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Inflation Shocks and Asset Prices Around the World

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Fudan Online Public Lecture

17 June 2022

[1] Thanks to Wenchuan Dong and Yijing Ren for useful assistance.

Three Topics for Today

The Outlook and the Fed

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U.S. Inflation Expectations

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Global stock markets

Background: Fed's "Dual Mandate"

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What's *not* in the Fed's mandate?

- stock prices; economic and financial performance outside the U.S.
  - ◇ Fed staff nonetheless monitor these very closely
  - ◇ affect Fed policy to the extent that they affect the dual mandate

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It has furthermore deployed large-scale asset purchases to put downward pressure on longer-term interest rates.

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The FOMC's Summary of Economic Projections is released after *every other* meeting. This is a transparent communication of the Fed's outlook for the economy and its own policy.

I. The Outlook and the Fed

U.S. economy is strong. Unemployment is low, labor markets are very tight. The FOMC Statement on 15 June 2022 begins

- "Overall economic activity appears to have picked up after edging down in the first quarter. Job gains have been robust in recent months, and the unemployment rate has remained low."

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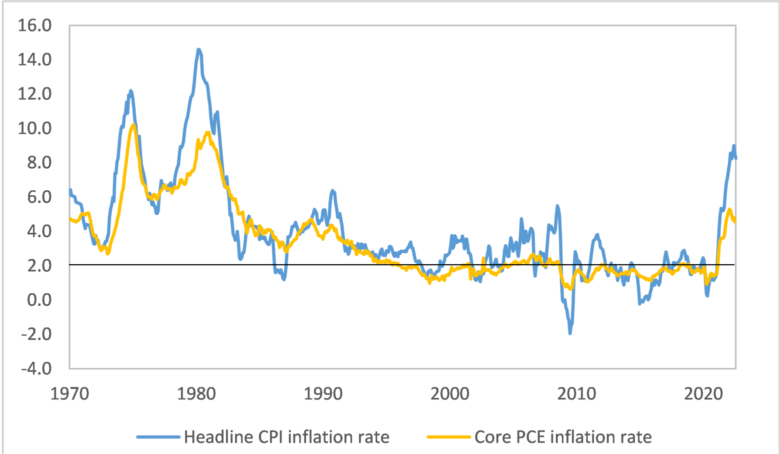

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- U.S. GDP growth -1.5% in 2022 Q1, retail sales -0.3% in May
- The Fed has been lowering near-term GDP growth forecasts and raising near-term inflation forecasts
    - worries reflected in equity market volatility, recent sizable declines

Summary of Economic Projections

Table: FOMC projections as of June 2022 and March 2022

	2022	2023	2024	Longer run
Change in real GDP	1.7	1.7	1.9	1.8
Mar. projection	2.8	2.2	2.0	1.8
Unemployment	3.7	3.9	4.1	4.0
Mar. projection	3.5	3.5	3.6	4.0
PCE inflation	5.2	2.6	2.2	2.0
Mar. projection	4.3	2.7	2.3	2.0
Core PCE inflation	4.3	2.7	2.3	
Mar. projection	4.1	2.6	2.3	
Federal funds rate	3.4	3.8	3.4	2.5
Mar. projection	1.9	2.8	2.8	2.4

15 June 2022 Policy Decision

Tightened policy again and clearly signaled that more is on the way

- "The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to raise the target range for the federal funds rate to 1-1/2 to 1-3/4 percent and anticipates that ongoing increases in the target range will be appropriate.

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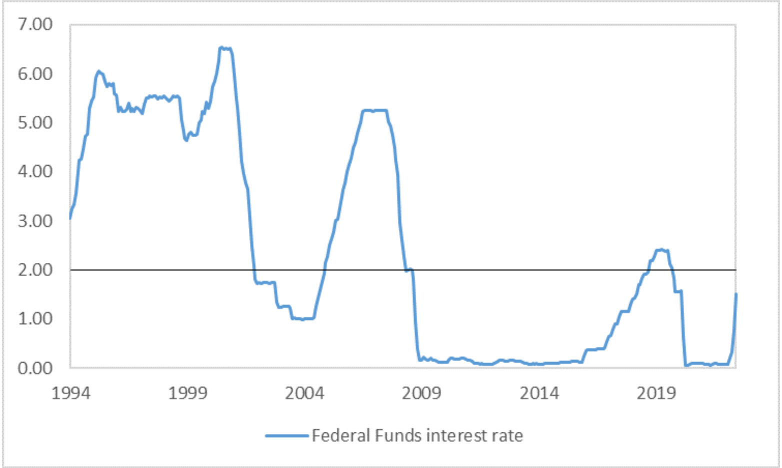
- The June "dot plots" reflect greater and more rapid tightening as well as more agreement, compared to March.

The Federal Funds interest rate



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How do we measure inflation expectations?

- conduct surveys: ask people and businesses
- estimate models
- from bond markets

II. Inflation Expectations Measures: Survey-based

Survey of Consumer Expectations (New York Fed)

- "The median one-year ahead inflation expectation increased to 6.6 percent in May, up from 6.3 percent in April. At the three-year horizon, inflation expectations were unchanged at 3.9 percent."

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Survey of Professional Forecasters (Philadelphia Fed)

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- over 2022–2031, expect approximately 2.50%.

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- this measure of inflation expectations comes from estimates of an affine term structure model. See https://www.clevelandfed.org/our-research/indicators-and-data/inflation-expectations.aspx

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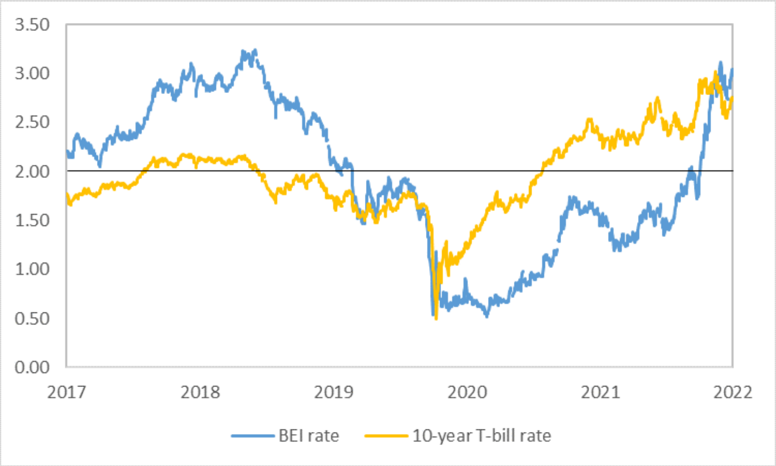

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- measure via a regression: change in long-horizon inflation expectations on the current inflation "surprise" (actual minus expected).

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Inflation "credibility" was hard won; improved through the unconventional monetary policymaking of the GFC; Fed does not want to lose it.

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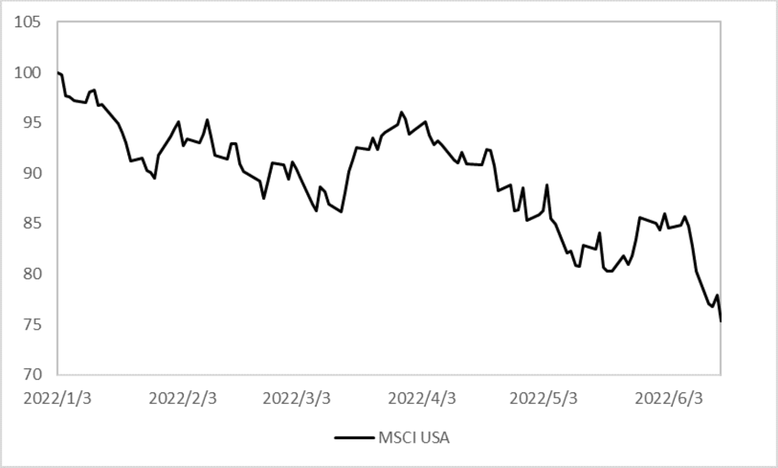
- Stock price reflects present discounted value of future corp. earnings.
- Expected higher interest rates reduce the pdv of earnings, all else constant, and lower stock price today.

  ◇ that future \$1000 is a lot more valuable today at 4% than 10%

III. Global stock markets: recent performance

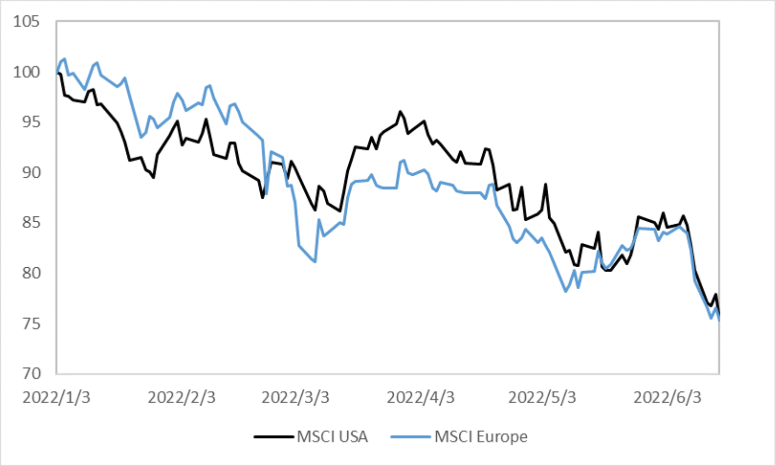
Down, down, down

U.S. stock market this year



Jan. 1, 2022 = 100

U.S. and EU markets this year (through 16 June 2022)



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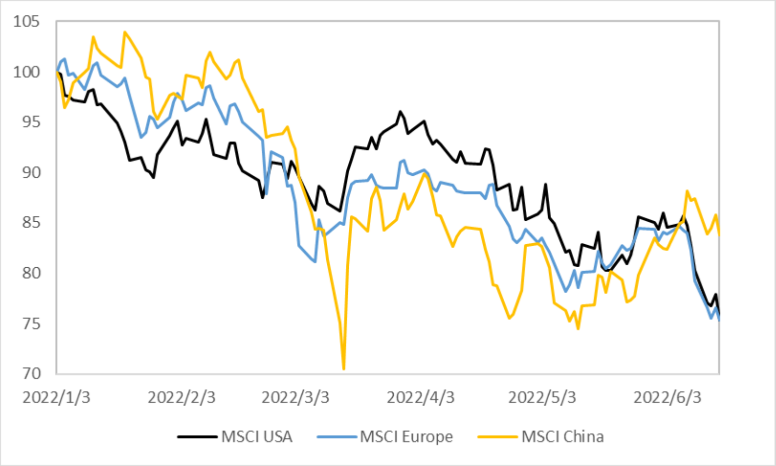

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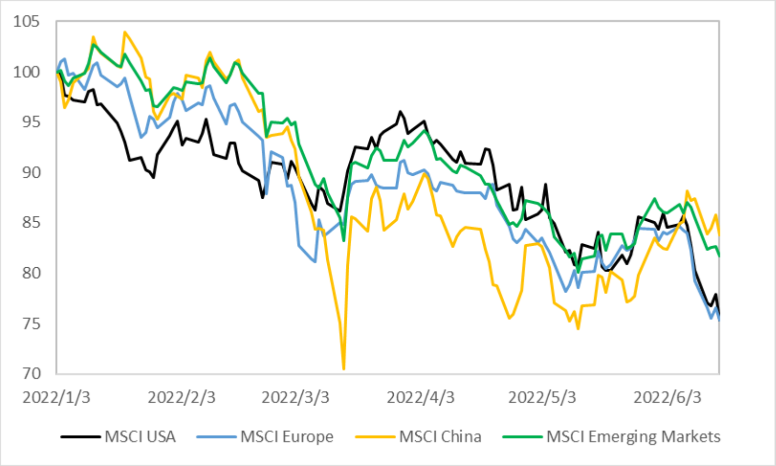

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  - ◇ global financial cycles literature says "yes"

European Central Bank

FRANKFURT, June 9 (Reuters) - The European Central Bank confirmed on Thursday it will end a long-running bond buying scheme on July 1 and signalled a string of interest rate hikes from July as it battles stubbornly high inflation.

With price growth surging last month to a record-high 8.1% and broadening quickly, the ECB is rolling back stimulus measures it has had in place for most of the last decade.

It aims to stop rapid price growth from seeping into the broader economy and becoming perpetuated via a hard-to-break wage-price spiral.

European Central Bank

"The primary objective of ECB monetary policy is to maintain price stability. This means making sure that inflation remains low, stable and predictable. To succeed, we seek to anchor inflation expectations and influence the "temperature" of the economy. The Governing Council considers that price stability is best maintained by aiming for 2% inflation over the medium term."

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- Practically, however, the ECB must act to ensure viability of the single currency. It thus worries a lot about sovereign bond spreads, e.g, Italy-Germany.
- The 09 June announcement to stop buying Euro government bonds increased borrowing costs sharply in countries in southern Europe.
- On 14 June, the central bank held a rare, unscheduled meeting and pledged to "act against resurgent fragmentation risks."

Bank of England

May 2022 Inflation Report (quarterly)

- Higher energy and goods prices have pushed inflation to 7%, well above their 2% target.

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May 2022 Inflation Report (quarterly)

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- "Both war in Ukraine and lockdowns in China are making it harder to import things. This is likely to push up some goods prices. As a result of these factors, we expect inflation to rise to around 10% this year."

Bank of England

May 2022 Inflation Report (quarterly)

- Higher energy and goods prices have pushed inflation to 7%, well above their 2% target.
- "Both war in Ukraine and lockdowns in China are making it harder to import things. This is likely to push up some goods prices. As a result of these factors, we expect inflation to rise to around 10% this year."
- Raised the UK's most important interest rate (Bank Rate) from 0.1% to 0.25% in Dec 2021, to 0.5% in Feb 2022, and then again to 0.75% in March. This month, raised Bank Rate to 1%.

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16 June 2022 meeting of the Monetary Policy Committee

- voted 6-3 to increase the Bank Rate to 1.25%, with the three dissenting members voting for a 50 basis point hike to 1.5%.

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- central banks arguably have the most optimistic of outlooks, some would say unrealistically so
- central banks have the tools to combat inflation, though inflation is not the sole focus and it won't be painless

The Fed's Policy Tools

The Fed uses the following tools to implement monetary policy:

- Open Market Operations
- Discount Window and Discount Rate
- Reserve Requirements
- Interest on Reserve Balances
- Overnight Reverse Repurchase Agreement Facility
- Term Deposit Facility
- Central Bank Liquidity Swaps
- Foreign and International Monetary Authorities (FIMA) Repo Facility
- Standing Overnight Repurchase Agreement Facility

The Fed's Policy Tools

- During the Financial Crisis, the Fed also implemented to following now-expired policy tools: Commercial Paper Funding Facility; Primary Dealer Credit Facility; Money Market Mutual Fund Liquidity Facility; Primary Market Corporate Credit Facility; Secondary Market Corporate Credit Facility; Term Asset-Backed Securities Loan Facility; Paycheck Protection Program Liquidity Facility; Municipal Liquidity Facility; Main Street Lending Program; Money Market Investor Funding Facility; ABCP MMMF Liquidity Facility; Term Securities Lending Facility; Term Auction Facility; Maturity Extension Program and Reinvestment Policy