Questions and Answers: The Economic Recovery and the Path Forward

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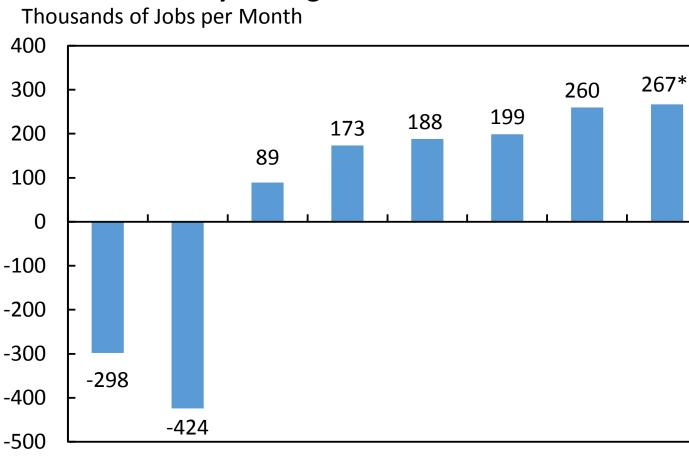
National Association for Business Economics March 10, 2015

Is the labor market recovery genuine? Or is the unemployment rate only falling because people are no longer looking for work?

Yes, it is a genuine labor market recovery with the strongest payroll job growth since the 1990s. Broader measures of unemployment that take into account discouraged workers and others who are not fully participating have also declined substantially.

Job Growth Has Risen Throughout This Recovery

Monthly Average Nonfarm Job Growth

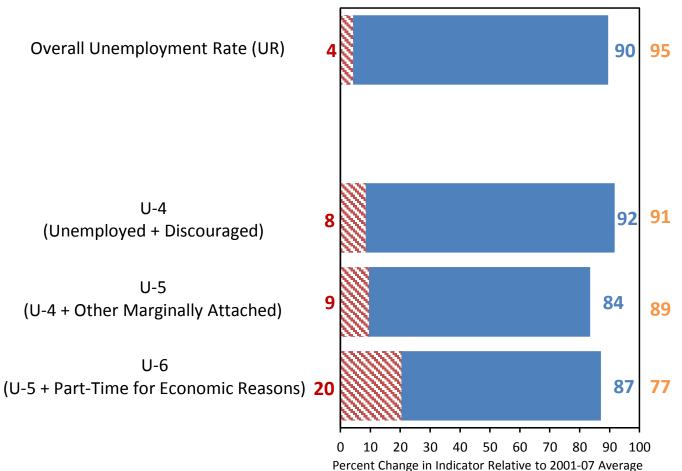


*Pace through February 2015.

Broad Measures of Labor Underutilization Have Mostly Recovered

Elevation and Recovery of Broader Measures of Unemployment

Remaining Elevation as of February 2015 Percent Increase to Great Recession Peak Percent Recovered



Note: All rates are expressed as a percent of the labor force and are seasonally adjusted. Source: Bureau of Labor Statistics, Current Population Survey; CEA calculations.

But if the labor market recovery has been so strong, why has the labor force participation rate fallen by so much?

Three reasons:

(1) the aging of the population as the baby boom turns into a retirement boom;
(2) the set of the population of the set of th

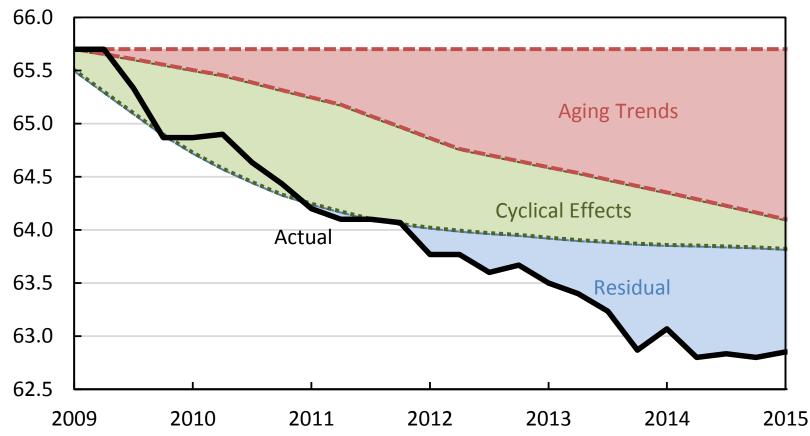
(2) the normal cyclical reduction that will abate as the economy recovers; and

(3) other reasons such as the high rate of longterm unemployment and longer-running trends in participation.

Participation Decline Mostly Driven by Aging Trends

Labor Force Participation Decomposition

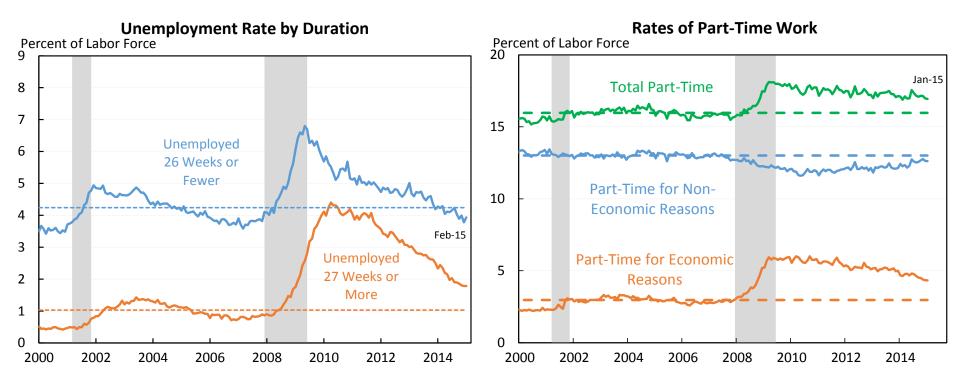
Percent of Civilian Non-institutional Population Aged 16+



Is it fair to say, then, that this has been an imperfect labor market recovery?

Of course it is not perfect. We are not yet fully recovered, and even when we are, the United States will still face a set of labor challenges that reflect both the continued fallout from the recession and longer-standing structural changes.

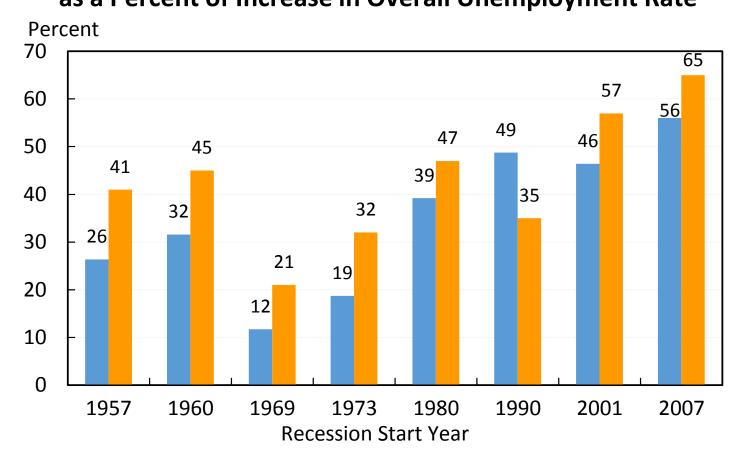
Long-Term Unemployment and Part-Time for Economic Reasons Rose During the Recession



Note: Shading denotes recession. Dashed lines represent pre-Great Recession (December 2001-December 2007) averages. Source: Bureau of Labor Statistics, Current Population Survey; CEA calculations.

Long-Term Unemployment and Part-Time for Economic Reasons Have Grown More Sensitive to Shocks

Increase in Long-Term Unemployment and Part-Time for Economic Reasons as a Percent of Increase in Overall Unemployment Rate



Note: Increases are measured from the first month of the recession to the peak in the overall unemployment rate. The 1980s recessions are consolidated into a single cycle. Source: Bureau of Labor Statistics, Current Population Survey; CEA calculations.

The labor market has genuinely strengthened, albeit with your caveats. But if that is the case, why are we not seeing increased GDP growth?

We are seeing increased GDP growth.

Real GDP Accelerating from the Start of Recovery

Components of Real GDP

(percent change at an annual rate)

	Start of Recovery (09:Q2-12:Q4)	2013 and 2014 (13:Q1-14:Q4)	
Gross Domestic Product	2.1	2.7	
Consumer Spending	2.0	2.8	
Business Fixed Investment	5.2	5.4	
Residential Investment	5.9	4.6	
Exports	7.4	3.6	
Imports	6.8	4.0	
Federal Gov't	- 0.6	- 3.1	
State & Local Gov't	- 2.2	1.2	

But why did real GDP growth slow in Q4?

We should not place too much weight on any one data point because GDP is sensitive to transitory factors. Indeed, the same volatile factors that elevated third-quarter GDP reduced fourth-quarter GDP.

PDFP is Best Predictor of Future Real GDP Growth

Component Ability to Forecast One-Quarter-Ahead Real GDP Growth

Component (Real)	Predictive Power	
	(Adjusted R ²) of GDP	
Government	-0.02	
Exports	0.02	
Inventories	0.02	
Gross Domestic Product (GDP)	0.22	
Final Sales of Dometic Product	0.23	
Imports	0.28	
Fixed Investment	0.29	
Mean Output (GDP, GDI)	0.29	
PCE	0.30	
Gross Domestic Income (GDI)	0.31	
Final Sales to Domestic Purchasers	0.33	
Final Sales to Private Domestic Purchasers		
(PDFP)	0.36	

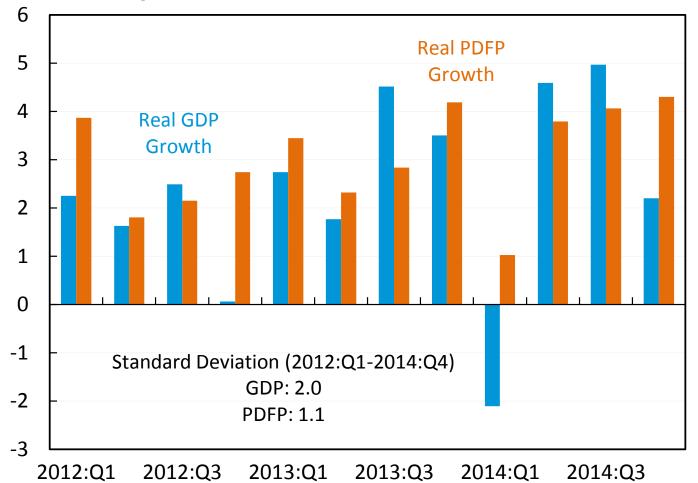
Note: Mean output refers to the average of GDP and GDI. The quarterly growth rate of real GDP is regressed on four lags of growth rates for the listed variables over 1984:Q1 to 2014:Q4, using revised data.

Source: Bureau of Economic Analysis, National Income and Product Accounts; CEA calculations.

PDFP is More Stable than GDP

PDFP versus GDP

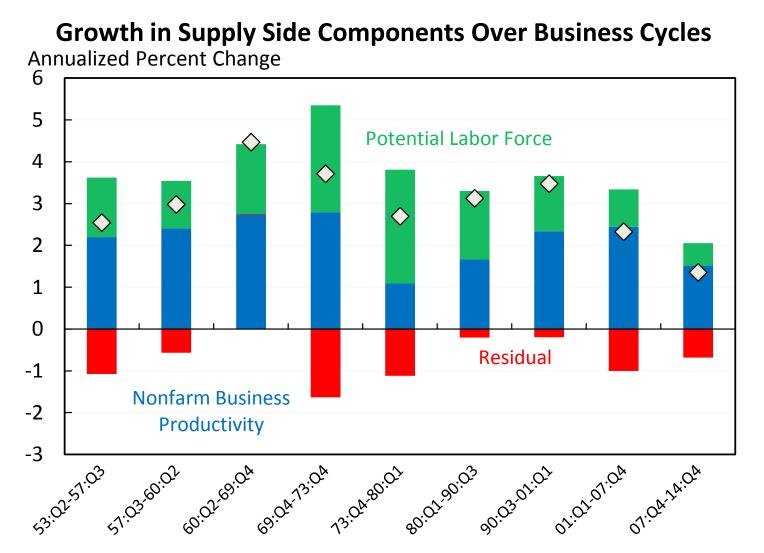
Percent Change, Annual Rate



But even if one looks beyond a single quarter and focuses on the entire recovery, why has growth been lower than in previous economic expansions?

The largest difference between the speed of the current recovery and previous expansions is that the workforce is growing more slowly for demographic reasons.

Biggest Variations in GDP Growth are Driven by Demographic Changes



Note: Residual includes the growth rate of the labor force participation rate, the employment rate, the work week, the productivity differential and the ratio of the population (16+) to potential labor force. Diamonds indicate the annualized growth of the geometric mean of GDP and GDI. 15 Source: Bureau of Economic Analysis; CEA Calculations.

But demography is only the "largest" difference. Why else is growth slower than in the past?

There are a number of possibilities, but three of the most plausible (and not mutually exclusive) candidates are:

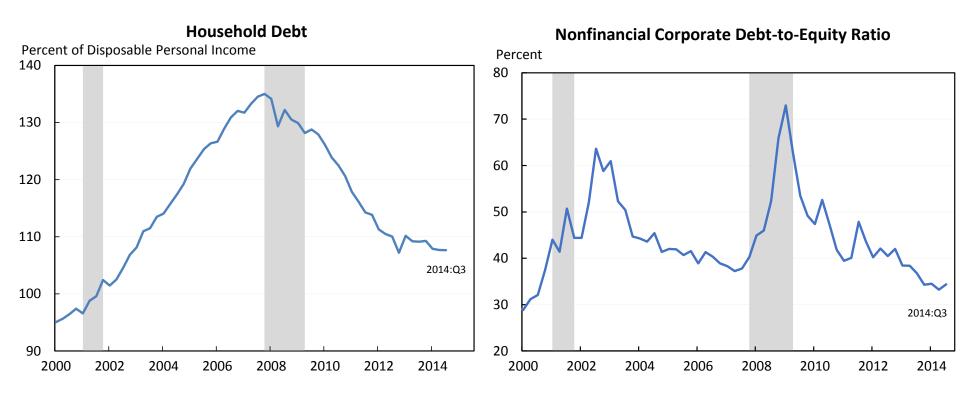
- (1) the unusual contraction in State and local government;
- (2) the aftermath of the crisis; and
- (3) the global growth slowdown.

#1: State and Local Government Were an Especially Large Drag on This Recovery

Real State and Local Government Purchases During Recoveries Indexed to 100 at NBER-defined trough 120 Average, 1960-2007 115 110 1991 105 2001 100 2014:Q4 95 90 Current (2009:Q2 trough) 85 80 -4 Trough 4 Quarters from trough -24 -20 -16 -12 -8 8 12 16 20 24

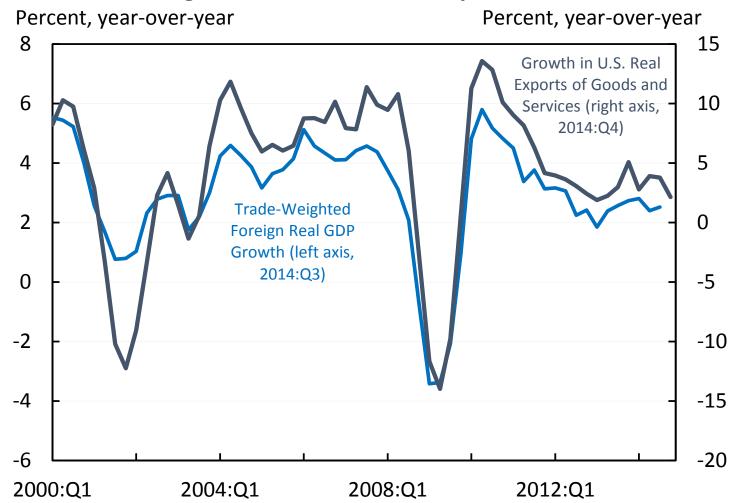
Note: The 1960–2007 average excludes the 1980 recession due to overlap with the 1981–82 recession. Source: Bureau of Economic Analysis, National Income and Product Accounts; National Bureau of Economic Research; CEA calculations.

#2: Crisis-Induced Increase in Household and Business Debt Took Several Years to Reverse



#3: Global Slowdown Has Contributed to Decline in U.S. Export Growth

Foreign Real GDP and U.S. Export Growth



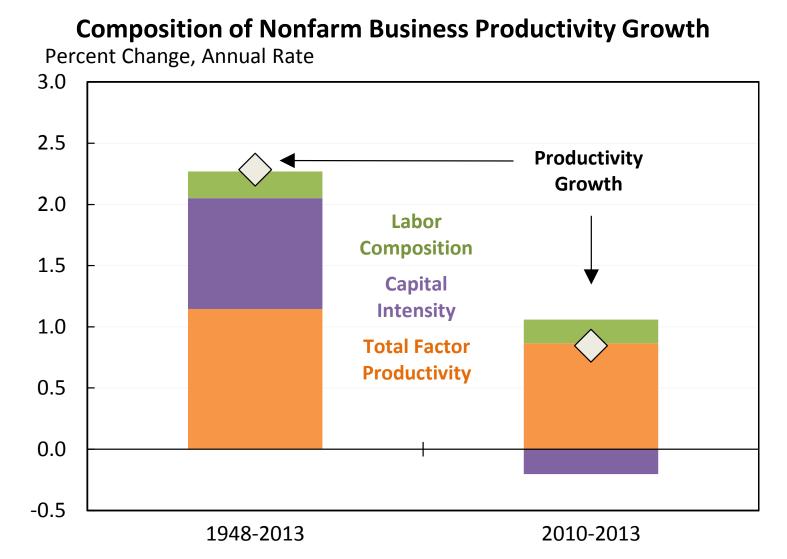
What about the role of Federal policy in the recovery?

The fact that the United States has recovered further and faster than past historical benchmarks or other advanced economies today is an indicator of how effective our response has been, but growth would have been even stronger with the President's full agenda.

You listed all the reasons for slower output growth, but isn't the real problem slower productivity growth? And doesn't this suggest that growth will be slow in the future?

There is no reason to believe that productivity growth will be substantially slower in the future. And there is some cause for optimism—but if we put the right policies in place there would be even more cause for optimism.

Recent Productivity Shortfall Explained by Reduced Capital Intensity Growth



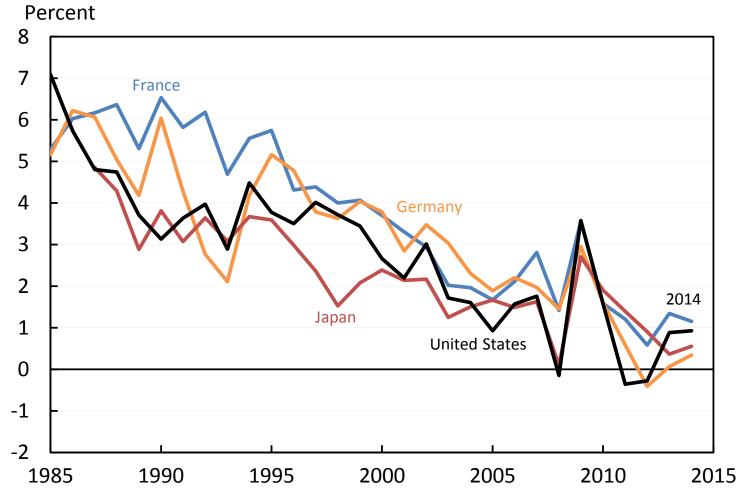
Note: Annualized percent change in nonfarm business productivity is approximately equal to the sum of the growth rates of total factor productivity, capital intensity and labor composition. Diamonds indicate nonfarm business labor productivity growth. Source: Bureau of Labor and Statistics: CEA calculations.

But what about secular stagnation, isn't that weighing on U.S. growth?

No, at least not in the United States today. However, it could present an increased risk in the future.

Global Interest Rates Have Declined in Recent Decades

Real 10-Year Benchmark Rate in Selected Countries



Is there anything that does worry you about the outlook for the U.S. economy?

Although forecasters expect continued increases in growth rates and declines in the unemployment rate over the near term, one should always be cognizant of our uncertainty about the economy.

What about anything else that excites you about the U.S. economy? Surely it is not all downside risk?

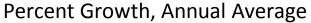
The slowest growth of health costs in fifty years, the reduced U.S. dependence on foreign oil, and a number of technological developments are all exciting.

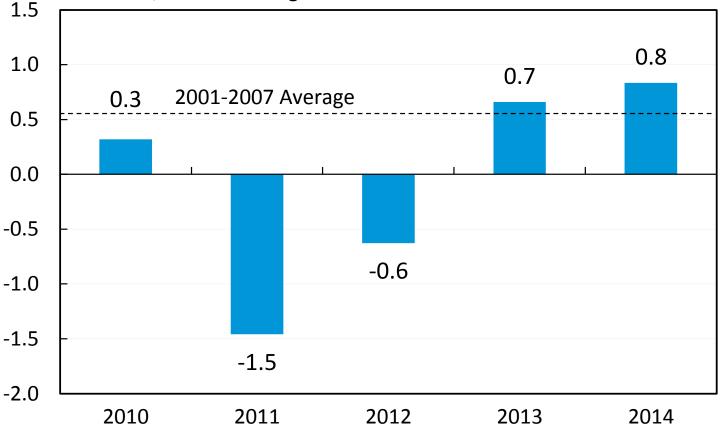
But middle-class families still are not feeling the growth, as wages have not risen.

Real wages rose in 2013, 2014 and so far in 2015 but we need to see more sustained gains in wages.

Real Wages Beginning to Rise

Real Hourly Earnings, Production & Nonsupervisory Workers





So why are middle-class incomes, adjusted for inflation, lower than they were before the crisis?

Middle-class income growth slowed starting in the 1970s due to a combination of slower productivity growth, rising inequality and—starting in the 1990s—falling labor force participation rates. These long-standing trends were compounded by the Great Recession.

Drivers of Middle-Class Incomes: Productivity, Inequality, and Participation

U.S. Middle-Class Income Growth and its Determinants

	1948-1973	1973-2013
Real Middle-Class Income Growth		
Average Household Income for the Bottom 90 Percent (World Top Incomes Database)	2.8%	-0.3%
Median Household Income with Benefits (CBO, adj. for household size)	N/A	0.4%
Median Household Income with Gov't Transfers/Taxes (CBO, adj. for household size)	N/A	1.0%
Productivity Growth (annual rates)		
Labor Productivity Growth	2.8%	1.8%
Income Shares		
Bottom 90 Percent	66% ightarrow 68%	68% → 53%
Labor Force Participation Rate		
Prime Age Male (25-54)	97% → 95%	95% → 88%
Prime Age Female (25-54)	35% → 52%	52% → 74%

Note: Income levels from the World Top Incomes Database are deflated with the CPI-U-RS price index, and income levels from the Congressional Budget Office (CBO) are deflated with the personal consumption expenditures price index. Income shares are provided by the World Top Incomes Database, cited below, and median household income including benefits, transfers, and taxes is provided by CBO. CBO median income is extended before 1979 and after 2010 with the growth rate of Census median income.

Source: World Top Incomes Database; Census Bureau; Congressional Budget Office; Bureau of Labor Statistics; Bureau of Economic Analysis; CEA calculations.

Sustained Growth in These Factors Would Have Doubled Middle-Class Incomes

Counterfactual Scenarios for Productivity, Equality, & Participation

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Thought Experiment	Factor	Base Period	Percentage Impact on 2013 Average Income	Income Gain to 2013 Typical Household
Impact of Higher	Total Factor	1948-1973	58%	\$30,000
Growth	Productivity Growth		50%	ŞSU,UUU
Impact of Greater	Share of Income	1973	18%	\$9,000
Equality	Earned by Middle	1973	10%	\$9,000
Impact of Labor	Female Labor Force	1948-1995	6%	¢2,000
Force Participation	Participation Rate	1946-1995	0%	\$3,000
Combined Impact	All of the Above		98%	\$51,000

Note: These thought experiments are intended to demonstrate the importance of these three factors for middle-class incomes. They do not consider second-order effects or interactive effects. The first thought experiment assumes that an increase in productivity is associated with an equal increase in the Census Bureau's mean household income. The second thought experiment uses the Census Bureau's mean income of the middle quintile as a proxy for median income. The third thought experiment assumes that newly-participating women will have the same average earnings as today's working women, and halts the growth of female labor force participation when it reaches parity with male participation. The first and third thought experiments assume that income gains are distributed proportionally such that mean and median incomes grow at the same rate. Dollar gains are calculated off a base of the Census Bureau's median household income in 2013. The fourth thought experiment compounds the effects of the first three.

Source: World Top Incomes Database; Census Bureau; Congressional Budget Office; Bureau of Labor Statistics, Current Population Survey; Bureau of Economic Analysis; CEA calculations.

What does all of this mean for what the Federal Reserve should do?

I do not comment on monetary policy. The Federal Reserve is an independent agency.

Then what can the Administration do about all of this?

The President's middle-class economics agenda aims to strengthen growth and ensure that it is widely shared.

Middle-Class Economics

Growing the Pie: Added Productivity Growth

- Expanded Trade.
- New Infrastructure Investment.
- Business Tax Reform.
- **Balanced Deficit Reduction.** A fiscal stance that allows for more investments in research and education, including early childhood investments, can boost productivity.

Ensuring that More Share the Benefits of Growth

- Minimum Wage Increase.
- Expanding the Earned Income Tax Credit.
- Skills Training to Build Careers.
- Educational investments, from pre-kindergarten to college, can increase productivity and reduce inequality.

Encouraging Labor Force Participation

- Working-Families Policies. Child-care access, high-quality early childhood education, promoting workplace flexibility, paid sick leave, and tax credits for secondary earners can all boost participation.
- Policies to Make Career Transitions Easier. Po-work unemployment insurance programs, retraining opportunities, and reduced licensing barriers will help bring Americans into the labor force.

Wow, does this mean we really could make the economy perfect?

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