



# 2021 LONG- TERM ECONOMIC & FISCAL OUTLOOK



May 27, 2021

## DISCLAIMER

The preceding has been presented for informational purposes only. None of the information contained herein constitutes an offer to sell, or a solicitation of an offer to buy any security or investment vehicle, nor does it constitute an investment recommendation or legal, tax, accounting or investment advice by Hedgeye or any of its employees, officers, agents or guests. This information is presented without regard for individual investment preferences or risk parameters and is general, non-tailored, non-specific information. This content is based on information from sources believed to be reliable. Hedgeye is not responsible for errors, inaccuracies or omissions of information. The opinions and conclusions contained in this report are those of the individual expressing those opinions or conclusion and are intended solely for the use of Hedgeye's subscribers and the authorized recipients of the content. All investments entail a certain degree of risk and financial instrument prices can fluctuate based on several factors, including those not considered in the preparation of the content. Consult your financial professional before investing.

## TERMS OF USE

The information contained herein is protected by United States and foreign copyright laws and is intended solely for the use of its authorized recipient. Access must be provided directly by Hedgeye. Redistribution or republication is strictly prohibited. For more detail please refer to the Terms of Service at [https://www.hedgeye.com/terms\\_of\\_service](https://www.hedgeye.com/terms_of_service).

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*

## ❑ **US Real GDP Projection, 2021-2051**

- **Topline Results**
- Structure of GDP Projections & Their Evolution since 2016
- Population
- Labor Force
- Labor Productivity

## ❑ **US Fiscal Projection, 2021-2051**

- Topline Results
- Evolution of Fiscal Projections since 2016
- Long-Term Revenue and Outlay Drivers
- Three Critical Fiscal Assumptions

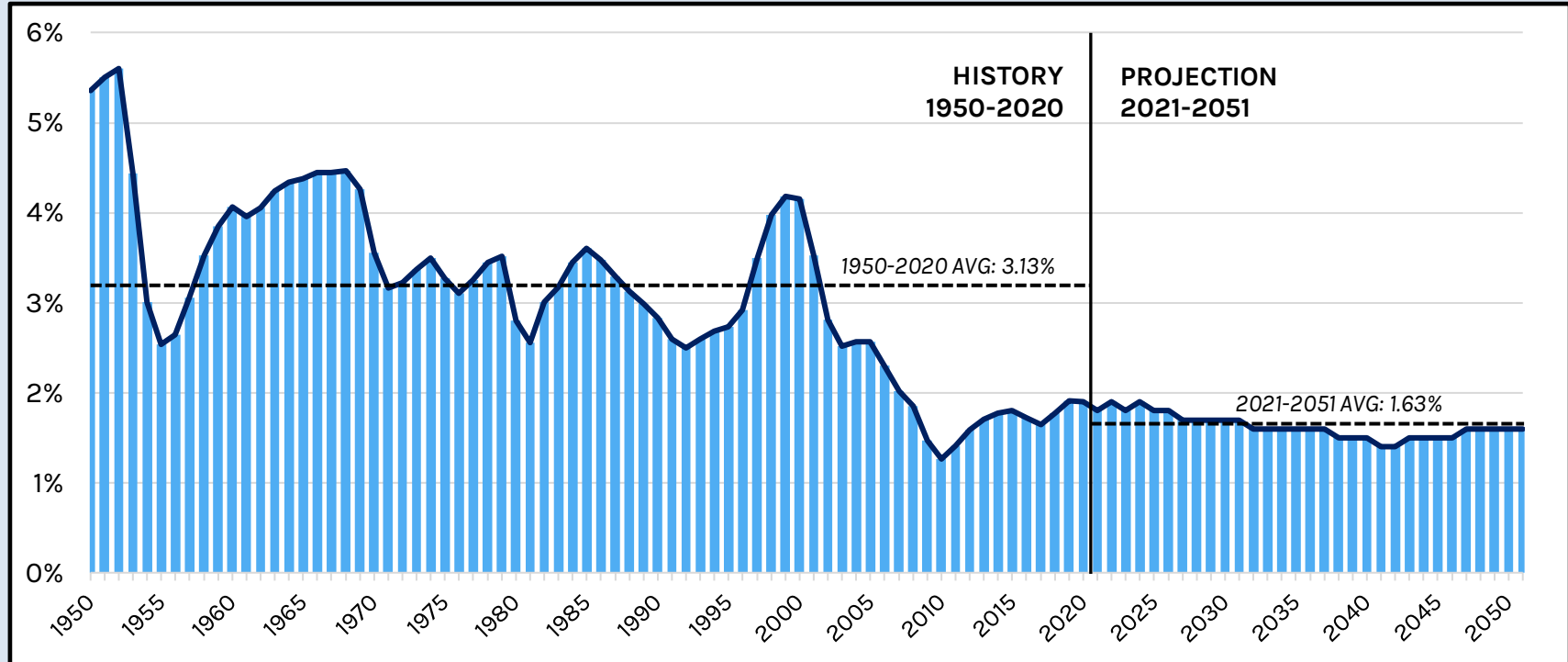
## ❑ **What Could Go Wrong?**

- Labor Force: Fertility, Mortality, Immigration, LFPR
- Labor Productivity: Capital Accumulation, TFP
- Fiscal: So Much Depends on Real Interest Rates!
- And What About... Wild Cards?

# GDP: THE GREAT SLOWDOWN

5

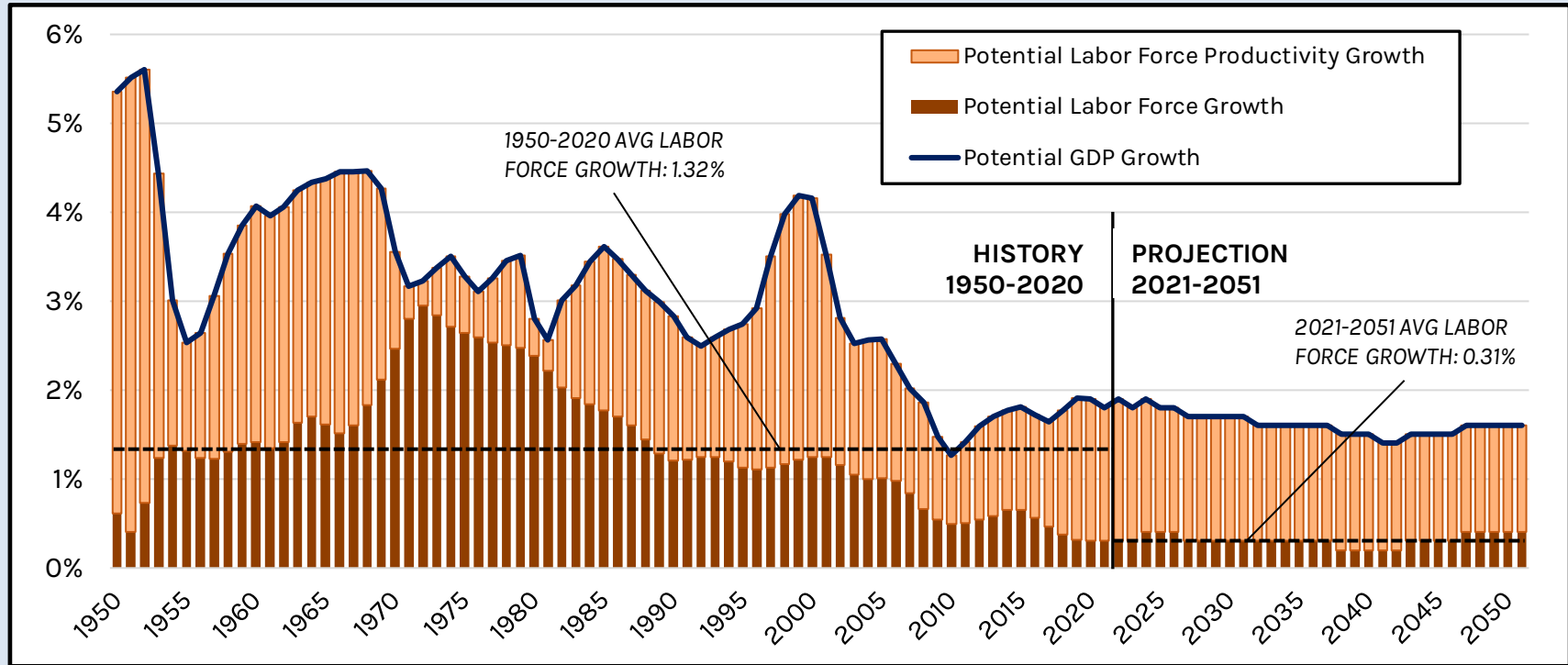
## Real GDP Growth: History, 1950-2020; and CBO Projections 2021-2051



# GDP: THE GREAT SLOWDOWN

6

## Potential Labor Force, Labor Force Participation, & GDP Growth: History, 1950-2020; and CBO Projections 2021-2051



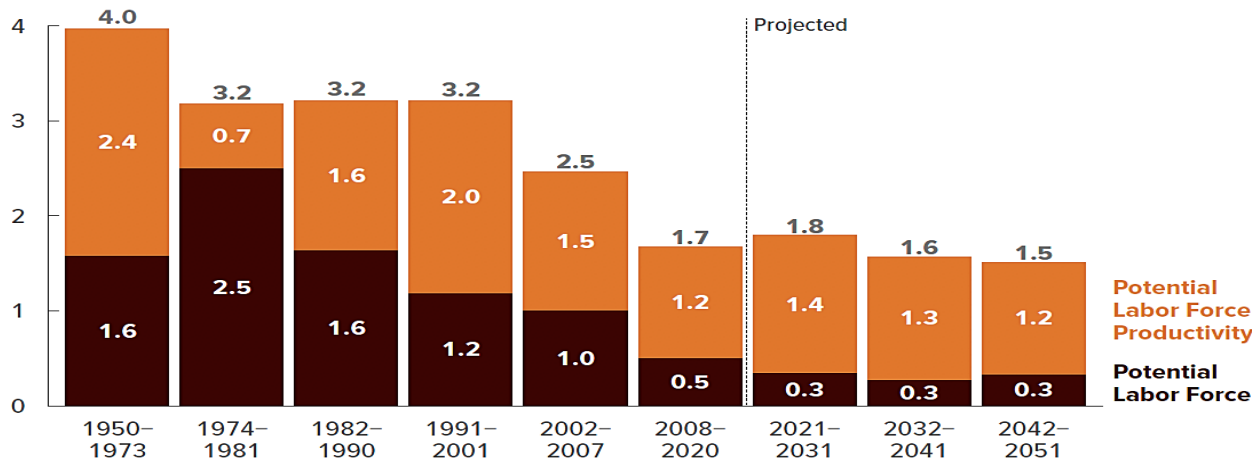
# GDP: THE GREAT SLOWDOWN

7

Figure 5.

## Average Annual Growth of Real Potential GDP

Percent



Growth in real potential GDP is projected to be slower than it has been in the past. That slowdown occurs mostly because the potential labor force is projected to grow at a slower pace.

Data source: Congressional Budget Office. See [www.cbo.gov/publication/56977#data](http://www.cbo.gov/publication/56977#data).

Real values are nominal values that have been adjusted to remove the effects of changes in prices. Potential GDP is the maximum sustainable output of the economy. Growth in real potential GDP is the sum of growth in the potential labor force and growth in potential labor force productivity. The potential labor force is the labor force (that is, the number of people in the civilian noninstitutionalized population who are age 16 or older and who are either working or actively seeking work), adjusted to remove the effects of fluctuations in the business cycle. Potential labor force productivity is the ratio of real potential GDP to the potential labor force.

The bars show average annual growth rates over the specified periods.

GDP = gross domestic product.

## ❑ **US Real GDP Projection, 2021-2051**

- Topline Results
- Structure of GDP Projections & Their Evolution since 2016
- Population
- Labor Force
- Labor Productivity

## ❑ **US Fiscal Projection, 2021-2051**

- Topline Results
- Evolution of Fiscal Projections since 2016
- Long-Term Revenue and Outlay Drivers
- Three Critical Fiscal Assumptions

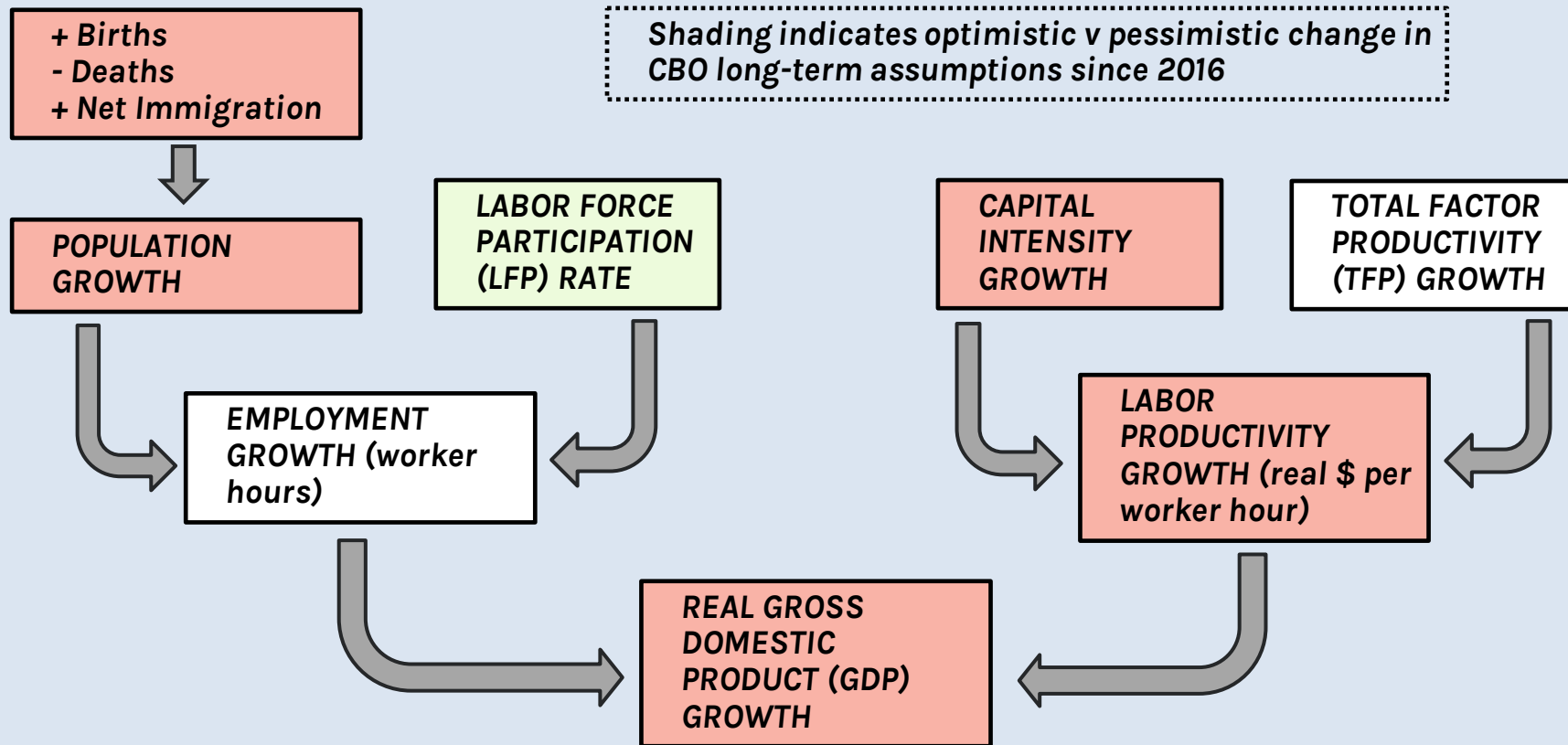
## ❑ **What Could Go Wrong?**

- Labor Force: Fertility, Mortality, Immigration, LFPR
- Labor Productivity: Capital Accumulation, TFP
- Fiscal: So Much Depends on Real Interest Rates!
- And What About... Wild Cards?



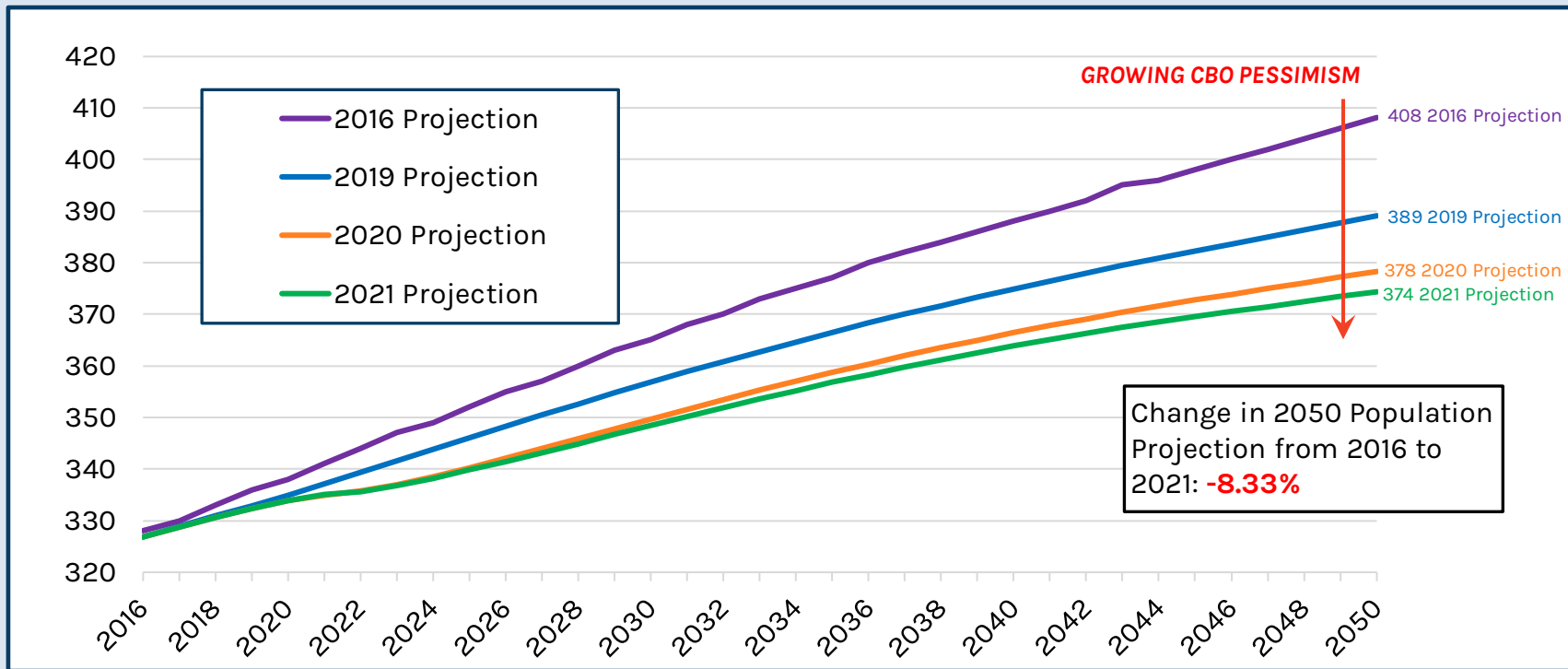
# EMPLOYMENT + PRODUCTIVITY

9



# FALLING POPULATION GROWTH EXPECTATIONS

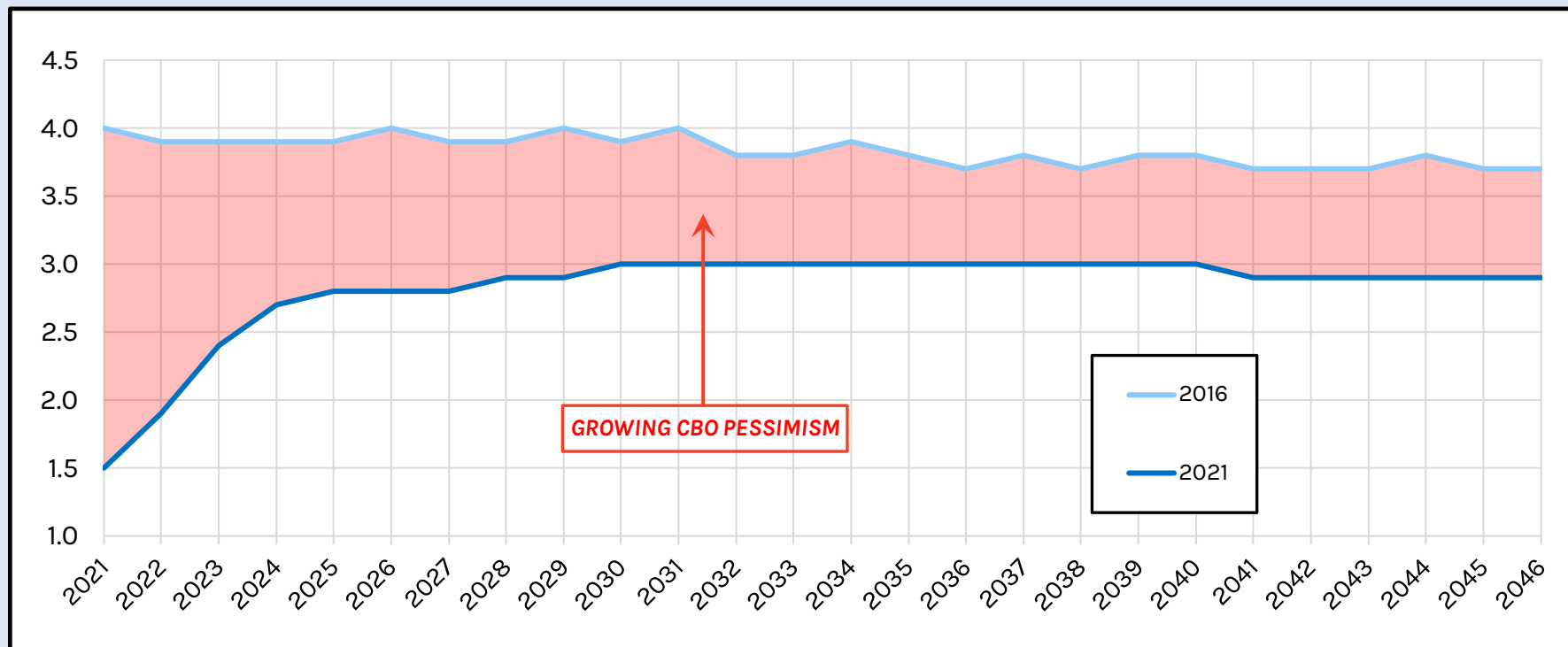
## CBO 2016\*, 2019, 2020, and 2021 Population Projections Through 2050, In Millions



\*2016 projections extrapolated through 2050 based on 2045-2046 increase.

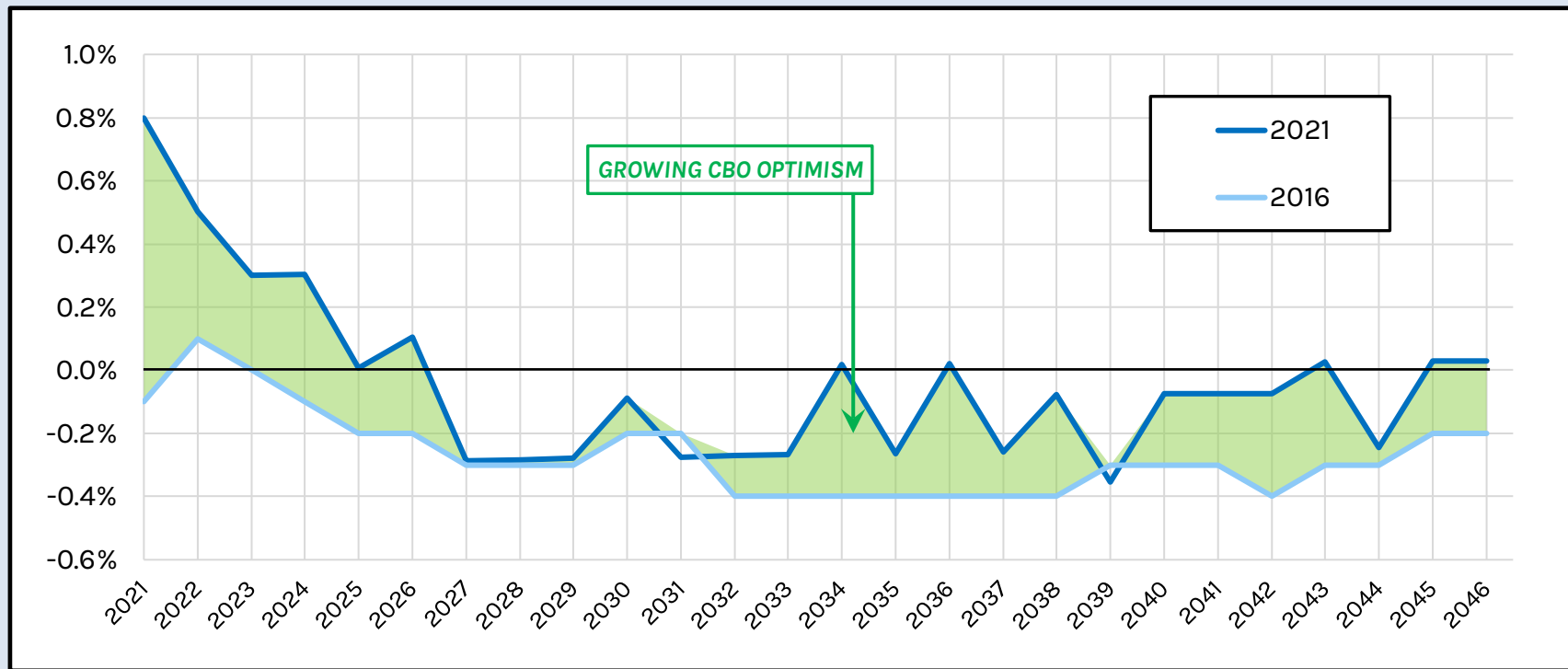
# FALLING IMMIGRATION EXPECTATIONS

## CBO 2016 and 2021 Projected Net Immigration Rate (per 1,000 US population), 2021-2046



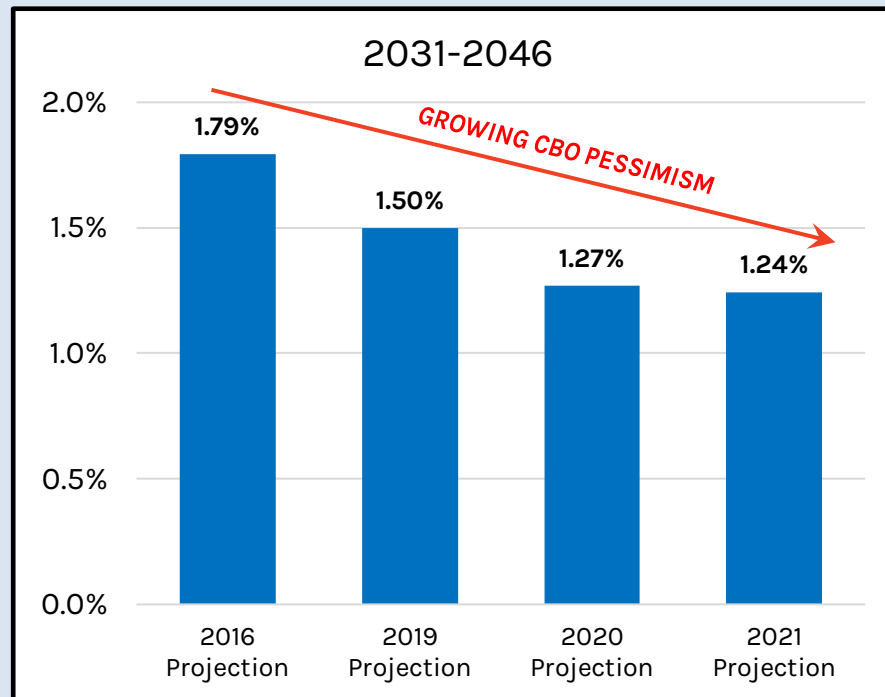
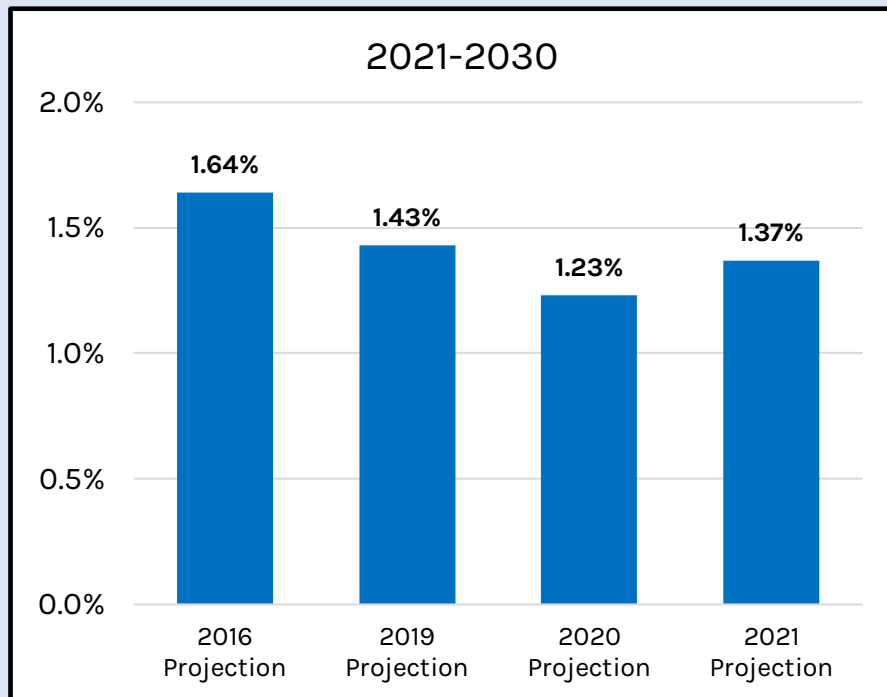
# YET RISING HOPES ABOUT OUR WORK EFFORT

## 2016 and 2021 CBO Projections: Difference Between LF Growth and Pop Growth, 2021-2046



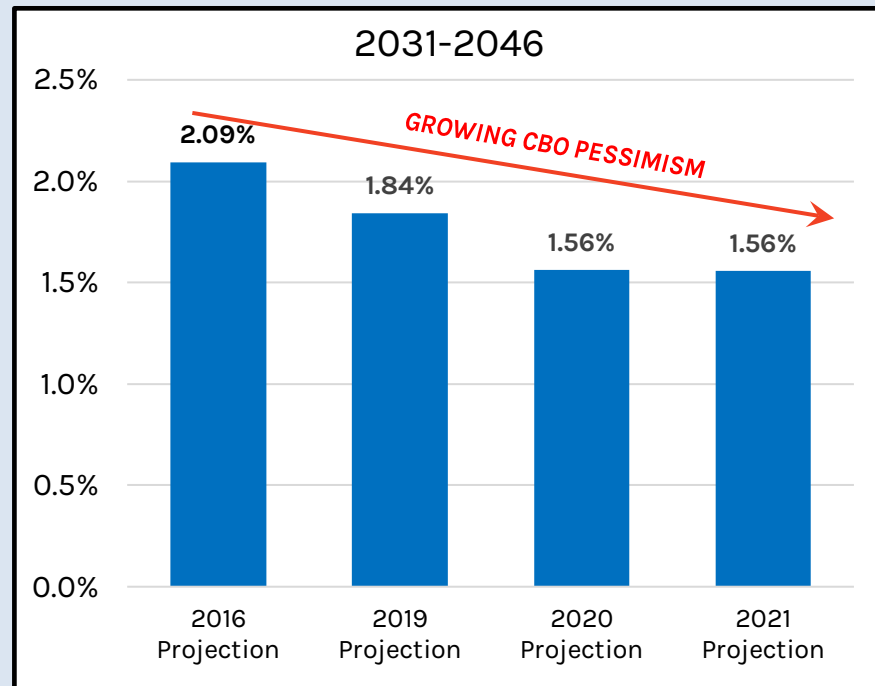
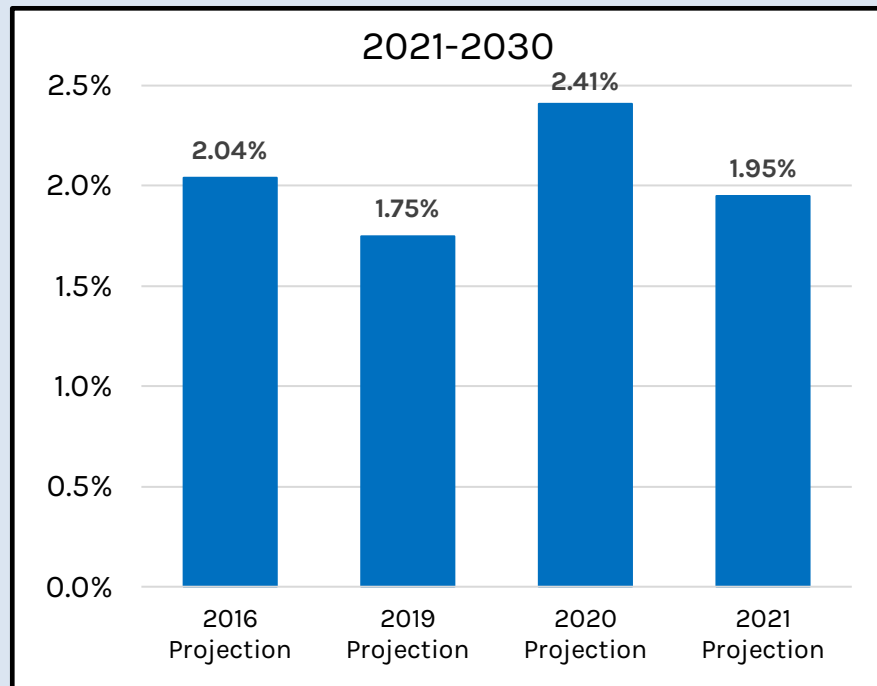
# PRODUCTIVITY? HOPES HERE TOO ARE FALLING

## CBO Average Projected Annual REAL GDP PER HOUR Growth Rate, 2021-2030 and 2031-2046



# AS A RESULT, GDP EXPECTATIONS ARE DOWN

## CBO Average Projected Annual REAL GDP Growth, 2021-2030 and 2031-2046



## ❑ **US Real GDP Projection, 2021-2051**

- Topline Results
- Structure of GDP Projections & Their Evolution since 2016
- Population
- Labor Force
- Labor Productivity

## ❑ **US Fiscal Projection, 2021-2051**

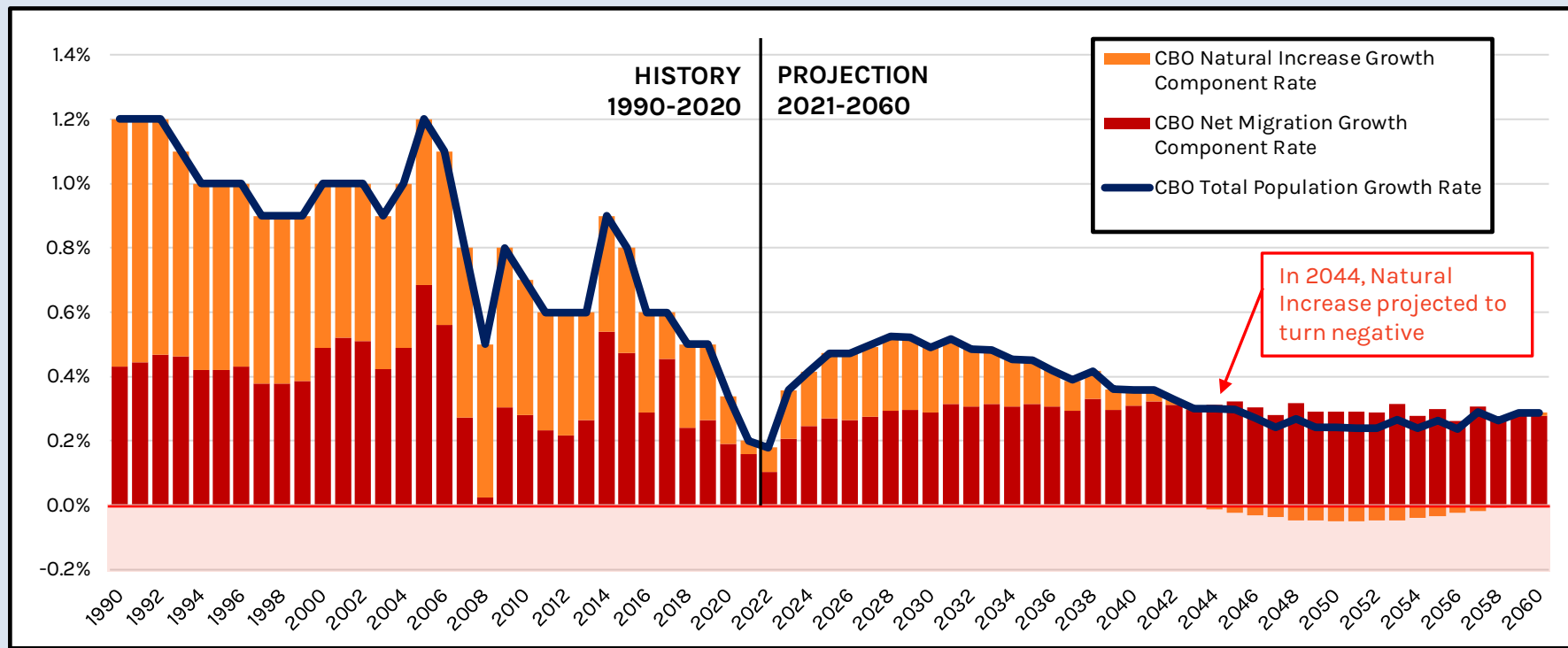
- Topline Results
- Evolution of Fiscal Projections since 2016
- Long-Term Revenue and Outlay Drivers
- Three Critical Fiscal Assumptions

## ❑ **What Could Go Wrong?**

- Labor Force: Fertility, Mortality, Immigration, LFPR
- Labor Productivity: Capital Accumulation, TFP
- Fiscal: So Much Depends on Real Interest Rates!
- And What About... Wild Cards?

# POPULATION PROJECTION PER CBO

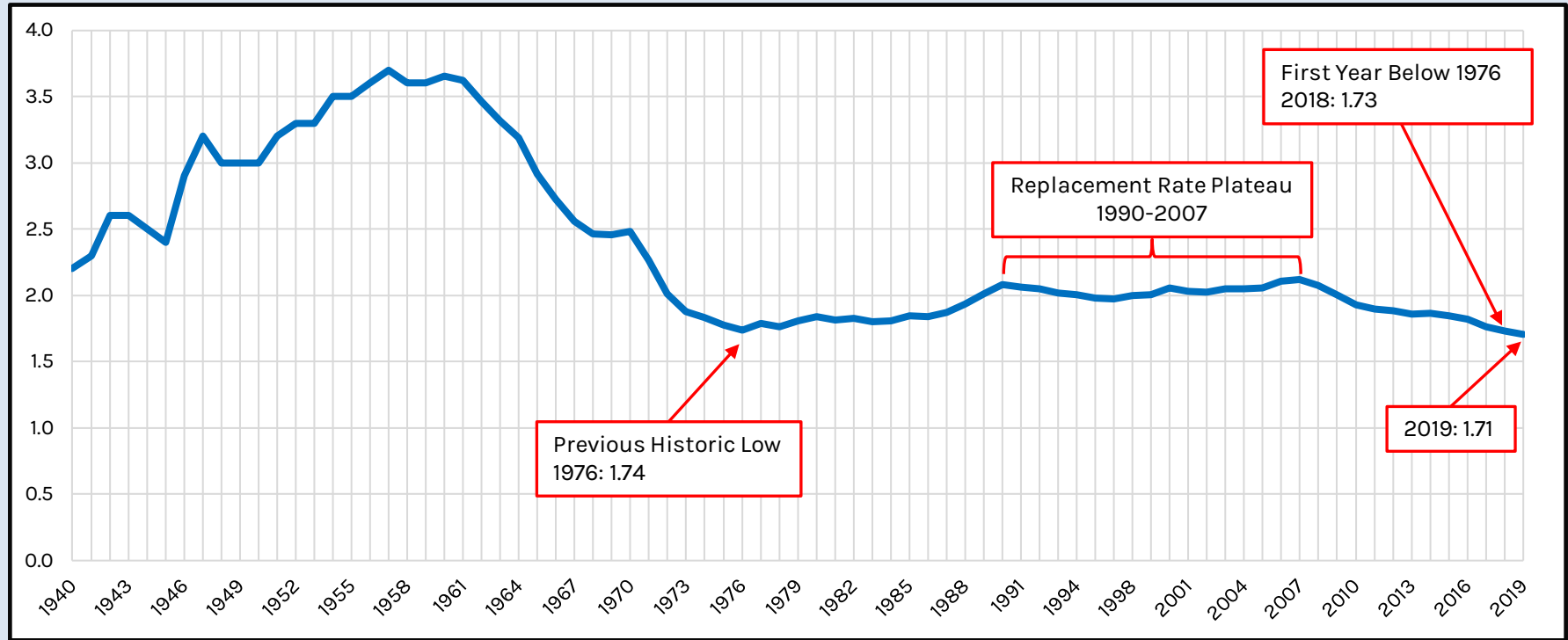
## US Total Population: Growth by Component Rate (CBO)





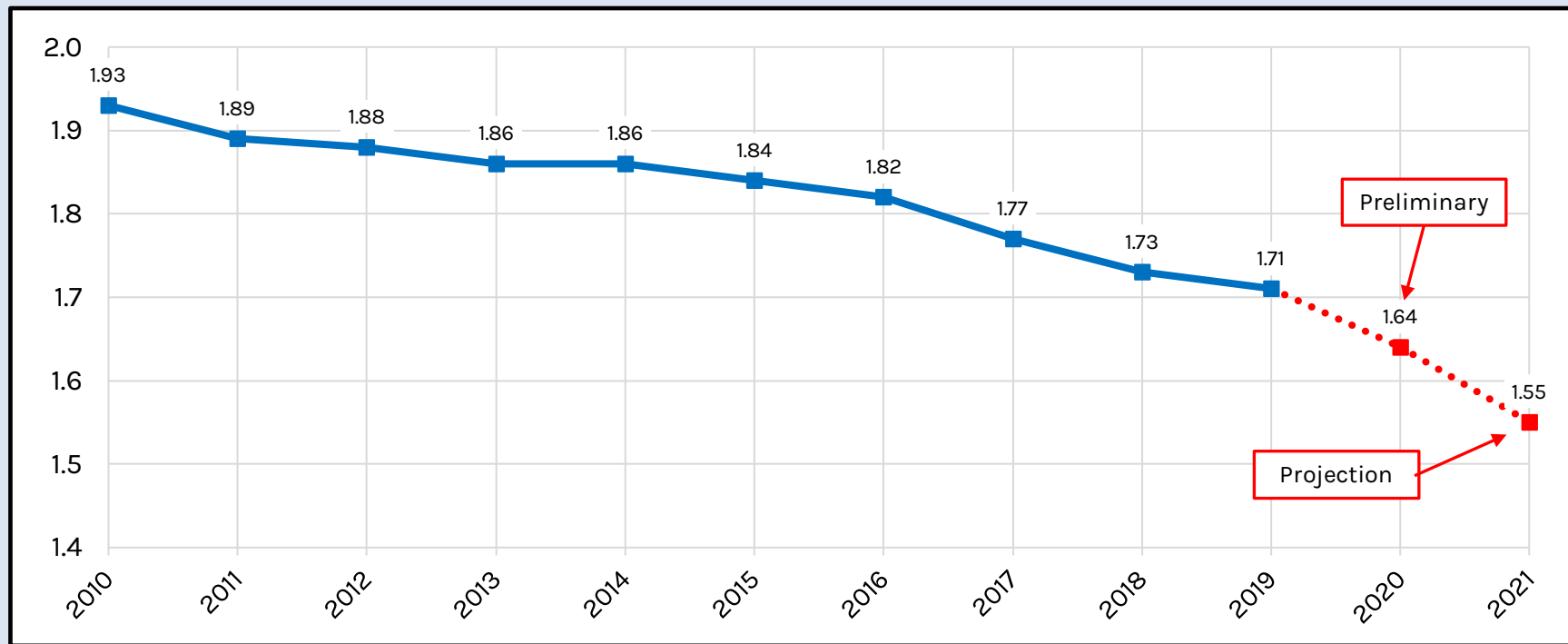
# FERTILITY: DROPPING TO ALL-TIME LOWS

## US Total Fertility Rate, 1961-2019



# FERTILITY: EXPECT BIGGER PLUNGE IN 2021

## US Total Fertility Rate, 2010-2021\*



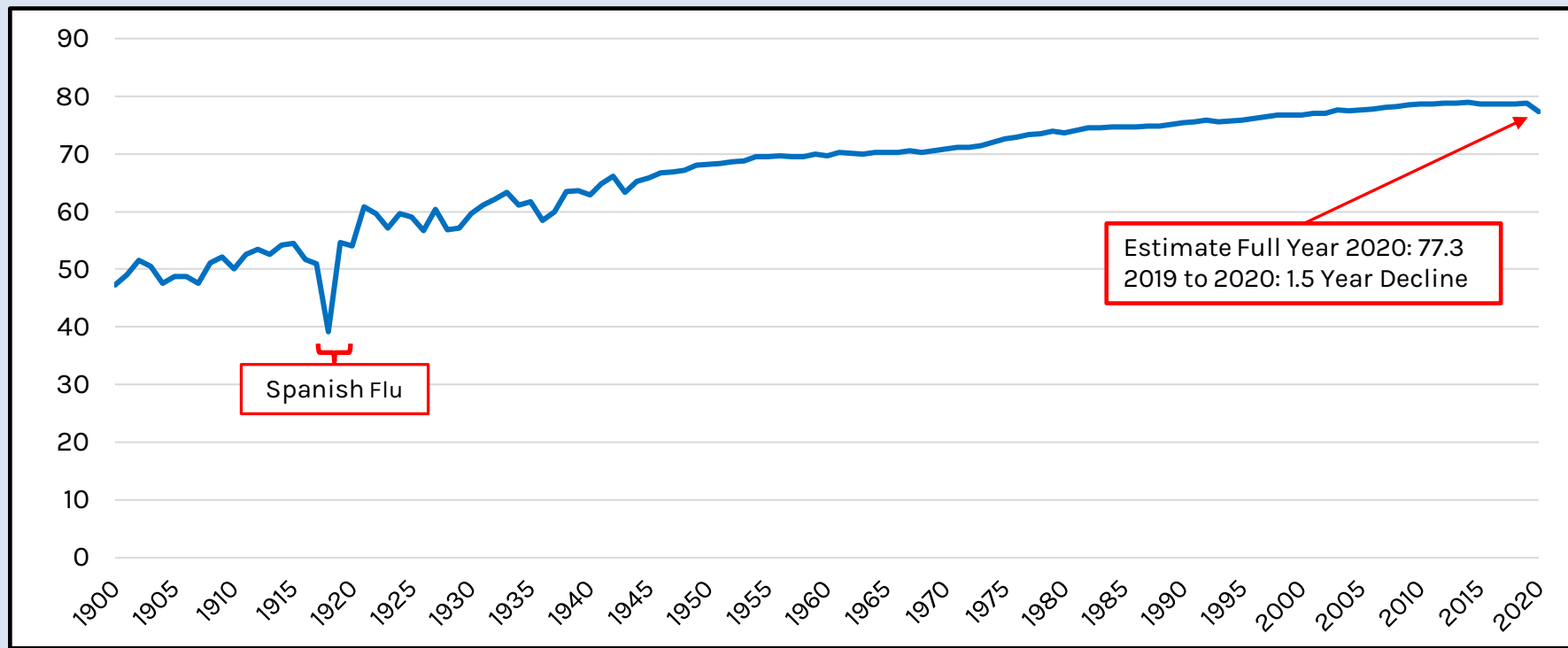
\*2020 Preliminary and 2021 Hedgeye Estimate

SOURCE: Census: CPS/NVSS (2021)

© Hedgeye Risk Management LLC. All Rights Reserved.

# LIFE EXPECTANCY FALLS IN 2020

## US Life Expectancy, 1990-2020\*



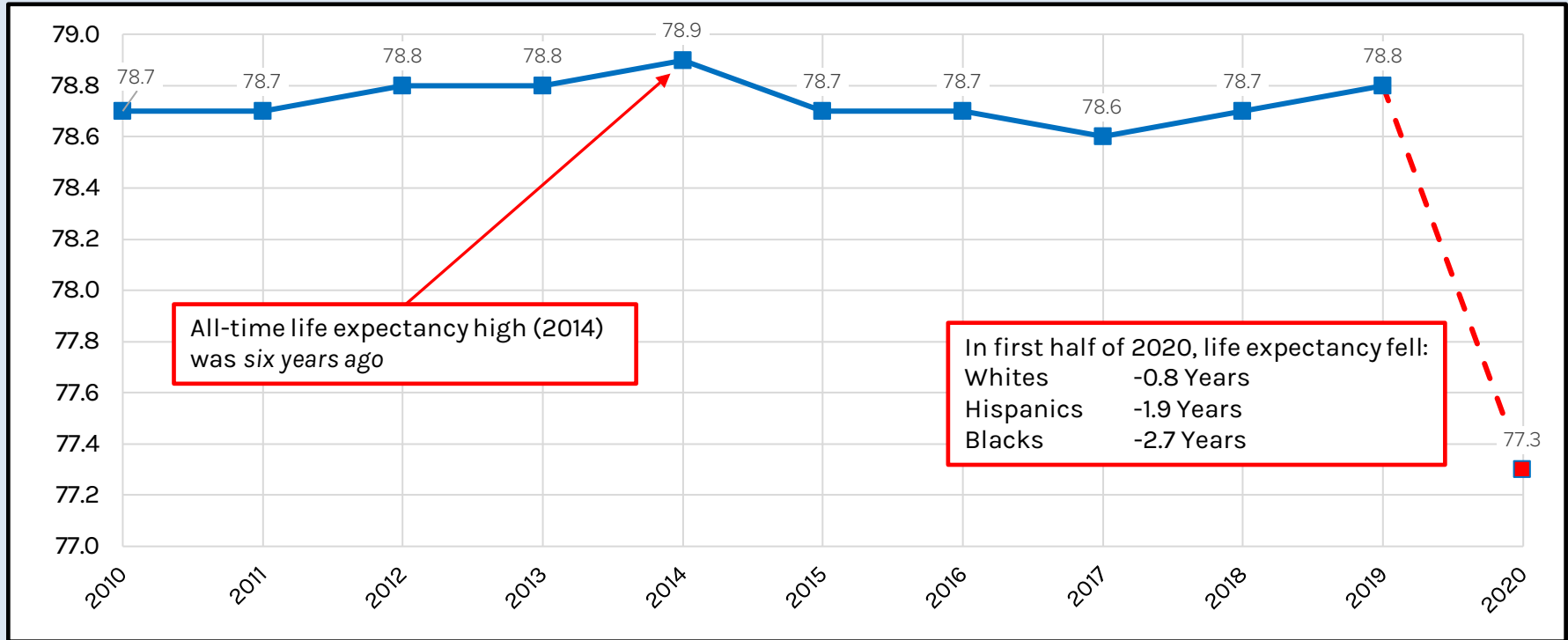
\*2020 Hedgeye Estimates

SOURCE: CDC (2021)

© Hedgeye Risk Management LLC. All Rights Reserved.

# LIFE EXPECTANCY IN 6TH YEAR OF DECLINE

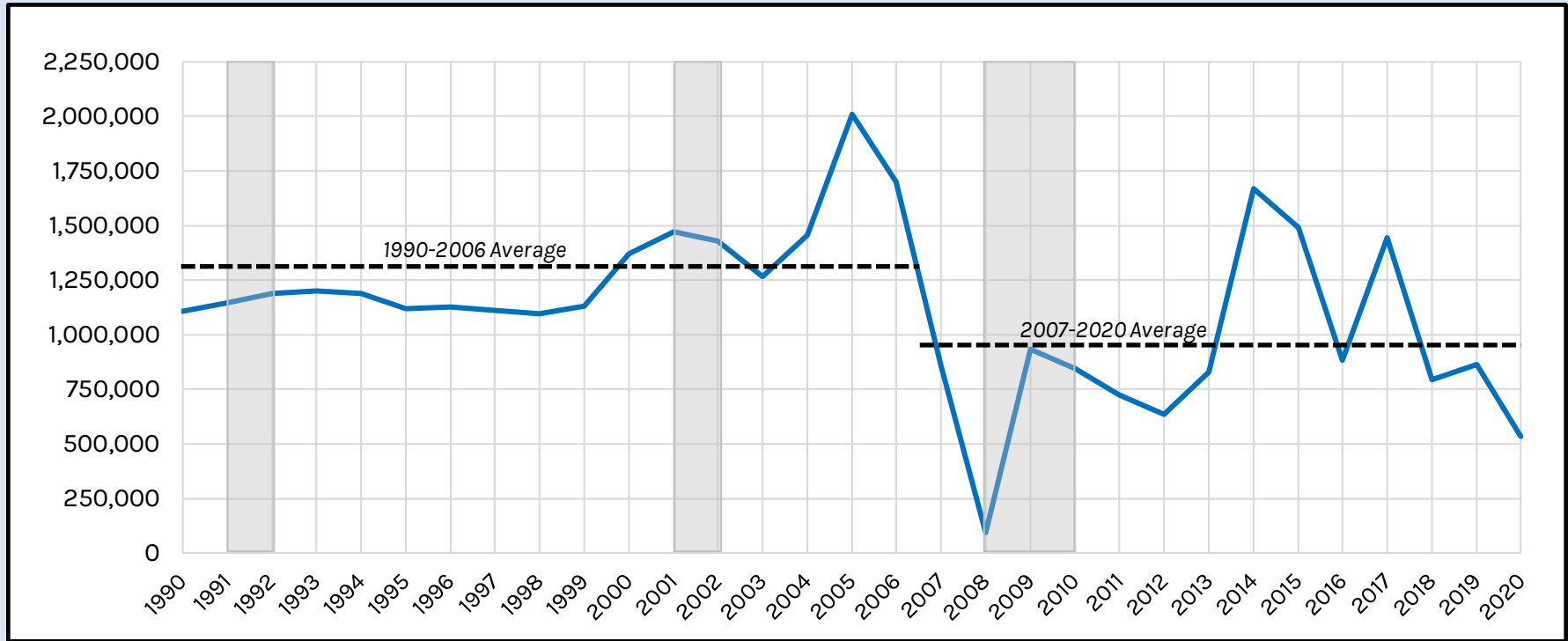
## US Life Expectancy, 2010-2020



\*2020 Hedgeye Estimates Based on First 6 Months of 2020

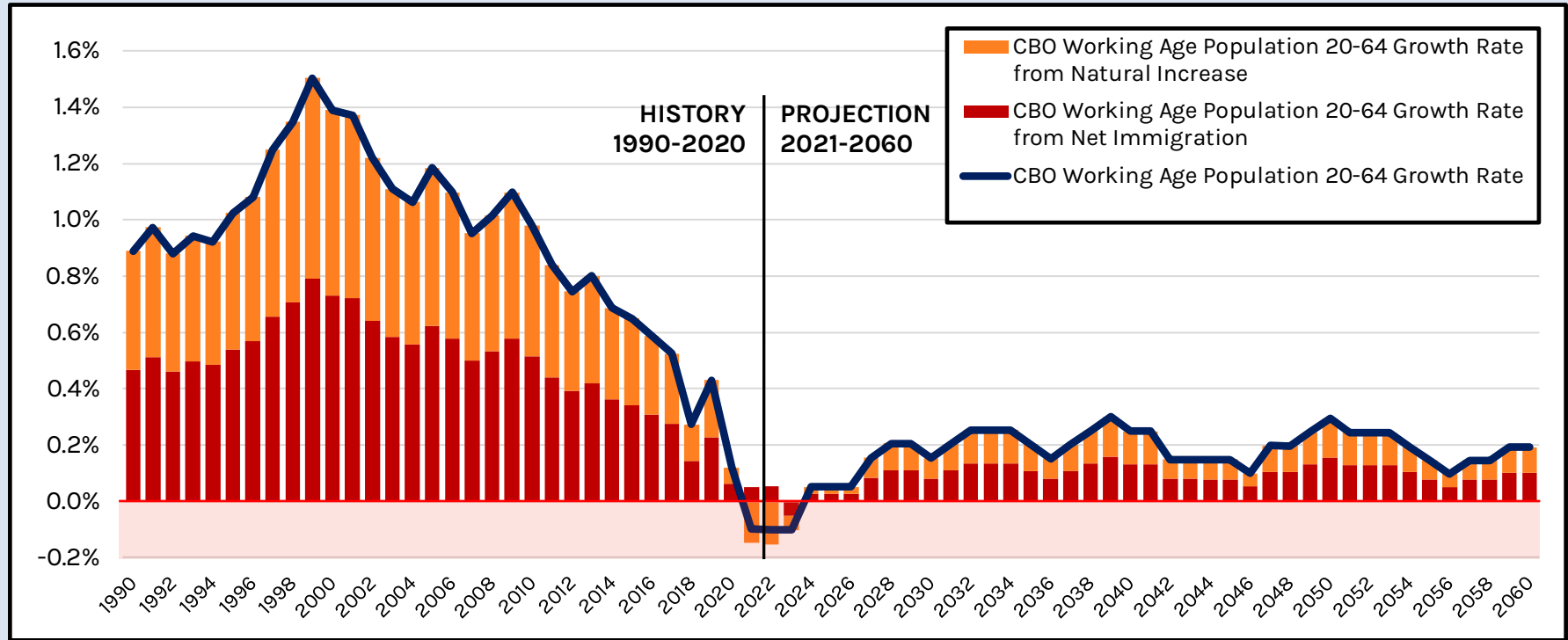
# LONG-TERM DROP IN POST-GFC IMMIGRATION

## Net Immigration to the US and Recession Bars, 1990-2020



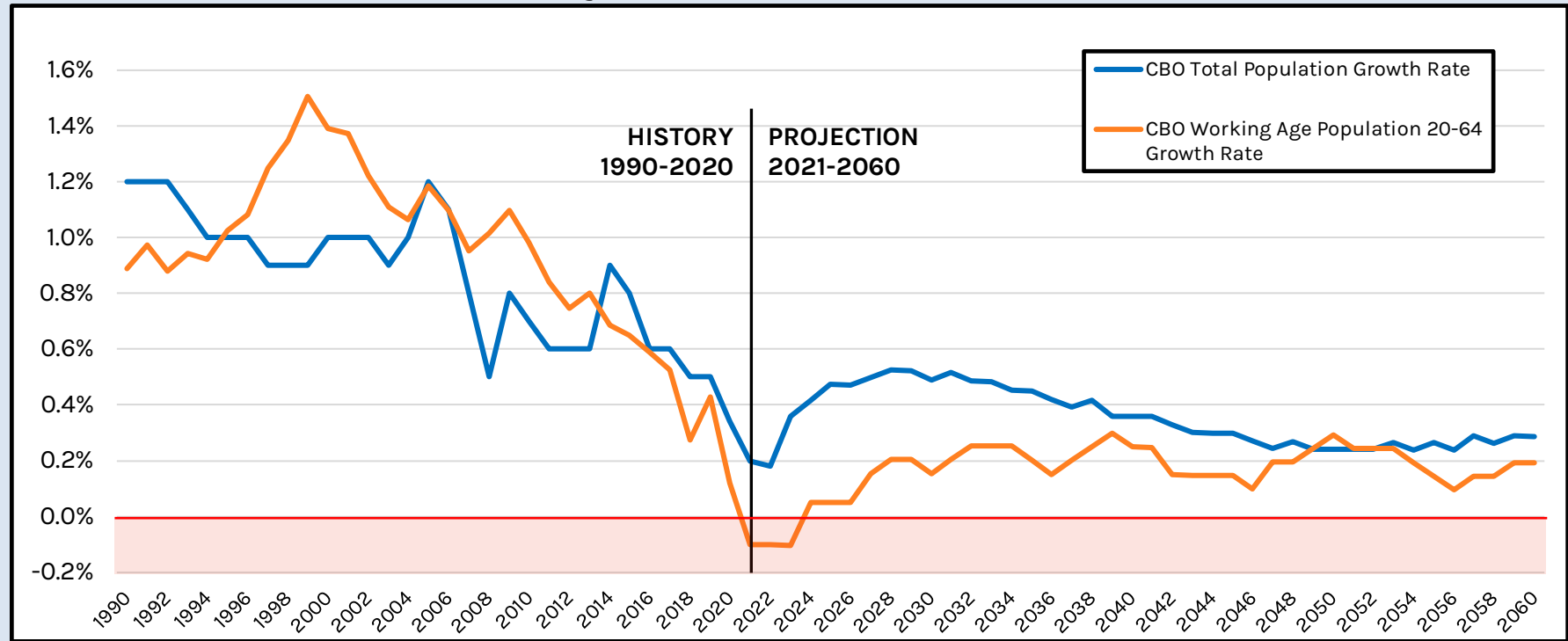
# WORKING-AGE PROJECTION PER CBO

## US Working Age (20-64): Growth by Component Rate (CBO)

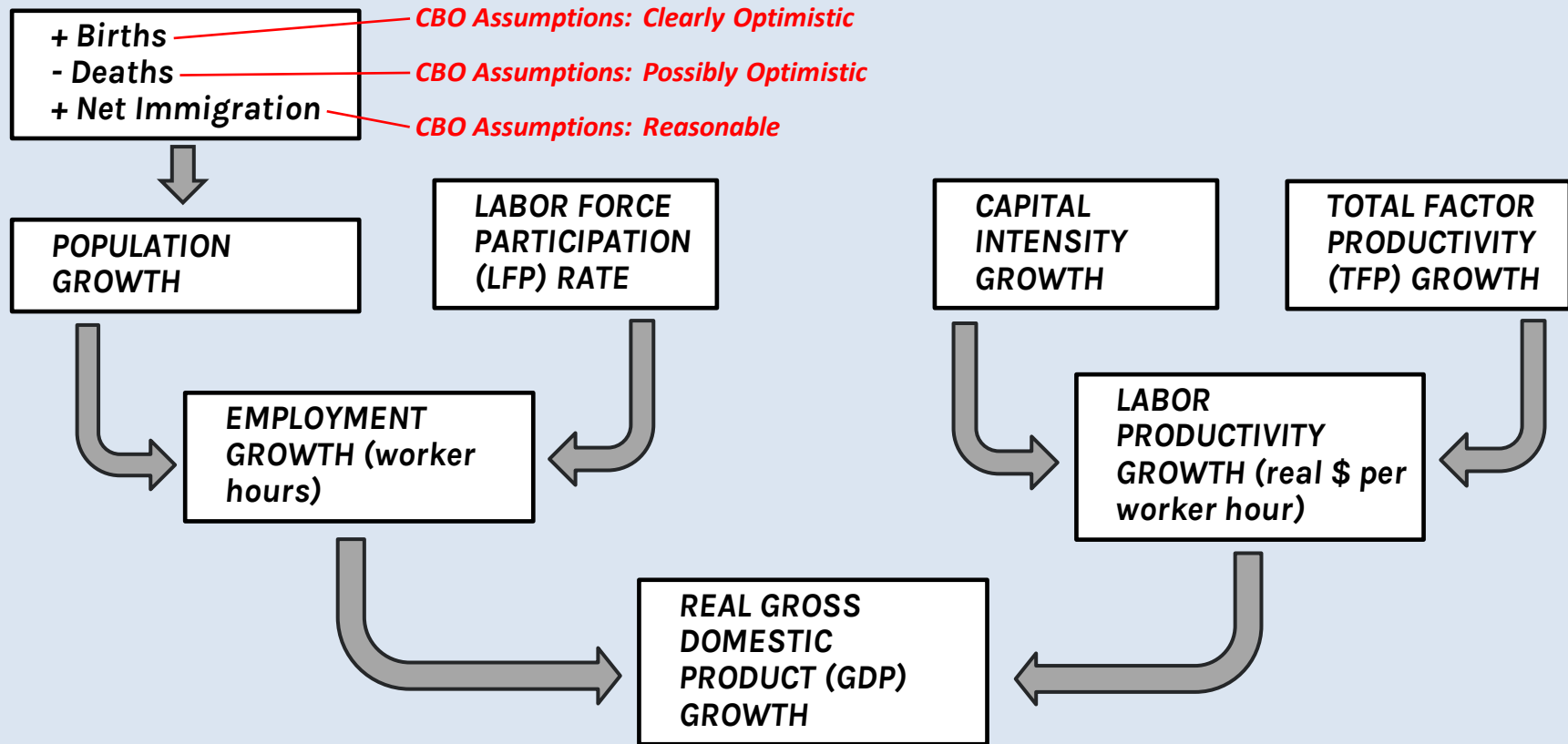


# TOTAL POP AND WORKING-AGE COMPARED

## US Total Population Growth and Working Age (20-64): Growth by Component Rate (CBO)



# RECAP ON CBO POPULATION ASSUMPTIONS





## ❑ **US Real GDP Projection, 2021-2051**

- Topline Results
- Structure of GDP Projections & Their Evolution since 2016
- Population
- Labor Force
- Labor Productivity

## ❑ **US Fiscal Projection, 2021-2051**

- Topline Results
- Evolution of Fiscal Projections since 2016
- Long-Term Revenue and Outlay Drivers
- Three Critical Fiscal Assumptions

## ❑ **What Could Go Wrong?**

- Labor Force: Fertility, Mortality, Immigration, LFPR
- Labor Productivity: Capital Accumulation, TFP
- Fiscal: So Much Depends on Real Interest Rates!
- And What About... Wild Cards?

# MOST EXPERTS EXPECT LFP TO KEEP FALLING

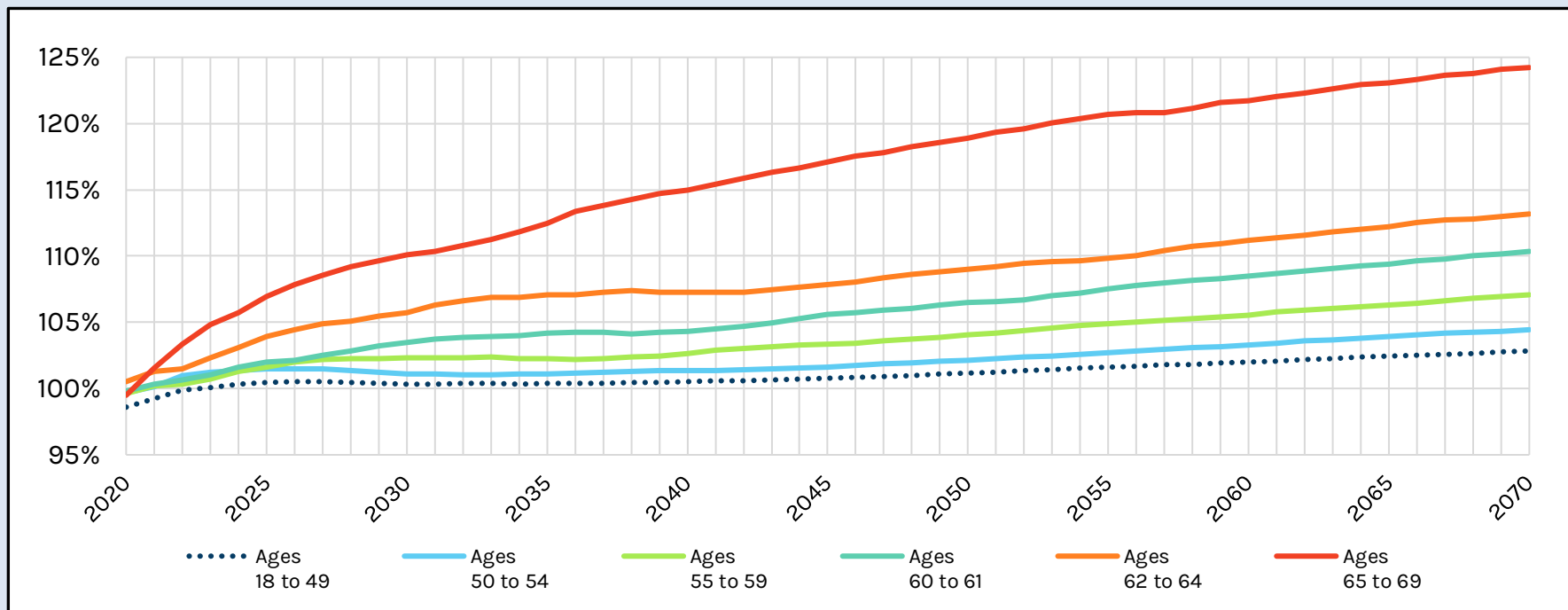
## BLS Civilian LFP by Age, 1999, 2009, 2019, and Projected 2029 (In Percent)

Group	Participation rate				Percentage-point change			Annual growth rate		
	1999	2009	2019	2029	1999-09	2009-19	2019-29	1999-09	2009-19	2019-29
Total, 16 years and older	67.1	65.4	63.1	61.2	-1.7	-2.3	-1.9	-0.3	-0.4	-0.3
16 to 24	65.5	56.9	55.9	51.3	-8.6	-1.0	-4.6	-1.4	-0.2	-0.8
16 to 19	52.0	37.5	35.3	28.5	-14.5	-2.2	-6.9	-3.2	-0.6	-2.1
20 to 24	77.5	72.9	72.2	69.0	-4.6	-0.8	-3.1	-0.6	-0.1	-0.4
25 to 54	84.1	82.6	82.5	81.8	-1.5	-0.1	-0.7	-0.2	0.0	-0.1
25 to 34	84.6	82.7	82.9	81.9	-2.0	0.2	-1.0	-0.2	0.0	-0.1
35 to 44	84.9	83.7	83.1	82.2	-1.2	-0.5	-1.0	-0.2	-0.1	-0.1
45 to 54	82.6	81.6	81.4	81.3	-1.0	-0.2	-0.1	-0.1	-0.1	0.0
55 and older	31.8	40.0	40.2	39.5	8.1	0.3	-0.7	0.9	0.1	-0.2
55 to 64	59.3	64.9	65.3	68.7	5.6	0.4	3.3	0.9	0.1	0.5
65 to 74	18.3	25.6	27.8	33.2	7.4	2.2	5.4	3.5	0.8	1.8
75 and older	5.1	7.3	9.1	11.8	2.1	1.8	2.7	3.6	2.2	2.6

**CBO assumes -0.15%  
(only HALF of this  
negative rate) from  
2019 to 2051)**

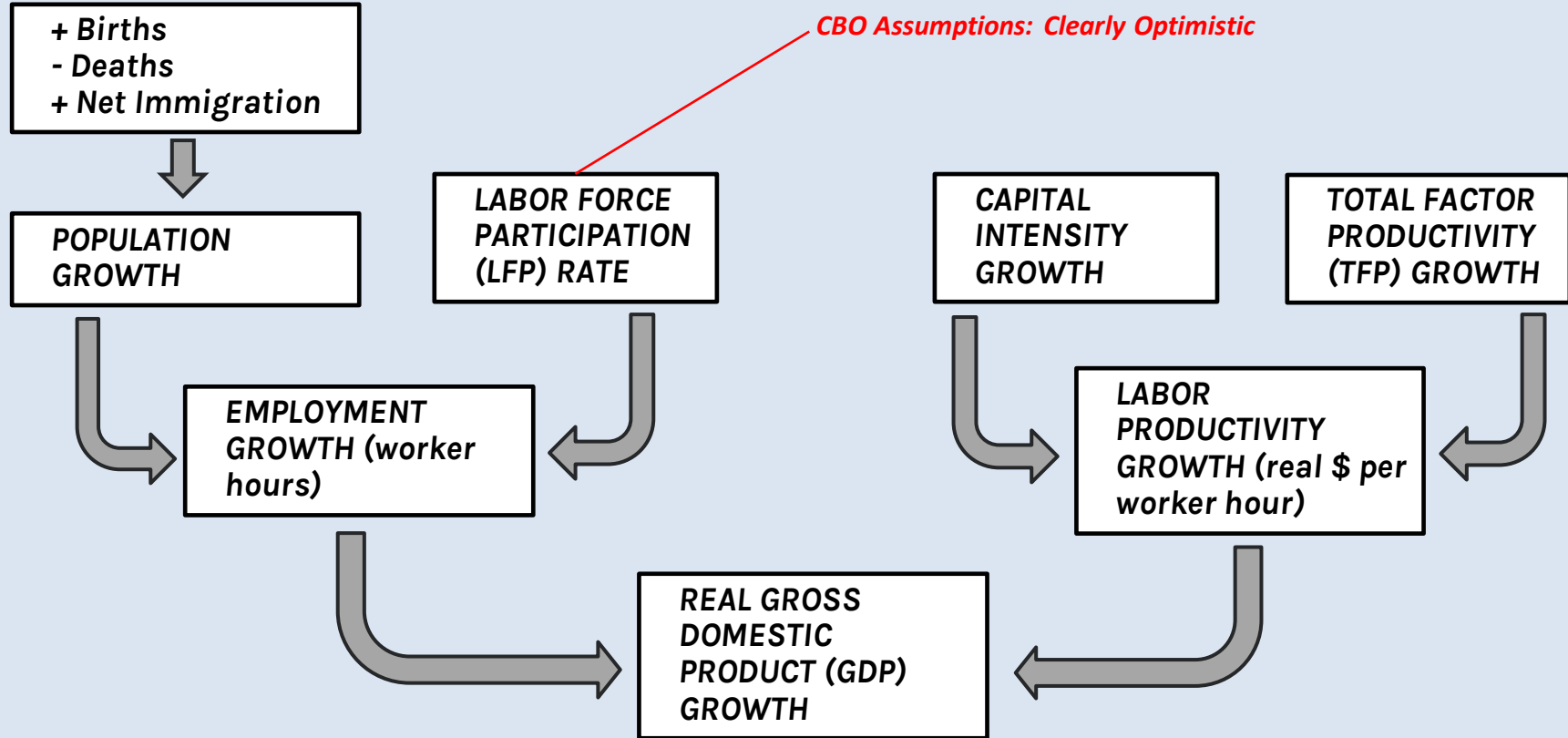
# BUT CBO KEEPS THEM RISING

## Assumed by CBO: LFP Rates by Age as % of 2017-19 Average\*



\*Simple average of both male and female; under age 50, a simple average of all age brackets.  
Assumptions underlie CBO's 2021 Long-Term Budget Outlook (March 2021).

# RECAP ON CBO LFP ASSUMPTIONS



# 2021 LONG-TERM ECONOMIC & FISCAL OUTLOOK

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

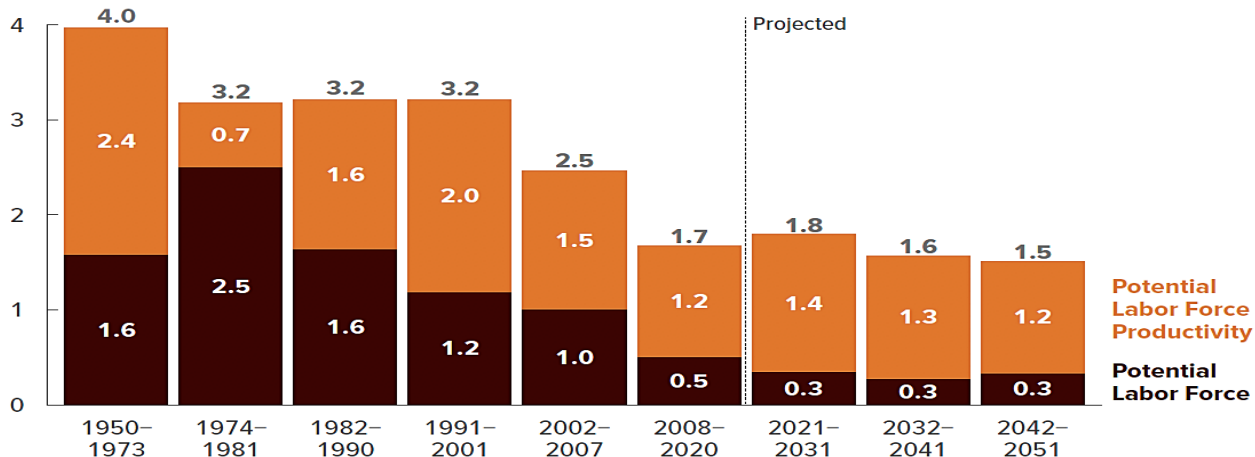
- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*

# LET'S RETURN TO THE GREAT GDP SLOWDOWN

Figure 5.

## Average Annual Growth of Real Potential GDP

Percent



Growth in real potential GDP is projected to be slower than it has been in the past. That slowdown occurs mostly because the potential labor force is projected to grow at a slower pace.

Data source: Congressional Budget Office. See [www.cbo.gov/publication/56977#data](http://www.cbo.gov/publication/56977#data).

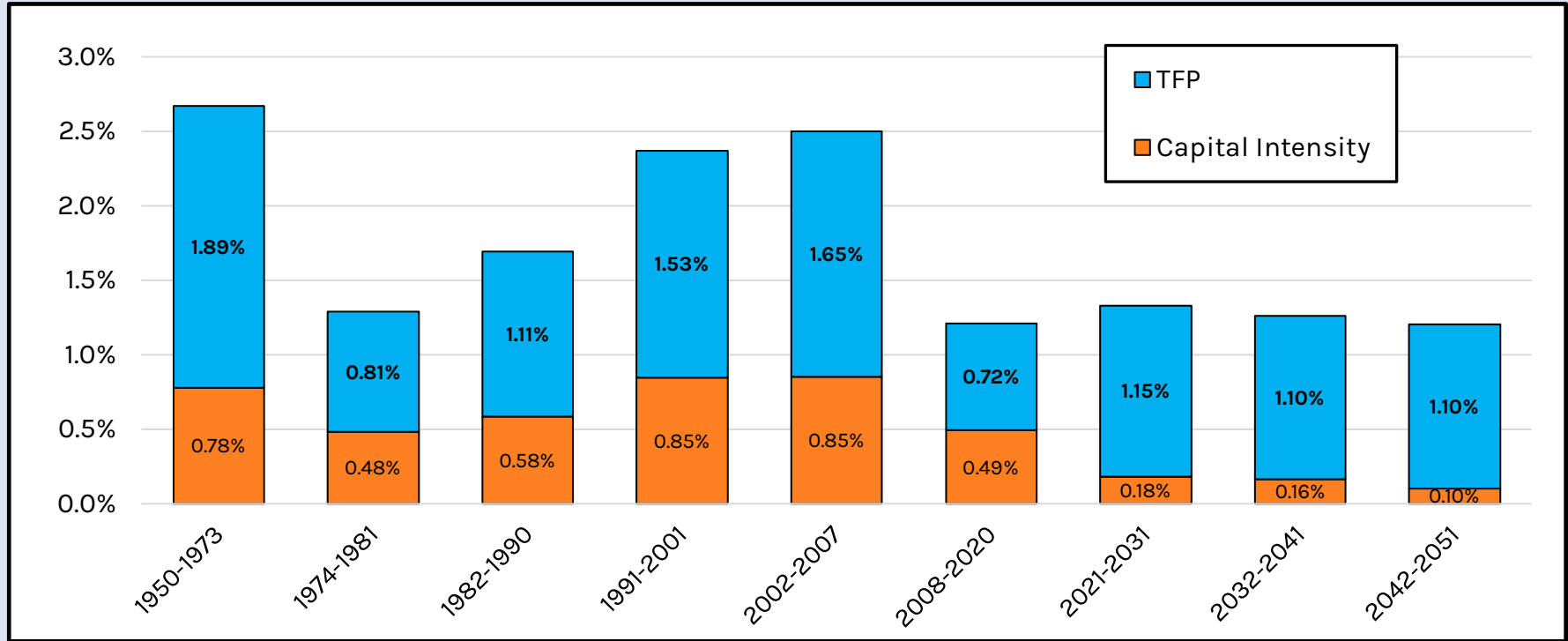
Real values are nominal values that have been adjusted to remove the effects of changes in prices. Potential GDP is the maximum sustainable output of the economy. Growth in real potential GDP is the sum of growth in the potential labor force and growth in potential labor force productivity. The potential labor force is the labor force (that is, the number of people in the civilian noninstitutionalized population who are age 16 or older and who are either working or actively seeking work), adjusted to remove the effects of fluctuations in the business cycle. Potential labor force productivity is the ratio of real potential GDP to the potential labor force.

The bars show average annual growth rates over the specified periods.

GDP = gross domestic product.

# AND EXAMINE PRODUCTIVITY COMPONENT

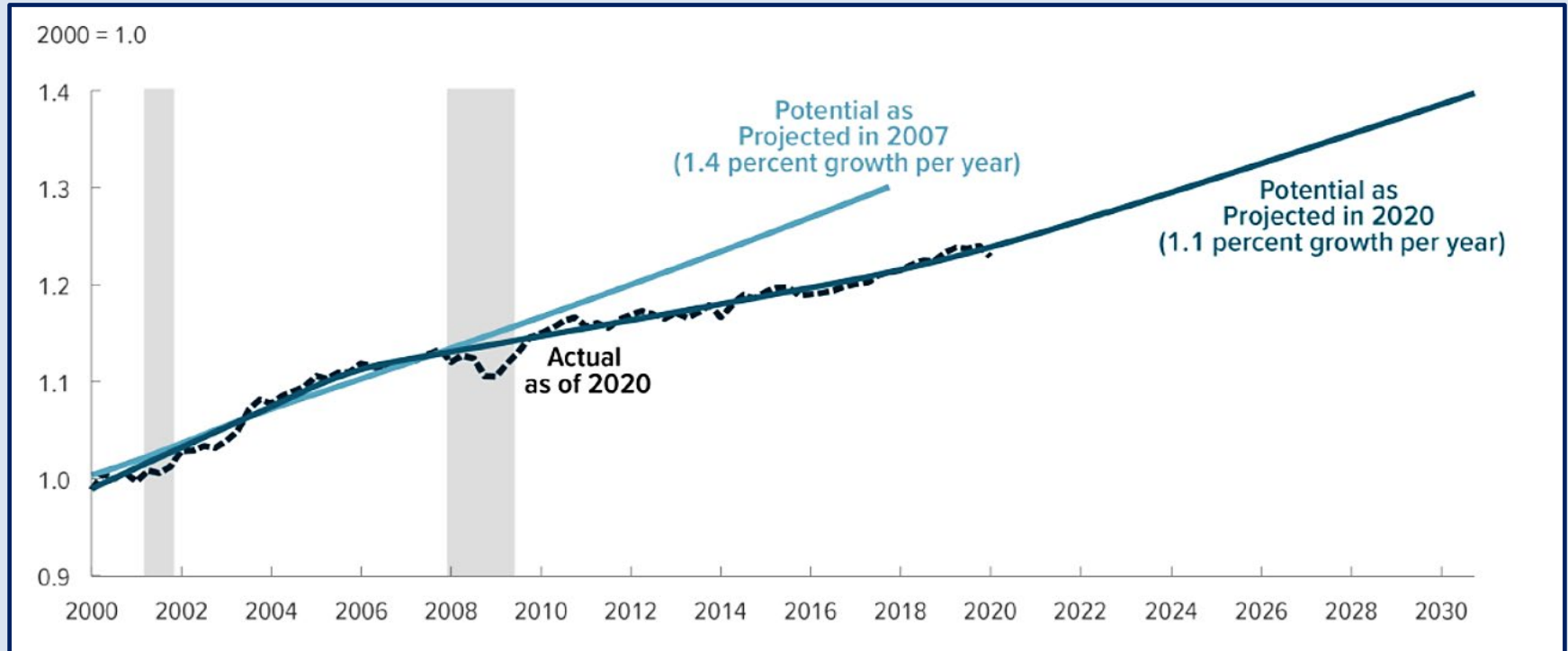
## Nonfarm Business Sector By TFP and Capital Intensity, Historic 1950-2020, Projected 2021-2051



# TFP IS SLOWING

32

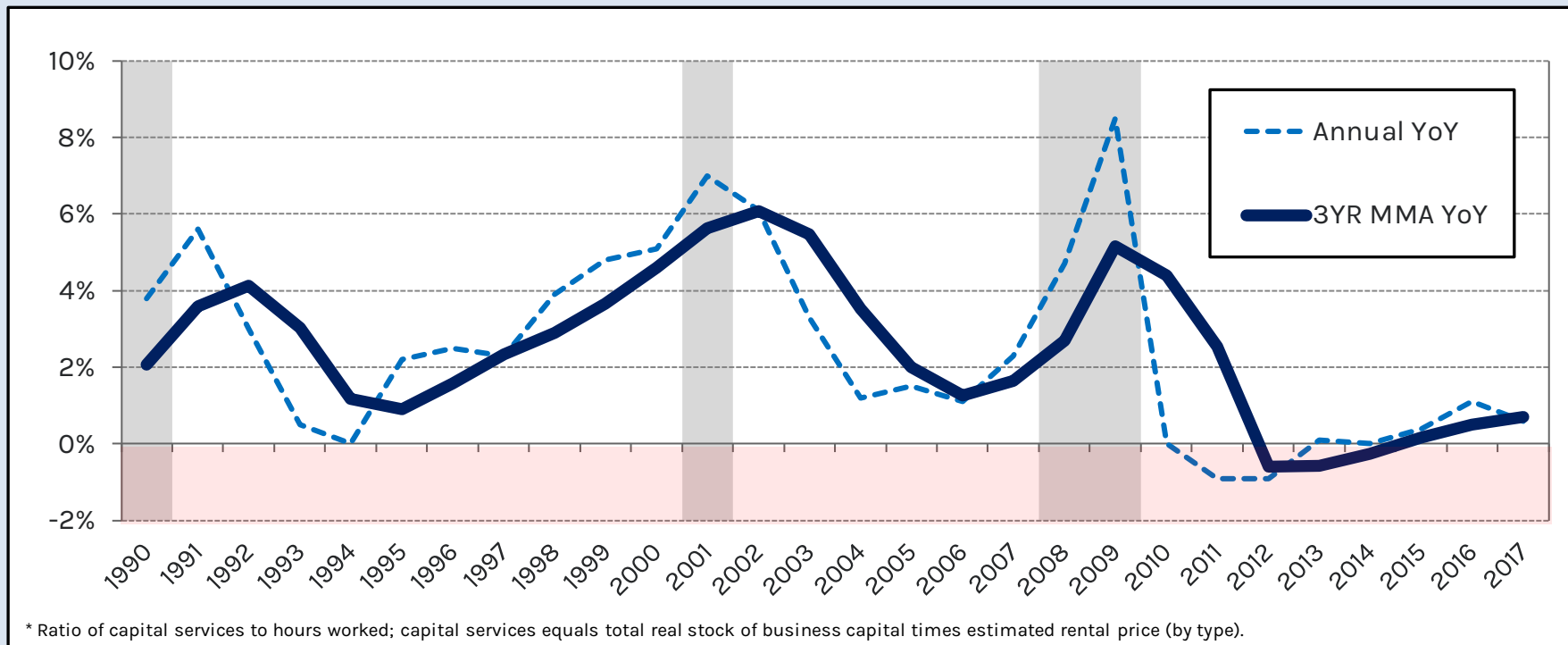
## Total Factor Productivity Growth in Nonfarm Business Since 2000





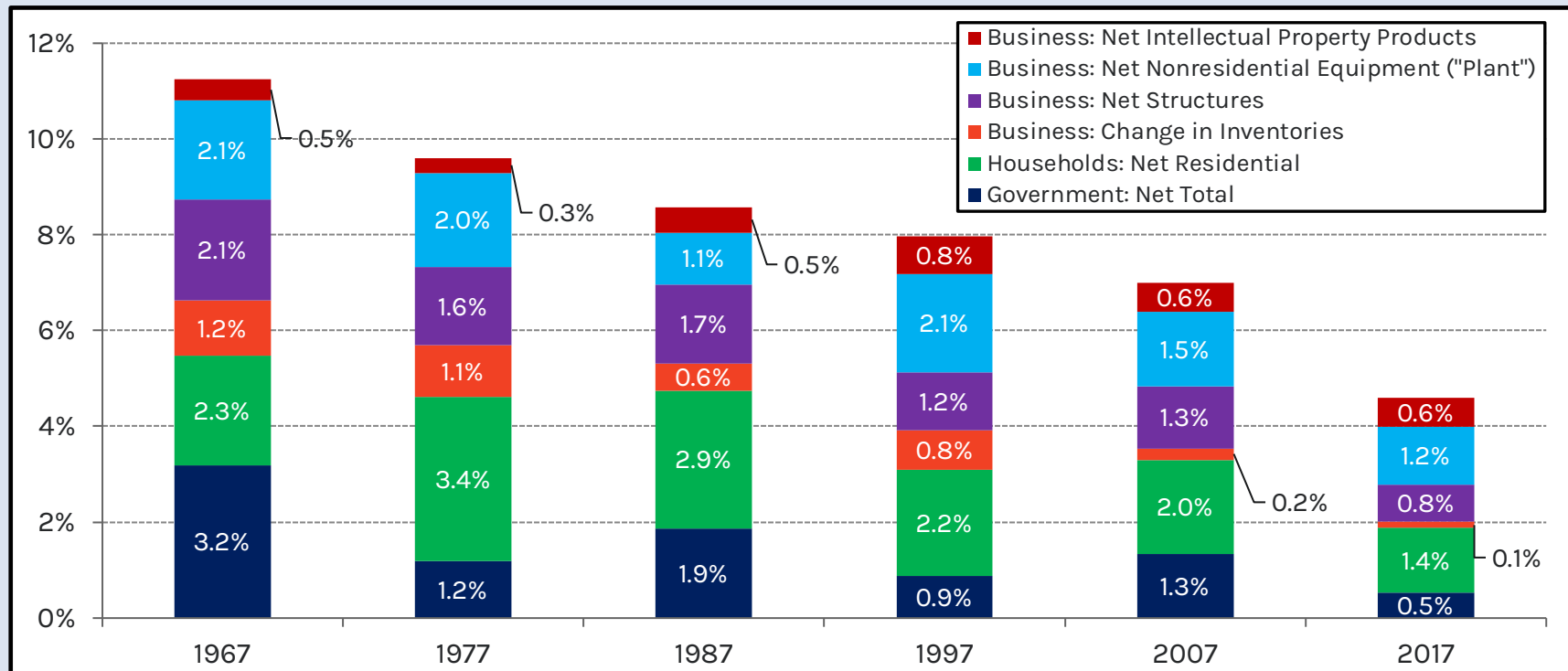
# ... AS IS CAPITAL INTENSITY

## Private Nonfarm Business Sector: Capital Intensity\*, Annual YoY Change and YoY 3YR MMA (1990 to 2017)



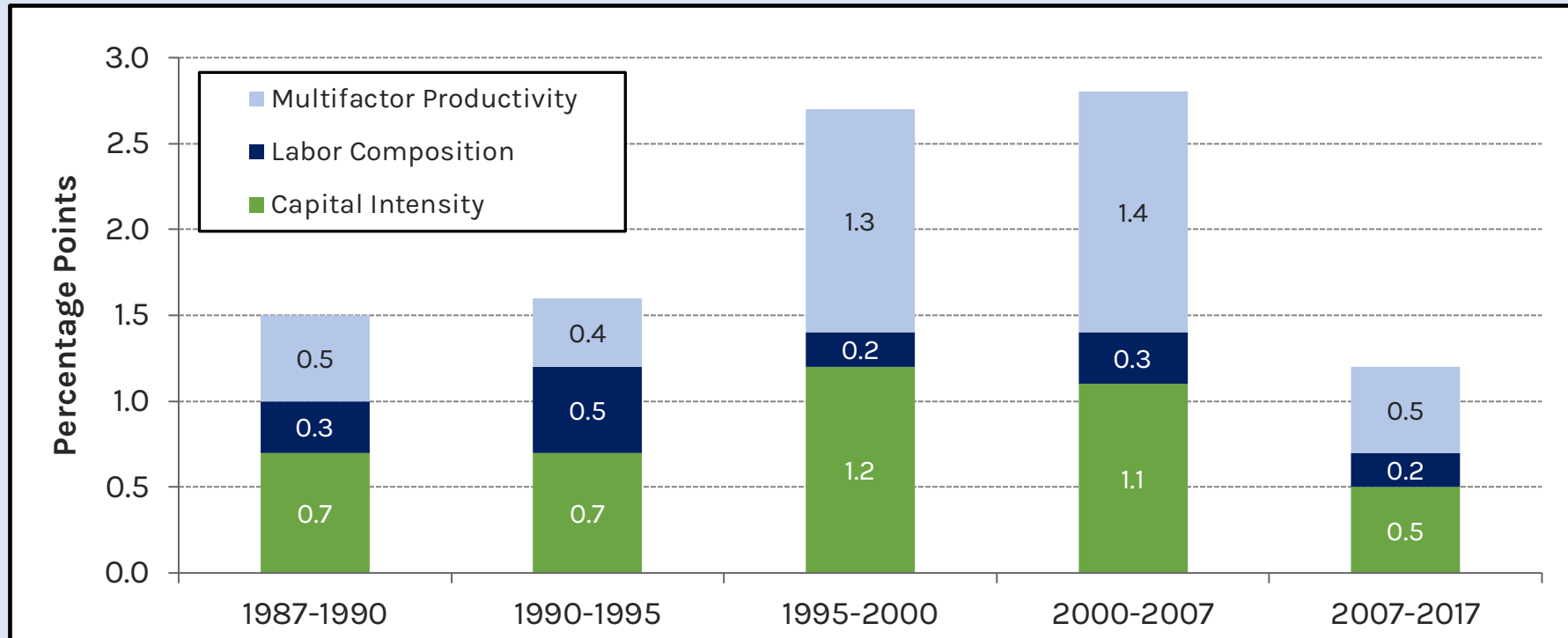
# ... DRIVEN BY DECLINING INVESTMENT RATES

## Net Domestic Investment As a % of GDP, by Type (Selected Years)



# HERE'S HOW BLS BREAKS IT DOWN THRU 2017

## Private Nonfarm Business Sector: Contributions to Labor Productivity Growth by Period



# PRODUCTIVITY SLOWDOWN: KNOWN ISSUE

## **Why Has the Growth of Total Factor Productivity Slowed?**

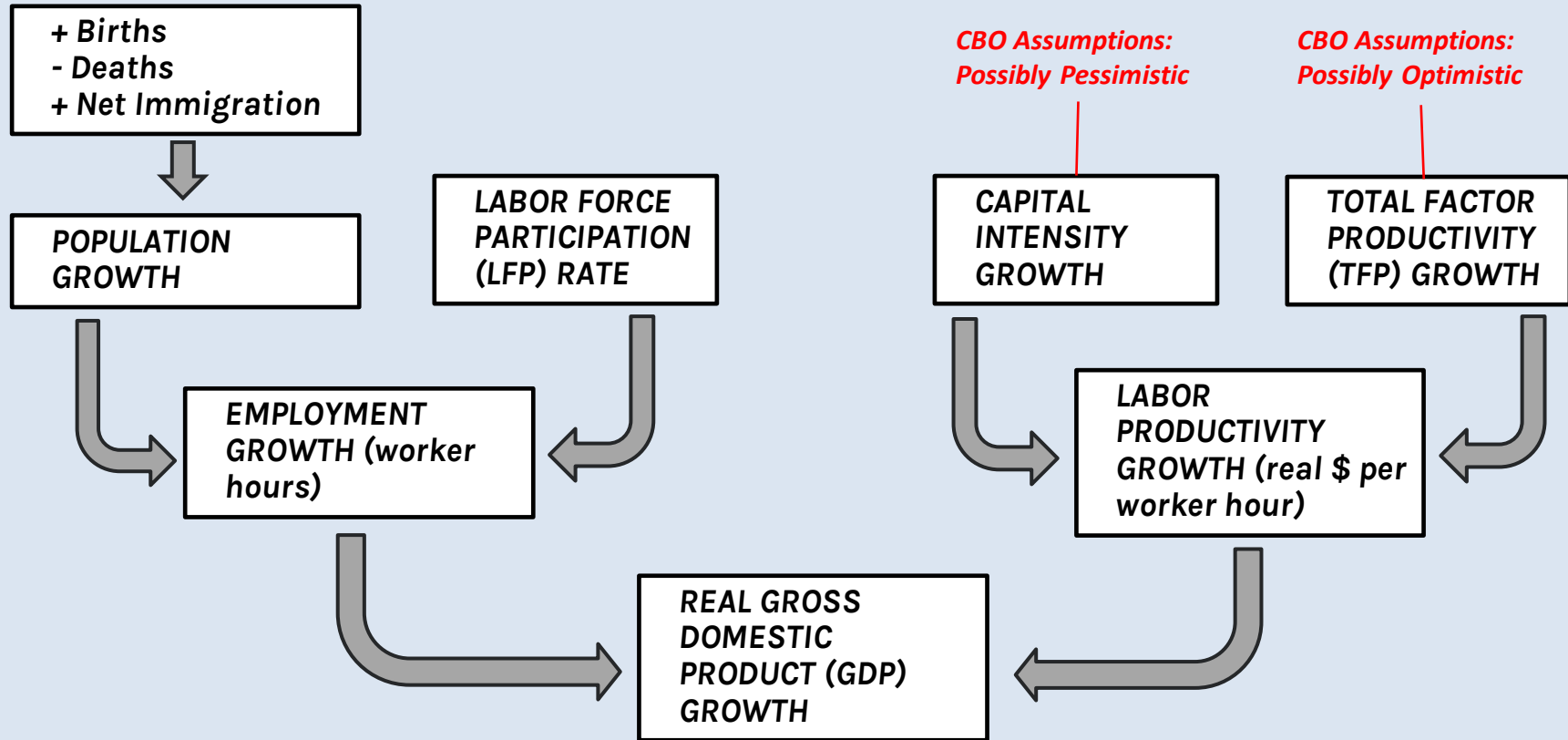
The slowdown began around 2005, before the financial crisis and the recession.

It is widespread among industries and international in scope.

Five areas of inquiry might shed light on the slowdown:

- Measurement issues
- Growth feedbacks
- Demographic effects
- Structural issues
- A slowdown in basic innovation

# RECAP ON CBO PRODUCTIVITY ASSUMPTIONS



# FISCAL PROJECTION: TOPLINE RESULTS

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

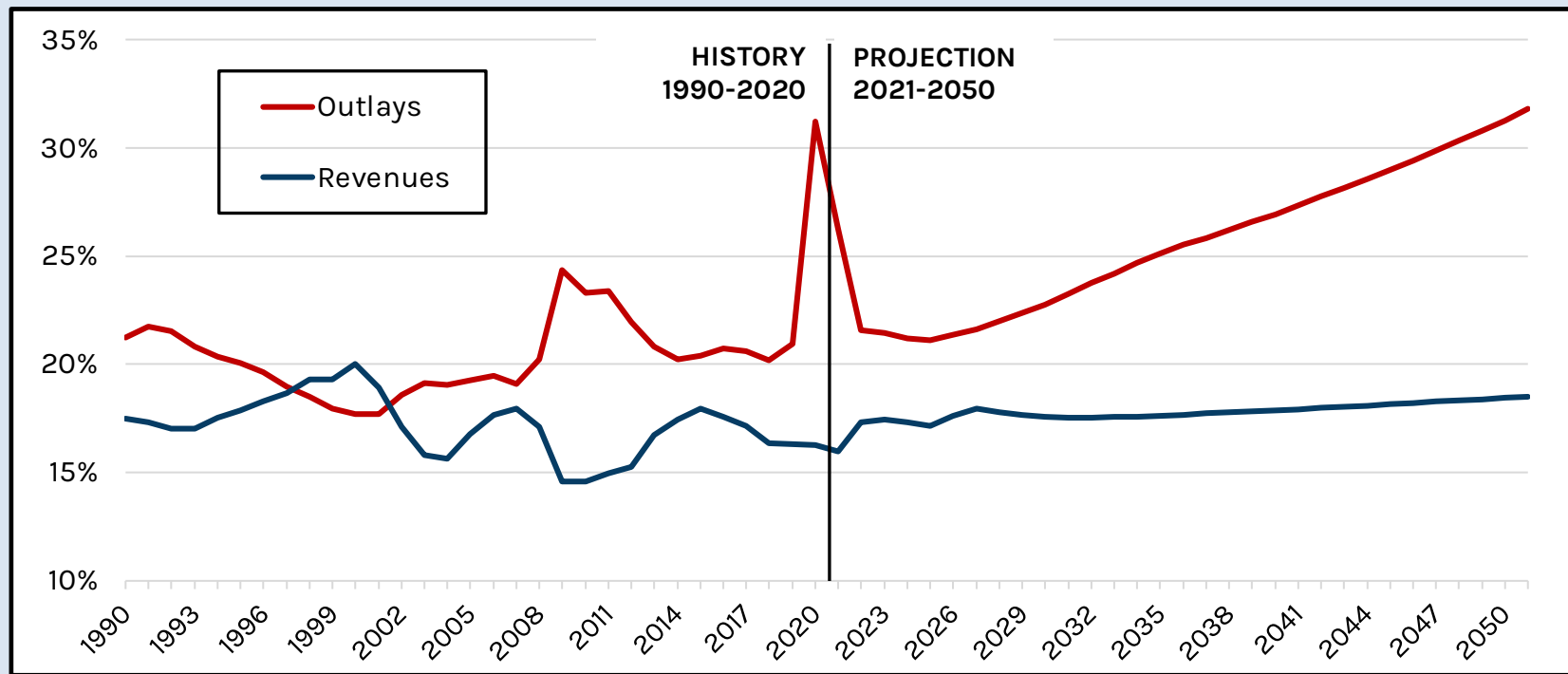
- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*

# FISCAL PROJECTION: 2021-2051 HIGHLIGHTS

- ❑ After 2025, federal outlays will grow every year as a share of GDP--hitting 32% of GDP by 2051. That's more in a "normal" year than we spent during the emergency year of 2020.
- ❑ Revenues, meanwhile, will rise very slowly. From 2025 to 2051, as a share of GDP, federal outlays will be growing roughly 8X faster every year than revenues.
- ❑ Large and accelerating deficits are the inevitable result. After 2042, the deficit as a share of GDP will be continuously in the double-digits.
- ❑ All major federal trust funds will be insolvent within the next 14 years.
- ❑ By 2051 the publicly held federal debt will reach 202% of GDP. Meanwhile, in that year, federal net interest outlays will reach 8.6% of GDP, which is 2.6X what we currently spend on national defense.
- ❑ CAUTION: AS WILL BE EXPLAINED SHORTLY, ALL THESE NUMBERS CLEARLY UNDERSTATE THE APPROACHING FISCAL CHALLENGE!

# RISING OUTLAYS & (NEARLY) FLAT REVENUES

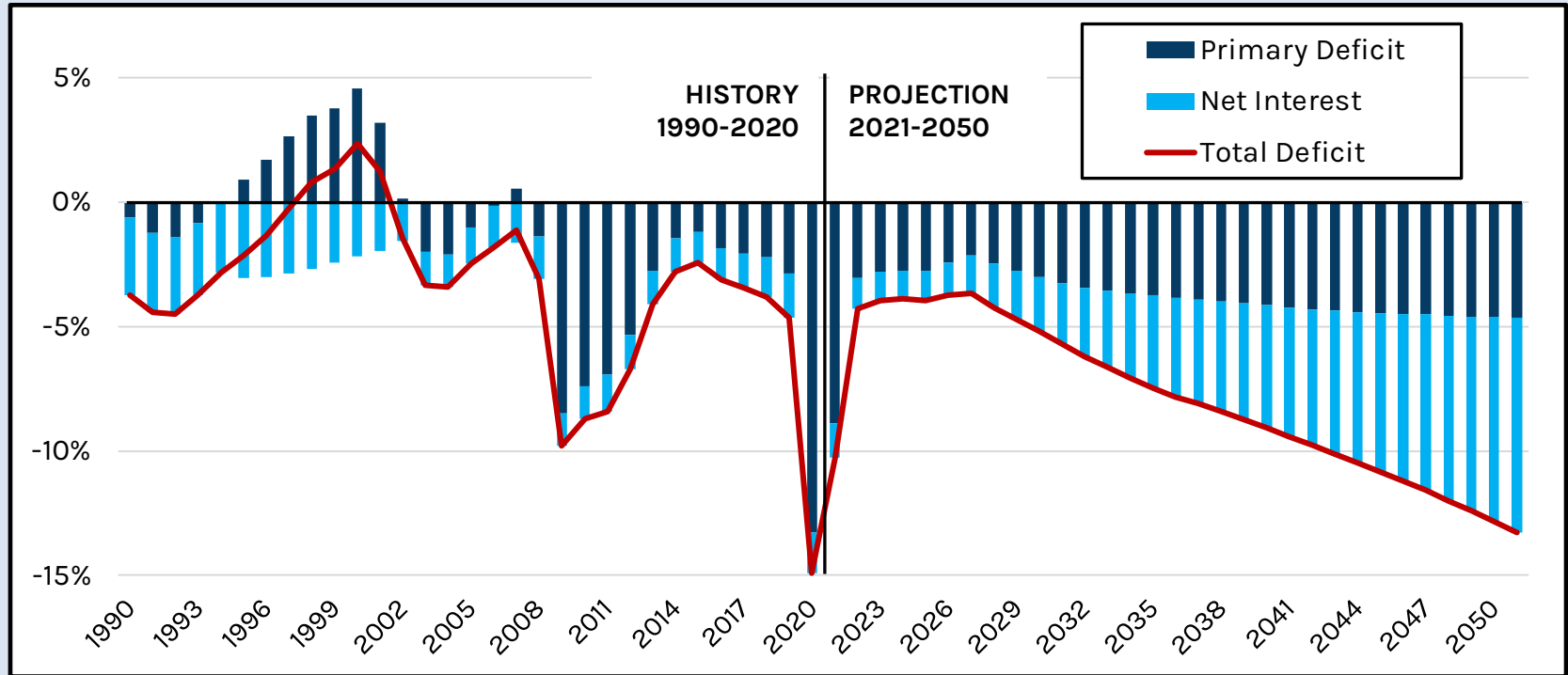
Outlays And Revenues as Percentage of GDP,  
Historical, 1990-2020; Projections, 2021-2051





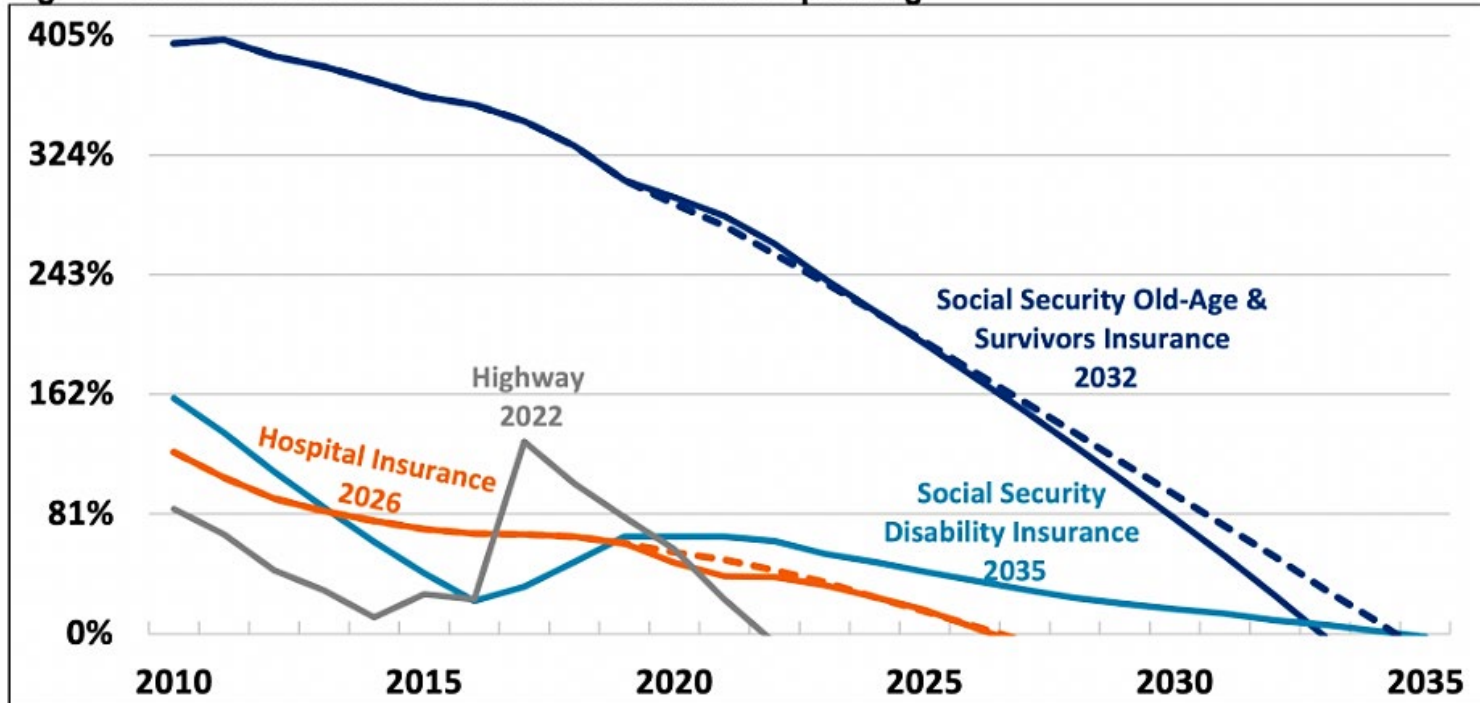
# WIDENING DEFICITS

Total Deficits, Primary Deficits, and Net Interest as % of GDP,  
Historical, 1990-2020; Projections, 2021-2051



# EVERY TRUST FUND GOES BUST BY 2032

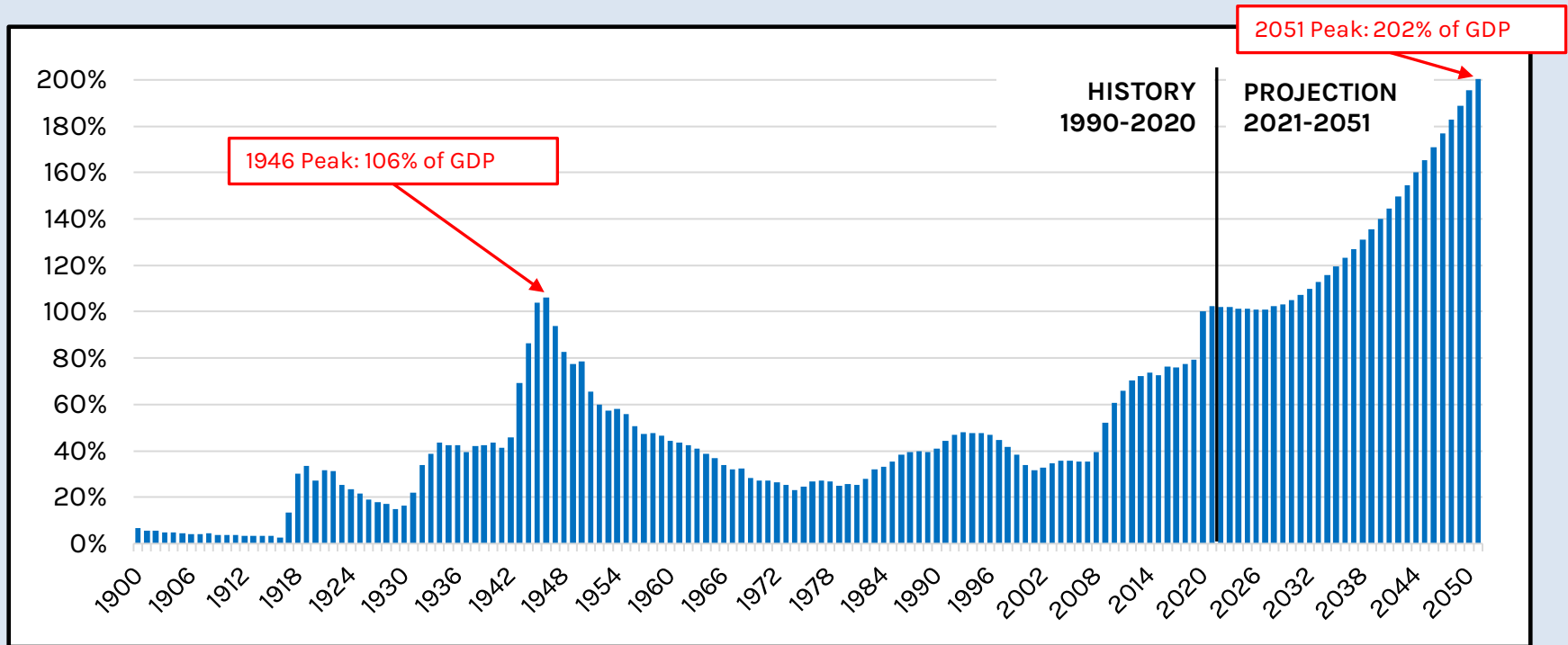
**Fig. 6: Trust Fund Balances as a Percent of Annual Spending**



Sources: Congressional Budget Office, Social Security Trustees, Medicare Trustees, and Social Security Chief Actuary. Solid lines represent CBO estimates, dotted lines represent Trustees or Chief Actuary estimates.

# DEBT NEARLY DOUBLES ITS PREVIOUS PEAK

Federal Debt Held by the Public as % of GDP,  
Historical, 1900-2020; Projections, 2021-2051



# EVOLUTION OF PROJECTIONS SINCE 2016

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

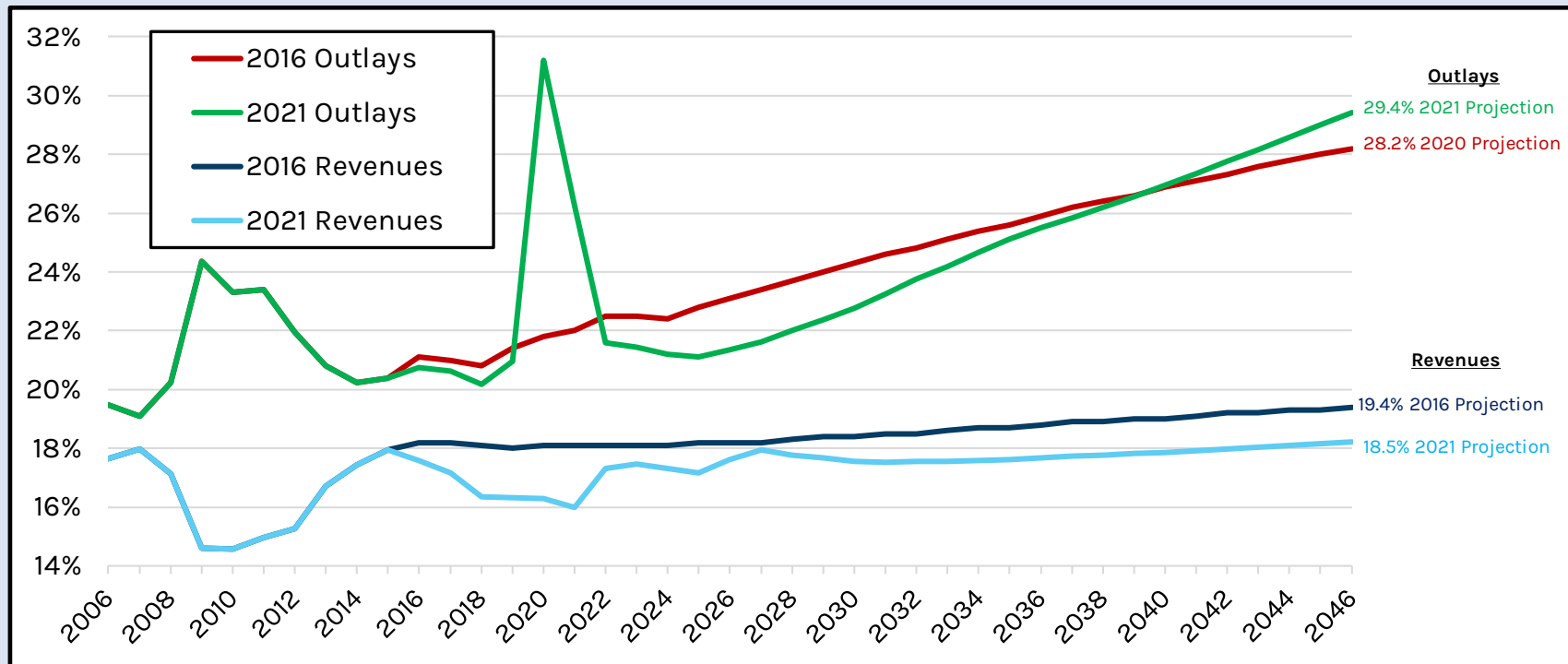
- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*

# OUTLAYS HIGHER, REVENUES LOWER

## Revenues and Outlays as % of GDP: 2016 and 2021 CBO Projections, 2006-2050



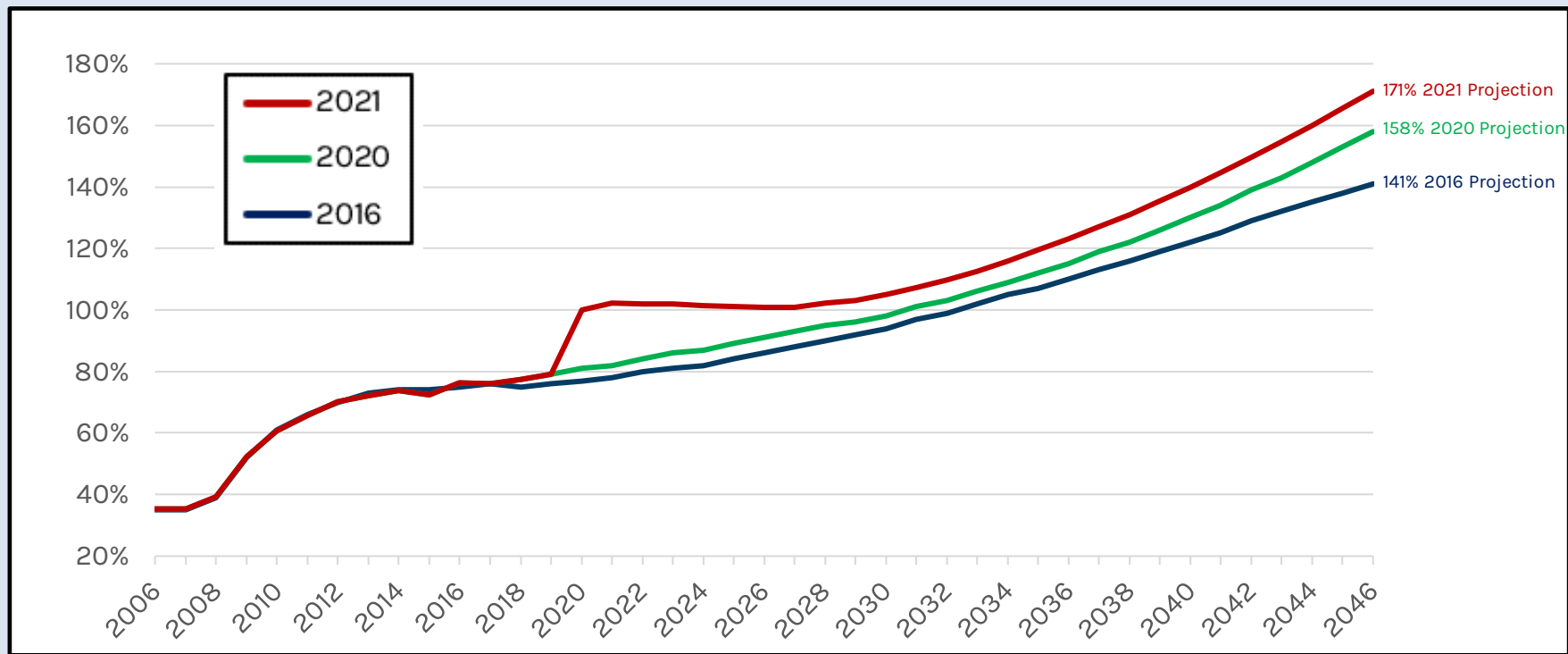
# DEFICITS WIDER

## Total Deficit as % of GDP: 2016 and 2021 CBO Projections, 2006-2046



# DEBT RAMPS UP FASTER

## Federal Debt Held by the Public as % of GDP: 2016, 2020, and 2021 CBO Projections, 2006-2046



# WHAT'S DRIVING THE IMBALANCE?

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*



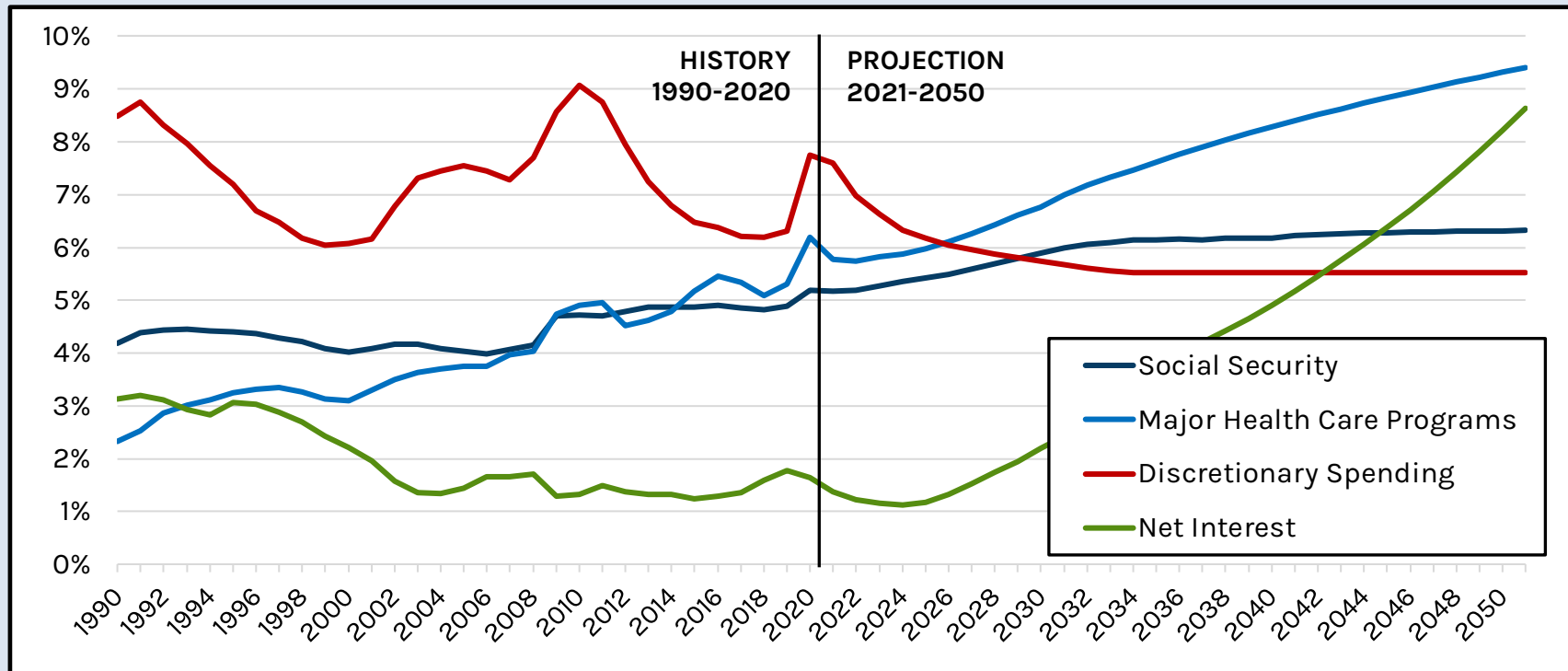
# WHAT'S DRIVING THE IMBALANCE?

Let's summarize the drivers in descending order of importance:

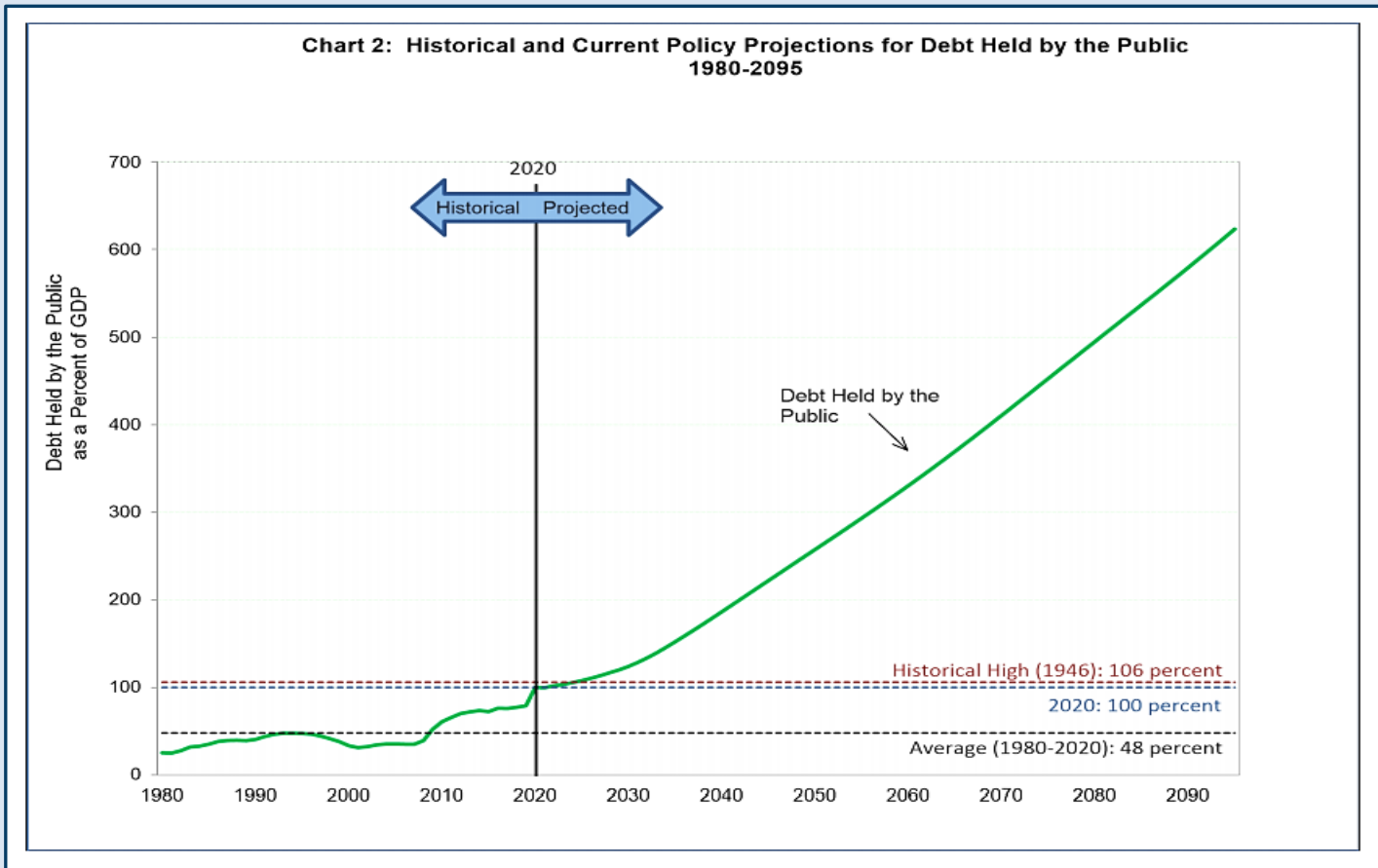
- ❑ The fundamental imbalance is driven by a growing structural (or “primary”) deficit, which arose during the 2008-09 GFC and which was never closed by subsequent policy. As debt rises faster than GDP, so do net interest payments—leading to compounding deficits. This dynamic is forecasted to occur despite historically low assumed real interest rates.
- ❑ Exacerbating the structural deficit is the steady trend of “mandatory” benefit spending to grow faster than GDP over time. This is due to (1) the rising share of 65+ Americans eligible for Social Security and Medicare; and (2) the rising real *per-capita* cost of public health-care benefits--mostly, Medicare and Medicaid.
- ❑ Revenues, meanwhile, will grow as a share of GDP. But they will grow very slowly. From 2025 to 2051, as a share of GDP, federal outlays will be growing roughly 8X faster every year than revenues.
- ❑ Discretionary spending (domestic and national defense) plays no role in the imbalance. Both are projected to keep shrinking as a share of GDP.

# WHAT IS, AND IS NOT, TO BLAME

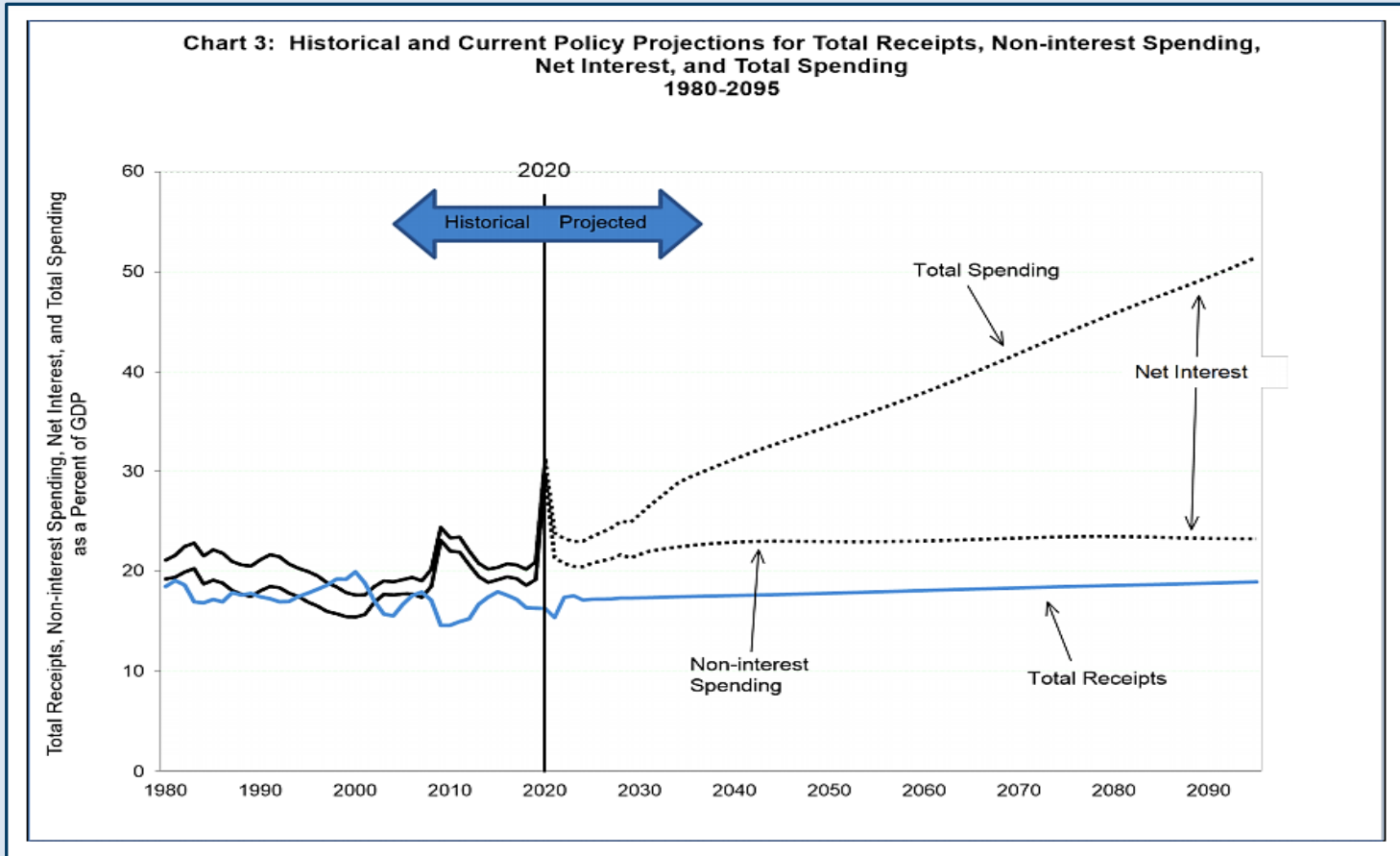
## Outlays by Component as % of GDP: Historical, 1990-2020; Projections, 2021-2051



# IN TIME, OBVIOUSLY, DEBT COMPOUNDS



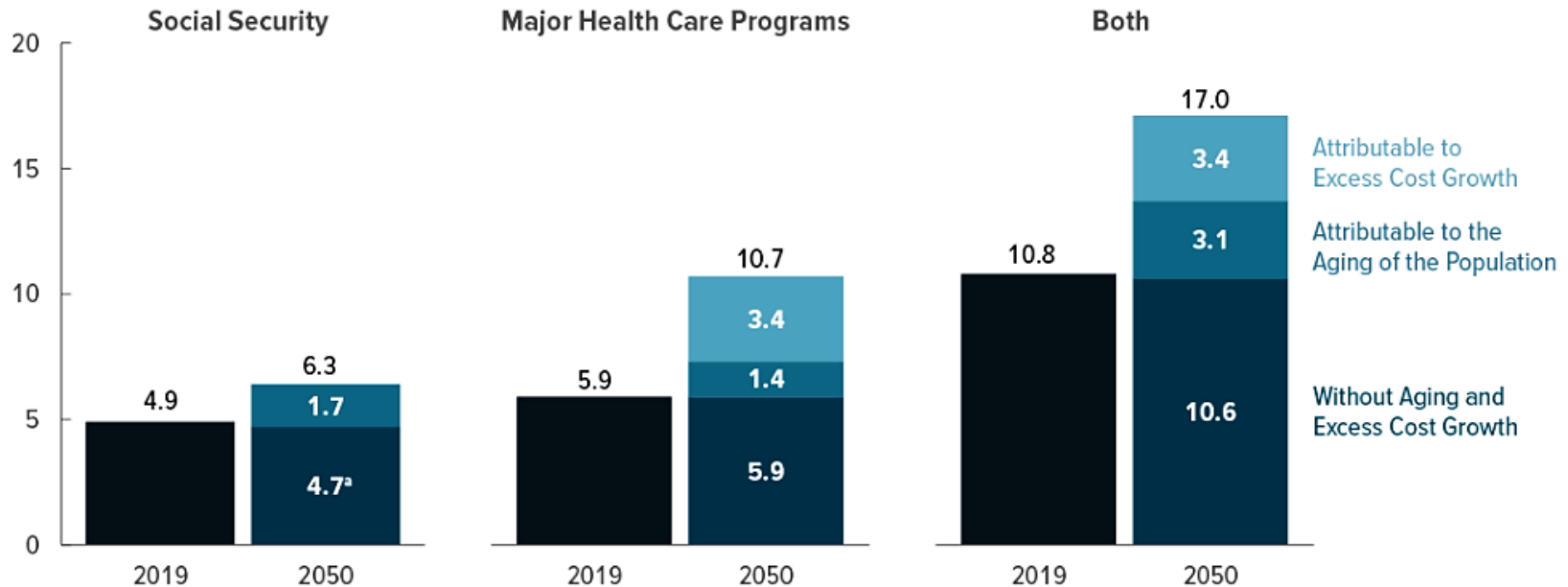
# ... & DRIVES INTEREST COSTS SKYWARD



# ALSO, BENEFITS OUTPACE GDP GROWTH

## Spending for Social Security and the Major Health Care Programs in 2019 and 2050

Percentage of Gross Domestic Product



# CBO'S THREE CRITICAL ASSUMPTIONS

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*

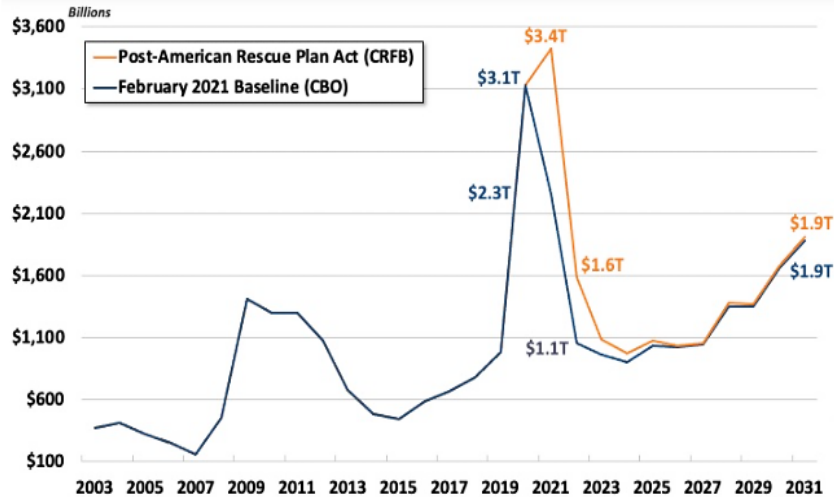
# CBO'S THREE CRITICAL ASSUMPTIONS

CBO's 2021 published projection rests on three critical assumptions, all of which appear to bias its deficit path toward an optimistic (that is, lower) trajectory.

- ❑ First, CBO assumes that all future budget legislation will be deficit neutral. With the \$1.9T unfunded Rescue Act signed into law (on March 11) just after the CBO projection was scored, that assumption is already obsolete. Further less-than-fully funded spending legislation seems probable.
- ❑ Second, CBO assumes the “sunset” expiration of over \$4T in popular tax cuts or benefit extensions as part of current law—that is, *such savings are embedded in its baseline*. Very few Americans know about these expirations, to say nothing of consenting to them.
- ❑ Third, because current law says nothing about future discretionary spending, CBO allows such spending to shrink as a share of GDP until 2031. Such steady shrinkage may be impossible. Discretionary spending is the most likely to be impacted by crises (domestic or international) or new investment needs.

# ASSUMPTION #1: NO NEW SPENDING

## This Year's Deficit Will Eclipse Last Year's

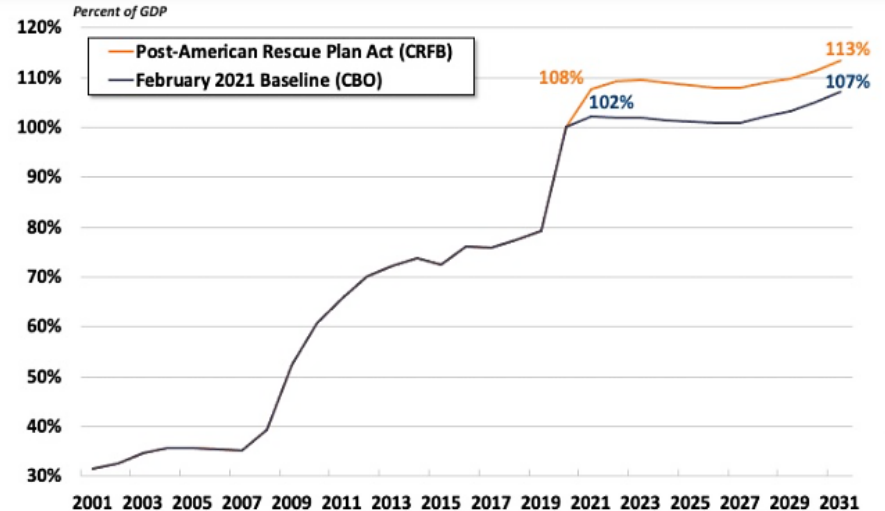


Source: Congressional Budget Office and CRFB calculations.  
These figures do not account for economic feedback effects.

CRFB.org



## Debt Will Set A New Record This Year



Source: Congressional Budget Office and CRFB calculations.  
These figures do not account for economic feedback effects.

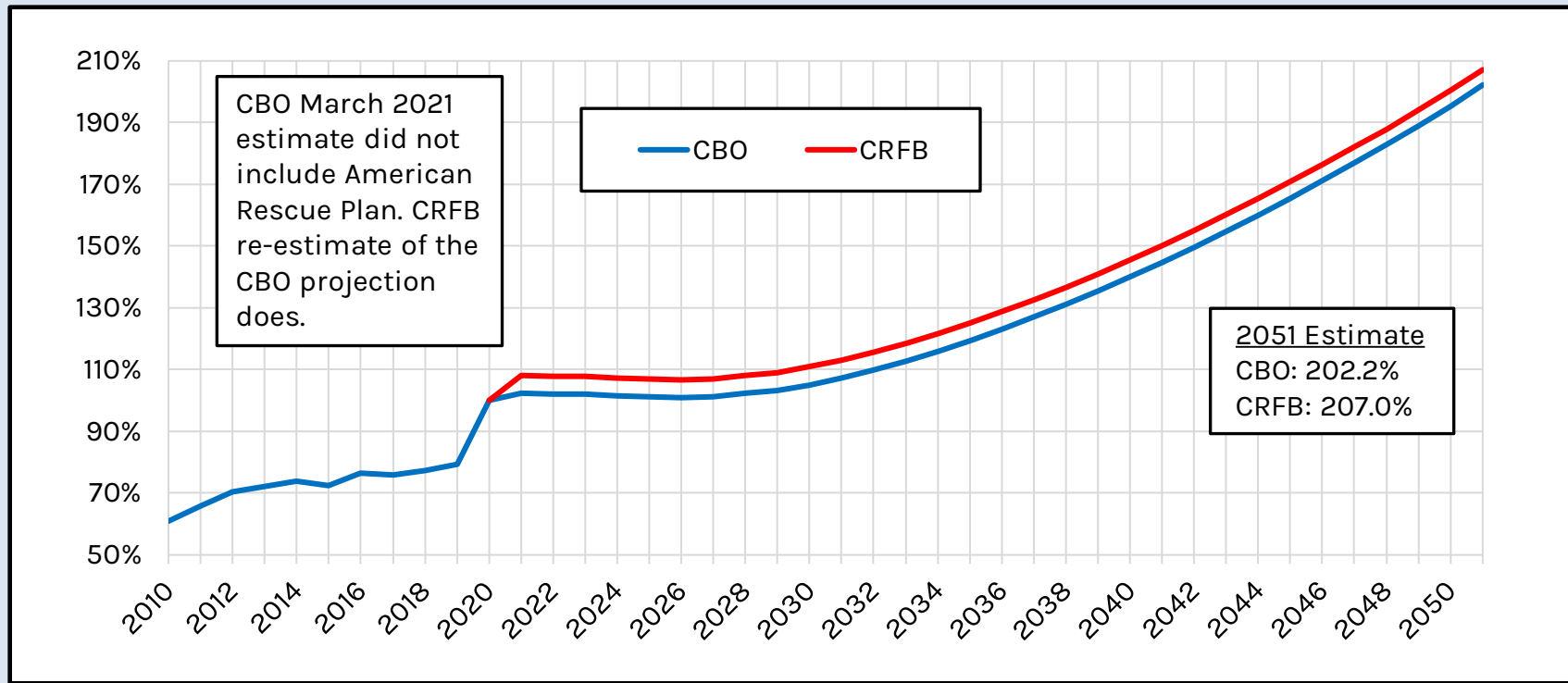
CRFB.org





# ASSUMPTION #1: NO NEW SPENDING

## Federal Debt Held By the Public As % of GDP, 2010-2051, CBO and CRFB Estimates



# ASSUMPTION #2: ALL “SUNS” ACTUALLY “SET”

58

Fig. 5: How Much Would Extending Expiring Policies Cost?

Policy	Bill <sup>A</sup>	Cost of Extension <sup>B</sup>
<b>Expiring in 2021</b>		<b>\$1.8 trillion</b>
Expanded Child Tax Credit (fully refundable, \$3,000 per child 6 and over, and \$3,600 per child under 6)	ARP	\$1.1 trillion <sup>C</sup>
Enhanced unemployment benefits (additional weeks, expanded eligibility, \$300/week supplement)	ARP	\$220 billion <sup>D</sup>
Full expensing of research & experimentation costs (replaced with 5-year amortization in 2022)	TCJA	\$145 billion
Expanded Earned Income Tax Credit (EITC), mainly for individuals without qualifying children	ARP	\$125 billion
Expanded Child and Dependent Care Tax Credit (maximum credit of 50%, up to \$16,000 per family)	ARP	\$80 billion
15 percent increase in SNAP (food stamp) benefits <sup>E</sup>	ARP	\$55 billion <sup>F</sup>
100 percent of income limit for cash contributions to public charities (up from 60%)	R&R	\$35 billion
\$600 above-the-line charitable deduction on top of the standard deduction for nonitemizers	R&R	\$30 billion
Mortgage insurance premiums treated as interest for mortgage interest deduction	R&R	\$15 billion
Employee retention credit of up to \$10,000 per employee	ARP	\$10 billion <sup>G</sup>
Excise tax credits relating to alternative fuels	R&R	\$10 billion
Other tax provisions expiring in 2021	R&R	\$25 billion
<b>Expiring in 2022</b>		<b>\$460 billion</b>
Increased Affordable Care Act (ACA) Premium Tax Credits, especially for those with income above 400 percent of Federal Poverty Line (FPL)	ARP	\$200 billion
Full expensing of equipment purchases (phases out between 2023 and 2027) and full deductibility of businesses investment phase out	TCJA	\$215 billion
Full deduction for business meals	R&R	\$45 billion
<b>Expiring in 2023</b>		<b>\$145 billion</b>
Section 48 energy tax credit	R&R	\$125 billion
Residential energy-efficient property tax credit	R&R	\$20 billion
Other tax provisions expiring in 2023	R&R	<\$1 billion

<b>Expiring in 2025</b>		<b>\$1.7 trillion</b>
Reduced individual income tax rates	TCJA	\$1.2 trillion
Repeal of personal and dependent exemptions	TCJA	-\$1.1 trillion
Expansion of standard deduction (currently \$12,550 per person)	TCJA	\$690 billion
Limits on State and Local Tax (SALT) deductions and other itemized deductions	TCJA	-\$685 billion
Near elimination of Alternative Minimum Tax (higher exemption amount and phaseout thresholds)	TCJA	\$665 billion
Increased Child Tax Credit (\$2,000 credit per child, \$500 nonrefundable credit for other dependents)	TCJA	\$460 billion <sup>H</sup>
20 percent pass-through deduction	TCJA	\$405 billion
Reduction in estate tax (currently a \$11.7 million per person exemption)	TCJA	\$80 billion
Paid Family and Medical Leave Tax Credit	R&R	\$15 billion
Work Opportunity Tax Credit	R&R	\$15 billion
Qualified principal residence indebtedness exclusion	R&R	\$10 billion
Other tax provisions expiring in 2025	R&R, TCJA	-\$10 billion
<b>Expiring in 2026</b>		<b>-\$100 billion</b>
Disallow active business losses of noncorporate taxpayers in excess of \$250,000 for individuals (\$500,000 for couples)	ARP	-\$100 billion
<b>Expiring in 2027</b>		<b>\$10 billion</b>
Extended Medicaid coverage for postpartum women	ARP	\$10 billion
Other provisions expiring in 2027	TCJA	<\$1 billion
<b>Subtotal</b>		<b>\$4.1 trillion</b>
<b>Interest</b>		<b>\$300 billion</b>
<b>Total</b>		<b>\$4.4 trillion</b>

Sources: Congressional Budget Office, Joint Committee on Taxation, Biden Administration and CRFB calculations.

<sup>A</sup>The cost of extension is calculated over the 2022-2031 budget window and assumes expiring policies are extended through 2031.

<sup>B</sup>Reflects the bill in which the policy was most recently authorized. ARP = American Rescue Plan; R&R = Coronavirus Response and Relief Supplemental Appropriations Act; TCJA = Tax Cuts and Jobs Act of 2017.

<sup>C</sup>Assumes extension of American Rescue Plan policy only; extension of TCJA policy is implicitly assumed otherwise.

<sup>D</sup>Assumes gradual phase down of benefits as employment improves.

<sup>E</sup>Assumes SNAP monthly benefits remain frozen at the increased benefit amount until traditional SNAP benefits catch up.

<sup>F</sup>Assumes gradual phase out of credit as employment improves.

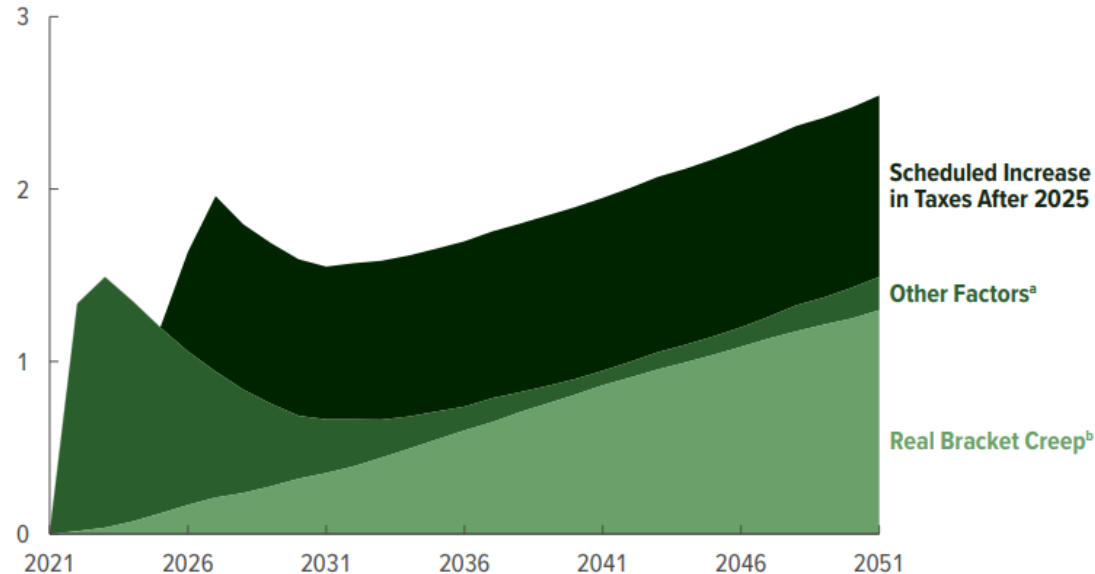
<sup>G</sup>Assumes extension of TCJA policy only; extension of American Rescue Plan policy is implicitly assumed otherwise.

Numbers may not sum due to rounding.

# ARE YOU READY FOR THE FISCAL UNDERTOW?

## Changes in Revenues

Percentage of Gross Domestic Product



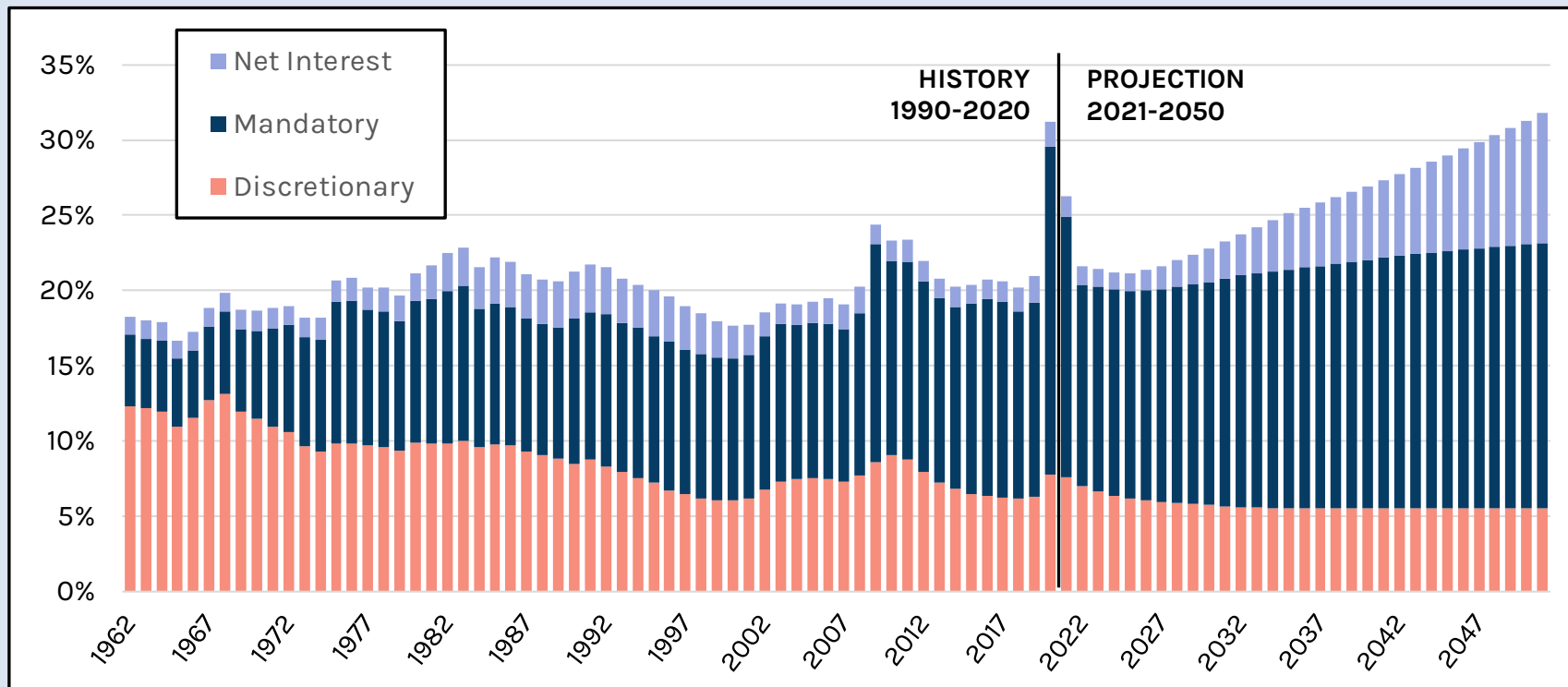
Revenues, measured as a percentage of gross domestic product, are projected to rise in the near term as the economy recovers from the disruption caused by the coronavirus pandemic and as temporary legislation enacted in response to the pandemic expires. Projected revenues rise sharply following the expiration at the end of 2025 of certain temporary provisions of the 2017 tax act.

Data source: Congressional Budget Office. See [www.cbo.gov/publication/56977#data](https://www.cbo.gov/publication/56977#data).

- a. Other factors include temporary tax provisions enacted in response to the pandemic, which reduce revenues in 2020 and 2021, as well as factors that affect revenues over the longer term, such as changes in the distribution of wages and growth in nontaxable compensation resulting from rising health care costs.
- b. Real bracket creep is the process in which, as income rises faster than inflation, a larger proportion of income becomes subject to higher tax rates.

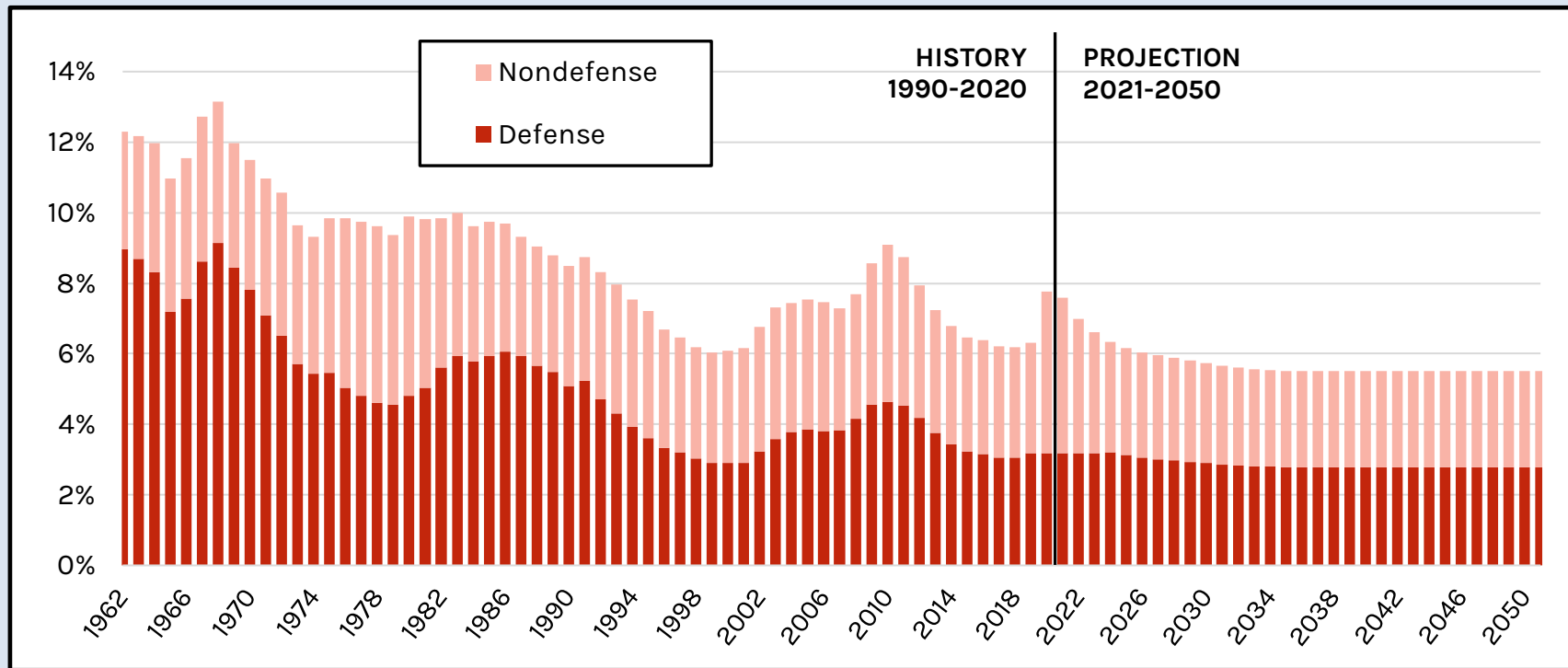
# ASSUMPTION #3: GOVT SLOWLY SHUTS DOWN

Net Interest, Mandatory, & Discretionary Outlays as % of GDP:  
Historical, 1962-2020; CBO Projections, 2021-2051



# ASSUMPTION #3: GOVT SLOWLY SHUTS DOWN

Nondefense and Defense Discretionary Outlays as % of GDP:  
Historical, 1962-2020; CBO Projections, 2021-2051



# ASSUMPTION #3: GOVT SLOWLY SHUTS DOWN

TABLE 1

## Changes in Real Spending and Financing, 2019 vs 2030 (February 2021 assumptions and projections)

Billions of 2020 dollars **CPI from 2019 to 2030 projected to rise by +28%**



	2019	2030	Total change	Share of change (%)
<b>Spending</b>				
Social Security <b>+46%</b>	1,048	1,531	483	33.9
Mandatory health <b>+55%</b>	1,137	1,757	620	43.5
Medicare	650	1,108	458	32.2
Medicaid	413	577	164	11.5
ACA Marketplace subsidies	56	56	0	0.0
Children's Health Insurance Program	18	16	(2)	(0.1)
Other mandatory	576	567	(9)	(0.6)
Defense discretionary <b>+7%</b>	683	731	48	3.4
Nondefense discretionary <b>+14%</b>	667	760	93	6.5
<b>Net interest +50%</b>	380	569	189	13.3
<b>Total spending</b>	4,491	5,915	1,424	100.0
<b>Financing</b>				
Total revenues	3,497	4,564	1,067	74.9
Borrowing (deficits)	994	1,351	357	25.1
<b>Total financing</b>	4,491	5,915	1,424	100.0

**Social Security, Mandatory Health, and Net Interest Account for 91% of total increase in real outlays from 2019 to 2030**

**All Discretionary Spending Declines both in Real \$ and as % of GDP**

**Sources:** Authors' estimates based on *The Budget and Economic Outlook: 2021 to 2031* (CBO 2021).

**Note:** ACA Marketplace subsidies refer to health insurance provided in the marketplace under the Affordable Care Act. Components may not sum to totals because of rounding. Our proxy for inflation is the GDP price index projected by the Congressional Budget Office up until 2030.

# THE IMPACT OF NEW ASSUMPTIONS

Year	Federal Debt Held By Public as % of GDP
2006	36%
2011	66%
2019	79%
2021	108% <sup>+</sup>

Organization	Federal Debt Held By Public as % of GDP
GAO Baseline	195% <sup>+</sup>
CBO Baseline	207% <sup>+</sup>
GAO Alternative*	229% <sup>+</sup>
CRFB Alternative**	258%

2051

\*GAO assumes historical and current policy conditions will continue in the future. For example, it assumes some tax provisions do not expire as scheduled under current law, the Patient Protection and Affordable Care Act and Medicare Access and CHIP Reauthorization Act of 2015 provisions to control health care cost growth are not sustained as they would be under current law, and, in the long term, revenue and discretionary spending return to their historical averages as shares of GDP.

\*\*CRFB assumes that all individual tax cuts in the 2017 Tax Cuts and Jobs Act are extended, that all temporary tax extenders are extended, and that discretionary spending grows with GDP. It does not assume that certain categories of mandatory spending, discretionary spending, and revenue revert to historical average levels after the initial ten-year budget window, nor does it assume a change in the trajectory of Medicare spending.

<sup>+</sup>All figures adjusted to include cost of the American Rescue Plan

# RECAPPING POPULATION ASSUMPTIONS

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

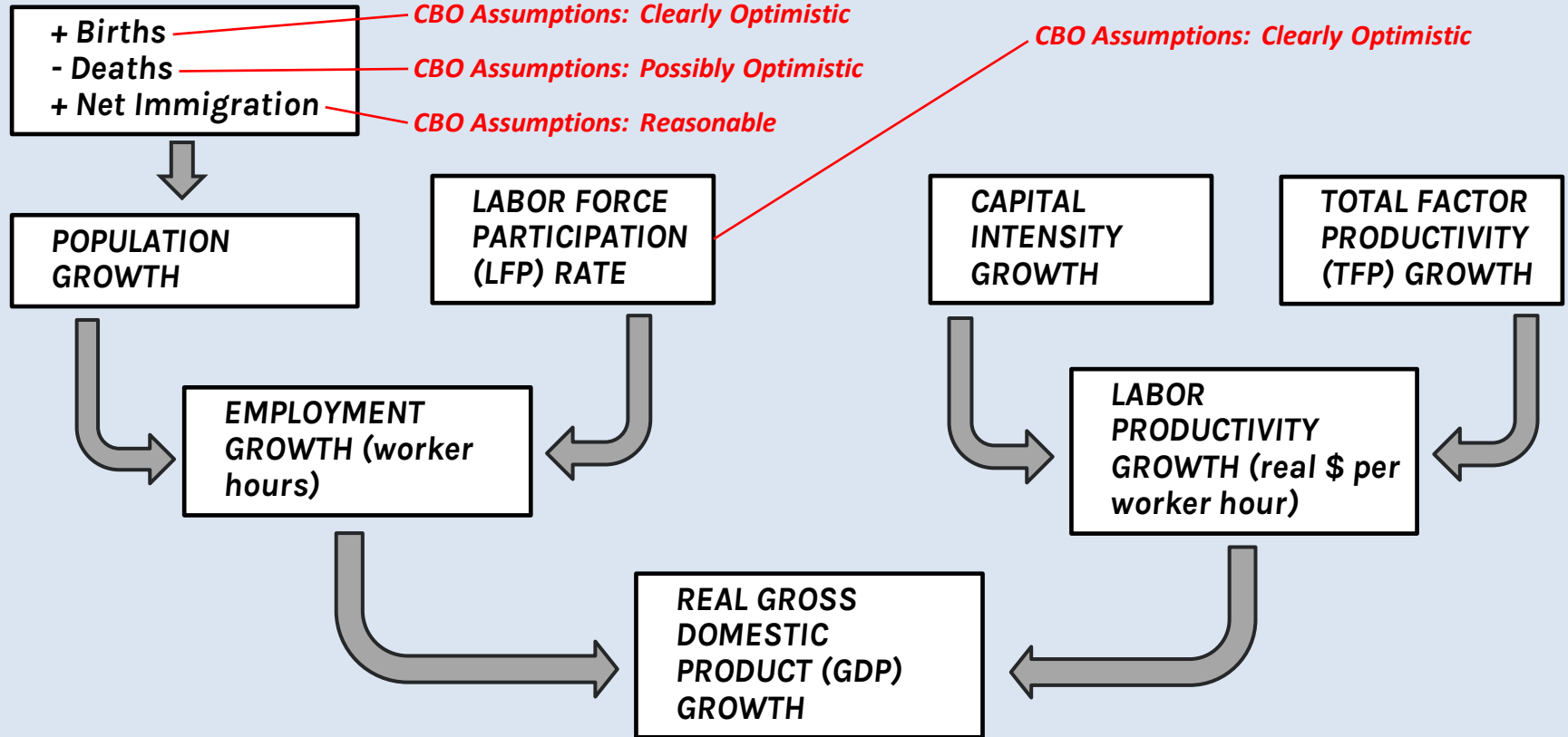
- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*



# RECAPPING POPULATION ASSUMPTIONS



# RECAPPING PRODUCTIVITY ASSUMPTIONS

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

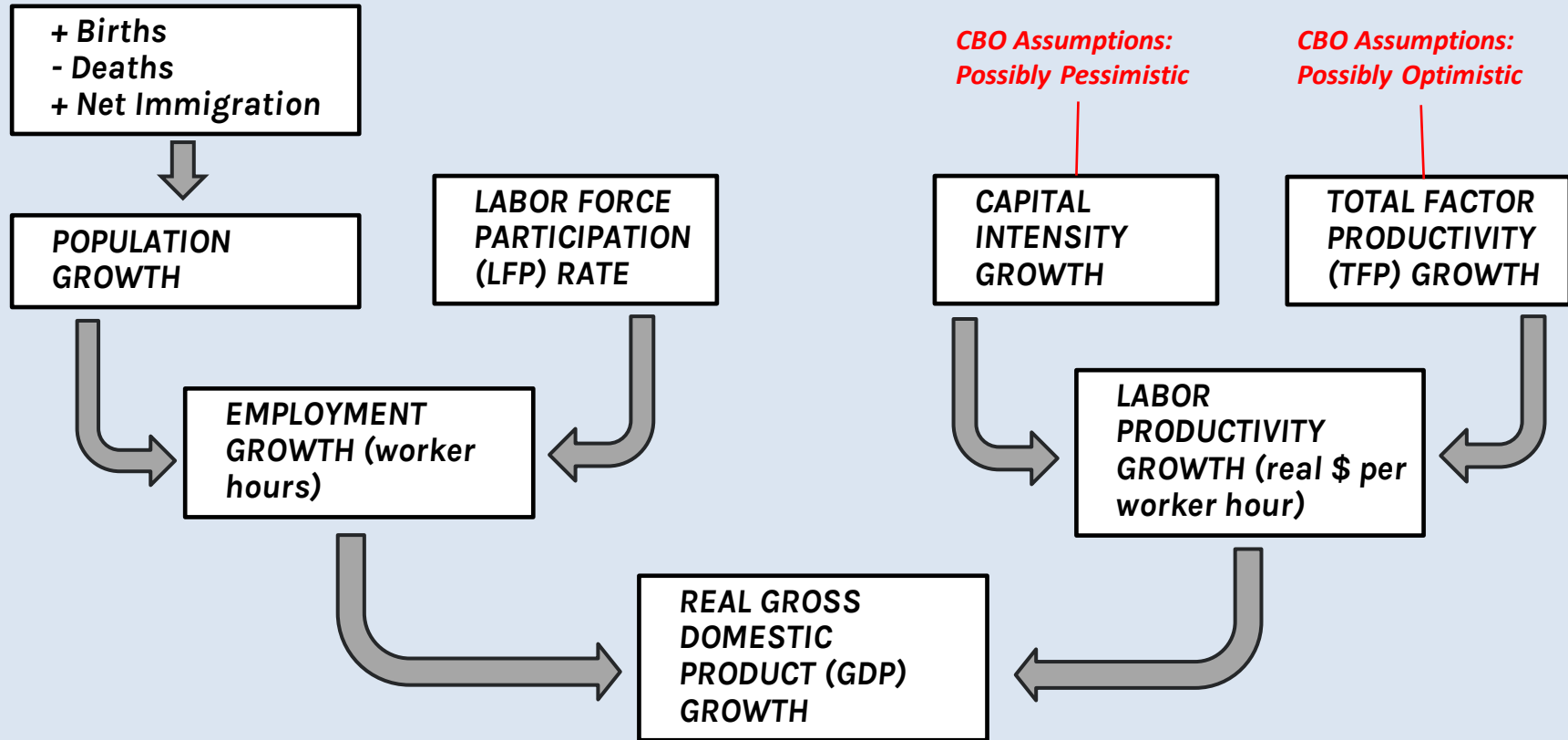
## ❑ **US Fiscal Projection, 2021-2051**

- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*

# RECAPPING PRODUCTIVITY ASSUMPTIONS



# SO HOW IMPORTANT ARE THE ASSUMPTIONS?

## Sensitivity of Assumption Changes From Baseline

	% Pt Change in Publicly Held Debt in 2051	
Economic Assumptions	Positive	Negative
Total Factor Productivity $\pm$ 0.5% AGR (CBO)	-42	+58
Real GDP $\pm$ 0.5% AGR (GAO)	-38	+42
Budget Assumptions	Positive	Negative
Revenue $\pm$ 5% All Years (GAO)	-24	+24
Health Care Excess Cost Growth $\pm$ 1% AGR (GAO)	-11	+21
Discretionary Outlays $\pm$ 5% all Years (GAO)	-9	+9
Social Security Outlays $\pm$ 5% all Years (GAO)	-8	+8
Interest Rate Assumptions	Positive	Negative
Interest Rate $\pm$ 0.05% Per Year Change (CBO)	-46	+50

# SO MUCH DEPENDS ON REAL INTEREST RATES!

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

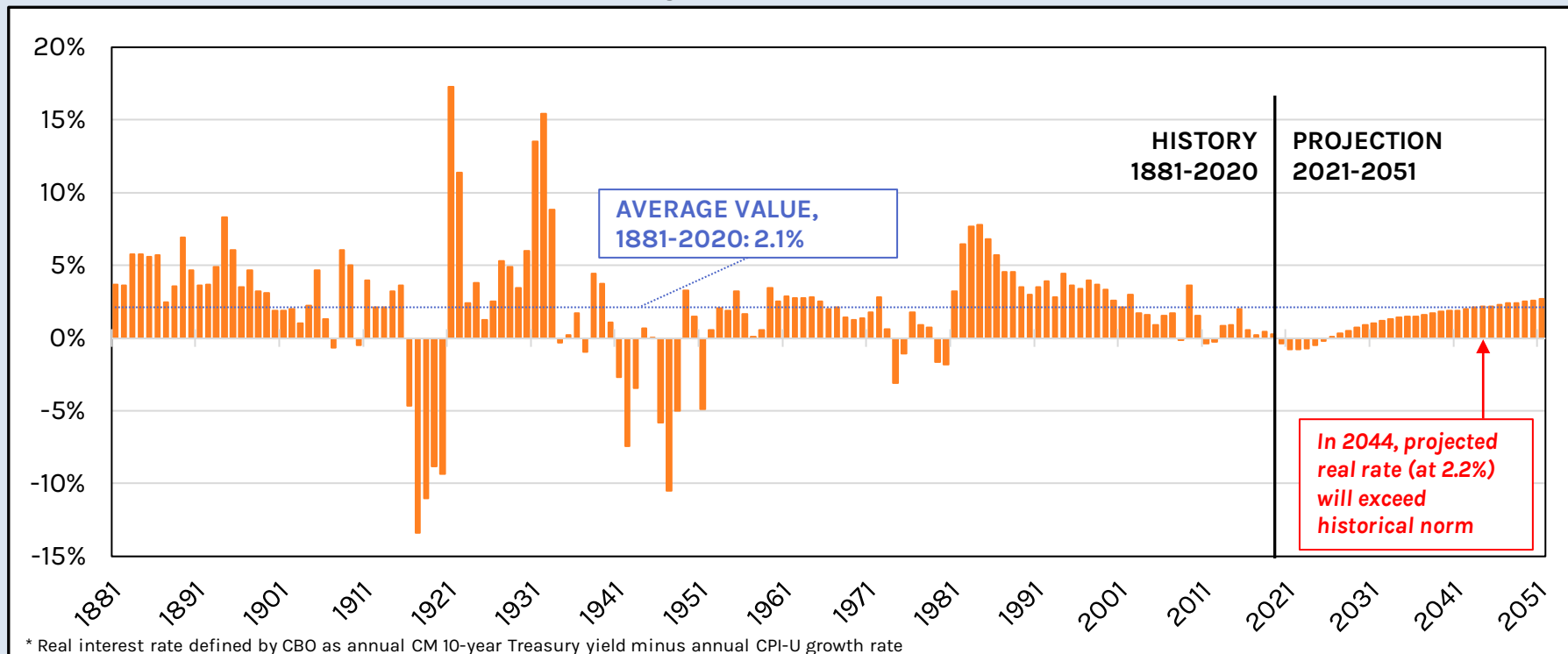
- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*

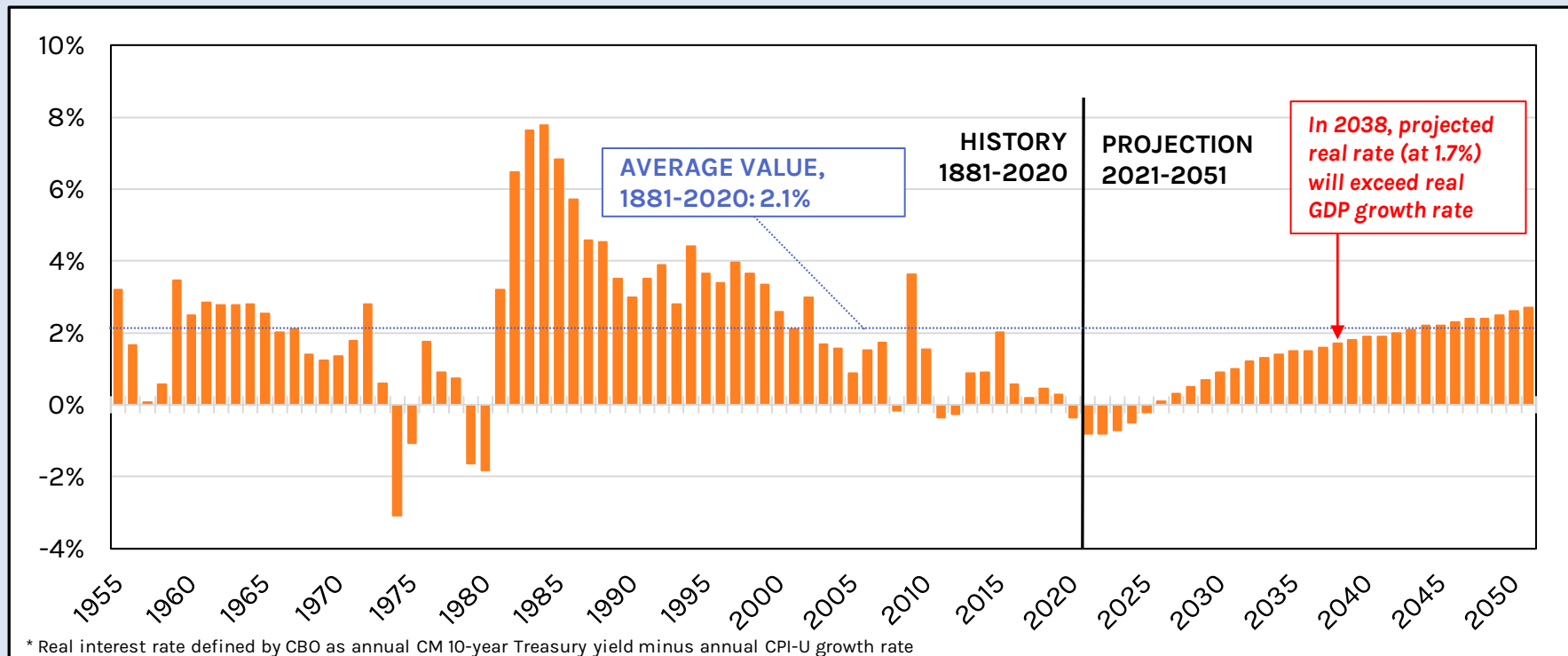
# RATE BELOW HISTORICAL NORM UNTIL 2044?

## Real Interest Rate\*, History 1881-2020 and CBO Projection 2021-2051



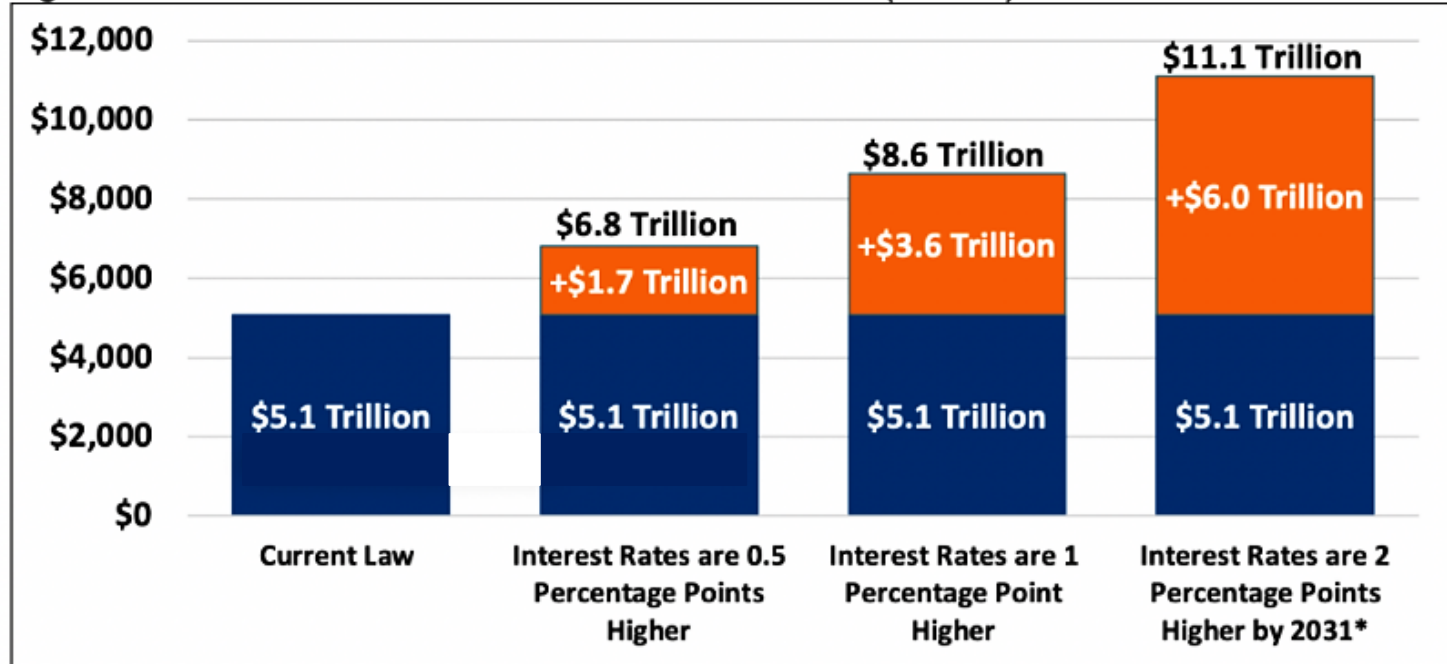
# FREE RIDE FOR DEFICITS UNTIL 2038?

## Real Interest Rate,\* History 1955-2020 and CBO Projection 2021-2051



# IF RATES RAMP UP, IT'S A WHOLE NEW WORLD

Fig. 8: Annual Net Interest Costs Under Different Scenarios (Billions)

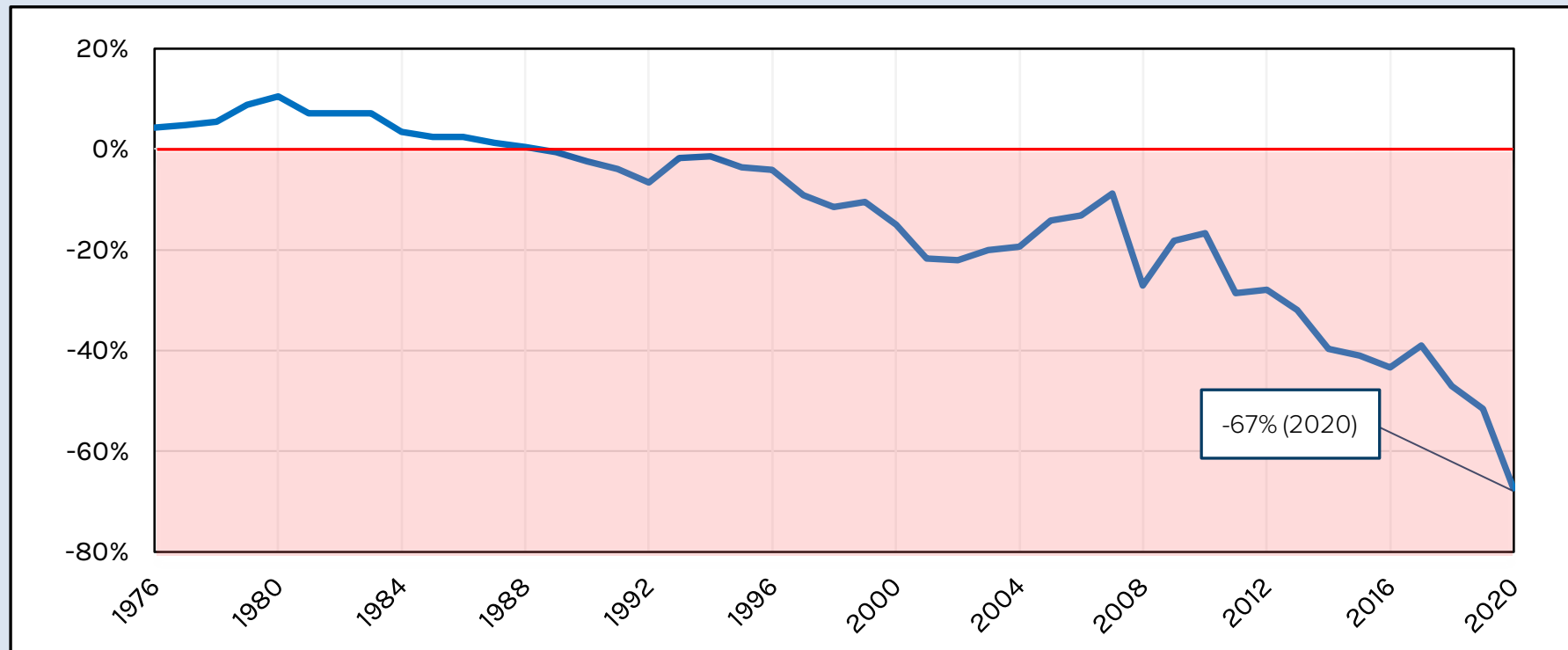


Source: CRFB calculations based on Congressional Budget Office data. \*This scenario assumes interest rates are 50 basis points (0.5 percentage points) higher in 2021 and then gradually increase to 200 basis points (two percentage points) higher by 2031. Numbers may not sum due to rounding.



# WILL REST OF WORLD KEEP BAILING US OUT?

## US Net International Investment Position, as % of US GDP, 1976-2020



# 2021 LONG-TERM ECONOMIC & FISCAL OUTLOOK

## ❑ **US Real GDP Projection, 2021-2051**

- *Topline Results*
- *Structure of GDP Projections & Their Evolution since 2016*
- *Population*
- *Labor Force*
- *Labor Productivity*

## ❑ **US Fiscal Projection, 2021-2051**

- *Topline Results*
- *Evolution of Fiscal Projections since 2016*
- *Long-Term Revenue and Outlay Drivers*
- *Three Critical Fiscal Assumptions*

## ❑ **What Could Go Wrong?**

- *Labor Force: Fertility, Mortality, Immigration, LFPR*
- *Labor Productivity: Capital Accumulation, TFP*
- *Fiscal: So Much Depends on Real Interest Rates!*
- *And What About... Wild Cards?*

# WHAT ABOUT THE UNKNOWN UNKNOWNS?

75

