Arabia (US Energy Admin.)
  - 10.5 M barrels/day
  - 11% of world production
- 2nd largest natural gas producer, behind the US (CIA)
  - 669.5 bn m^3/year as of 2018
  - Largest NG proven reserves in the world

Europe is heavily reliant on Russian oil and gas





Negative Supply Shocks and Stagflation

- A large increase in the price of important raw materials is equivalent to a negative productivity shock
- *SRAS* and *LRAS* contract: full-employment output falls, and inflation rises
- Macroeconomic stabilization becomes challenging, as fiscal and monetary policy control *AD*
- If *AD* expands, $y \uparrow$, but inflation rises further
- If *AD* contracts, inflation falls but the recession becomes worse

Europe: Stagflation