Why Has the US Economy Recovered So Consistently from Every Recession in the Past 70 Years?

Robert E. Hall       Marianna Kudlyak
Hoover Institution and San Francisco Fed
Department of Economics
Stanford University

Labor Market and Monetary Policy—Annual Research Conference of the National Bank of Ukraine organized in cooperation with Narodowy Bank Polski with support of the Journal of Money, Credit and Banking
Kyiv, 28-29 May 2020

The views expressed here are the authors’ and do not necessarily reflect those of the Federal Reserve Bank of San Francisco or the Federal Reserve System, or of the NBER Business-Cycle Dating Committee.
We study US business-cycle recoveries over the past 70 years.

We focus on the unemployment rate, but ratio of GDP to its potential value behaves similarly.
We study US business-cycle recoveries over the past 70 years

We focus on the unemployment rate, but ratio of GDP to its potential value behaves similarly

We ask, what accounts for the economy’s consistent, reliable record in recovering from adverse shocks?
We study US business-cycle recoveries over the past 70 years

We focus on the unemployment rate, but ratio of GDP to its potential value behaves similarly.

We ask, what accounts for the economy’s consistent, reliable record in recovering from adverse shocks?

Outside of our time span, three developments are potentially telling:

- Slow and uneven recovery during the 1930s
- Rapid re-employment of returning soldiers after World War II
- Unprecedented job loss in the past 3 months
average annual rates of decline in unemployment in percentage points, by recovery, and total decline during each recovery
Linear path of convergence of unemployment as a recovery progresses

The paths of unemployment during recoveries
Recessions: Substantial but Short-Lived Spikes in Job Loss
Recessions are contractions in economic activity, as the economy collapses quickly.

Heterogeneous causes of recessions:

▶ Fed steps hard on brake, 1981
▶ Real-estate crash and oil-price spike, 1990
▶ Tech crash, 2001
▶ Financial crisis, 2008
▶ Pandemic, 2020
Recessions are contractions in economic activity, as the economy collapses quickly.

Observers say, “the economy is in free-fall”, as they have been saying.
Recessions are contractions in economic activity, as the economy collapses quickly. Observers say, “the economy is in free-fall”, as they have been saying.

Heterogeneous causes of recessions:
- Fed steps hard on brake, 1981
- Real-estate crash and oil-price spike, 1990
- Tech crash, 2001
- Financial crisis, 2008
- Pandemic, 2020
Layoffs recorded in jolts, monthly at annual rate, in thousands of workers
Extended mass layoffs, in thousands of initial claimants per year
Unemployment From Permanent Job Loss, by Duration

(a) All durations

(b) Less than 5 weeks
Estimated annual displacements, actual and counterfactual
Initial unemployment insurance claims, in thousands
Job loss and the magnitude of the increase in unemployment following a recession shock
All four job loss measures show a substantial but short-lived spike. Unemployment shows a substantial increase and slow return to its pre-recession level.
## The Direct Channel from Job Loss to Subsequent Lingering Unemployment

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Interpretation</th>
<th>Coefficient</th>
<th>Standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha$</td>
<td>Intercept</td>
<td>-991</td>
<td>(144)</td>
</tr>
<tr>
<td>$\theta_1$</td>
<td>Effect of prior year's displacements</td>
<td>0.76</td>
<td>(0.07)</td>
</tr>
<tr>
<td>$\theta_2$</td>
<td>Effect of displacement 1 to 2 years ago</td>
<td>0.21</td>
<td>(0.08)</td>
</tr>
<tr>
<td>$\theta_3$</td>
<td>Effect of displacement 2 to 3 years ago</td>
<td>0.37</td>
<td>(0.06)</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>0.991</td>
<td></td>
</tr>
<tr>
<td>$\sigma$</td>
<td></td>
<td>116</td>
<td></td>
</tr>
</tbody>
</table>

Regression results for the relation between lagged displacements and current unemployment of workers suffering those displacements.
Unemployment from excess job loss in 2009 and total excess unemployment, by four measures of job loss, in thousands of workers.
Effective Exit Rate from Unemployment
The monthly exit rate from unemployment is high but the decline in unemployment is slow.

Most jobs are short-term jobs.

The job losers often circle among short-term employment, unemployment and out of the labor force.

Consequently, the effective exit rate from unemployment to a new, long-term job is much lower than the average job finding rate measured in the data.
Short-term employment spells increase in recessions

Indexes of the duration of employment spells

(a) Men aged 25-54

(b) Women aged 25-54
Circling among short-term jobs, unemployment, and OLF increases in recession

(a) Permanent job losers  (b) Completed temporary job  (c) Labor force re-entrants

Recessions involve not only an increase in unemployment from permanent and temporary layoffs but also from completion of temporary jobs and labor force re-entry. This points towards an elevated number of individuals taking temporary jobs and circling between unemployment and OLF.
Models
Models

1. The DMP model with short- and long-term jobs
2. Congestion externality
3. Impaired profitability of employment
The basic DMP

Phase diagram for the standard dmp case
Recovery path of unemployment with the standard DMP model
Recovery path of unemployment with estimated effective exit rate from unemployment, and actual unemployment, 2010 to 2020
phase diagram for the DMP case with congestion in recruiting
Congestion externality

recovery path of unemployment in the congestion model compared to actual path
Impaired profitability of employment

scaled index of loan availability compared to unemployment rate
Comparison of model’s recovery path of unemployment to actual unemployment
Other Forces Operating during a Recovery
Instruments of macroeconomic policy have generally had negative effects during recoveries.

Real government purchases of goods and services have shrunk.
Instruments of macroeconomic policy have generally had negative effects during recoveries.

Real government purchases of goods and services have shrunk.

Government transfer payments as a ratio to disposable income have declined.
Instruments of macroeconomic policy have generally had negative effects during recoveries.

Real government purchases of goods and services have shrunk.

Government transfer payments as a ratio to disposable income have declined.

Monetary stimulus has been removed—the Fed’s policy rate has moved from below the equilibrium value to above the equilibrium value of the short interest rate.
Non-policy determinants of growth in the GDP ratio have not contributed consistently to actual growth in the ratio.

Discount rates implicit in the stock market fell in some recoveries including the most recent one, and contributed to stimulus, but rose in others.
Non-policy determinants of growth in the GDP ratio have not contributed consistently to actual growth in the ratio

Discount rates implicit in the stock market fell in some recoveries including the most recent one, and contributed to stimulus, but rose in others.

Total factor productivity rose in recoveries through the 1980s but fell in the most recent one.
Real Government Purchases of Goods and Services, by Recovery, and Total Growth during the Recovery

![Graph showing real government purchases of goods and services, by recovery, and total growth during the recovery.](image-url)
Government Transfer Payments as a Ratio to Disposable Income, by Recovery, and Total Growth during the Recovery
Margin of the Short Interest Rate below Its Natural Value, by Recovery, and Total Growth during the Recovery
Price/Dividend Ratio of the S&P 500, by Recovery, and Total Growth during the Recovery
Total Factor Productivity, by Recovery, and Total Growth during the recovery
Conclusions
We conclude that

the economy includes a strong internal force toward recovery that operates apart from policy instruments and from financial developments or productivity growth
We conclude that the economy includes a strong internal force toward recovery that operates apart from policy instruments and from financial developments or productivity growth. Policymakers understand this point and withdraw expansionary policies as the internal force does its job.
We conclude that

the economy includes a strong internal force toward recovery that operates apart from policy instruments and from financial developments or productivity growth. Policymakers understand this point and withdraw expansionary policies as the internal force does its job.

The internal force is job creation as in the DMP model.
We conclude that

the economy includes a strong internal force toward recovery that operates apart
from policy instruments and from financial developments or productivity growth
policymakers understand this point and withdraw expansionary policies as the
internal force does its job

the internal force is job creation as in the DMP model

but operating more slowly than previously realized
TEMPORARY AND PERMANENT LAYOFFS

SOURCE: KUDLYAK AND WOLCOTT, 2020, "PANDEMIC LAYOFFS"
MONTHLY CHANGES IN THE COMPONENTS OF THE UNEMPLOYMENT RATE

SOURCE: KUDLYAK AND WOLCOTT, 2020, "PANDEMIC LAYOFFS"