

Deutsche Bank

Research



2024 US election: Neck and neck into the homestretch

September 2024

Brett Ryan, Matthew Luzzetti, Justin Weidner, Amy Yang, Rajsekhar Bhattacharyya

1 Columbus Circle

New York, New York 10019

Tel: 212 250 6294

brett.ryan@db.com



Distributed on: 04/09/2024 11:32:08 GMT

IMPORTANT RESEARCH DISCLOSURES AND ANALYST CERTIFICATIONS LOCATED IN APPENDIX 1. MCI (P) 041/10/2023. UNTIL 19th MARCH 2021 INCOMPLETE DISCLOSURE INFORMATION MAY HAVE BEEN DISPLAYED, PLEASE SEE APPENDIX 1 FOR FURTHER DETAILS.



Table of contents	Page Number
2024 Presidential election calendar	<u>02</u>
State of play for the polls	<u>03</u>
Congressional elections	<u>12</u>
Fiscal policies: Proposals and impact	<u>21</u>
Trade policies	<u>35</u>
Immigration policy impact	<u>42</u>
Fiscal sustainability	<u>46</u>
Views on the issues	<u>51</u>
Markets	<u>58</u>
What happens if there is a tie?	<u>64</u>



2024 Presidential election calendar

Tentative Debate Schedule

September 8	Proposed debate hosted by Fox News (unconfirmed)
September 10	ABC News – hosted debate originally agreed to by Biden / Trump
September 25	Proposed debate hosted by NBC news (unconfirmed)
October 1	CBS News – hosted VP debate between Vance / Walz

Election day

November 5, 2024

Source: Deutsche Bank

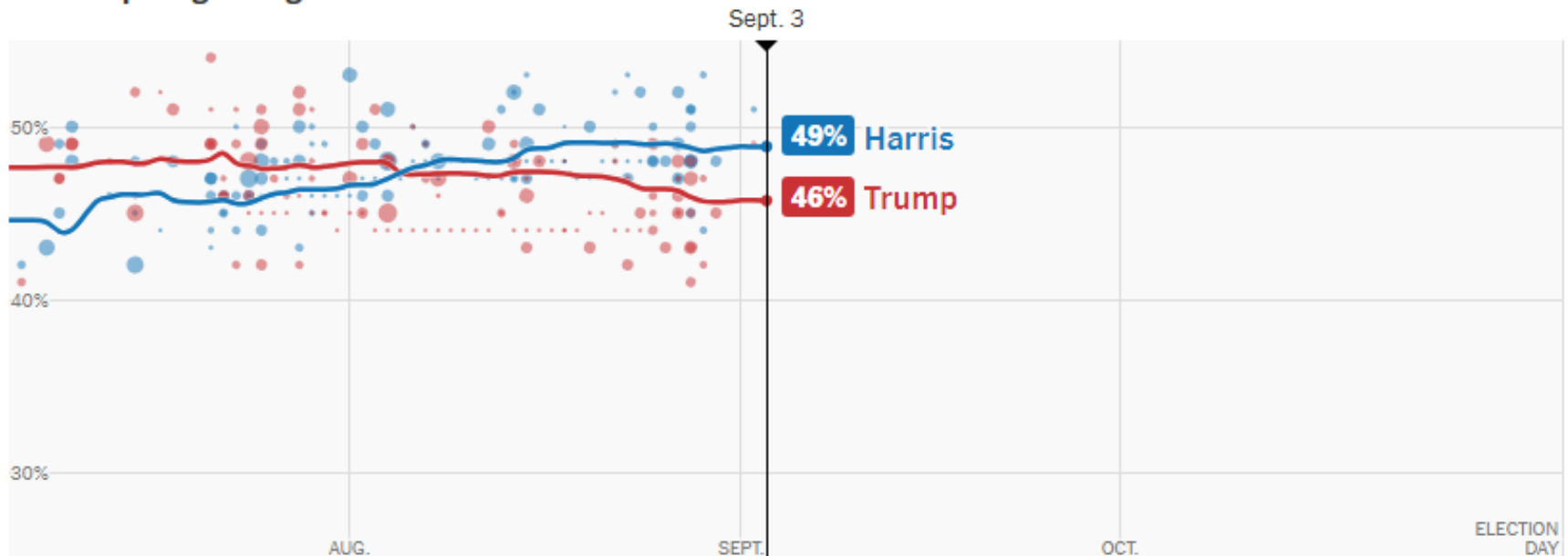


State of play for the polls



Latest polls show Harris slightly ahead of Trump

National polling average

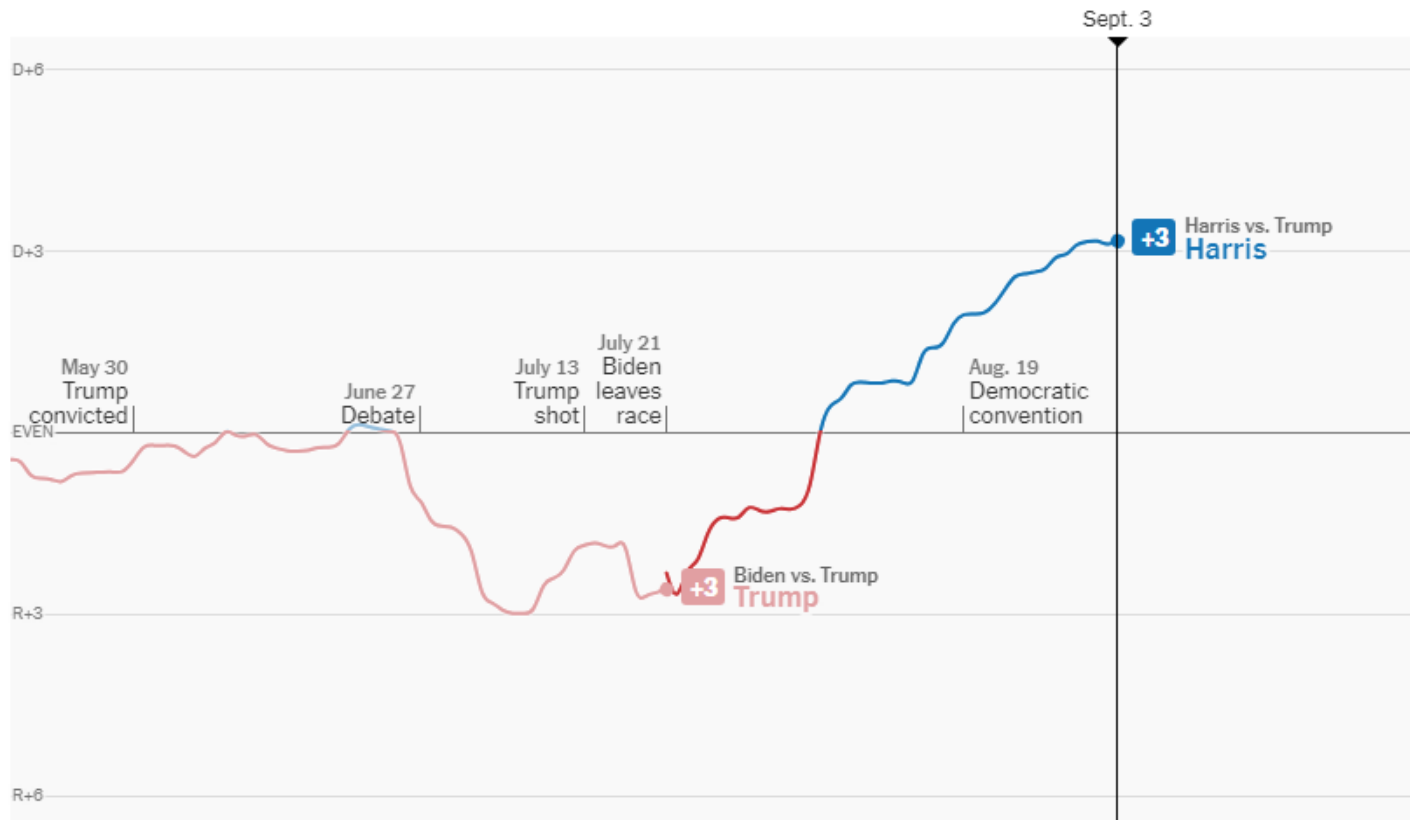


Note: Note: Individual poll results are shown as circles for each candidate. Polls with greater weight in the average have larger circles. Source: Averages by The New York Times; polls collected by FiveThirtyEight and The Times..

Source: <https://www.nytimes.com/interactive/2024/us/elections/polls-president.html>



Harris has more than erased the lead Trump opened up after the first debate with Biden

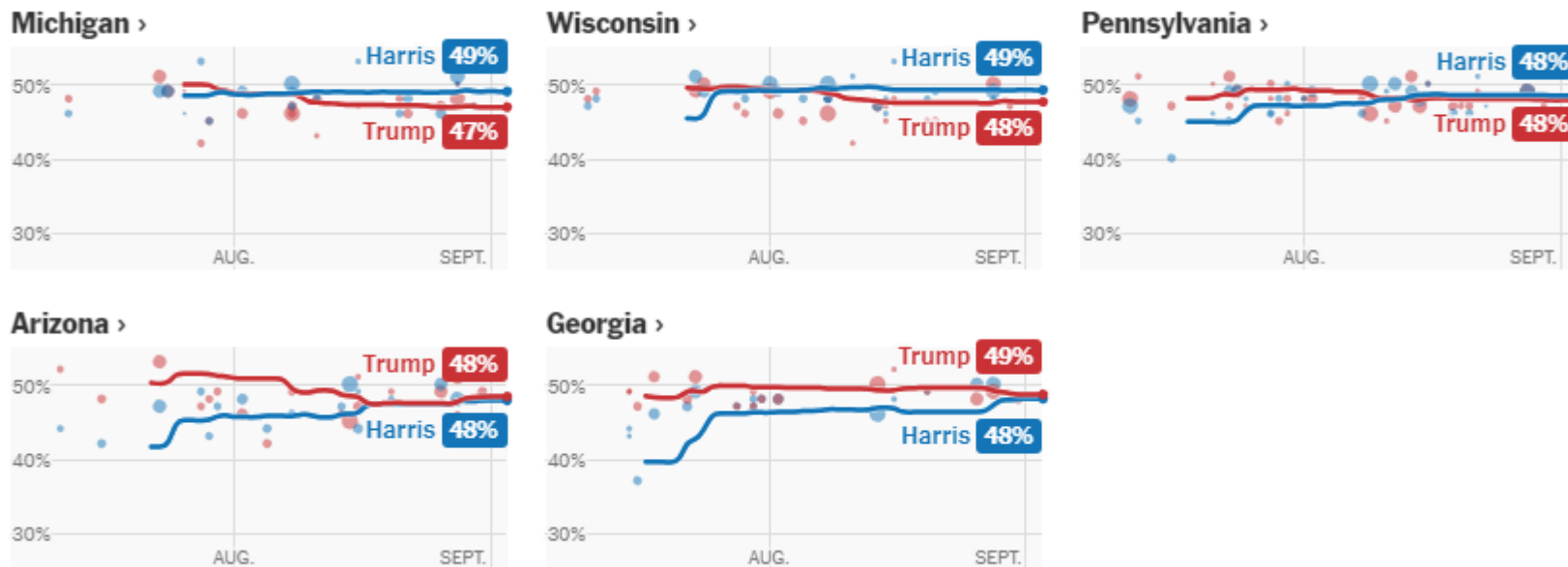


Note: Head-to-head averages shown. The Harris vs. Trump average includes polls conducted before Biden announced he was dropping out of the race.

Source: <https://www.nytimes.com/interactive/2024/us/elections/polls-president.html>



Swing state polls are more mixed but reflect greater Democrat enthusiasm with Harris leading the ticket



Note: Head-to-head averages shown. The Harris vs. Trump average includes polls conducted before Biden announced he was dropping out of the race...

Source: <https://www.nytimes.com/interactive/2024/us/elections/polls-president.html>



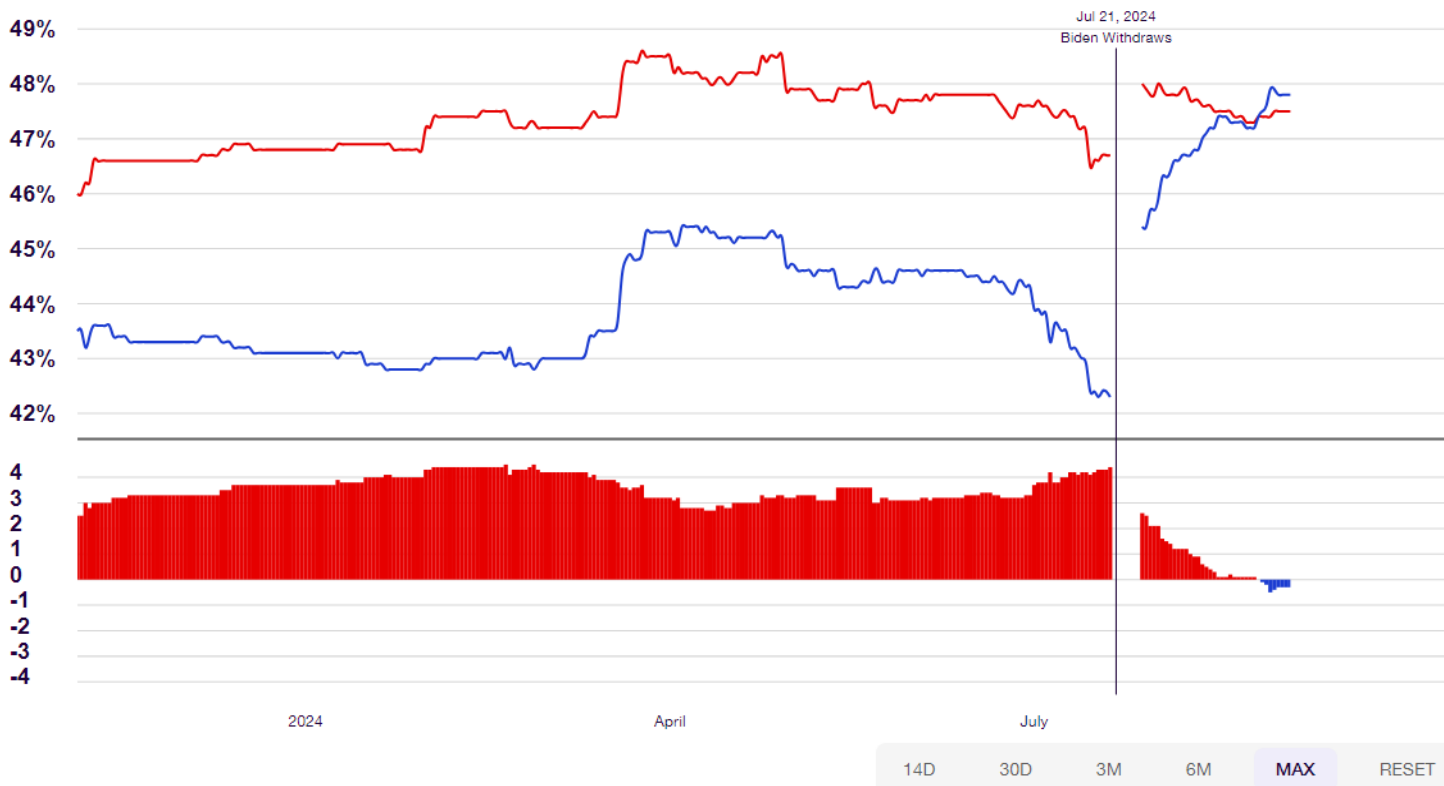
Harris now has a slight edge overall in battleground states according to RCP



RealClearPolitics Poll Average

47.8 Harris +0.3 47.5 Trump

Top Battlegrounds: Trump vs. Harris



Source: <https://www.realclearpolling.com/elections/president/2024/battleground-states>



Trump's leads in Arizona, Georgia and North Carolina are slim according to RCP

Top Battlegrounds – RCP Average

Wisconsin, Arizona, Georgia, Michigan, Pennsylvania, North Carolina, Nevada

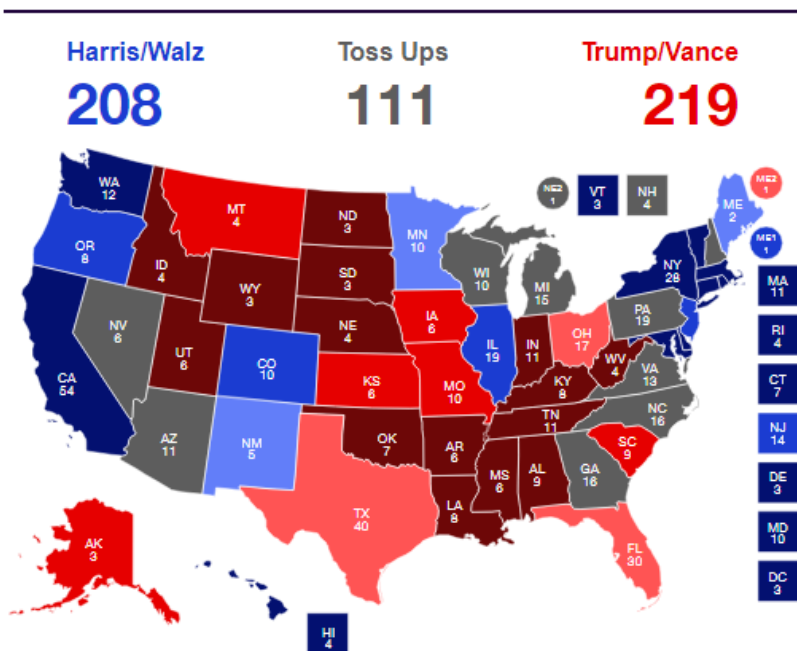
RCP AVERAGE	DATE	TRUMP (R)	HARRIS (D)	SPREAD
Top Battlegrounds	9/3	47.5	47.8	Harris +0.3
Arizona	September 3rd	47.9	47.4	Trump +0.5
Nevada	September 3rd	47.6	47.6	Tie
Wisconsin	September 3rd	46.8	48.2	Harris +1.4
Michigan	September 3rd	46.9	48.0	Harris +1.1
Pennsylvania	September 3rd	47.2	47.7	Harris +0.5
North Carolina	September 3rd	47.9	47.3	Trump +0.6
Georgia	September 3rd	48.3	48.1	Trump +0.2

Source: <https://www.realclearpolling.com/elections/president/2024/battleground-states>

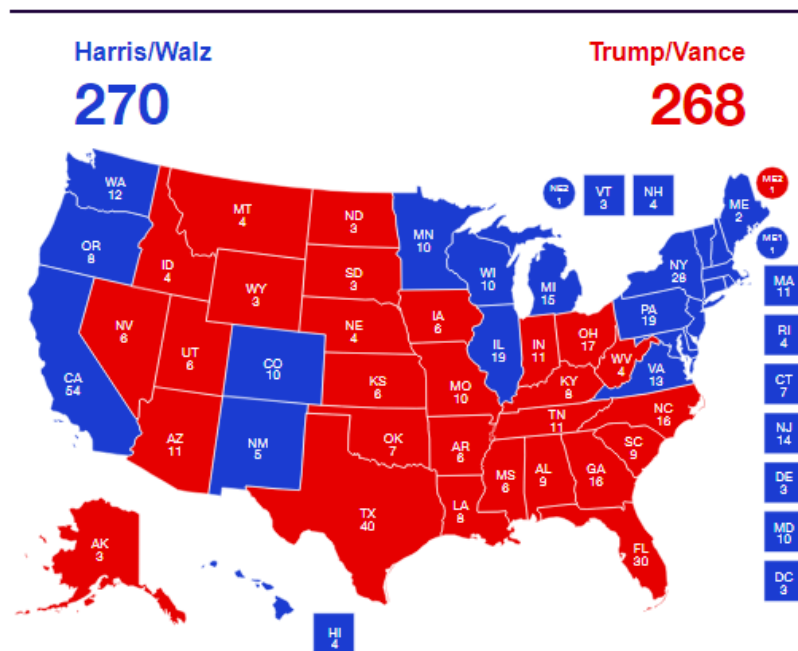


Currently polling in battleground states show a very tight race

2024 RCP Electoral College Map



2024 Electoral College: No Toss-Up States



Source: <https://www.realclearpolling.com/elections/president/2024/battleground-states>



Winning combinations of battleground states

9 Democratic Party Winning Combinations				Total	
1	PA	GA	MI	276	
2	PA	GA	AZ	272	
3	PA	MI	AZ	271	
4	PA	GA	WI	271	
5	PA	MI	WI	270	
6	GA	MI	AZ	WI	278
7	GA	MI	AZ	NV	274
8	GA	MI	WI	NV	273
9	PA	AZ	WI	NV	272

12 Republican Party Winning Combinations				Total
1	PA	GA		270
2	PA	MI	AZ	280
3	GA	MI	AZ	277
4	PA	MI	WI	279
5	GA	MI	WI	276
6	PA	AZ	WI	275
7	GA	AZ	WI	272
8	MI	AZ	WI	271
9	PA	MI	NV	275
10	GA	MI	NV	272
11	PA	AZ	NV	271
12	PA	WI	NV	270

Source: 270 to win, Deutsche Bank



2016: 136.6mn votes / Trump won by ~78k votes (PA, MI, WI)
 2020: 158.4mn votes / Biden won by ~43k (GA, AZ and WI)

State	Electoral college votes	2016 outcome	2020 outcome
Pennsylvania	19	Trump +0.72% / 44.3k votes	Biden +1.16% / 80.6k votes
Georgia	16	Trump +5.13% / 211.1k votes	Biden +0.23% / 11.8k votes
Michigan	15	Trump +0.23% / 10.7k votes	Biden +2.78% / 154.2k votes
Arizona	11	Trump +3.54% / 91.2k votes	Biden +0.30% / 10.5k votes
Wisconsin	10	Trump +0.77% / 22.8k votes	Biden +0.63% / 20.7k votes
Nevada	6	Clinton +2.42% / 27.2k votes	Biden +2.39% / 33.6k votes

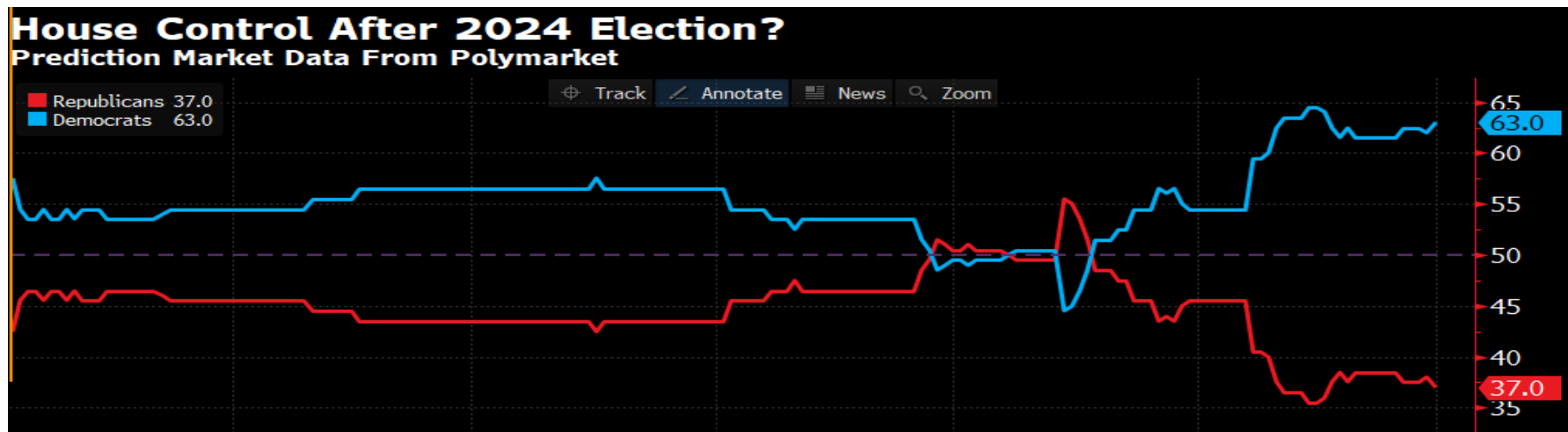
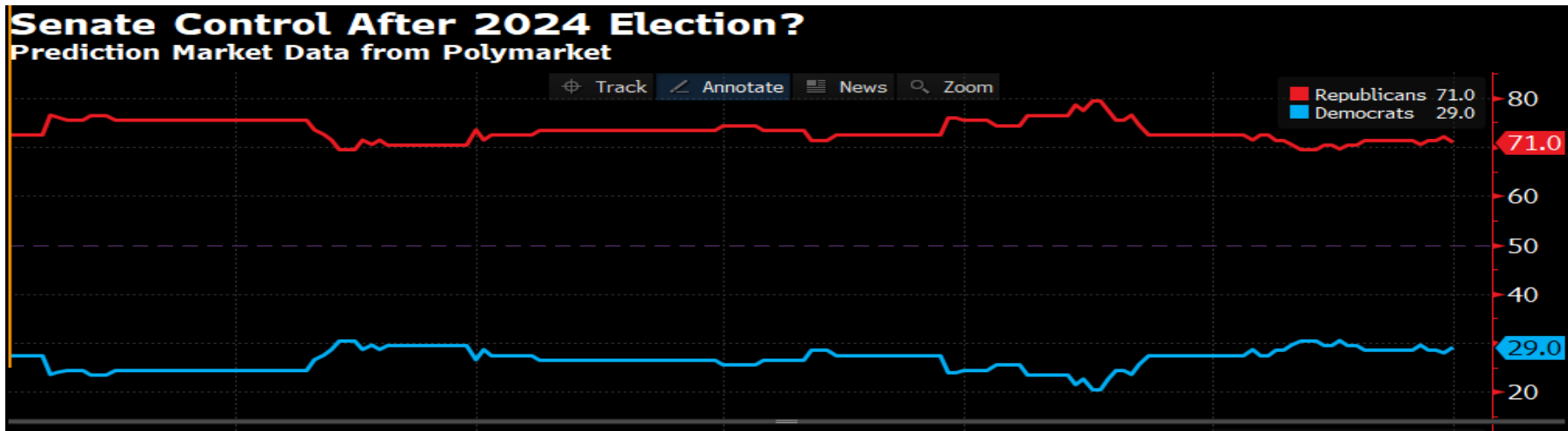
Source: Federal Election Commission, Deutsche Bank



Congressional elections



Betting markets favor Republican Senate majority but have swung toward Democrats winning the House since Harris

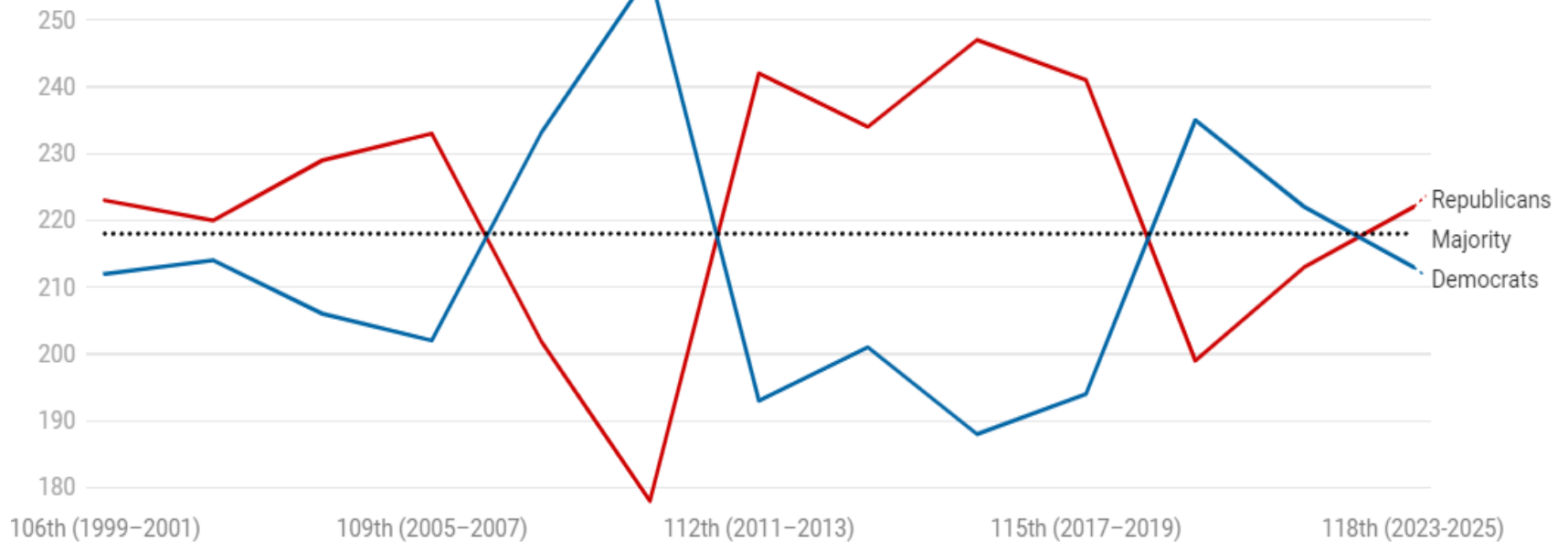


Source: Polymarket, Bloomberg LP & Deutsche Bank



Republicans have had a slim majority in the House

Partisan control of the United States House (1999-2023)

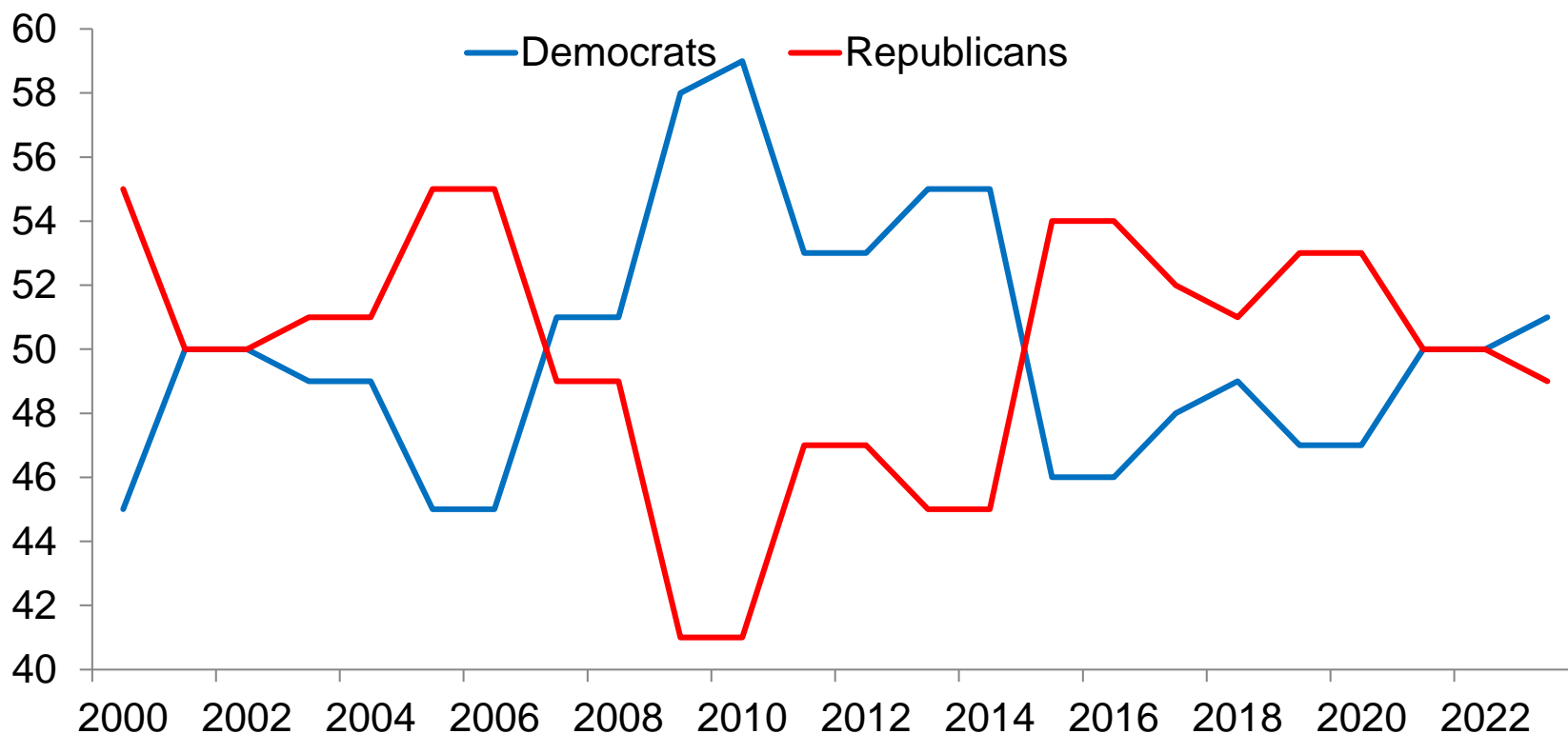


Source: Ballotpedia, Deutsche Bank



Democrats (and independents who caucus with Dems) have had a slim majority in the Senate

Partisan control of the United States Senate (2000-2023)



Source: Ballotpedia, Deutsche Bank



2024 Senate Race Ratings: Ratings Summary

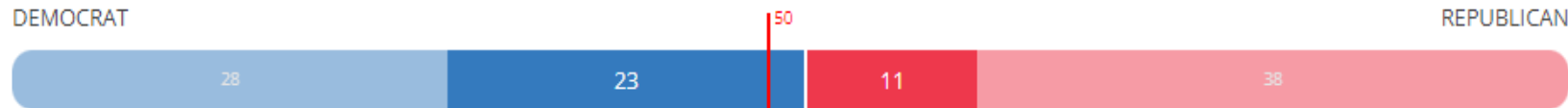
RATINGS SUMMARY

SENATE SEATS

Includes seats not up for re-election. Control of Senate marked at 50 seats.

DEMOCRAT

REPUBLICAN



There are currently **48** Democrats, **49** Republicans and **3** Independents in the Senate. The 3 independents caucus with the Democrats, giving Democrats a 51-49 seat majority.

- **Solid:** These races are not considered competitive and are not likely to become closely contested.
- **Likely:** These races are not considered competitive at this point but have the potential to become engaged.
- **Lean:** These races are considered competitive races, but one party has an advantage.
- **Toss Up:** These races are the most competitive; either party has a good chance of winning.



2024 Senate Race Ratings

DEMOCRATS | 23 HELD SEATS

REPUBLICANS | 11 HELD SEATS

SOLID D	LIKELY D	LEAN D	TOSS UP	LEAN R	LIKELY R	SOLID R
CA-Open	MD-Open	NV-Rosen	MI-Open		FL-Scott	IN-Open
CT-Murphy		PA-Casey Jr.	MT-Tester		TX-Cruz	MO-Hawley
DE-Open		WI-Baldwin	OH-Brown			MS-Wicker
HI-Hirono		AZ-Open (I)				ND-Cramer
MA-Warren						NE-Fischer
ME-King (I)						NE-Ricketts
MN-Klobuchar						TN-Blackburn
NM-Heinrich						UT-Open
NY-Gillibrand						WY-Barrasso
RI-Whitehouse						WV-Open
VA-Kaine						
VT-Sanders (I)						
WA-Cantwell						
NJ-Vacant						

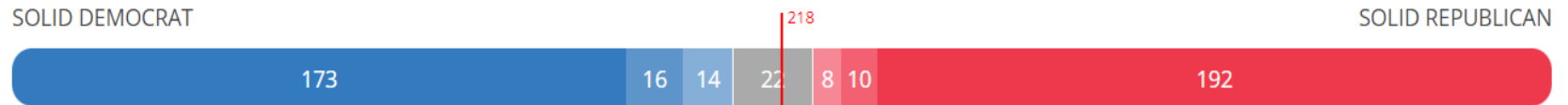
Last update: August 15, 2024

Source: [The Cook Political Report](#), Deutsche Bank



2024 House Race Ratings: Ratings Summary

RATINGS SUMMARY

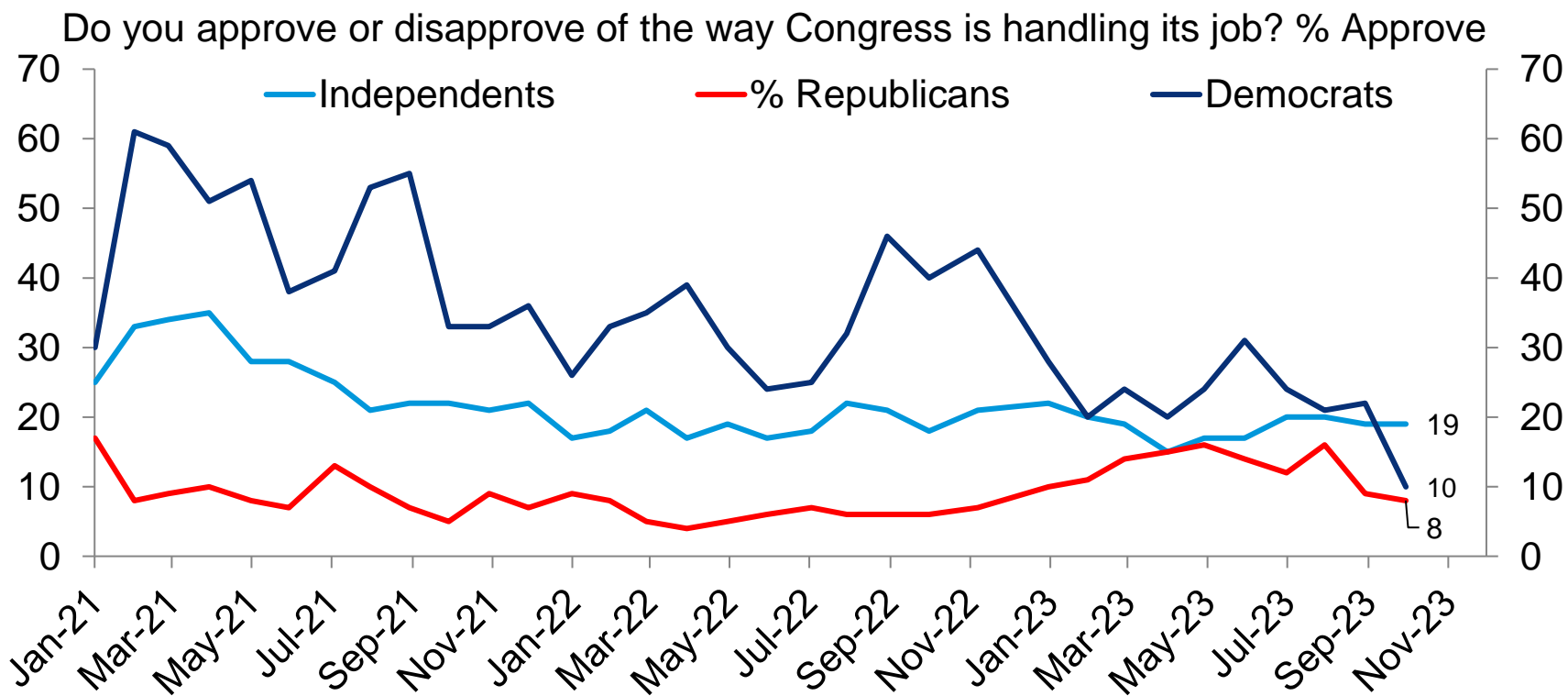


- **Solid:** These races are not considered competitive and are not likely to become closely contested.
- **Likely:** These races are not considered competitive at this point but have the potential to become engaged.
- **Lean:** These races are considered competitive races, but one party has an advantage.
- **Toss Up:** These races are the most competitive; either party has a good chance of winning.



Both parties have had a very low opinion of Congress

Congressional Job Approval, Recent Trend, by Political Party



Source: Gallup, Deutsche Bank



Fiscal policies: Proposals and impact



Harris economic policy leanings thus far similar to Biden

	Trump	Harris
Domestic Policy	<ul style="list-style-type: none"> - Extend 2017 (TCJA) worth \$3trn over 10 yrs - De-regulate the economy with a focus on the energy sector - Strengthen executive authority via the "Impoundment Act" - Ban ESG investment incentives - Tax private university endowments - Aggressive immigration enforcement with focus on deportation - End citizenship for kids born in US to foreigners or illegal aliens - Increase military spending, preserve Social Security & Medicare - No tax on tips or Social Security earnings - Potential 10-20% universal baseline tariff on imported goods 	<ul style="list-style-type: none"> - Raise corp tax rate to 28% (from 21% but effective rate ~10%) - Raise tax rate on U.S. multinationals' foreign earnings to 21% (from 10.5%) - \$25k first time homebuyer tax credit - Raise top tax rate to 39.6% (from 37%) for those > \$400k/yr - Tax capital gains at rate of income for those with over \$1mn income - Close carried interest tax loophole - 25% minimum tax on the wealthiest 0.01% - Build 3mn affordable housing units - Refundable child tax credit \$3.6k (<5yrs age) and \$3k (>5yrs age) - No tax on tips - Potential increase in EITC
Foreign Policy	<ul style="list-style-type: none"> - "America First" isolationist policy - End support for Ukraine - Re-evaluate NATO alliance - "Reciprocal tariffs" on all imports matching tariffs on US exports - Remove China's most favored nation trade status - Potential 60% tariffs on Chinese imports - Remove the US from any climate treaties / commitments 	<ul style="list-style-type: none"> - Strengthen NATO alliance, continue to support Ukraine - Will engage with European partners to confront threats from China - Strengthen traditional rules-based international trade agreements - Paris climate agreement

Source: Trump campaign, Harris campaign, whitehouse.gov & Deutsche Bank



Penn-Wharton model: Trump tax policies would add ~\$5.8trn (static) to ~\$4.2trn (dynamic) to deficits over next 10 years

Table 1: Budgetary Effects of the Trump Campaign Policy Proposals

Billions of dollars

Provision	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2025 - 2034
Individual											
Extend the individual income tax provisions of TCJA	0	-311	-358	-371	-368	-374	-385	-396	-408	-419	-3,388
Eliminate taxes on Social Security benefits	-60	-104	-109	-116	-122	-129	-136	-144	-150	-156	-1,226
<i>Subtotal: Individual</i>	<i>-60</i>	<i>-415</i>	<i>-467</i>	<i>-487</i>	<i>-490</i>	<i>-503</i>	<i>-521</i>	<i>-540</i>	<i>-558</i>	<i>-575</i>	<i>-4,614</i>
Business											
Extend the business tax provisions of TCJA	-74	-95	-93	-78	-61	-52	-47	-43	-40	-39	-623
Lower the corporate income tax rate to 15%	-51	-44	-50	-54	-59	-61	-64	-66	-72	-75	-595
<i>Subtotal: Business</i>	<i>-125</i>	<i>-139</i>	<i>-143</i>	<i>-132</i>	<i>-120</i>	<i>-113</i>	<i>-111</i>	<i>-109</i>	<i>-112</i>	<i>-114</i>	<i>-1,217</i>
Effect on primary deficit (-) or surplus (+)	-185	-554	-610	-619	-610	-616	-632	-649	-670	-689	-5,833
Memorandum:											
<i>Effect on primary deficit (-) or surplus (+), with dynamic effects</i>	<i>-153</i>	<i>-446</i>	<i>-484</i>	<i>-465</i>	<i>-462</i>	<i>-449</i>	<i>-429</i>	<i>-423</i>	<i>-416</i>	<i>-418</i>	<i>-4,146</i>

Source: Penn-Wharton Budget Model & Deutsche Bank



Penn-Wharton model: Full extension of the TCJA accounts for most of the deficit increase for Trump

Table 1: Revenue Effects of Permanently Extending the Tax Cuts and Jobs Act

[DOWNLOAD DATA](#)

Billions of dollars

Tax Provision	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2025-2034
Individual											
New tax rate and bracket structure	0	-276	-229	-240	-248	-257	-266	-276	-284	-293	-2,369
Expand the standard deduction and repeal personal exemptions	0	6	46	49	50	51	53	55	57	58	424
New pass-through business deduction	0	-42	-29	-30	-33	-35	-37	-38	-39	-40	-324
Pass-through business loss limits	0	0	0	0	16	28	29	30	31	33	167
Expand Child Tax Credit (CTC) and new non-child dependent credit	0	-37	-85	-87	-88	-92	-93	-94	-97	-98	-770
Repeal and modifications to itemized deductions	0	42	50	52	55	58	61	64	67	70	520
Increase Alternative Minimum Tax (AMT) exemption phaseout threshold	0	0	-97	-99	-105	-109	-114	-119	-124	-128	-894
Estate Tax Exemption Doubled	0	-4	-15	-15	-16	-17	-18	-19	-20	-21	-143
<i>Subtotal</i>	<i>0</i>	<i>-311</i>	<i>-358</i>	<i>-371</i>	<i>-368</i>	<i>-374</i>	<i>-385</i>	<i>-396</i>	<i>-408</i>	<i>-419</i>	<i>-3,388</i>
Corporate											
Net interest deduction capped at 30% of income	-5	-7	-7	-7	-7	-7	-7	-8	-8	-9	-71
Changes to the treatment of investment	-37	-52	-57	-50	-40	-33	-28	-24	-22	-20	-364
Amortize research & experimentation costs	-32	-36	-29	-22	-14	-12	-11	-11	-10	-10	-188
<i>Subtotal</i>	<i>-74</i>	<i>-95</i>	<i>-93</i>	<i>-78</i>	<i>-61</i>	<i>-52</i>	<i>-47</i>	<i>-43</i>	<i>-40</i>	<i>-39</i>	<i>-623</i>
Total (reduction (-) or increase (+) in revenues)	-74	-406	-452	-449	-429	-426	-431	-439	-448	-458	-4,011
<i>Memorandum:</i>											
<i>Total reduction in revenues, with dynamic effects</i>	<i>-55</i>	<i>-391</i>	<i>-434</i>	<i>-433</i>	<i>-417</i>	<i>-413</i>	<i>-415</i>	<i>-418</i>	<i>-426</i>	<i>-432</i>	<i>-3,834</i>

Note: Effects on federal outlays include tax refunds and the repeal of the individual mandate for health insurance.

Source: Penn-Wharton Budget Model & Deutsche Bank



Penn-Wharton model: Harris policies would add ~\$1.2trn (static) to ~\$2trn (dynamic) to deficits over next 10 years

Table 1: Budgetary Effects of the Harris Campaign Policy Proposals

Billions of dollars

Provision	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2025 - 2034
Individual											
Expand the CTC to \$3,000/\$3,600	-22	-135	-188	-189	-188	-188	-188	-188	-188	-188	-1,662
Increase CTC to \$6,000 for newborns	-3	-13	-15	-15	-15	-14	-14	-14	-14	-14	-132
Expand the EITC	-1	-14	-14	-14	-14	-14	-14	-14	-14	-14	-126
Permanently extend enhanced premium tax credits	0	-2	-22	-23	-25	-26	-28	-31	-33	-35	-225
Down payment support for first-time homebuyers	-26	-34	-35	-34	-9	0	0	0	0	0	-138
<i>Subtotal: Individual</i>	<i>-52</i>	<i>-198</i>	<i>-273</i>	<i>-276</i>	<i>-250</i>	<i>-243</i>	<i>-245</i>	<i>-247</i>	<i>-249</i>	<i>-251</i>	<i>-2,282</i>
Business											
Raise the corporate income tax rate to 28 percent	69	96	104	112	114	115	117	121	122	126	1,096
<i>Subtotal</i>	<i>69</i>	<i>96</i>	<i>104</i>	<i>112</i>	<i>114</i>	<i>115</i>	<i>117</i>	<i>121</i>	<i>122</i>	<i>126</i>	<i>1,096</i>
Net Effect on primary deficit (-) or surplus (+), conventional	17	-102	-170	-164	-135	-127	-128	-126	-126	-124	-1,186
<i>Memorandum:</i>											
Net Effect on primary deficit (-) or surplus (+), with dynamic effects	-66	-210	-213	-222	-196	-201	-218	-222	-228	-232	-2,008

Source: Penn-Wharton Budget Model & Deutsche Bank



Penn-Wharton model: Impact on economic variables Trump vs. Harris

Table 2: Economic Effects of the Trump Campaign Policy Proposals Table 2: Economic Effects of the Harris Campaign Policy Proposals

Percent Change from Baseline unless otherwise indicated

	2034	2039	2044	2049	2054
Gross domestic product	-0.4	-0.5	-0.8	-1.4	-2.1
Capital stock	-0.4	-0.6	-1.1	-2.5	-4.0
Hours worked	-0.3	-0.4	-0.4	-0.6	-0.6
Average wage	0.0	-0.1	-0.4	-1.0	-1.7
Consumption	2.2	2.5	2.7	2.9	3.2
Debt held by the public	9.3	11.3	12.2	12.5	12.7

Percent Change from Baseline unless otherwise indicated

	2034	2039	2044	2049	2054
Gross domestic product	-1.3	-1.6	-2.1	-2.8	-3.9
Capital stock	-2.4	-3.2	-4.2	-5.7	-7.8
Hours worked	-0.7	-0.7	-0.6	-0.7	-0.7
Average wage	-0.8	-1.2	-1.7	-2.4	-3.3
Consumption	-0.7	-0.9	-1.3	-1.6	-2.1
Debt held by the public	4.4	5.7	6.6	7.3	7.7

Source: Penn-Wharton Budget Model & Deutsche Bank



Penn-Wharton model: Distributional effects of Harris policies

Table 3: Conventional Distributional Effects of the Harris Campaign Policy Proposals

Income group	2026		2034	
	Average income change, after taxes and transfers	Percent change in income, after taxes and transfers	Average income change, after taxes and transfers	Percent change in income, after taxes and transfers
First quintile	\$2,355	18.0%	\$2,310	24.4%
Second quintile	\$2,260	4.8%	\$2,280	3.9%
Middle quintile	\$2,165	2.7%	\$2,405	2.4%
Fourth quintile	\$2,870	2.1%	\$2,935	1.8%
80-90%	\$2,580	1.2%	\$2,115	0.8%
90-95%	\$1,850	0.6%	\$1,405	0.4%
95-99%	-\$880	-0.1%	-\$1,970	-0.2%
99-99.9%	-\$8,965	-0.5%	-\$11,225	-0.5%
Top 0.1%	-\$167,255	-0.9%	-\$208,080	-0.9%

Source: Penn-Wharton Budget Model & Deutsche Bank



Penn-Wharton model: Distributional effects of Trump policies

Table 3: Conventional Distributional Effects of the Trump Campaign Policy Proposals

Income group	2026		2034	
	Average income change, after taxes and transfers	Percent change in income, after taxes and transfers	Average income change, after taxes and transfers	Percent change in income, after taxes and transfers
First quintile	\$320	1.4%	\$465	6.4%
Second quintile	\$870	1.8%	\$1,020	1.7%
Middle quintile	\$1,740	2.1%	\$2,285	2.2%
Fourth quintile	\$3,970	2.8%	\$5,075	2.9%
80-90%	\$6,255	2.9%	\$7,030	2.6%
90-95%	\$9,020	2.7%	\$11,080	2.7%
95-99%	\$21,735	3.7%	\$24,510	3.4%
99-99.9%	\$47,220	2.6%	\$47,515	2.1%
Top 0.1%	\$376,910	2.7%	\$214,935	1.6%

Source: Penn-Wharton Budget Model & Deutsche Bank



CRFB model: Fiscal effects of the Harris agenda to lower costs for American families

Summary of the Fiscal Effects of the Harris Agenda to Lower Costs for American Families

Policy	Ten-Year Deficit Impact
Expand CTC to \$3,000 or \$3,600 for young children	\$1.1 trillion*
Further expand CTC to \$6,000 for newborns	\$100 billion
Extend the ACA premium tax credit expansion	\$400 billion
Expand the EITC for workers without child dependents	\$150 billion
Provide a \$25,000 first-time homebuyer credit for four years	\$100 billion^
Enact additional affordable housing policies for four years	\$100 billion'
Lower prescription drug costs	-\$250 billion ⁺
Total Impact of the Harris Agenda to Lower Costs for American Families	\$1.7 trillion
<i>Memo: Impact of Agenda if housing policies are made permanent</i>	<i>\$2.0 trillion</i>

*This estimate is relative to extension of the CTC and related reforms in the Tax Cuts & Jobs Act; relative to current law, the policy would cost \$1.8 trillion.

^Based on the Harris campaign's estimate of 4 million eligible homebuyers; we believe that number could be higher and lead to additional costs.

'Actual costs may differ based on not-yet-specified details.

⁺Assumes prescription drug policies from President Biden's FY 2025 budget.

Sources: CRFB estimates based in part on Joint Committee on Taxation, Congressional Budget Office, and Office of Management and Budget projections.

Source: Committee for a Responsible Federal Budget & Deutsche Bank

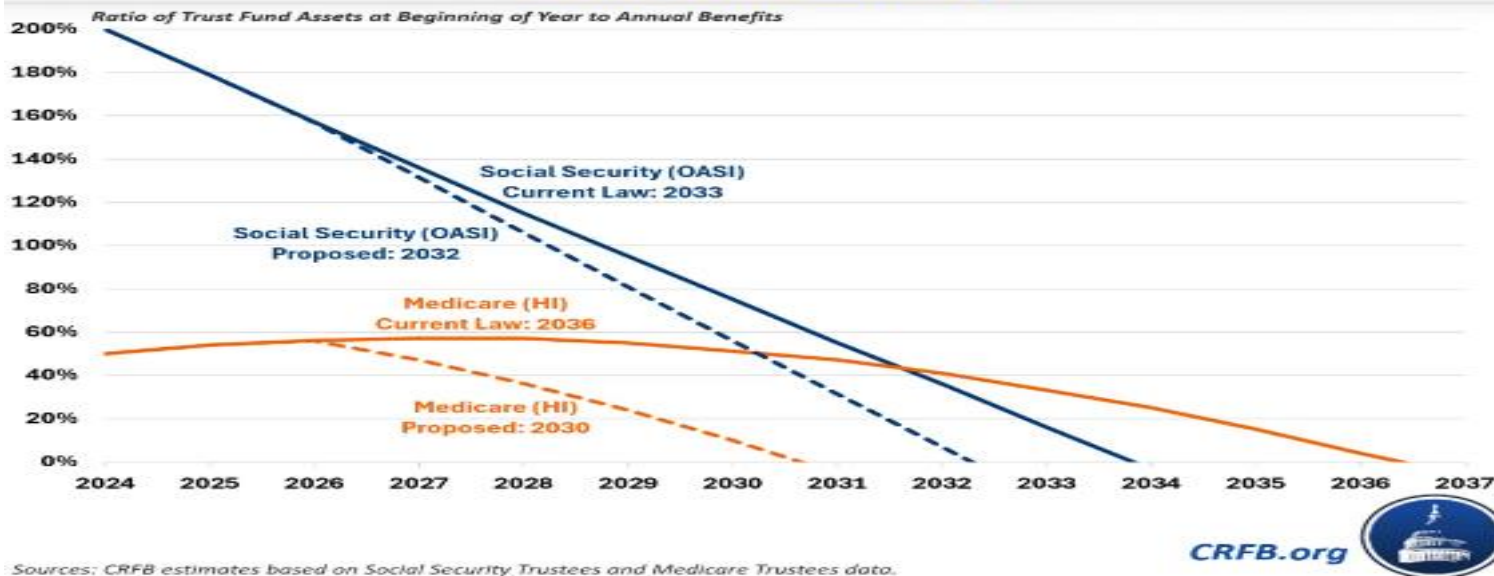


CFRB model: Fiscal effects of Trump ending taxation of social security benefits

	Ten-Year Revenue Impact (CBO)	Ten-Year Revenue Impact (Trustees)	Effect on 75-Year Actuarial Balance	New Insolvency Date
Social Security Revenue	-\$950 billion	-\$1.05 trillion	-0.9% of payroll	2032 (-1 year)
Medicare HI Revenue	-\$650 billion	-\$750 billion	-0.6% of payroll	2030 (-6 years)
Total	-\$1.6 trillion	-\$1.8 trillion	N/A*	N/A

Note: Ten-year budget window is from FY 2026 through FY 2035.
 *Percentages of payroll are relative to the Social Security and Medicare tax bases, and thus are not additive.
 Sources: CRFB estimates based on Congressional Budget Office, Social Security Trustees, and Medicare Trustees data.

Impact of Ending Taxation of Social Security Benefits on Trust Fund Solvency



Source: Committee for a Responsible Federal Budget & Deutsche Bank



Under the CBO baseline, deficits start to slow in FY 2026, but that assumes the TCJA expires

CBO's Baseline Projections of Outlays and Deficits, Adjusted to Exclude Effects of Timing Shifts

	Actual, 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
In billions of dollars												
Adjustments to exclude effects of timing shifts ^a	-11	75	0	0	0	-117	117	0	0	0	-161	-15
Outlays, adjusted for timing shifts												
Mandatory	3,747	4,191	4,127	4,285	4,484	4,648	4,969	5,195	5,455	5,742	6,034	6,336
Discretionary	1,719	1,797	1,832	1,898	1,944	1,986	2,032	2,074	2,116	2,161	2,208	2,259
Net interest	658	892	1,016	1,061	1,084	1,136	1,199	1,278	1,373	1,484	1,594	1,710
Total	6,123	6,880	6,975	7,244	7,512	7,770	8,199	8,547	8,944	9,387	9,837	10,305
Total deficit (-), adjusted for timing shifts^b	-1,683	-1,990	-1,938	-1,851	-1,756	-1,826	-2,065	-2,193	-2,283	-2,487	-2,661	-2,846
Primary deficit (-), adjusted for timing shifts ^{b,c}	-1,024	-1,098	-922	-790	-672	-690	-867	-915	-910	-1,004	-1,066	-1,136
As a percentage of GDP												
Outlays, adjusted for timing shifts												
Mandatory	13.9	14.7	13.9	13.9	14.0	14.0	14.5	14.6	14.7	14.9	15.1	15.3
Discretionary	6.4	6.3	6.2	6.2	6.1	6.0	5.9	5.8	5.7	5.6	5.5	5.5
Net interest	2.4	3.1	3.4	3.4	3.4	3.4	3.5	3.6	3.7	3.9	4.0	4.1
Total	22.7	24.2	23.5	23.5	23.5	23.5	23.9	24.0	24.2	24.4	24.7	24.9
Total deficit (-), adjusted for timing shifts^b	-6.2	-7.0	-6.5	-6.0	-5.5	-5.5	-6.0	-6.2	-6.2	-6.5	-6.7	-6.9
Primary deficit (-), adjusted for timing shifts ^{b,c}	-3.8	-3.9	-3.1	-2.6	-2.1	-2.1	-2.5	-2.6	-2.5	-2.6	-2.7	-2.7
Addendum:												
Baseline deficit (-), unadjusted												
In billions of dollars ^b	-1,694	-1,915	-1,938	-1,851	-1,756	-1,942	-1,949	-2,193	-2,283	-2,487	-2,822	-2,862
As a percentage of GDP ^b	-6.3	-6.7	-6.5	-6.0	-5.5	-5.9	-5.7	-6.2	-6.2	-6.5	-7.1	-6.9

Source: CBO & Deutsche Bank



Full extension of the TCJA would add over \$4trn to deficits over the next 10 years

Table 2.

Budgetary Effects of Selected Alternative Assumptions About Revenue Policies Related to the 2017 Tax Act

Billions of dollars

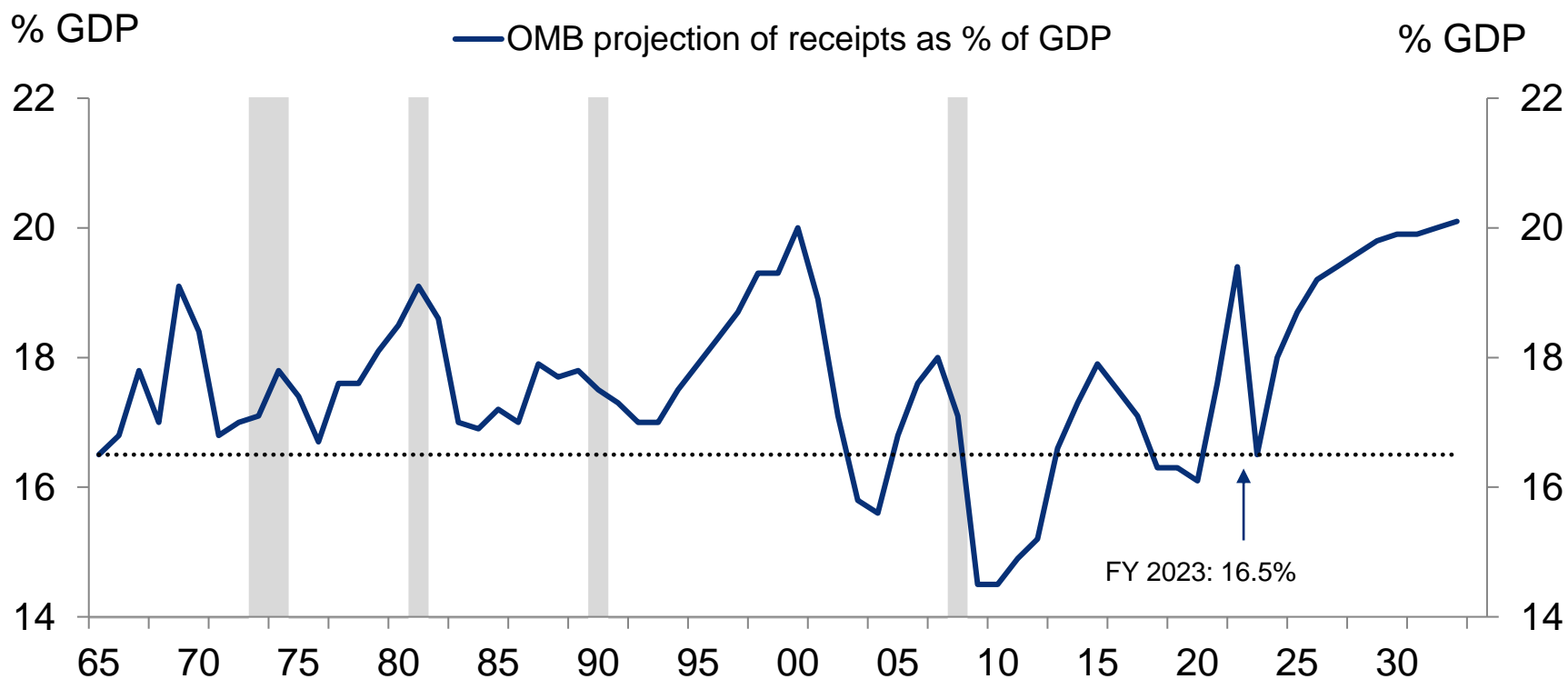
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
											2025–2029	2025–2034
The 2017 tax act's changes to individual income tax provisions are extended ^a												
Increase in the primary deficit [JCT's estimate]	6	147	368	355	364	374	387	403	419	434	1,239	3,256
Increase in net interest outlays	*	3	12	24	35	48	62	77	94	111	74	467
The 2017 tax act's higher estate and gift tax exemptions are extended ^b												
Increase in the primary deficit [JCT's estimate]	1	3	15	17	18	20	21	22	24	25	55	167
Increase in net interest outlays	*	*	*	1	2	2	3	4	5	6	3	22
The 2017 tax act's changes to the tax treatment of investment costs are extended ^c												
Increase in the primary deficit [JCT's estimate]	74	48	58	54	39	29	23	19	17	17	273	378
Increase in net interest outlays	2	4	6	8	9	10	12	13	14	15	28	91
Certain business tax provisions altered by the 2017 tax act are maintained ^d												
Increase in the primary deficit [JCT's estimate]	0	11	19	19	19	20	20	20	21	22	68	172
Increase in net interest outlays	0	*	1	1	2	3	3	4	5	6	4	25
Addendum:												
Primary deficit in CBO's baseline ^e	821	687	591	622	671	676	726	808	875	929	3,392	7,405
Net interest outlays in CBO's baseline	951	1,005	1,049	1,105	1,170	1,241	1,328	1,430	1,527	1,628	5,280	12,435

Source: CBO & Deutsche Bank



If Harris' tax proposals mirror Biden, receipts would rise to ~20% of GDP

OMB projection of President Biden's budget (March 2024)

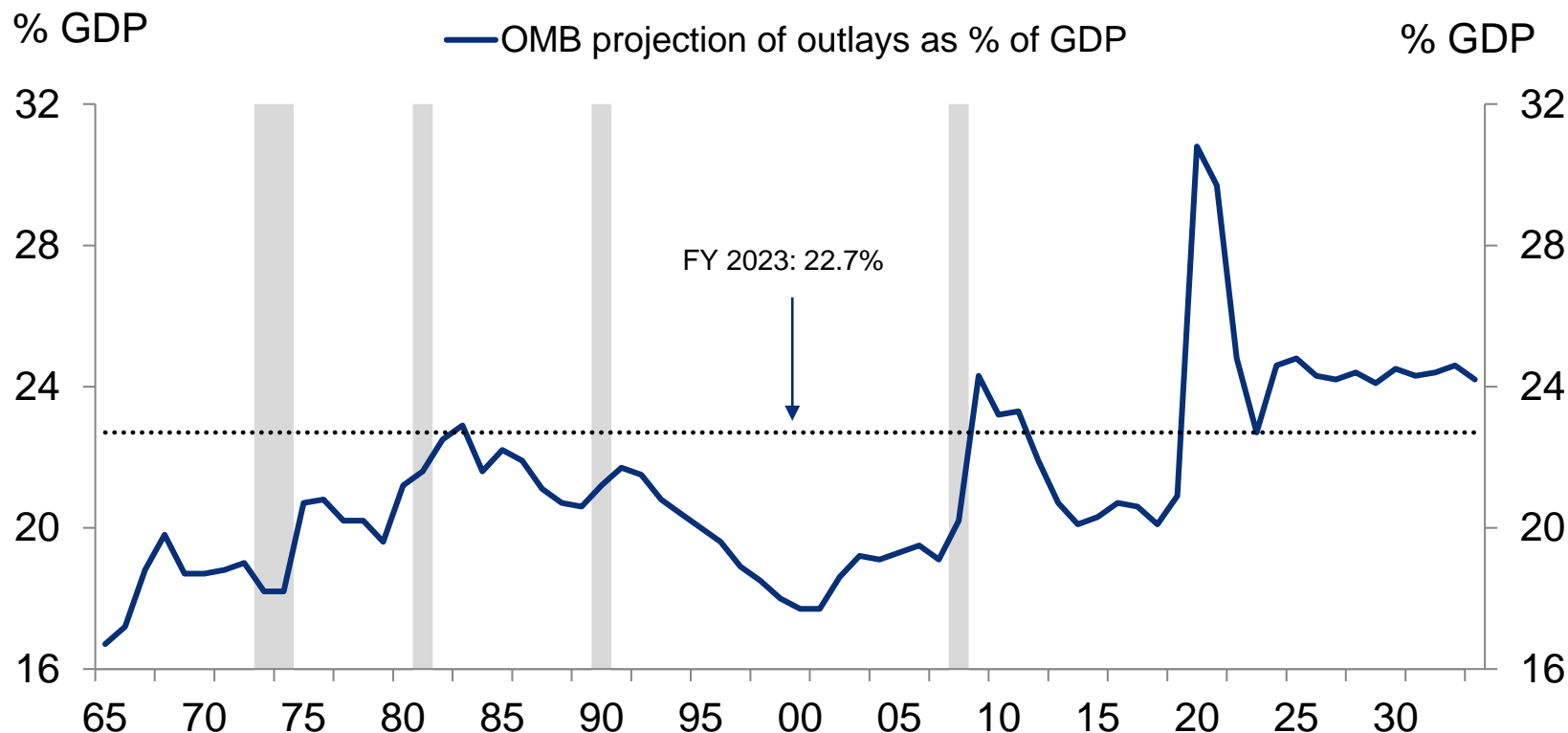


Source: OMB, Haver Analytics, Deutsche Bank



Biden's budget: Total federal government spending would rise to ~25% of GDP vs 24.2% in FY 2024 (est)

OMB projection of President Biden's budget (March 2024)



Source: OMB & Deutsche Bank



Trade policy



Both candidates have embraced tariffs as a policy tool but Trump's proposals are far larger than Harris'

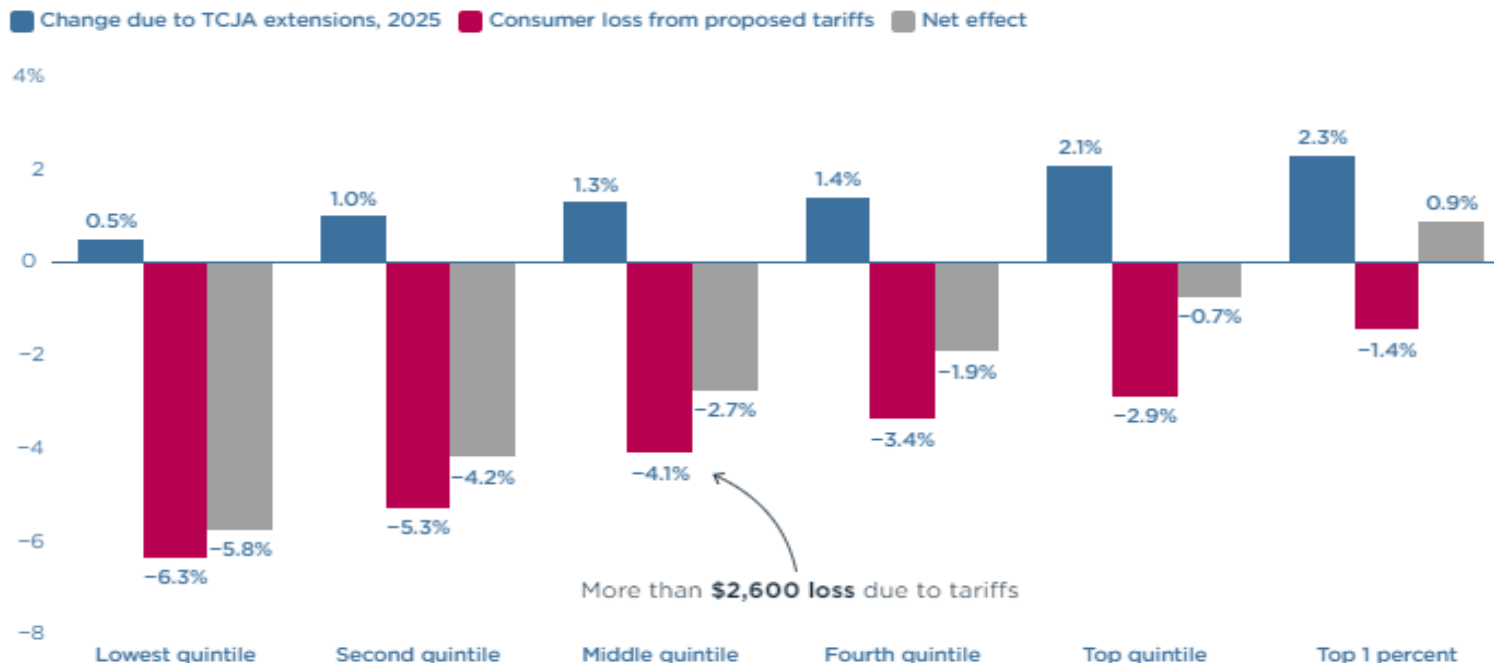
Trump	Harris
<ul style="list-style-type: none">- Potential 10-20% universal baseline tariff on imported goods- "Reciprocal tariffs" on all imports matching tariffs on US exports- Remove China's most favored nation trade status- Potential 60% tariffs on Chinese imports	<ul style="list-style-type: none">- Strengthen traditional rules-based international trade agreements- Supports WTO reform- Had opposed the re-negotiated USMCA as a Senator- Has supported unilateral actions against Chinese trade policies in the past- Would use "targeted and strategic" tariffs- 100% tariff on China EVs (Biden action)- Possible support for tariffs on Chinese EV batteries, semiconductors, steel

Source: Trump Campaign, Harris Campaign & Deutsche Bank



PIIE model: Trump's bigger tariff proposals would cost the typical American household over \$2,600 per year

Distribution of tax increases and reductions under Trump proposals, percent change in after-tax income



#PIIECharts

Learn more at piie.com/research/piie-charts

TCJA = Tax Cuts and Jobs Act



Notes: The tariff estimates examine a 20 percent tariff for most goods, except for a 60 percent tariff on imports from China. The net effect bars show the combined net effect of the loss from proposed tariffs and the gain from TCJA extensions. Tariff calculations are done using data from the Consumer Expenditure Survey on consumption patterns, following the method detailed in Clausing and Lovely (2024). TCJA extension estimates are from the Tax Policy Center; these do not include many business provision extensions that have been proposed. That inclusion would exacerbate the regressivity of TCJA extensions.

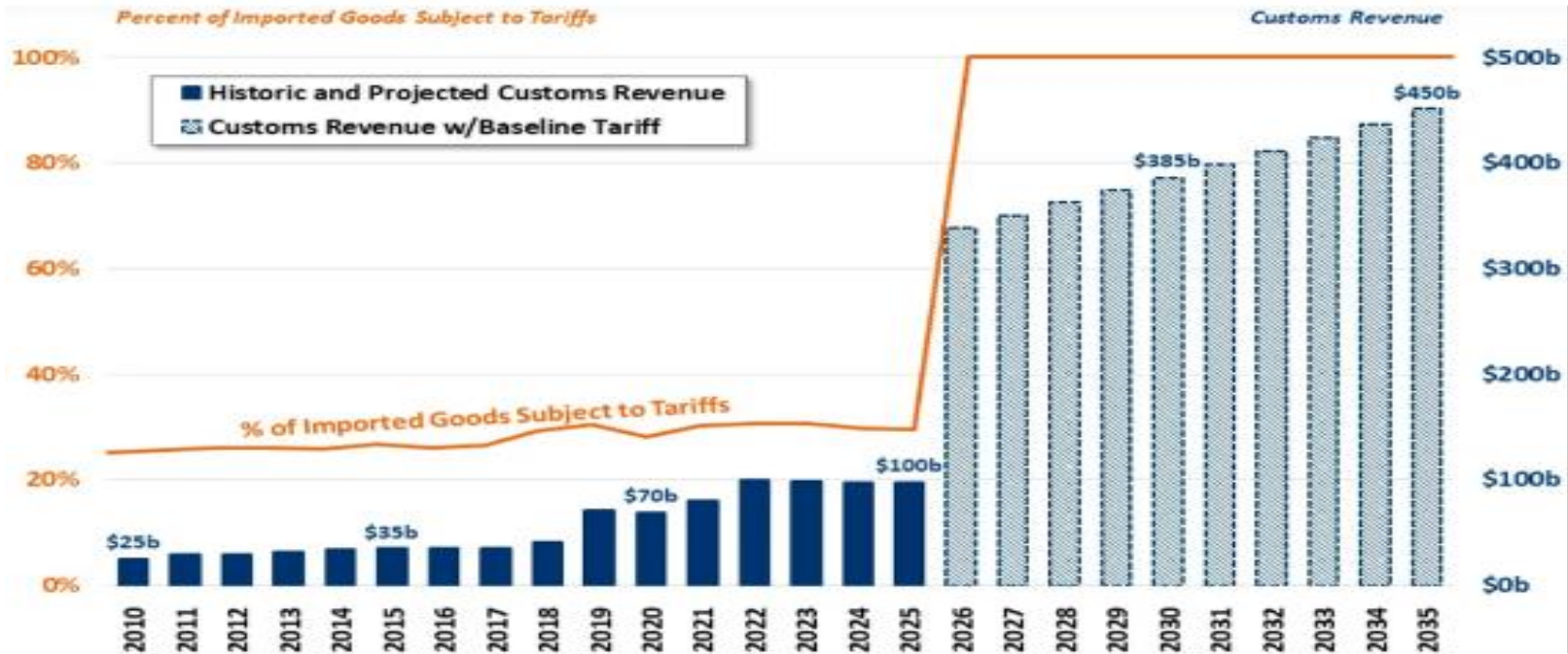
Source: Kimberly A. Clausing and Mary E. Lovely's Policy Brief, [Why Trump's tariff proposals would harm working Americans](#).

Source: Peterson Institute for International Economics & Deutsche Bank



The revenue contribution from tariffs could be substantial but even dynamic estimates are highly uncertain

Potential customs revenue impact of universal baseline tariff according to CRFB



Fiscal impact of President Trump's tariff proposal according to outside estimates

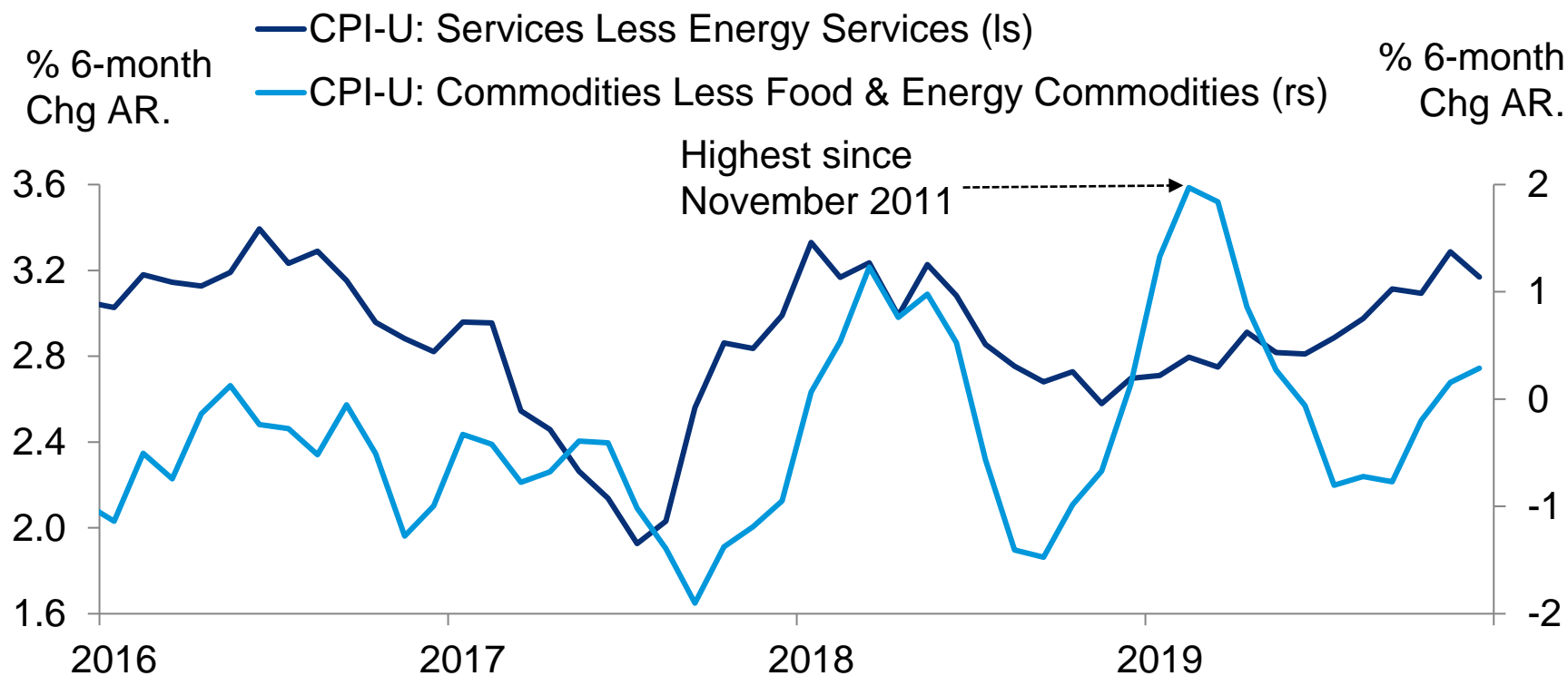
	Revenue Impact (FY 2026-2035)	Debt-to-GDP Impact (FY 2035)
Conventional Estimate	\$2.5 Trillion	-7 percent of GDP
Dynamic Estimate	\$2.0 Trillion	-4 percent of GDP

Source: CBO, Census, BEA, USITC, Tax Foundation, CRFB & Deutsche Bank



The last trade war: Sharp rise in core goods prices in the wake of the 2018 tariffs

Core goods prices accelerated sharply following the imposition of tariffs

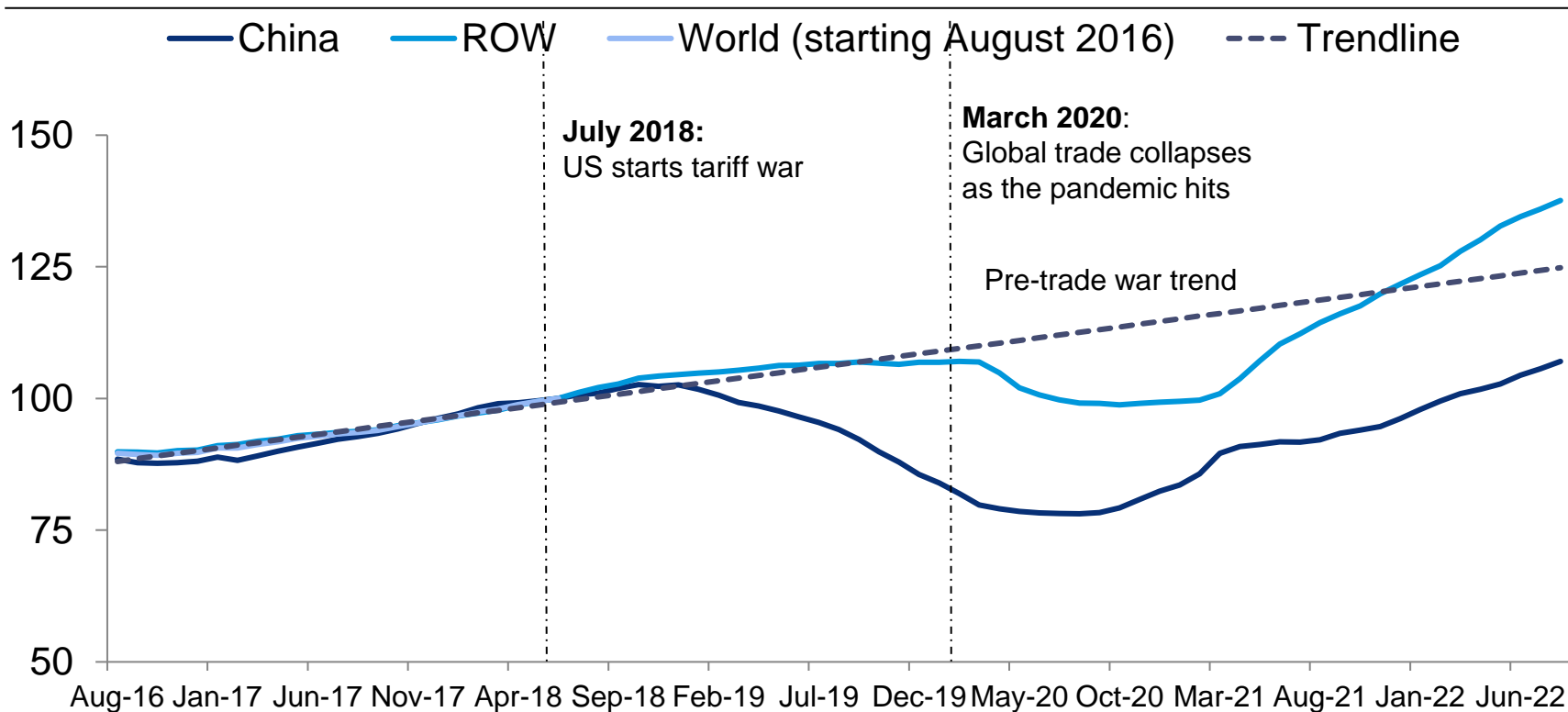


Source: BLS, Haver Analytics & Deutsche Bank



While imports from China remain below pre-trade war trend, imports from rest of the world are above

Value of US goods imports from China and rest of the world, 2016-2022 (June 2018=100)

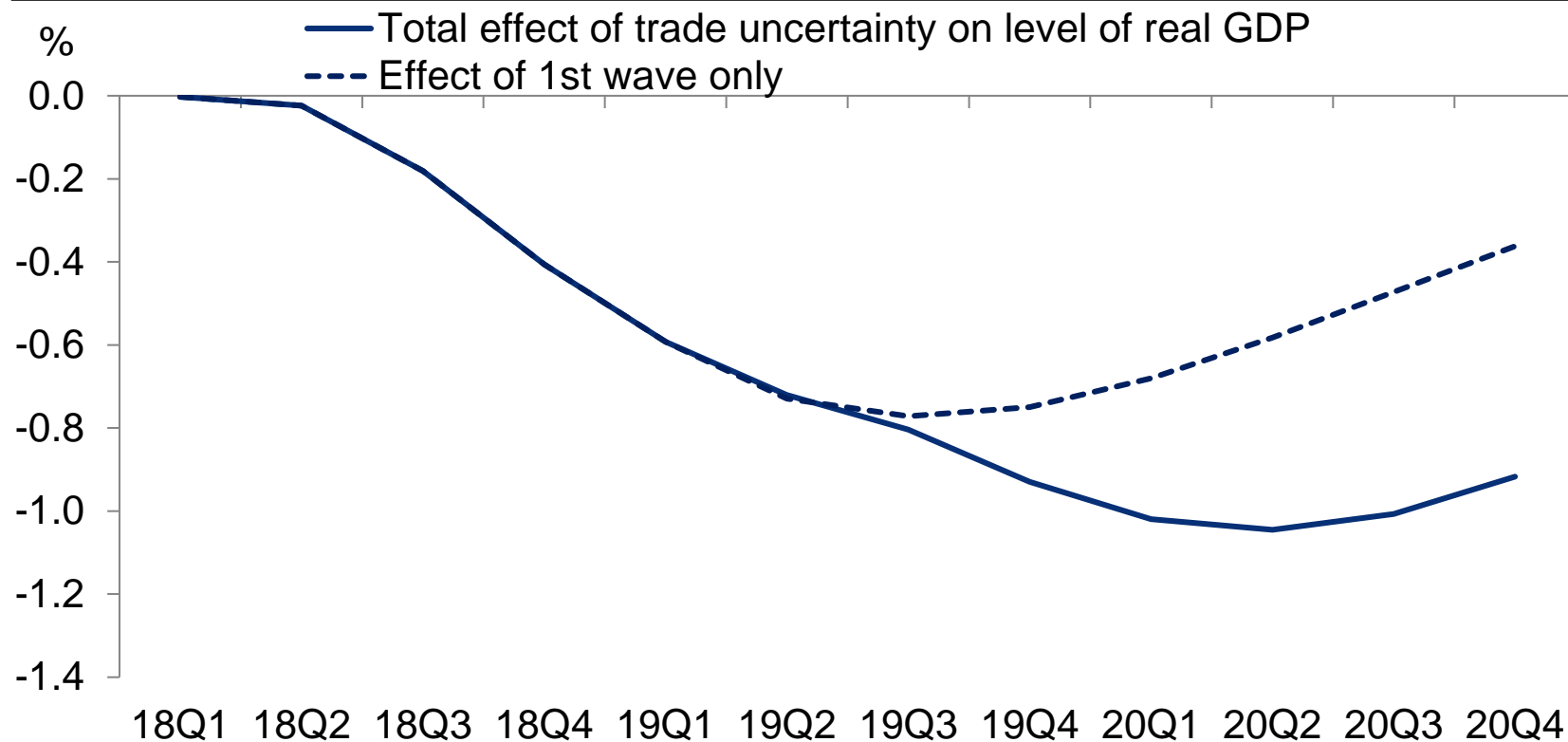


Source: PIIE, Deutsche Bank



Research from Fed staff shows that spikes in trade policy uncertainty tend to depress GDP

Effects of trade policy uncertainty shocks on U.S. level GDP



Source: Caldara et. al (2019), Deutsche Bank



Immigration policy impact



Large immigration crackdown could impact fiscal outlook as the recent surge was projected to lower deficits by ~900bn over 10yrs

Estimated Increases in Revenues and Outlays From the Immigration Surge, by Fiscal Year

Billions of dollars

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total	
												2024–2028	2024–2034
Increase in revenues	42	55	71	86	99	108	119	131	143	155	167	352	1,175
Increase or decrease (-) in outlays													
Mandatory spending	6	11	13	15	17	18	19	21	23	25	25	62	194
Net interest on federal debt	*	-2	-2	*	*	1	7	13	20	24	24	-5	84
Total	6	9	11	14	16	19	27	35	43	48	50	56	278
Total decrease (-) in the deficit	-36	-46	-60	-72	-83	-89	-92	-96	-99	-107	-117	-296	-897

Data source: Congressional Budget Office. See www.cbo.gov/publication/60039#data.

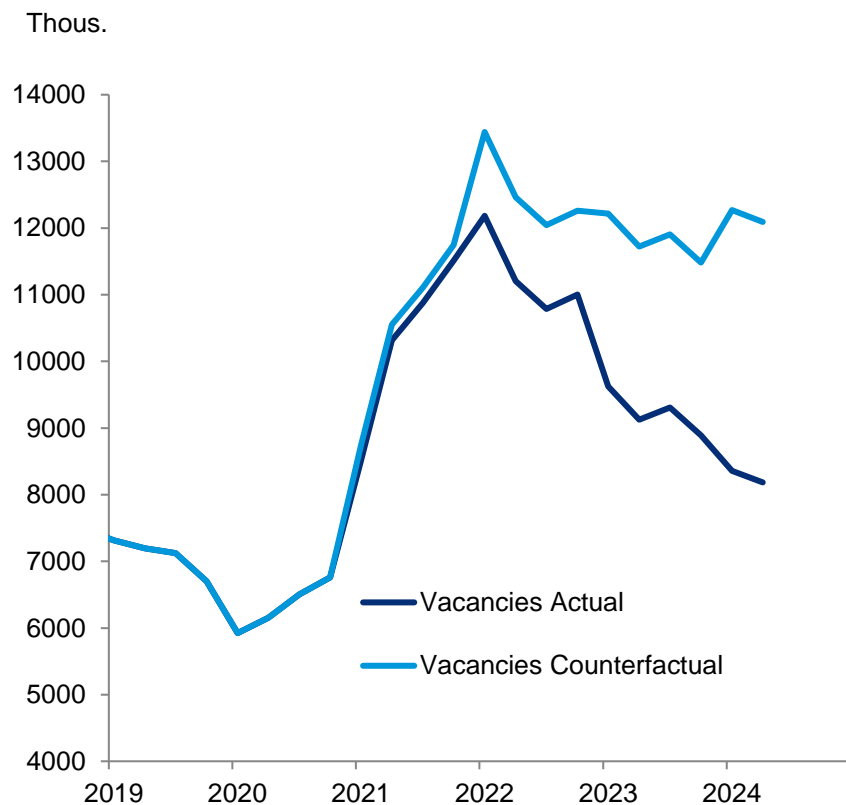
* = between -\$500 million and \$500 million.

Source: CBO & Deutsche Bank

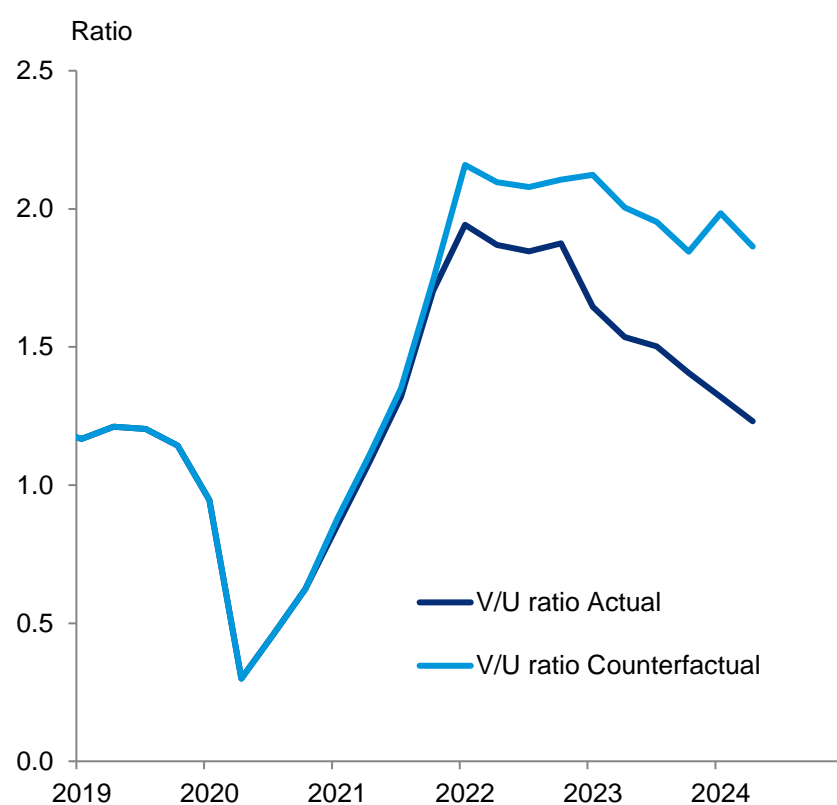


Immigration impact on inflation estimated through vacancy rate counterfactual

Vacancies counterfactual



V/U ratio counterfactual

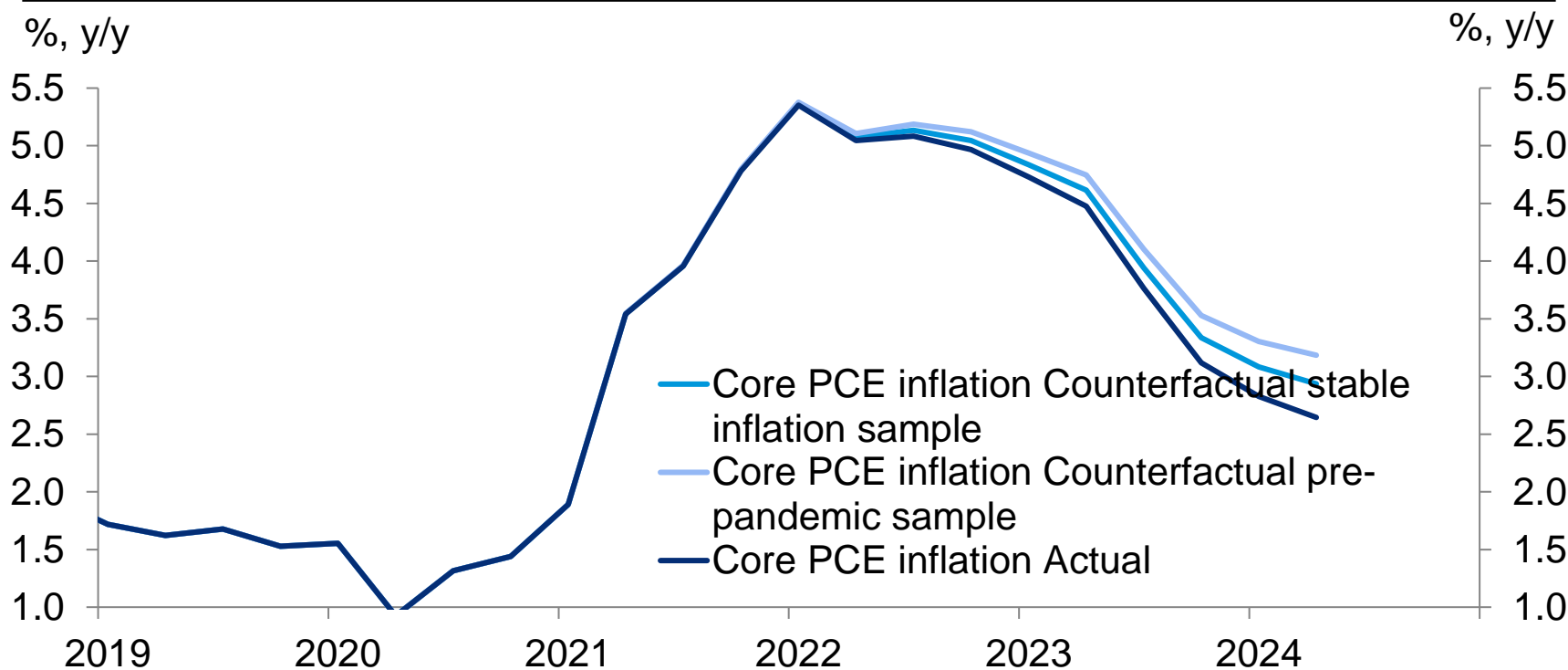


Source: BLS, Haver Analytics & Deutsche Bank



Our simulations suggest that immigration could have reduced inflation by 25-50bps by the first quarter of 2024

Inflation counterfactual



Note: To translate these counterfactual labor market outcomes into inflation effects, we leverage a variant of a Phillips curve model that was introduced in the 2023 USMPF paper. Relative to a traditional Phillips curve model, this approach introduced a (possibly non-linear) relationship between inflation and the V/U ratio and controlled for supply side developments via the ISM suppliers deliveries index.

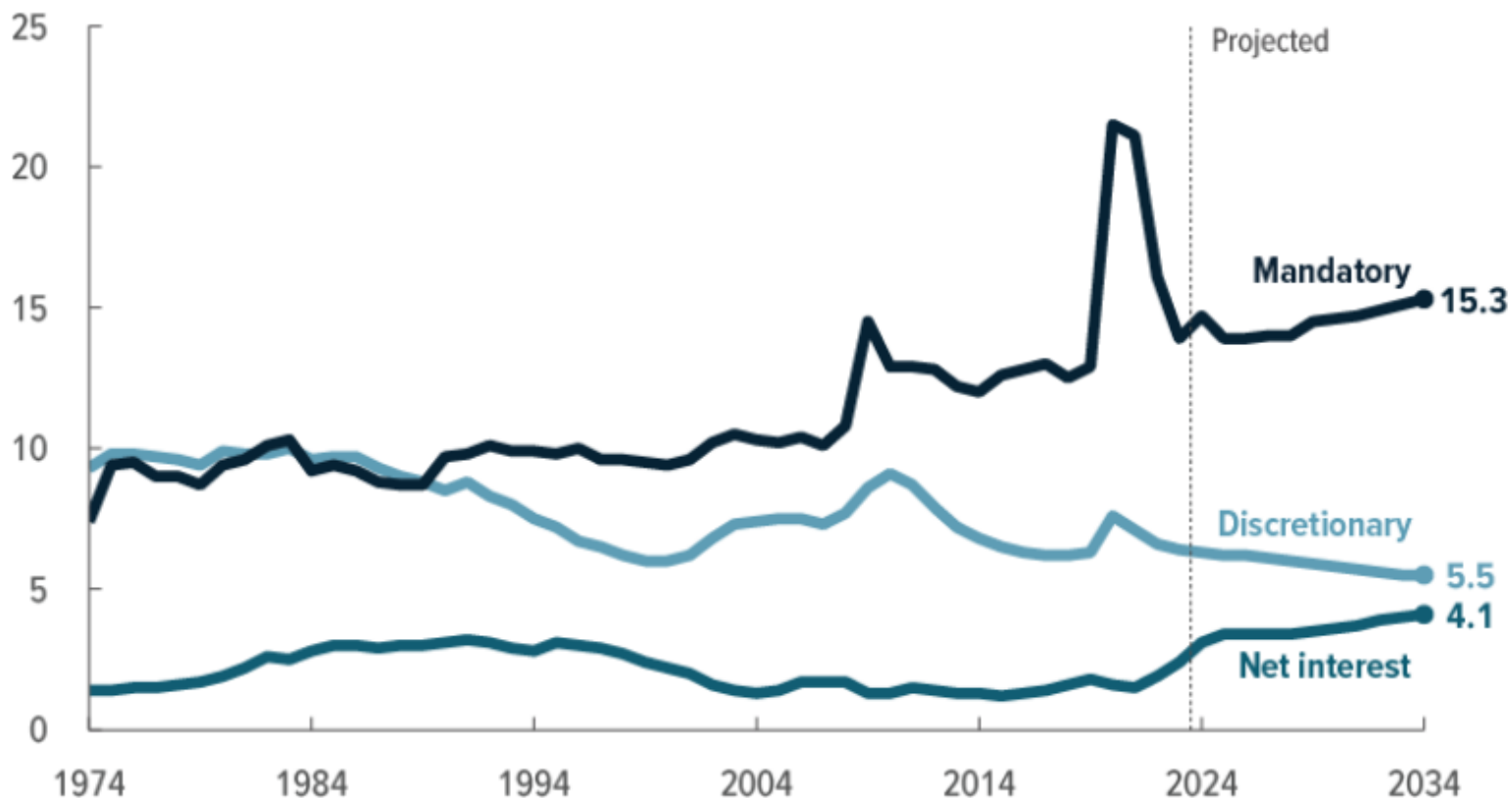
Source: BLS, Haver Analytics & Deutsche Bank



Fiscal sustainability



The reality is that net interest costs and mandatory spending will drive deficits due to retirement of baby boomers ...



Source: CBO, Haver Analytics, Deutsche Bank



...And revenues will need to rise if there is to be any serious effort to address the unsustainable fiscal trajectory

Total Outlays and Revenues

Measured as a percentage of GDP, federal outlays exceed their 50-year average in each year from 2024 to 2034 in CBO's projections. Revenues remain below their 50-year average in 2024 and 2025 but rise above it thereafter.

Percentage of GDP

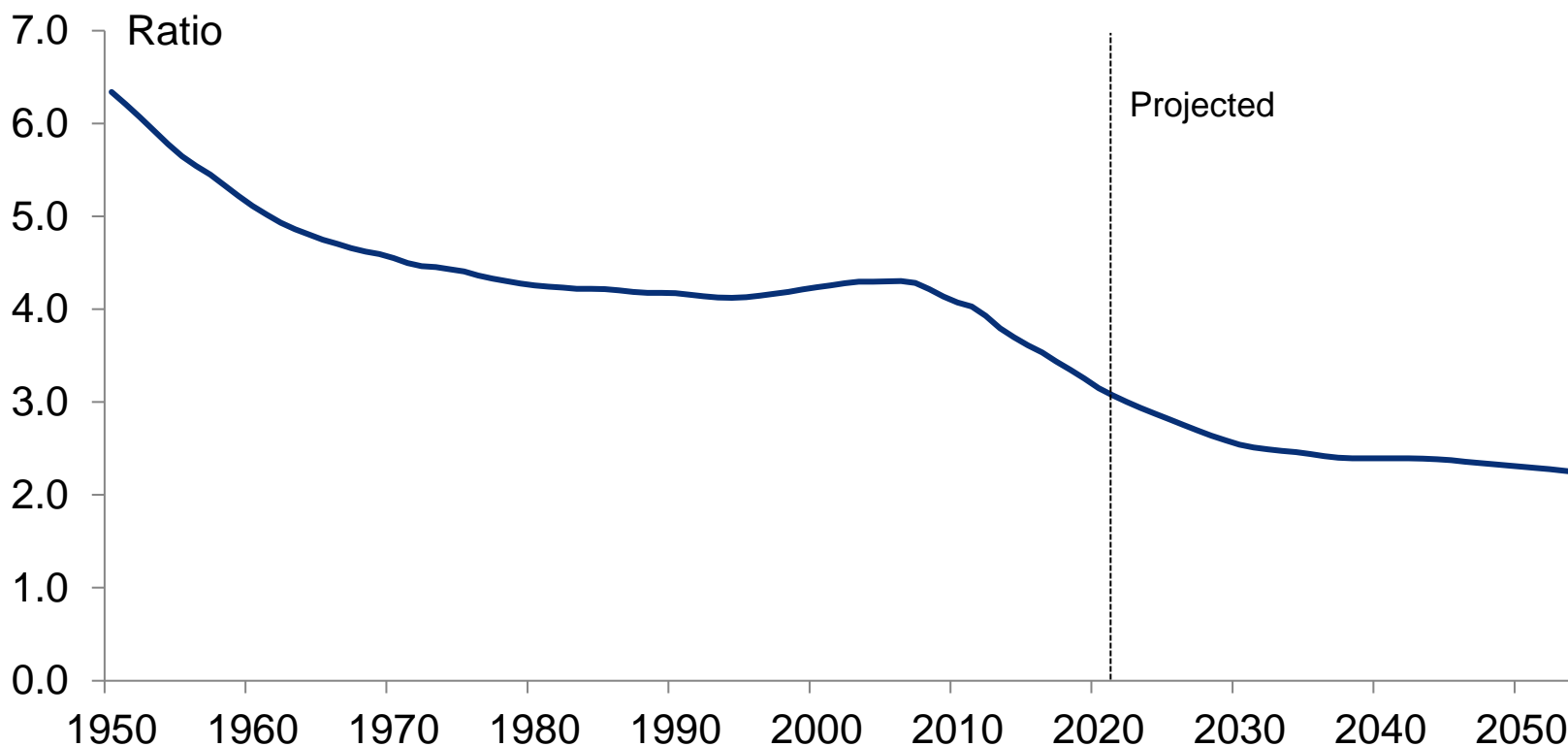


Source: CBO, Haver Analytics, Deutsche Bank



Ratio of people ages 25 to 64 to people ages 65 or older is ~3 and will fall close to 2 by mid-2050s

Population Ages 25 to 64 Relative to the Population Age 65 or Older



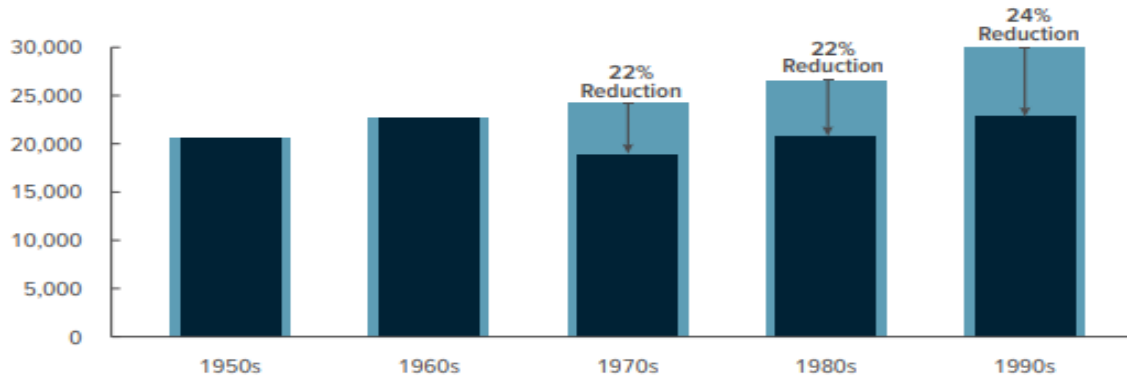
Source: CBO, Deutsche Bank



Payroll tax will have to rise within 10 years to shore up Social Security or benefits will be cut severely beginning in 2034

Reductions in Average Initial Benefits for Retired Workers in the Payable-Benefits Scenario, by Birth Cohort

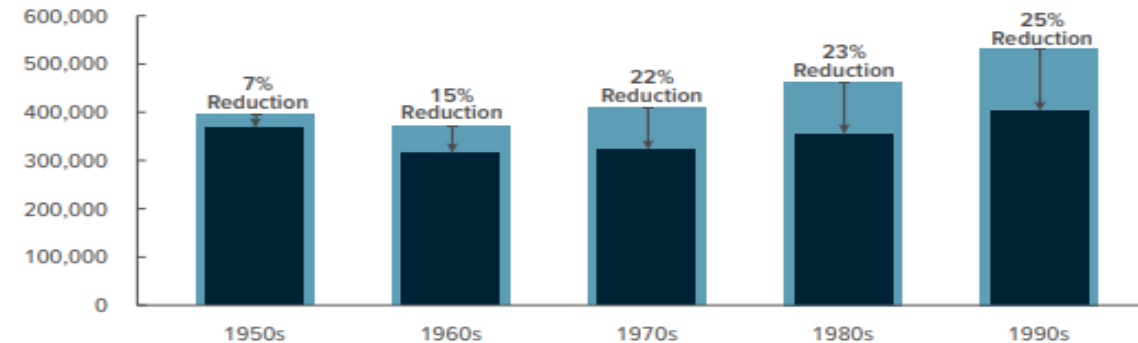
2024 dollars



The amount of benefits that can be paid from Social Security's revenues is projected to fall short of scheduled benefits beginning in 2035, when people born in 1970 turn 65. As a result, average initial retirement benefits would be lower for people born in the 1970s and later cohorts.

Reductions in Average Lifetime Social Security Benefits in the Payable-Benefits Scenario, by Birth Cohort

2024 dollars



Average lifetime Social Security benefits for all cohorts are smaller in the payable-benefits scenario because at least some members of every cohort experience benefit reductions in some years. The decline in lifetime benefits is smaller for earlier cohorts, who begin collecting benefits before the combined trust funds' balance is exhausted.

Source: CBO & Deutsche Bank

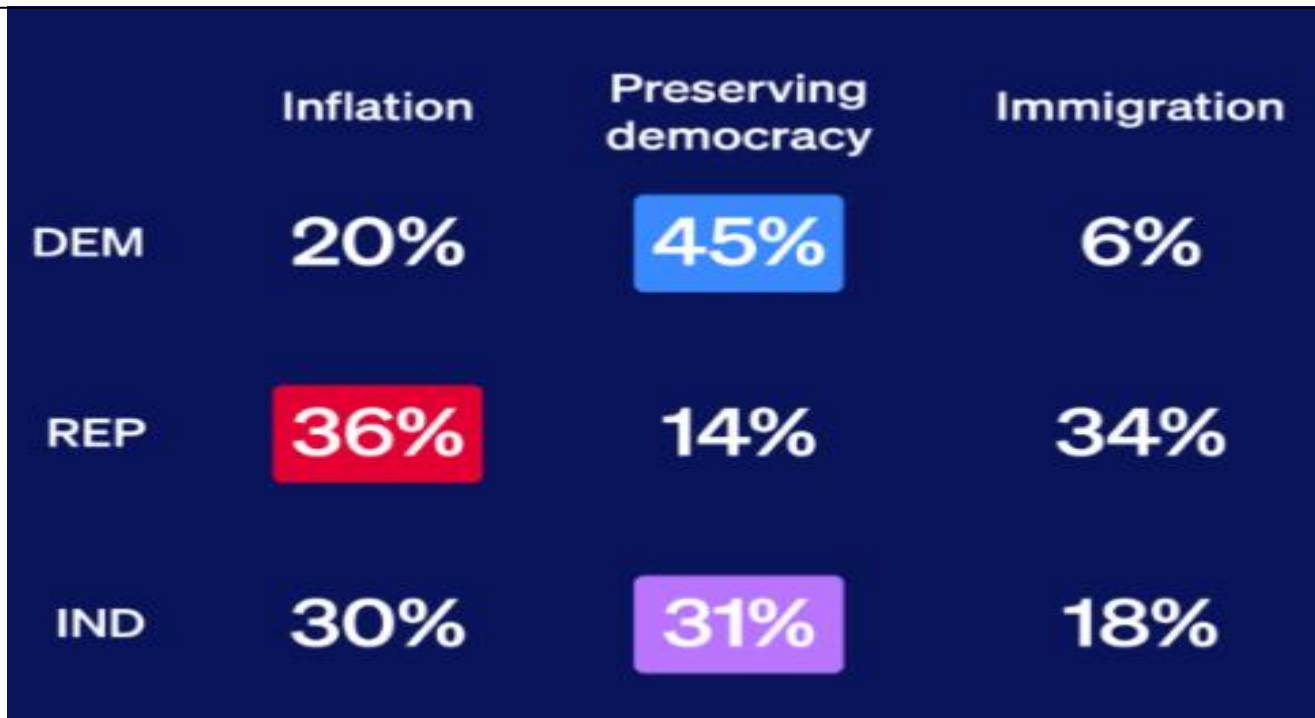


Views on the issues



Inflation, immigration and “preserving democracy” top issues motivating voters

What is your top issue when you think about voting in November. Share of respondents who said:

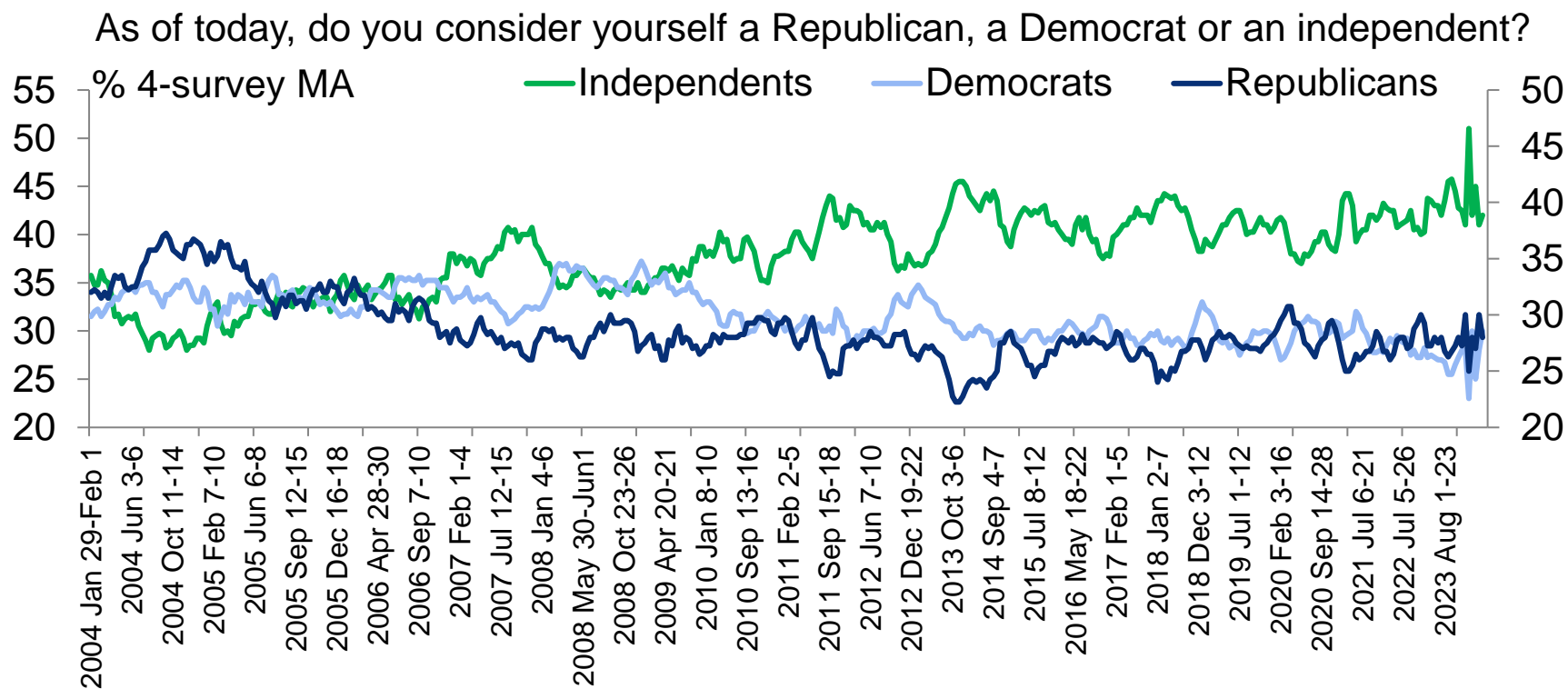


Interviews conducted June 10 through June 12, 2024. n =1184, Margin of error: +- 3.8 pct points.
Source: <https://www.pbs.org/newshour/politics/heres-how-americans-feel-about-biden-and-trump-as-election-season-revs-up>, Deutsche Bank



Voters have gradually moved away from party affiliation over the past two decades

How the electorate defines itself by party affiliation

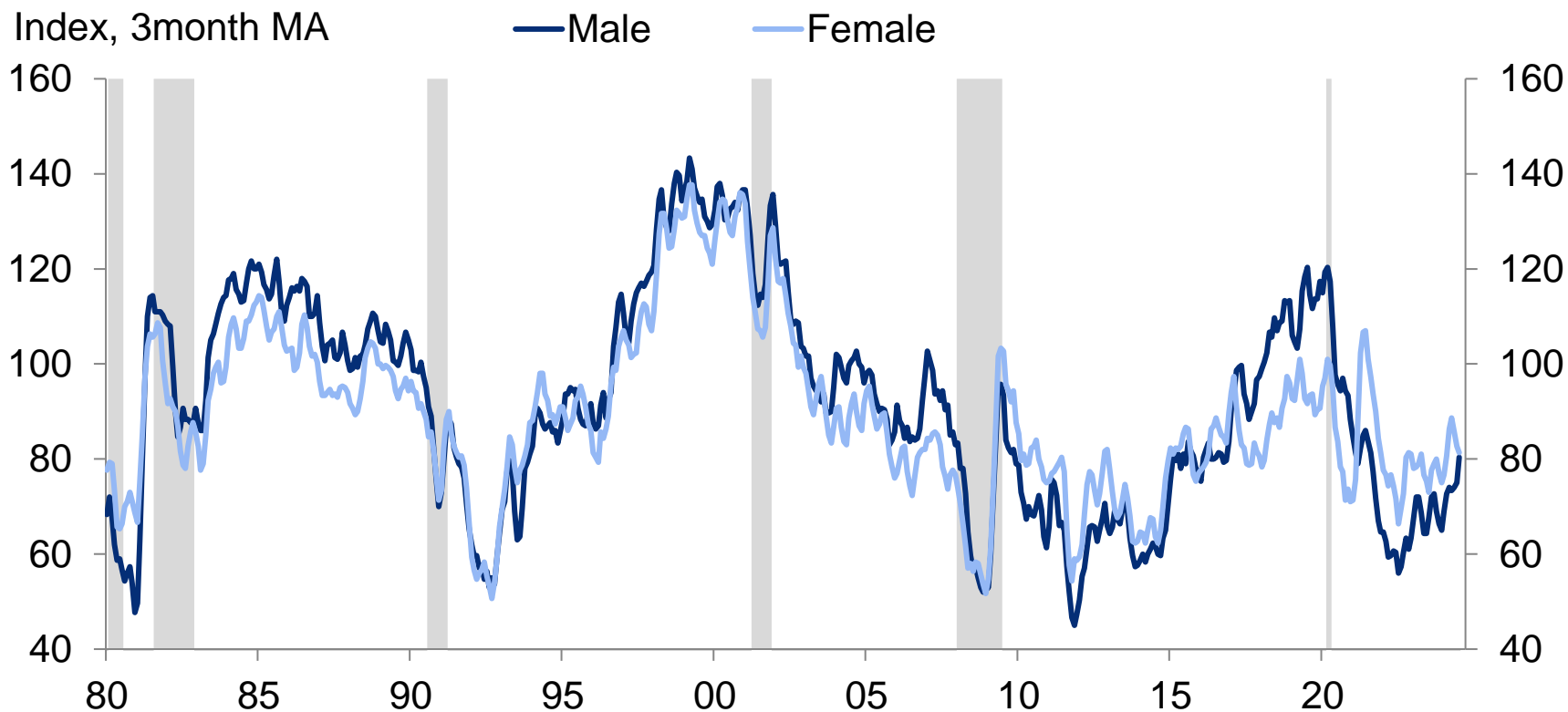


Source: Gallup, Deutsche Bank



Men were more supportive of Trump economic policy, women more supportive of Biden's economic policy

Consumer opinions about government economic policy by gender

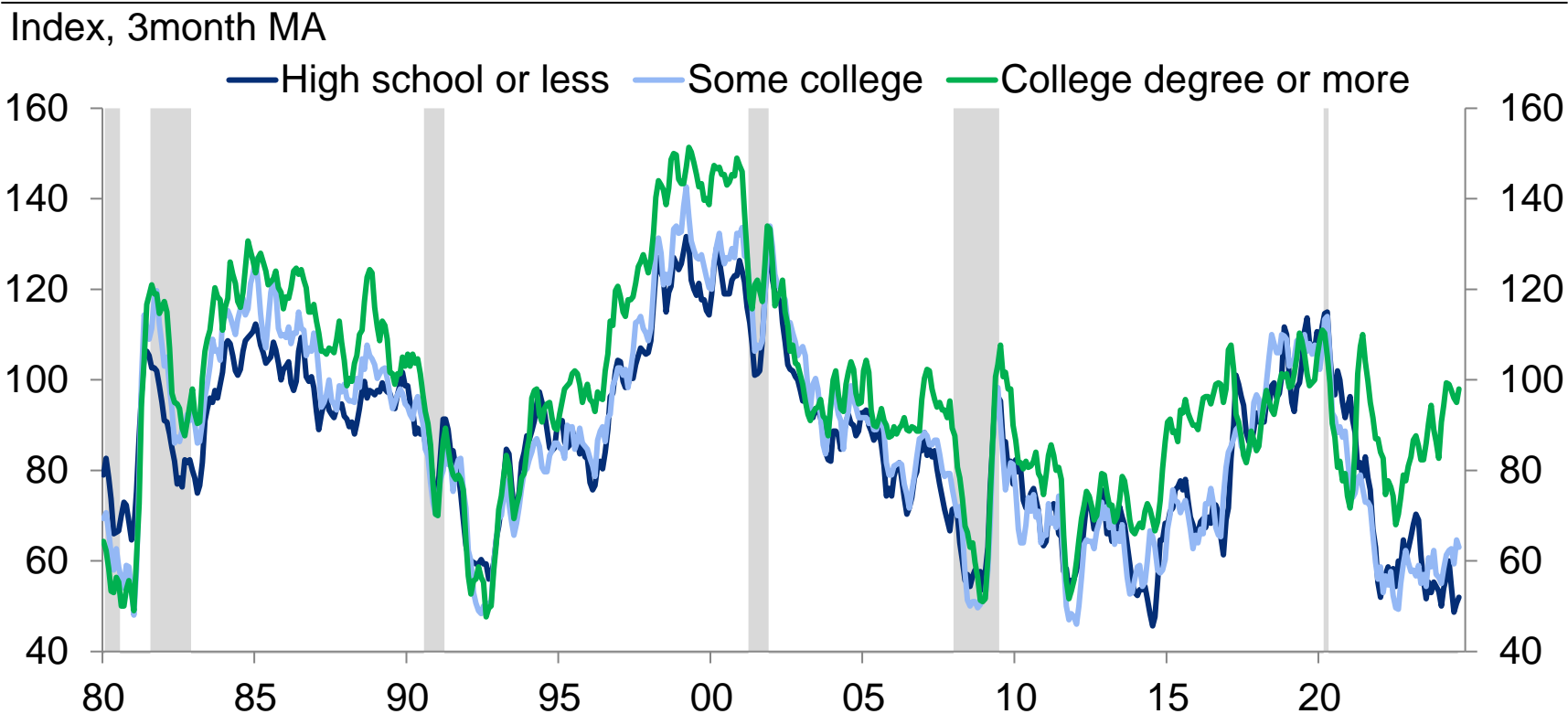


Source: University of Michigan, Haver Analytics, Deutsche Bank



Opinions on government economic policy have fallen most for those without a college degree

Consumer opinions about govt economic policy by education level

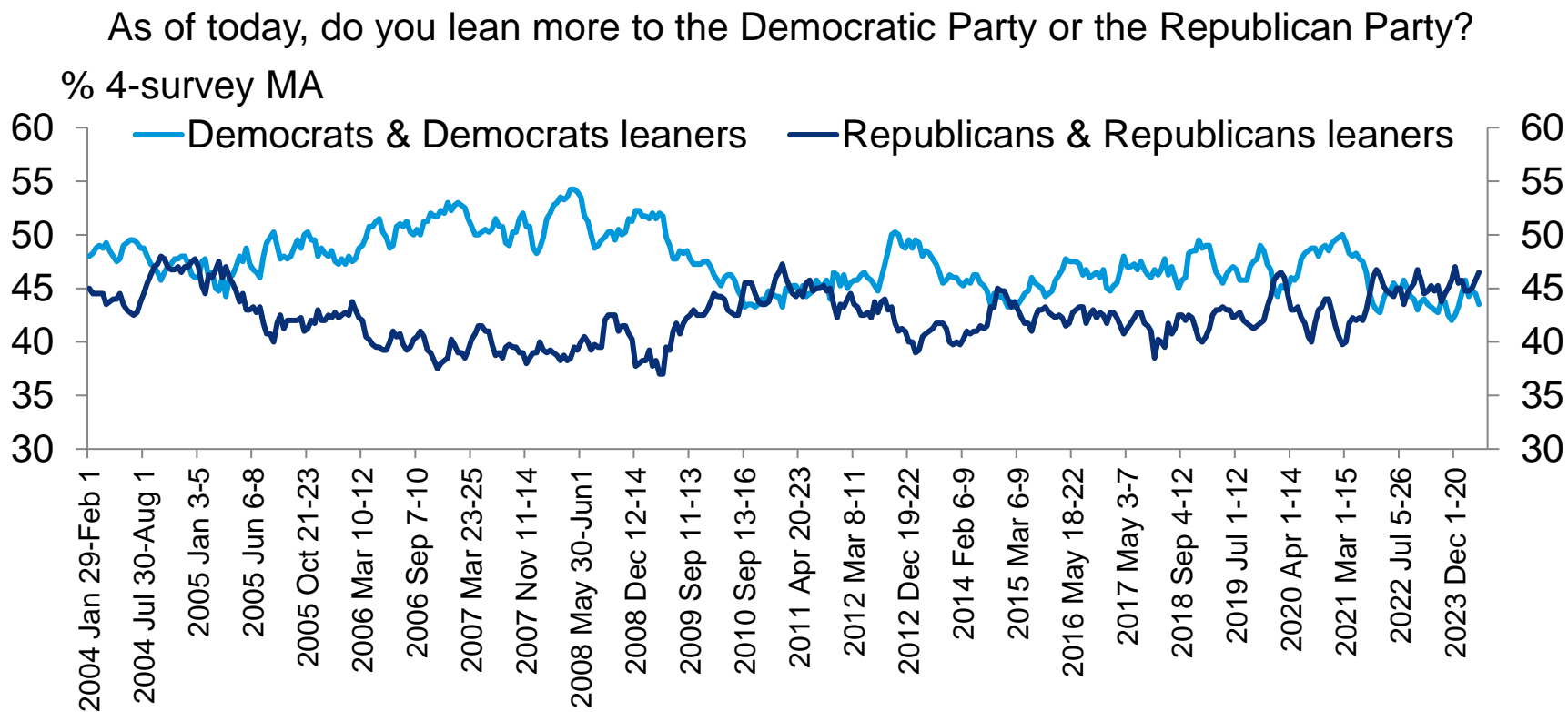


Source: University of Michigan, Haver Analytics, Deutsche Bank



US voters have leaned slightly more towards Republicans in recent years

Political party lean



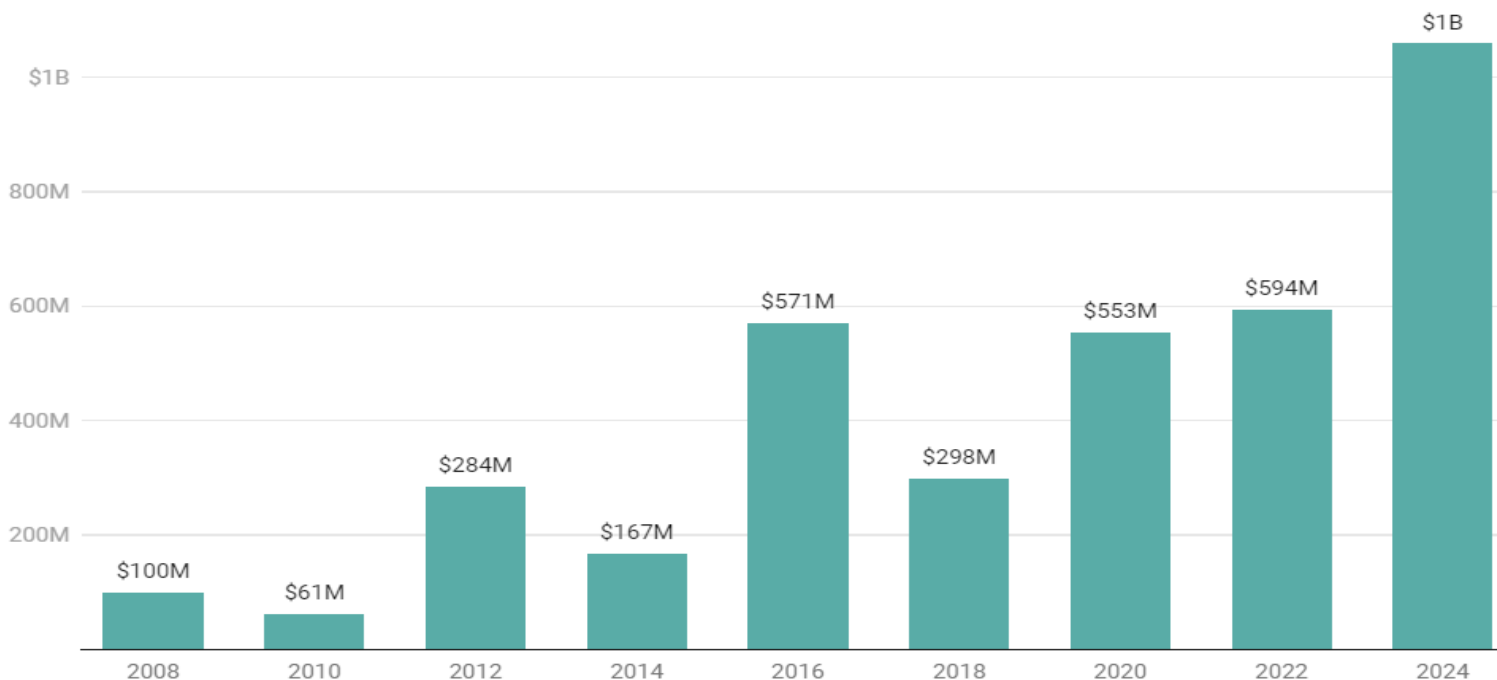
Source: Gallup, Deutsche Bank



Super PACs and other outside groups have poured ~\$1.1bn into 2024 elections – nearly double 2020

Outside spending is outpacing prior election cycles

Cycle-to-date totals include spending on independent expenditures, electioneering communications, and communication costs.



OpenSecrets analysis of federal campaign finance reports through Aug. 15, 2024, compared to spending through the same date in prior two-year election cycles.

Source: OpenSecrets.org, Deutsche Bank

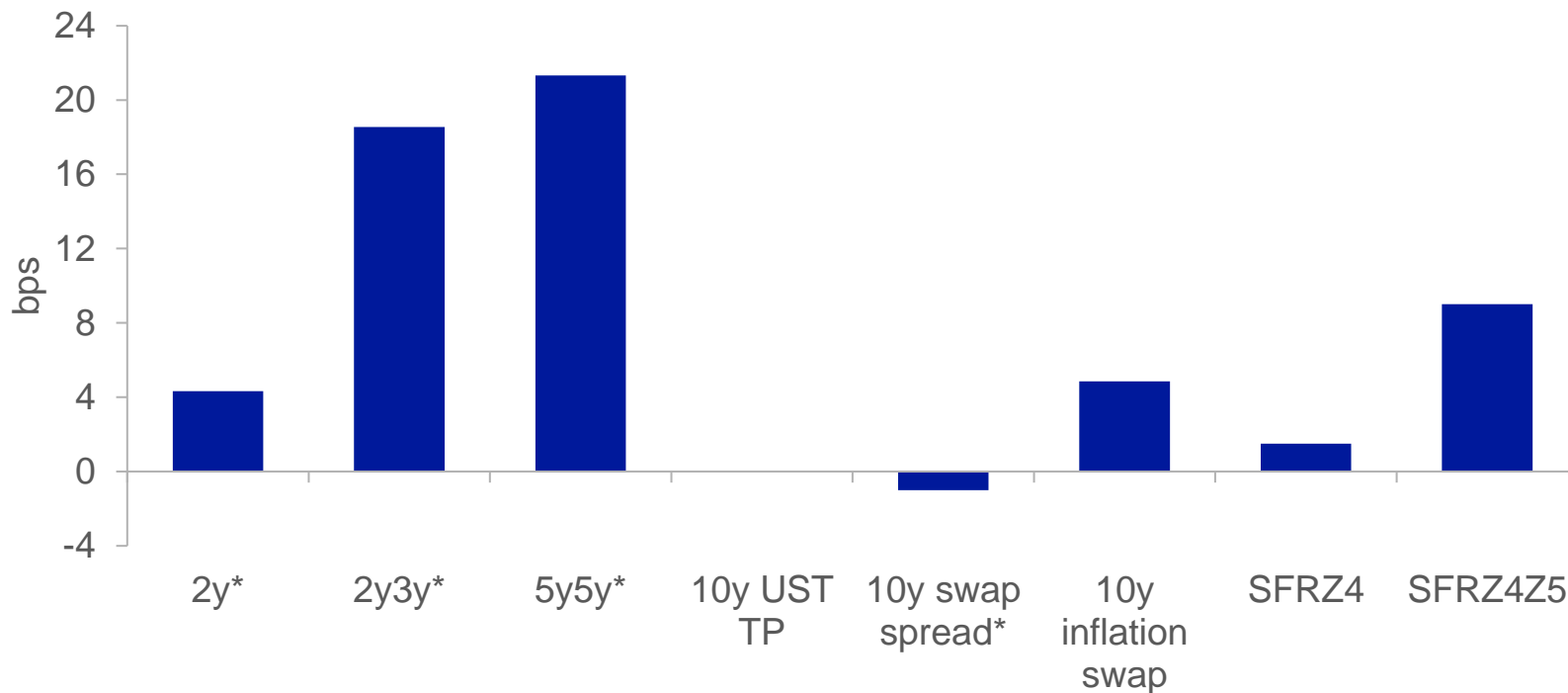


Markets



Financial markets priced higher inflation and less Fed rate cuts in the wake of Trump’s first debate with Biden

US rates moves June 27 – July 1 (post the Trump-Biden Presidential debate)



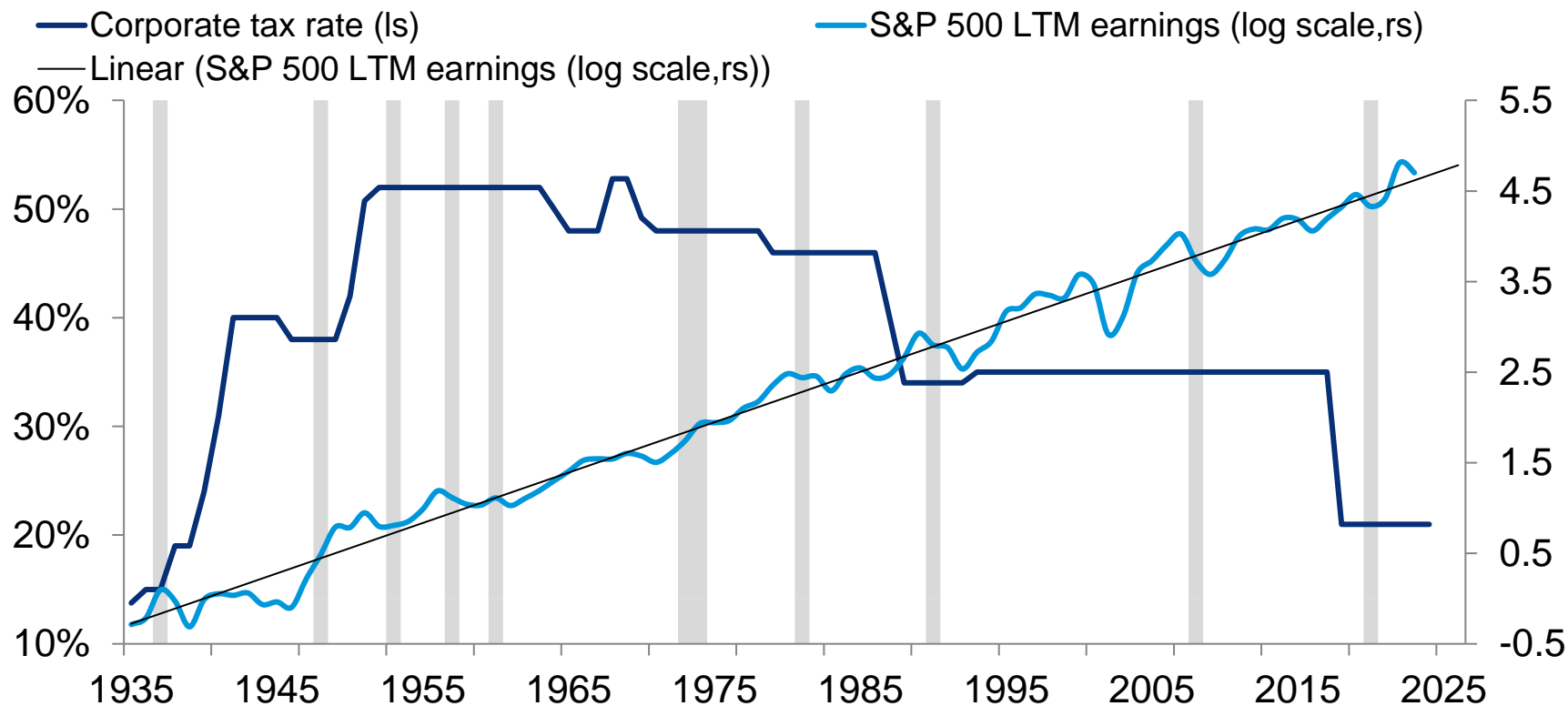
**Based on SOFR rates*

Source: Bloomberg Finance LP, Deutsche Bank Rates Strategy (Matthew Raskin & team)



Over time, little relationship between corporate tax rate and S&P 500

Corporate tax rate versus S&P500 earnings

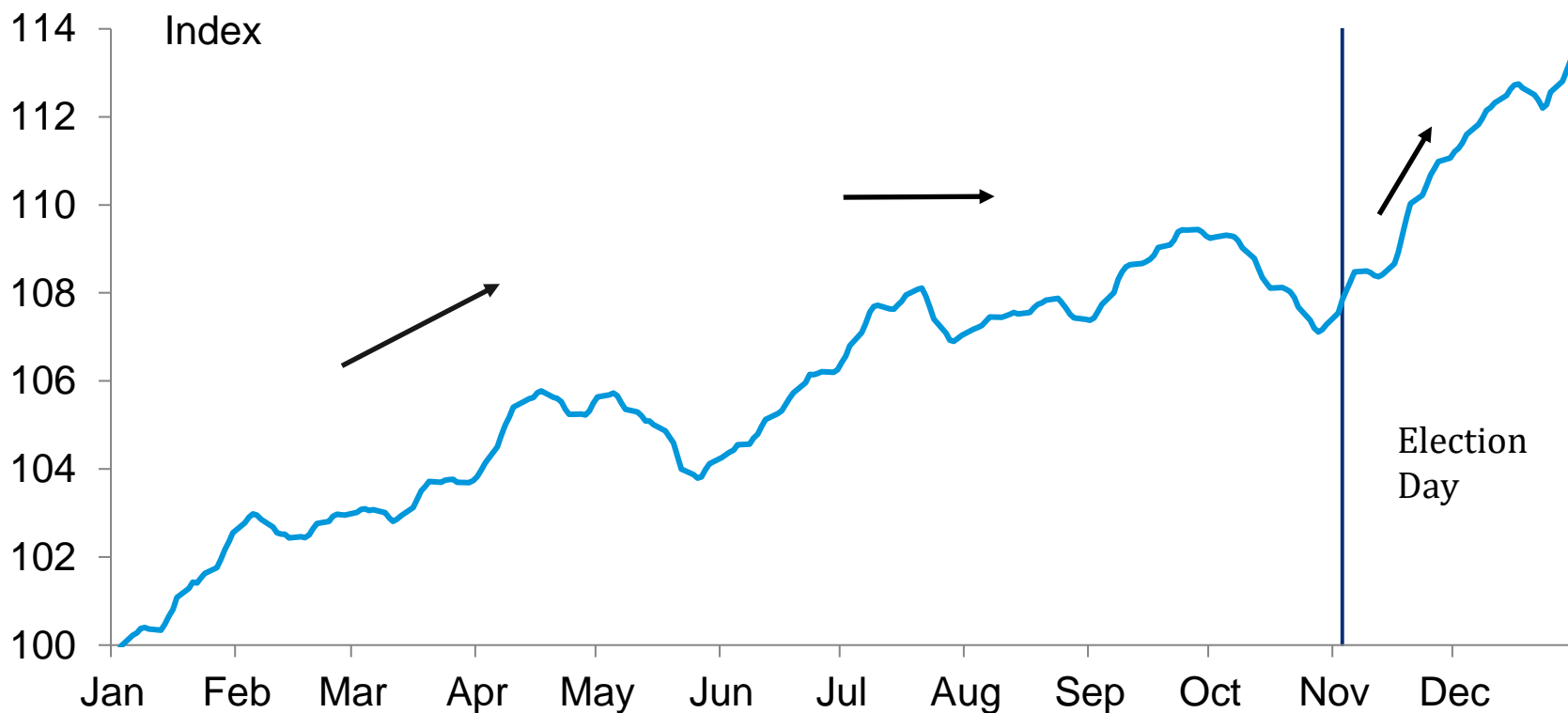


Source: IRS, Robert Shiller data, Bloomberg Finance LP, Deutsche Bank



Around close presidential elections, stock prices typically level out ahead of event and rally after

S&P 500 around close Presidential elections (mean, 5d ma)



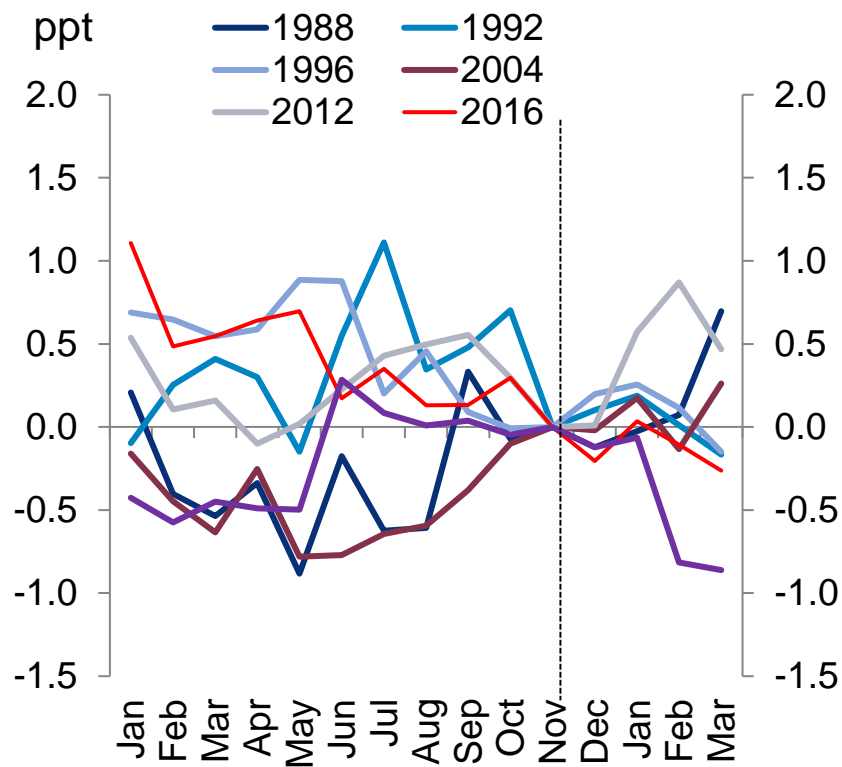
*elections in 1952, 1968, 1976, 2004, 2012 and 2016; excludes recession years 1960, 1980, 2000 and 2008

Source: S&P, DB Global Asset Allocation, Deutsche Bank

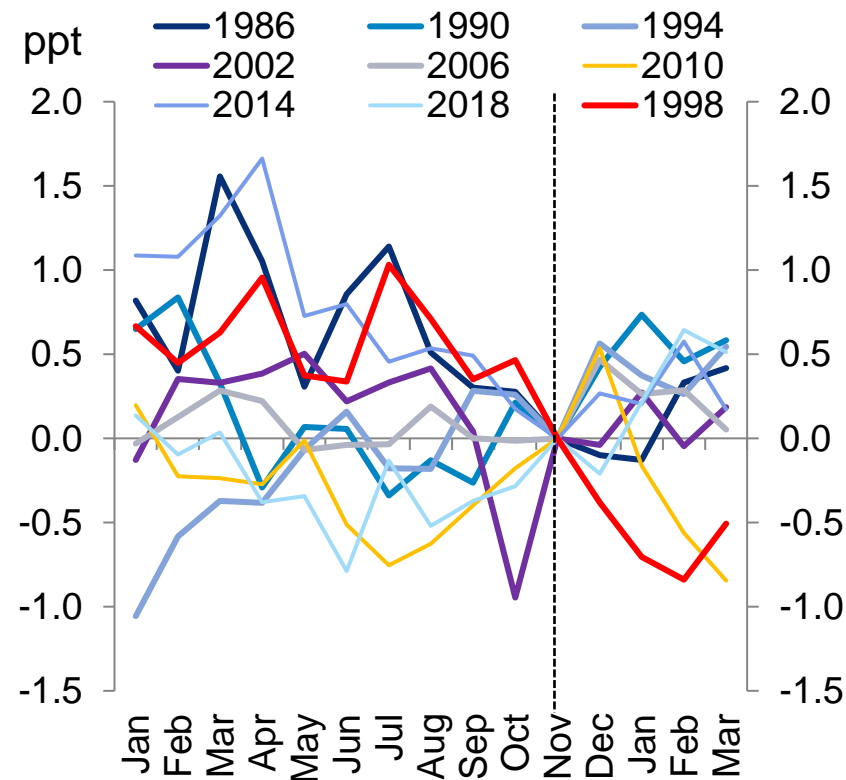


Shifts in deviations from Fed policy rules have been smaller around presidential elections than midterms

Deviations from policy rules into presidential elections



Deviations from policy rules into mid-term elections



*Omits 2008 and 2020 crisis periods, when the FFR was constrained by the ZLB.

Source: FRB, Deutsche Bank Rates Strategy (Matthew Raskin & Team)



Fed has held rates steady in recent decades during election years but consistent with economic conditions

Election	Jan EOP - Oct EOP change in ff rate (ppt)	Feb EOP - Oct EOP change in ff rate (ppt)	Mar EOP - Oct EOP change in ff rate (ppt)	Apr EOP - Oct EOP change in ff rate (ppt)	May EOP - Oct EOP change in ff rate (ppt)	Jun EOP - Oct EOP change in ff rate (ppt)	Jul EOP - Oct EOP change in ff rate (ppt)	Aug EOP - Oct EOP change in ff rate (ppt)	Sep EOP - Oct EOP change in ff rate (ppt)
8-Nov-60	-1.25	-1.25	-1.25	-1.25	-0.75	-0.75	-0.50	-0.25	-0.25
3-Nov-64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
5-Nov-68	1.25	1.25	0.75	-0.25	-0.13	0.50	0.00	0.25	0.50
7-Nov-72	1.75	1.63	0.88	0.57	0.13	0.38	0.38	-0.25	0.00
2-Nov-76	0.18	0.13	-0.05	-0.08	-0.65	-0.69	-0.30	-0.29	-0.29
4-Nov-80	0.37	-2.56	-6.08	-0.87	2.71	3.33	3.84	3.03	0.58
6-Nov-84	0.63	0.63	-0.50	-0.50	-0.50	-0.50	-1.25	-1.50	-1.00
8-Nov-88	1.50	1.63	1.38	1.38	0.88	0.69	0.44	0.00	0.00
3-Nov-92	-1.00	-1.00	-1.00	-0.75	-0.75	-0.75	-0.25	-0.25	0.00
5-Nov-96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-Nov-00	1.00	0.75	0.50	0.50	0.00	0.00	0.00	0.00	0.00
2-Nov-04	0.75	0.75	0.75	0.75	0.75	0.50	0.50	0.25	0.00
4-Nov-08	-2.00	-2.00	-1.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
6-Nov-12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8-Nov-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-Nov-20	-1.50	-1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: FRB & Deutsche Bank



What happens if there is
tie?



If neither candidate receives 270 electoral votes, the President would be picked by the House of Representatives

If no candidate receives a majority of electoral votes, the Presidential election leaves the Electoral College process and moves to Congress.

The House of Representatives elects the President from the three (3) Presidential candidates who received the most electoral votes. Each State delegation has one vote and it is up to the individual States to determine how to vote. (Since the District of Columbia is not a State, it has no State delegation in the House and cannot vote). A candidate must receive at least 26 votes (a majority of the States) to be elected.

The Senate elects the Vice President from the two (2) Vice Presidential candidates with the most electoral votes. Each Senator casts one vote for Vice President. (Since the District of Columbia is not a State, it has no Senators so does not participate in the vote). A candidate must receive at least 51 votes (a majority of Senators) to be elected.

If the House of Representatives fails to elect a President by Inauguration Day, the Vice-President Elect serves as acting President until the deadlock is resolved in the House.

Source: National Archives FAQs



What would happen if there was a tie or a dispute over the election results in a key swing state?

A tie is a statistically remote possibility, even in smaller States, and would not be known until late November or early December, after a recount and after the Secretary of State for the State had certified the election results. But if a state's popular vote were to end in a tie between candidates, State law in place before the general election would determine what procedure would be followed in breaking the tie (See 3 U.S.C. §5).

Following the November 2017 election, one candidate for a Virginia House of Delegates seat was ahead by two (2) votes. Since the results were so close, there was a recount which found that one (1) vote had been miscounted. After the recount, the candidates had the same number of votes. Following State law, they drew lots for a winner. The candidates put their names on individual pieces of paper and put the pieces in a bowl. A neutral third party pulled a name out of the bowl and that candidate was declared the winner.

A very close finish could also result in a run-off election or legal action to decide the winner. Just like a tie, State law determines how the winner is decided, and would be conclusive in determining the selection of electors. The 2022 Electoral Count Reform Act provided for expedited court action if one of more of the candidates disputes the election results so that the electors can be appointed no later than six (6) days before the meeting of the electors.

Source: National Archives FAQs



Brett Ryan
212-250-6294
brett.ryan@db.com

Brett Ryan has been a Senior Economist at Deutsche Bank for the last 12 years, covering the US and Canada. Brett is responsible for DB's macro-economic forecasts and regularly publishes research on US macro-economic policy issues for institutional clients and corporate management teams. Brett is frequently cited in the financial press and appears on financial news networks. Prior to his economist role, Brett spent five years in institutional equities at Deutsche Bank. Brett has a Bachelor of Arts degree from the University of Pennsylvania; majoring in politics, philosophy and economics.





Matthew Luzzetti
212-250-6161
matthew.luzzetti@db.com

Matthew Luzzetti is Chief US Economist and Head of US Economic Research at Deutsche Bank in New York. He was previously an economist in DB's Office of the Chief Economist in London. Matthew's research focuses primarily on the US economy and Fed policy, and he regularly contributes to DB's global economics publications. In 2017, Matthew was named to Business Insider's Rising Stars on Wall Street Under 35. His research has appeared in several books on economic policy and in top macroeconomics journals.

Matthew holds a Ph.D. in Economics from the University of California, Los Angeles. While at UCLA, he worked at the U.S. Department of the Treasury in the Office of Financial Research. Prior to graduate school, he spent two years as a research analyst in the macroeconomics department at the Federal Reserve Bank of Philadelphia.



Justin Weidner
212 469-1679
justin-s.weidner@db.com

Justin Weidner is an Economist in Deutsche Bank's US Economics team in New York. Justin's research focuses primarily on the US economy and Fed policy, where he regularly contributes to DB's global economics publications.

His research has also appeared in a major economic policy volume and several other economics journals. Justin obtained a Ph.D. in Economics from Princeton University. Prior to graduate school, he spent three years as a research associate in the macroeconomics department at the Federal Reserve Bank of San Francisco.



Appendix 1

Important Disclosures

*Other Information Available upon Request

Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <https://research.db.com/Research/Disclosures/CompanySearch>. Aside from within this report, important conflict disclosures can also be found at <https://research.db.com/Research/> on each company's research page. Investors are strongly encouraged to review this information before investing.

Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst about the subject issuers and the securities of those issuers. In addition, the undersigned lead analyst has not and will not receive any compensation for providing a specific recommendation or view in this report. Brett Ryan, Matthew Luzzetti, Justin Weidner, Amy Yang

Attribution

The authors wish to acknowledge the contributions made by Rajsekhar Bhattacharyya, employees of Acuity Knowledge Partners, a third-party provider to Deutsche Bank in the preparation of this report.



Additional Information

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively 'Deutsche Bank'). Though the information herein is believed to be reliable and has been obtained from public sources believed to be reliable, Deutsche Bank makes no representation as to its accuracy or completeness. Hyperlinks to third-party websites in this report are provided for reader convenience only. Deutsche Bank neither endorses the content nor is responsible for the accuracy or security controls of those websites.

Effective 13 October 2023, Deutsche Bank AG acquired Numis Corporation Plc and its subsidiaries (the "Numis Group"). Numis Securities Limited ("NSL") is a member of the Numis Group and a firm authorised and regulated by the Financial Conduct Authority (Firm Reference Number: 144822). Deutsche Bank AG provides clients with, amongst other services, Investment Research services. NSL provides clients with, amongst other services, non-independent research services.

During an initial integration process, the research departments of Deutsche Bank AG and NSL will remain operationally distinct. Consequently, disclosures relating to conflicts of interest that may exist for Deutsche Bank AG and/or its affiliates do not currently take into account the business and activities of the Numis Group. The conflicts of interest that may exist for the Numis Group, in relation to the provision of research, can be found on the Numis website at <https://www.numis.com/legal-and-regulatory/conditions-and-disclaimers-that-govern-research-contained-in-the-research-pages-of-this-website>. The disclosures on this Numis webpage do not currently take into account the business and activities of Deutsche Bank AG and/or its affiliates which are not members of the Numis Group.

Additionally, any detailed conflicts of interest disclosures pertaining to a specific recommendation or estimate made on a security mentioned in this report or which have been included in our most recently published company report or found on our global disclosure look-up page, do not currently take into account the business and activities of the Numis Group. Instead, details of detailed conflicts of interest disclosures for the Numis Group, relating to specific issuers or securities, can be found at: https://library.numis.com/regulatory_notice. The issuer/security-specific conflict of interest disclosures on this Numis webpage do not take into account the business and activities of Deutsche Bank and/or its affiliates which are not members of the Numis Group.

If you use the services of Deutsche Bank in connection with a purchase or sale of a security that is discussed in this report, or is included or discussed in another communication (oral or written) from a Deutsche Bank analyst, Deutsche Bank may act as principal for its own account or as agent for another person.

Deutsche Bank may consider this report in deciding to trade as principal. It may also engage in transactions, for its own account or with customers, in a manner inconsistent with the views taken in this research report. Others within Deutsche Bank, including strategists, sales staff and other analysts, may take views that are inconsistent with those taken in this research report. Deutsche Bank issues a variety of research products, including fundamental analysis, equity-linked analysis, quantitative analysis and trade ideas. Recommendations contained in one type of communication may differ from recommendations contained in others, whether as a result of differing time horizons, methodologies, perspectives or otherwise. Deutsche Bank and/or its affiliates may also be holding debt or equity securities of the issuers it writes on. Analysts are paid in part based on the profitability of Deutsche Bank AG and its affiliates, which includes investment banking, trading and principal trading revenues.

Opinions, estimates and projections constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank provides liquidity for buyers and sellers of securities issued by the companies it covers. Deutsche Bank research analysts sometimes have shorter-term trade ideas that may be inconsistent with Deutsche Bank's existing longer-term ratings. Some trade ideas for equities are listed as Catalyst Calls on the Research Website (<https://research.db.com/Research/>), and can be found on the general coverage list and also on the covered company's page. A Catalyst Call represents a high-conviction belief by an analyst that a stock will outperform or underperform the market and/or a specified sector over a time frame of no less than two weeks and no more than three months. In addition to Catalyst Calls, analysts may occasionally discuss with our clients, and with Deutsche Bank salespersons and traders, trading strategies or ideas that reference catalysts or events that may have a near-term or medium-term impact on the market price of the securities discussed in this report, which impact may be directionally counter to the analysts' current 12-month view of total return or investment return as described herein. Deutsche Bank has no obligation to update, modify or amend this report or to otherwise notify a recipient thereof if an opinion, forecast or estimate changes or becomes inaccurate. Coverage and the frequency of changes in market conditions and in both general and company-specific economic prospects make it difficult to update research at defined intervals. Updates are at the sole discretion of the coverage analyst or of the Research Department Management, and the majority of reports are published at irregular intervals. This report is provided for informational purposes only and does not take into account the particular investment objectives, financial situations, or needs of individual clients. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst's judgment. The financial instruments discussed in this report may not be suitable for all investors, and investors must make their own informed investment decisions. Prices and availability of financial instruments are subject to change without notice, and investment transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Performance calculations exclude transaction costs, unless otherwise indicated. Unless otherwise indicated, prices are current as of the end of the previous trading session and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is also sourced from Deutsche Bank, subject companies, and other parties.



The Deutsche Bank Research Department is independent of other business divisions of the Bank. Details regarding our organizational arrangements and information barriers we have to prevent and avoid conflicts of interest with respect to our research are available on our website (<https://research.db.com/Research/>) under Disclaimer.

Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor who is long fixed-rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or liquidation of positions), and settlement issues related to local clearing houses are also important risk factors. The sensitivity of fixed-income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates - these are common in emerging markets. The index fixings may - by construction - lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. Funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Options on swaps (swaptions) the risks typical to options in addition to the risks related to rates movements.

Derivative transactions involve numerous risks including market, counterparty default and illiquidity risk. The appropriateness of these products for use by investors depends on the investors' own circumstances, including their tax position, their regulatory environment and the nature of their other assets and liabilities; as such, investors should take expert legal and financial advice before entering into any transaction similar to or inspired by the contents of this publication. The risk of loss in futures trading and options, foreign or domestic, can be substantial. As a result of the high degree of leverage obtainable in futures and options trading, losses may be incurred that are greater than the amount of funds initially deposited - up to theoretically unlimited losses. Trading in options involves risk and is not suitable for all investors. Prior to buying or selling an option, investors must review the 'Characteristics and Risks of Standardized Options', at <https://www.theocc.com/company-information/documents-and-archives/publications>. If you are unable to access the website, please contact your Deutsche Bank representative for a copy of this important document.

Participants in foreign exchange transactions may incur risks arising from several factors, including the following: (i) exchange rates can be volatile and are subject to large fluctuations; (ii) the value of currencies may be affected by numerous market factors, including world and national economic, political and regulatory events, events in equity and debt markets and changes in interest rates; and (iii) currencies may be subject to devaluation or government-imposed exchange controls, which could affect the value of the currency. Investors in securities such as ADRs, whose values are affected by the currency of an underlying security, effectively assume currency risk.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. Aside from within this report, important conflict disclosures can also be found at <https://research.db.com/Research/> on each company's research page. Investors are strongly encouraged to review this information before investing.

Deutsche Bank (which includes Deutsche Bank AG, its branches and affiliated companies) is not acting as a financial adviser, consultant or fiduciary to you or any of your agents (collectively, "You" or "Your") with respect to any information provided in this report. Deutsche Bank does not provide investment, legal, tax or accounting advice, Deutsche Bank is not acting as your impartial adviser, and does not express any opinion or recommendation whatsoever as to any strategies, products or any other information presented in the materials. Information contained herein is being provided solely on the basis that the recipient will make an independent assessment of the merits of any investment decision, and it does not constitute a recommendation of, or express an opinion on, any product or service or any trading strategy.

The information presented is general in nature and is not directed to retirement accounts or any specific person or account type, and is therefore provided to You on the express basis that it is not advice, and You may not rely upon it in making Your decision. The information we provide is being directed only to persons we believe to be financially sophisticated, who are capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies, and who understand that Deutsche Bank has financial interests in the offering of its products and services. If this is not the case, or if You are an IRA or other retail investor receiving this directly from us, we ask that you inform us immediately.

In July 2018, Deutsche Bank revised its rating system for short term ideas whereby the branding has been changed to Catalyst Calls ("CC") from SOLAR ideas; the rating categories for Catalyst Calls originated in the Americas region have been made consistent with the categories used by Analysts globally; and the effective time period for CCs has been reduced from a maximum of 180 days to 90 days.



United States: Approved and/or distributed by Deutsche Bank Securities Incorporated, a member of FINRA and SIPC. Analysts located outside of the United States are employed by non-US affiliates and are not registered/qualified as research analysts with FINRA.

European Economic Area (exc. United Kingdom): Approved and/or distributed by Deutsche Bank AG, a joint stock corporation with limited liability incorporated in the Federal Republic of Germany with its principal office in Frankfurt am Main. Deutsche Bank AG is authorized under German Banking Law and is subject to supervision by the European Central Bank and by BaFin, Germany's Federal Financial Supervisory Authority. This research report is also distributed by Numis Europe Limited ('NEL'), to EEA clients as third-party research. NEL is an investment firm authorised and regulated by the Central Bank of Ireland ('CBI'), with its registered address at Riverview House, 21-23 City Quay, Dublin 2, D02 FP21, The Republic of Ireland.

United Kingdom: Approved and/or distributed by Deutsche Bank AG acting through its London Branch at 21 Moorfields, London EC2Y 9DB. Deutsche Bank AG in the United Kingdom is authorised by the Prudential Regulation Authority and is subject to limited regulation by the Prudential Regulation Authority and Financial Conduct Authority. Details about the extent of our authorisation and regulation are available on request.

Hong Kong SAR: Distributed by Deutsche Bank AG, Hong Kong Branch except for any research content relating to futures contracts within the meaning of the Hong Kong Securities and Futures Ordinance Cap. 571. Research reports on such futures contracts are not intended for access by persons who are located, incorporated, constituted or resident in Hong Kong. The author(s) of a research report may not be licensed to carry on regulated activities in Hong Kong and, if not licensed, do not hold themselves out as being able to do so. The provisions set out above in the 'Additional Information' section shall apply to the fullest extent permissible by local laws and regulations, including without limitation the Code of Conduct for Persons Licensed or Registered with the Securities and Futures Commission. This report is intended for distribution only to 'professional investors' as defined in Part 1 of Schedule of the SFO. This document must not be acted or relied on by persons who are not professional investors. Any investment or investment activity to which this document relates is only available to professional investors and will be engaged only with professional investors.

India: Prepared by Deutsche Equities India Private Limited (DEIPL) having CIN: U65990MH2002PTC137431 and registered office at 14th Floor, The Capital, C-70, G Block, Bandra Kurla Complex, Mumbai (India) 400051. Tel: + 91 22 7180 4444. It is registered by the Securities and Exchange Board of India (SEBI) as a Stock broker bearing registration no.: INZ000252437; Merchant Banker bearing SEBI Registration no.: INM000010833 and Research Analyst bearing SEBI Registration no.: INH000001741. DEIPL's Compliance / Grievance officer is Ms. Rashmi Poddar (Tel: +91 22 7180 4929 email ID: complaints.deipl@db.com). Registration granted by SEBI and certification from NISM in no way guarantee performance of DEIPL or provide any assurance of returns to investors. Investment in securities market are subject to market risks. Read all the related documents carefully before investing. DEIPL may have received administrative warnings from the SEBI for breaches of Indian regulations. Deutsche Bank and/or its affiliate(s) may have debt holdings or positions in the subject company. With regard to information on associates, please refer to the "Shareholdings" section in the Annual Report at: <https://www.db.com/ir/en/annual-reports.htm>.

Japan: Approved and/or distributed by Deutsche Securities Inc.(DSI). Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association and The Financial Futures Association of Japan. Commissions and risks involved in stock transactions - for stock transactions, we charge stock commissions and consumption tax by multiplying the transaction amount by the commission rate agreed with each customer. Stock transactions can lead to losses as a result of share price fluctuations and other factors. Transactions in foreign stocks can lead to additional losses stemming from foreign exchange fluctuations. We may also charge commissions and fees for certain categories of investment advice, products and services. Recommended investment strategies, products and services carry the risk of losses to principal and other losses as a result of changes in market and/or economic trends, and/or fluctuations in market value. Before deciding on the purchase of financial products and/or services, customers should carefully read the relevant disclosures, prospectuses and other documentation.

'Moody's', 'Standard Poor's', and 'Fitch' mentioned in this report are not registered credit rating agencies in Japan unless Japan or 'Nippon' is specifically designated in the name of the entity. Reports on Japanese listed companies not written by analysts of DSI are written by Deutsche Bank Group's analysts with the coverage companies specified by DSI. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan. Target prices set by Deutsche Bank's equity analysts are based on a 12-month forecast period.

Korea: Distributed by Deutsche Securities Korea Co.

South Africa: Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10).



Singapore: This report is issued by Deutsche Bank AG, Singapore Branch (One Raffles Quay #18-00 South Tower Singapore 048583, 65 6423 8001), which may be contacted in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated by Deutsche Bank in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), they accept legal responsibility to such person for its contents.

Taiwan: Information on securities/investments that trade in Taiwan is for your reference only. Readers should independently evaluate investment risks and are solely responsible for their investment decisions. Deutsche Bank research may not be distributed to the Taiwan public media or quoted or used by the Taiwan public media without written consent. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation to trade in such securities/instruments.

Qatar: Deutsche Bank AG in the Qatar Financial Centre (registered no. 00032) is regulated by the Qatar Financial Centre Regulatory Authority. Deutsche Bank AG - QFC Branch may undertake only the financial services activities that fall within the scope of its existing QFCRA license. Its principal place of business in the QFC: Qatar Financial Centre, Tower, West Bay, Level 5, PO Box 14928, Doha, Qatar. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available only to Business Customers, as defined by the Qatar Financial Centre Regulatory Authority.

Russia: The information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.

Kingdom of Saudi Arabia: Deutsche Securities Saudi Arabia (DSSA) is a closed joint stock company authorized by the Capital Market Authority of the Kingdom of Saudi Arabia with a license number (No. 37-07073) to conduct the following business activities: Dealing, Arranging, Advising, and Custody activities. DSSA registered office is Faisaliah Tower, 17th Floor, King Fahad Road - Al Olaya District Riyadh, Kingdom of Saudi Arabia P.O. Box 301806.

United Arab Emirates: Deutsche Bank AG in the Dubai International Financial Centre (registered no. 00045) is regulated by the Dubai Financial Services Authority. Deutsche Bank AG - DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA license. Principal place of business in the DIFC: Dubai International Financial Centre, The Gate Village, Building 5, PO Box 504902, Dubai, U.A.E. This information has been distributed by Deutsche Bank AG. Related financial products or services are available only to Professional Clients, as defined by the Dubai Financial Services Authority.

Australia and New Zealand: This research is intended only for 'wholesale clients' within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act, respectively. Please refer to Australia-specific research disclosures and related information at https://www.dbresearch.com/PROD/RPS_EN-PROD/PROD0000000000521304.xhtml. Where research refers to any particular financial product recipients of the research should consider any product disclosure statement, prospectus or other applicable disclosure document before making any decision about whether to acquire the product. In preparing this report, the primary analyst or an individual who assisted in the preparation of this report has likely been in contact with the company that is the subject of this research for confirmation/clarification of data, facts, statements, permission to use company-sourced material in the report, and/or site-visit attendance. Without prior approval from Research Management, analysts may not accept from current or potential Banking clients the costs of travel, accommodations, or other expenses incurred by analysts attending site visits, conferences, social events, and the like. Similarly, without prior approval from Research Management and Anti-Bribery and Corruption ("ABC") team, analysts may not accept perks or other items of value for their personal use from issuers they cover.



Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be reproduced, distributed or published without Deutsche Bank's prior written consent.

Backtested, hypothetical or simulated performance results have inherent limitations. Unlike an actual performance record based on trading actual client portfolios, simulated results are achieved by means of the retroactive application of a backtested model itself designed with the benefit of hindsight. Taking into account historical events the backtesting of performance also differs from actual account performance because an actual investment strategy may be adjusted any time, for any reason, including a response to material, economic or market factors. The backtested performance includes hypothetical results that do not reflect the reinvestment of dividends and other earnings or the deduction of advisory fees, brokerage or other commissions, and any other expenses that a client would have paid or actually paid. No representation is made that any trading strategy or account will or is likely to achieve profits or losses similar to those shown. Alternative modeling techniques or assumptions might produce significantly different results and prove to be more appropriate. Past hypothetical backtest results are neither an indicator nor guarantee of future returns. Actual results will vary, perhaps materially, from the analysis.

The method for computing individual E,S,G and composite ESG scores set forth herein is a novel method developed by the Research department within Deutsche Bank AG, computed using a systematic approach without human intervention. Different data providers, market sectors and geographies approach ESG analysis and incorporate the findings in a variety of ways. As such, the ESG scores referred to herein may differ from equivalent ratings developed and implemented by other ESG data providers in the market and may also differ from equivalent ratings developed and implemented by other divisions within the Deutsche Bank Group. Such ESG scores also differ from other ratings and rankings that have historically been applied in research reports published by Deutsche Bank AG. Further, such ESG scores do not represent a formal or official view of Deutsche Bank AG. It should be noted that the decision to incorporate ESG factors into any investment strategy may inhibit the ability to participate in certain investment opportunities that otherwise would be consistent with your investment objective and other principal investment strategies. The returns on a portfolio consisting primarily of sustainable investments may be lower or higher than portfolios where ESG factors, exclusions, or other sustainability issues are not considered, and the investment opportunities available to such portfolios may differ. Companies may not necessarily meet high performance standards on all aspects of ESG or sustainable investing issues; there is also no guarantee that any company will meet expectations in connection with corporate responsibility, sustainability, and/or impact performance.

Copyright © 2024 Deutsche Bank AG