The Global Economic Outlook, a Reconsideration of Fiscal Policy, and What it Means for Small Open Economies

Jason Furman
Harvard University

Virtual Israel Macro Meeting
November 29, 2022
Outline

1. Possibilism and Probabilism: The Global Economic Outlook
2. What It Means for Small Open Economies
3. Structural Changes Coming Out of the Pandemic
4. Rethinking Fiscal Policy
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1. Possibilism and Probabilism: The Global Economic Outlook
2. What It Means for Small Open Economies
3. Structural Changes Coming Out of the Pandemic
4. Rethinking Fiscal Policy
Current global macro risks

- Synchronized monetary tightening
- Synchronized asset price declines
- Commodity price increases
- End of fiscal support

*The net effect of these depends on a country’s economic context and macroeconomic outlook.*
Be a **probabilist** not a **possibilist**
What is the probability of these outcomes in the United States?

<table>
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<td>Hard landing 23%</td>
<td>Stagflation (or incomplete hard landing) 36%</td>
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Why did (almost) nobody see it coming?

Source: The Royal Household.
Forecasts completely missed it


1. Possibilism and Probabilism: The Global Economic Outlook

MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

<table>
<thead>
<tr>
<th>Probability Range</th>
<th>20Q4 To 21Q4</th>
<th>21Q4 To 22Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0 percent or more</td>
<td>0.69</td>
<td>0.44</td>
</tr>
<tr>
<td>3.5 to 3.9 percent</td>
<td>2.66</td>
<td>2.07</td>
</tr>
<tr>
<td>3.0 to 3.4 percent</td>
<td>11.23</td>
<td>10.11</td>
</tr>
<tr>
<td>2.5 to 2.9 percent</td>
<td>24.03</td>
<td>25.25</td>
</tr>
<tr>
<td>2.0 to 2.4 percent</td>
<td>28.73</td>
<td>32.16</td>
</tr>
<tr>
<td>1.5 to 1.9 percent</td>
<td>19.88</td>
<td>18.92</td>
</tr>
<tr>
<td>1.0 to 1.4 percent</td>
<td>9.94</td>
<td>7.19</td>
</tr>
<tr>
<td>0.5 to 0.9 percent</td>
<td>2.31</td>
<td>2.46</td>
</tr>
<tr>
<td>0.0 to 0.4 percent</td>
<td>0.50</td>
<td>0.79</td>
</tr>
<tr>
<td>Less than 0.0 percent</td>
<td>0.04</td>
<td>0.62</td>
</tr>
</tbody>
</table>

Actual: 5.0% 6.0%+
Forecasters missed it again and again and again and again.

FOMC Implied Core PCE Inflation Projection for 2021
Percent Change, Annual Rate

- Implied Inflation Through Dec. 2021
- Actual Inflation Since Projection

December 2020: 2.0%
March 2021: 4.5%
June 2021: 5.0%
September 2021: 5.0%

Note: Actual inflation since projection through December 2021. Assumes that actual values were known through month prior to forecast.
Source: Bureau of Economic Analysis via Macrobond and via Federal Reserve Bank of St. Louis, ALFRED; Board of Governors of the Federal Reserve System; author’s calculations.
Forecasters were being **possibilistic** not **probabilistic**

Typical assumptions forecasters were making:

1. Low multiplier on 25 percent of GDP in fiscal stimulus and extreme monetary stimulus

2. Supply side of the economy would fully recover by the middle of 2021

3. No additional COVID waves, no major geopolitical events

4. Everything with unusually large price rises (e.g., used cars) would normalize while everything with unusually small price rises (e.g., shelter and health insurance) would not rise

5. Wages would stop growing quickly
1. Possibilism and Probabilism: The Global Economic Outlook

The big question now

OR
What are Alan Blinder’s and Goldman Sachs’ probabilities of a soft landing?

**THE SATURDAY ESSAY**

**The Fed’s Surprising Record With ‘Soft Landings’ From Inflation**

History shows that, with skillful decisions and some good luck, central bankers can defeat inflation without causing a recession

By Alan S. Blinder
Sept. 23, 2022 at 10:59 am ET

Global Views: Progress Toward a Soft Landing

Do these sound like the 50\textsuperscript{th} percentile of possible outcomes to you?

“To be sure, landing the economy softly is a tall order, but success is not unthinkable” – Alan Blinder

“The US economy can achieve a soft landing, even though the path is narrow.” – Jan Hatzius at Goldman Sachs
What needs to go right for a soft landing? All are possible, are they probable?

1. Inflation for some items falls a lot, does not rise for others

2. Immaculate loosening in the labor market

3. Wage growth slows and that translates into slower price growth

4. Long-term inflation expectations are binding

5. No new unfavorable shocks
Inflation is expected to come down...

<table>
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<tr>
<th></th>
<th>Forecast Date</th>
<th>Measure</th>
<th>2023 Inflation Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market (ICE)</td>
<td>Nov. 2022</td>
<td>CPI</td>
<td>2.3%</td>
</tr>
<tr>
<td>Federal Open Market Committee</td>
<td>Sep. 2022</td>
<td>Core PCE</td>
<td>3.1%</td>
</tr>
<tr>
<td>Survey of Professional Forecasters</td>
<td>Nov. 2022</td>
<td>Core PCE</td>
<td>3.0%</td>
</tr>
</tbody>
</table>
...But the market also might expect a recession as the yield curve is now fully inverted.

Source: U.S. Department of Treasury; Macrobond; author's calculations.
1. What is the right measure of underlying inflation?

Consumer Price Inflation

3-month Percent Change, Annual Rate

Source: Bureau of Labor Statistics; Federal Reserve Bank of Cleveland; Macrobond; author's calculations.
Goods prices (except new cars) likely to decline given healthier supply chains

Baltic Dry Index

Inventory-Sales Ratio, Retail Trade, excluding Motor Vehicles and Parts

Source: Baltic Exchange; U.S. Census Bureau; Macrobond.
But services matter much more than goods for overall inflation

Core CPI Inflation

Percent Change, Annual Rate

Source: Bureau of Labor Statistics; Macrobond; author's calculations.
Services prices also likely to fall given the turnaround in rents on new leases

Consumer Price Index excluding Food and Energy

3-month Percent Change, Annual Rate

Note: Private new rent indices are Zillow Observed Rent Index and Apartment List National Rent Index. Apartment List seasonally adjusted using Macrobond. Source: Bureau of Labor Statistics; Zillow; Apartment List; Macrobond; author's calculations.
2. Immaculate loosening in the labor market?

Note: Job openings rate is job openings as a percent of total employment plus job openings. Source: Bureau of Labor Statistics via Macrobond; author’s calculations.
It could take a prolonged period of high unemployment to bring down inflation.

Modelling a 6.7% unemployment rate for 2023 and 2024

Source: Author's calculations based on Ball, Leigh, and Mishra (2022).
Moreover, the further the Fed tries to push down inflation, the harder it could get

<table>
<thead>
<tr>
<th>PCE Inflation at End of 2024</th>
<th>Unemployment in 2023 and 2024</th>
<th>Point Years of Added Unemployment</th>
<th>Sacrifice Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>6.7</td>
<td>6.4</td>
<td>8.5</td>
</tr>
<tr>
<td>2.5</td>
<td>4.7</td>
<td>2.1</td>
<td>2.5</td>
</tr>
<tr>
<td>3.0</td>
<td>4.1</td>
<td>0.9</td>
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Caveat: These all assume the same expectations process. But if inflation stabilizes well above 2 percent then the inflation expectations process could be much less anchored. For example, stabilizing at 4.0 percent PCE inflation with inflation anchored at 0.9 would require a 4.6 percent unemployment rate.

Source: Author’s calculations based on Ball, Leigh, and Mishra (2022).
3. Wage growth and price growth

Inflation = 

Compensation growth – productivity growth
(aka “unit labor costs”) 

+ 

Profit share increase
Wage growth is slowing a little…

Employment Cost Index, Private Wages and Salaries, Excluding Incentive Paid Occupations

Percent Change, Annual Rate

0 1 2 3 4 5 6 7


3-month Change
12-month Change

Note: Seasonally adjusted using Macrobond
Source: Bureau of Labor Statistics; Macrobond; author's calculations.
...But still consistent with very high inflation

<table>
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<th>Wage measure</th>
<th>Recent Six-month Growth (Annual Rate)</th>
<th>Core PCE Inflation Consistent with It</th>
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<tr>
<td>ECI Wages &amp; Salaries, Civilian</td>
<td>5.6%</td>
<td>4.8%</td>
</tr>
<tr>
<td>ECI Wages &amp; Salaries, Private Excluding Incentive Pay</td>
<td>5.2%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Average Hourly Earnings, Private</td>
<td>4.6%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Atlanta Fed Wage Growth Tracker</td>
<td>6.3%*</td>
<td>4.9%*</td>
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* 12-month change

Source: Bureau of Labor Statistics; Federal Reserve Bank of Atlanta; Bureau of Economic Analysis; Macrobond and author’s calculations.
4. Inflation expectations underpin wage-price persistence: Which ones matter?

Change in Inflation Expectations, Dec 2019 to Nov 2022

Source: University of Michigan and Federal Reserve Banks of Atlanta and Philadelphia via Macrobond; Intercontinental Exchange; author’s calculations.
5. No new shocks

Source: The Atlantic, Bloomberg, Politico, and Yahoo Finance.

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**The Atlantic**

*What Europe’s COVID Wave Means for the U.S.*

New variants are coming. How worried should we be?

By Sarah Zhang

OCTOBER 20, 2022

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**Bloomberg**

*China Wants to ‘Speed Up’ Its Seizure of Taiwan, Blinken Says*

- Secretary of state comments on China in Bloomberg interview
- Says Beijing is now ‘exerting more pressure’ on Taipei

By Iain Marlow +Follow

October 26, 2022 at 1:10 PM EDT

Updated on October 27, 2022 at 2:13 AM EDT

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**POLITICO**

*Second rail union rejects deal, raising strike threat anew*

Wednesday’s vote by the Brotherhood of Railroad Signalmen makes it the second rail union to reject a compromise since mid-September.

By ELEANOR MUELLER and TANYA SNYDER

10/26/2022 02:39 PM EDT

Updated: 10/26/2022 05:53 PM EDT

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**Yahoo Finance**

*Ford CEO on ongoing supply chain issues: 'It feels like Whac-A-Mole'*

By Seana Smith +Anchor

September 28, 2022 · 2 min read
What needs to go right for a soft landing? All are **possible**, are they **probable**?

1. Inflation for some items falls a lot, does not rise for others
   - **Bottom-up perspective**

2. Immaculate loosening in the labor market
   - **Top-down perspective**

3. Wage growth slows and that translates into slower price growth

4. Long-term inflation expectations are binding

5. No new unfavorable shocks
The market expects inflation to come down with ~100bp more in Federal funds rate increases.
Why rates might fall sooner

1. Inflation comes down
2. Unemployment goes up
3. Financial system “breaks”
4. Global economy “breaks”
What is the probability of these outcomes in the United States?

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My bottom-line view on thinking about the macroeconomy (or anything else)

• Be a probabilist—with numbers—not a possibilist

• Don’t assume everything goes right and nothing goes wrong

• Don’t think the best case is the 50th percentile

• Recognize uncertainty and plan for it (easier said than done)
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Wide range of currency changes across emerging markets


Source: Calculations based on Macrobond.

2. What It Means for Small Open Economies
The United States not an outlier in terms of interest rate changes

2. What It Means for Small Open Economies


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Least likely to see a structural change: employment rates higher than pre-pandemic

Employment-Population Ratio for Ages 25-54, Advanced OECD Countries

Percentage Points


Source: Organisation or Economic Co-operation and Development.
Some chance of a structural trend but U.S. productivity growth is on trend so far

**Nonfarm Business Sector Productivity**

Index, 2019Q4 = 100

- **Pre-pandemic trend** is the average growth rate from 2007Q4 to 2019Q4.

Source: Bureau of Labor Statistics via Macrobond; author’s calculations.
Real interest rates have risen since the pandemic, is that temporary or permanent?

3. Structural Changes Coming Out of the Pandemic

Real Ten-Year Treasury Rate

Source: Board of Governors of the Federal Reserve System; U.S. Department of the Treasury; Bureau of Economic Analysis via Macrobond; author's calculations.
Will central banks come out of this experience with a higher inflation target?

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Interest rates have declined across a range of countries over a period of decades.

Note: Inflation measured by 12-month changes in the core consumer price index (core personal consumption expenditures price index for United States).

Source: Bank of Canada; Statistics Canada; Eurostat; Japanese Statistics Bureau; U.K. Office for National Statistics; U.S. Bureau of Economic Analysis; Macrobond; author’s calculations.
“When the facts change, I change my mind—what do you do sir?” (John Maynard Keynes)

**Early 1990s:** High interest rates are hurting business investment. *Deficit reduction can bring down interest rates and help economic growth.*

**The 2010s through 2019:** Borrowing no obstacle to business investment and growth. Low interest rates make it harder for monetary policy to stabilize the economy and increase financial risks. *Deficit increases would put upward pressure on interest rates, helping the economy.*

**2022 forward:** ??
Debt should be stable but at what level?

30% of GDP?

80% of GDP?

100% of GDP?

1,000% of GDP?
Why we would not want to stabilize the debt at 1,000 percent of GDP

• Debt/GDP stabilizing at any finite value is sufficient for debt sustainability.

• If \( r < g \) then any primary deficit will result in debt as a share of the economy asymptoting to a finite value.

• BUT cannot do debt sustainability analysis with exogenous interest rates. IF the debt goes up a lot then \( r \) will go up and \( r < g \) will not last forever.
Asking about debt to GDP is asking the wrong question

Debt

\[ \frac{\text{Debt}}{\text{GDP}} \]

**Stock**
- Measured at a point of time

**Flow**
- Measured over a period of time
But the debt-to-GDP ratio itself is a problematic concept

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<td>Debt / monthly GDP</td>
<td>1,196%</td>
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<td>Debt / annual GDP</td>
<td>103%</td>
</tr>
<tr>
<td>Debt / decades GDP</td>
<td>12%</td>
</tr>
<tr>
<td>Debt / NPV future GDP</td>
<td>0.5%</td>
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Source: The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds; Department of the Treasury; Bureau of Economic Analysis; Macrobond; author’s calculations.
Stock-stock: It would cost ~0.5 percent of GDP to pay off all debt, unchanged since 2004

Source: The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds; Department of the Treasury; Bureau of Economic Analysis; Macrobond; author’s calculations.
Flow-flow: real debt service has fallen even while debt has increased

U.S. Federal Debt Held by the Public and Real Net Interest Payments

Note: 2021 values are projections and include passage of the American Rescue Plan.
Source: Office of Management and Budget; Congressional Budget Office; Bureau of Economic Analysis; Macrobond; author's calculations.
This is true throughout the advanced economies

Real Interest as a Percent of GDP, G7 Countries

Source: International Monetary Fund, World Economic Outlook; Macrobond.
Looking forward

Real Net Interest Payments as a Percent of GDP

Percent of GDP

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140


Historical

Committee for a Responsible Federal Budget
Congressional Budget Office

Note: Committee for a Responsible Federal Budget is Intermediate Alternate Scenario.
Source: Office of Management and Budget; Congressional Budget Office; Macrobond; Center for a Responsible Federal Budget (Marc Goldwein); author’s calculations.
Looking forward

Real Net Interest Payments as a Percent of GDP

Percent of GDP


Note: Committee for a Responsible Federal Budget is Intermediate Alternate Scenario.
Source: Office of Management and Budget; Congressional Budget Office; Bureau of Economic Analysis; Macrobond; Center for a Responsible Federal Budget (Marc Goldwein); author's calculations.
Going forward we need a fiscal framework that is a combination of:

- Optimal
- Understandable
- Achievable
The Global Economic Outlook, a Reconsideration of Fiscal Policy, and What it Means for Small Open Economies

Jason Furman
Harvard University

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