

The 2019 US Fiscal Gap

FISCAL GAP

Results	
Fiscal gap	-\$239.1
FG / GDP	-9.2%
FG / Revenues	-47.6%
FG / Expenditure	-33.0%

Note

All values in trillion 2019 USD unless stated otherwise

Details for sub-periods

Period	Revenues	Expenses	GDP	Fiscal gap
2019-2049	\$100.2	\$132.7	\$548.1	-\$32.5
2050-2090	\$101.2	\$148.9	\$515.5	-\$47.7
2090+	\$301.4	\$443.6	\$1,535.8	-\$142.2
Total	\$502.7	\$725.3	\$2,599.4	-\$222.5

The total Fiscal Gap also takes into account the current debt level of 16.6 trillion US

POLICY EVALUATION

Req. revenue increase after	
10 years	51.1%
20 years	55.0%
30 years	59.0%

Req. expenditure reduc	
10 years	
20 years	
30 years	

The policy evaluation takes revenues, expenditures and GDP as given and asks by h

Calculations

Inputs

Inputs	
Discount rate	3.00%
Initial debt	\$ 16.6

Continuation value post 2090

Variable	Revenues	Expenses	GDP
Discount rate	3.00%	3.00%	3.00%
Growth rate post 2090	2.27%	2.27%	2.27%
Discount factor (one period)	0.993	0.993	0.993
Discount factor (perpetuity)	16.80	16.80	16.80
2091 value (projected)	\$17.9	\$26.4	\$91.4
Continuation value	\$301.4	\$443.6	\$1,535.8

Values for 2019 - 2090

Year	Discount factor	GDP Deflator	Real values in tr. 2019 US Dollars		
			Revenues	Expenses	GDP
2019	100.0%	100%	\$3.50	\$4.40	\$21.30
2020	97.1%	97.9%	\$3.62	\$4.50	\$21.63
2021	94.3%	96.0%	\$3.65	\$4.61	\$21.97
2022	91.5%	93.8%	\$3.75	\$4.78	\$22.32
2023	88.8%	92.2%	\$3.87	\$4.88	\$22.76
2024	86.3%	90.3%	\$3.97	\$4.97	\$23.13
2025	83.7%	88.3%	\$4.06	\$5.21	\$23.57
2026	81.3%	86.7%	\$4.34	\$5.38	\$24.03
2027	78.9%	85.0%	\$4.51	\$5.44	\$24.40
2028	76.6%	83.5%	\$4.51	\$5.76	\$24.95
2029	74.4%	81.7%	\$4.66	\$5.72	\$25.34
2030	72.2%	80.2%	\$4.73	\$6.01	\$25.81
2031	70.1%	78.7%	\$4.80	\$6.14	\$26.21
2032	68.1%	76.9%	\$4.92	\$6.31	\$26.54
2033	66.1%	75.6%	\$4.99	\$6.50	\$27.05
2034	64.2%	74.0%	\$5.11	\$6.66	\$27.40
2035	62.3%	72.5%	\$5.15	\$6.89	\$27.85
2036	60.5%	71.1%	\$5.26	\$7.04	\$28.24
2037	58.7%	69.9%	\$5.39	\$7.27	\$28.75
2038	57.0%	68.5%	\$5.48	\$7.47	\$29.20
2039	55.4%	67.3%	\$5.65	\$7.67	\$29.73
2040	53.8%	65.8%	\$5.73	\$7.90	\$30.14
2041	52.2%	64.6%	\$5.81	\$8.13	\$30.60
2042	50.7%	63.2%	\$5.94	\$8.35	\$31.11

2043	49.2%	62.0%	\$6.07	\$8.55	\$31.60
2044	47.8%	60.9%	\$6.21	\$8.83	\$32.21
2045	46.4%	59.6%	\$6.32	\$9.06	\$32.74
2046	45.0%	58.4%	\$6.48	\$9.28	\$33.29
2047	43.7%	57.3%	\$6.59	\$9.57	\$33.88
2048	42.4%	56.1%	\$6.73	\$9.82	\$34.40
2049	41.2%	55.1%	\$6.89	\$10.15	\$35.13
2050	40.0%	54.0%	\$7.05	\$10.38	\$35.94
2051	38.8%	52.9%	\$7.21	\$10.62	\$36.75
2052	37.7%	52.0%	\$7.39	\$10.88	\$37.66
2053	36.6%	50.9%	\$7.55	\$11.11	\$38.47
2054	35.5%	50.0%	\$7.73	\$11.37	\$39.37
2055	34.5%	48.9%	\$7.89	\$11.61	\$40.19
2056	33.5%	48.0%	\$8.06	\$11.87	\$41.09
2057	32.5%	47.0%	\$8.24	\$12.13	\$41.99
2058	31.6%	46.1%	\$8.44	\$12.42	\$42.99
2059	30.7%	45.2%	\$8.63	\$12.70	\$43.98
2060	29.8%	44.3%	\$8.83	\$12.99	\$44.97
2061	28.9%	43.4%	\$9.02	\$13.28	\$45.97
2062	28.1%	42.6%	\$9.21	\$13.56	\$46.96
2063	27.2%	41.8%	\$9.45	\$13.90	\$48.13
2064	26.4%	40.9%	\$9.66	\$14.22	\$49.22
2065	25.7%	40.1%	\$9.89	\$14.56	\$50.39
2066	24.9%	39.3%	\$10.10	\$14.87	\$51.47
2067	24.2%	38.6%	\$10.33	\$15.21	\$52.65
2068	23.5%	37.8%	\$10.56	\$15.55	\$53.82
2069	22.8%	37.0%	\$10.81	\$15.91	\$55.09
2070	22.1%	36.4%	\$11.08	\$16.30	\$56.44
2071	21.5%	35.6%	\$11.32	\$16.67	\$57.71
2072	20.9%	34.9%	\$11.61	\$17.09	\$59.15
2073	20.3%	34.2%	\$11.87	\$17.48	\$60.51
2074	19.7%	33.6%	\$12.16	\$17.89	\$61.95
2075	19.1%	32.9%	\$12.44	\$18.31	\$63.39
2076	18.5%	32.3%	\$12.74	\$18.76	\$64.93
2077	18.0%	31.6%	\$13.04	\$19.20	\$66.47
2078	17.5%	31.0%	\$13.36	\$19.67	\$68.09
2079	17.0%	30.4%	\$13.66	\$20.11	\$69.63
2080	16.5%	29.8%	\$14.00	\$20.61	\$71.34
2081	16.0%	29.2%	\$14.32	\$21.08	\$72.97
2082	15.5%	28.7%	\$14.66	\$21.57	\$74.68
2083	15.1%	28.1%	\$14.99	\$22.07	\$76.40
2084	14.6%	27.6%	\$15.33	\$22.56	\$78.11

2085	14.2%	27.0%	\$15.68	\$23.09	\$79.92
2086	13.8%	26.5%	\$16.06	\$23.63	\$81.82
2087	13.4%	26.0%	\$16.43	\$24.18	\$83.71
2088	13.0%	25.5%	\$16.80	\$24.73	\$85.61
2089	12.6%	25.0%	\$17.17	\$25.28	\$87.51
2090	12.3%	24.4%	\$17.54	\$25.82	\$89.40

Notes:

a) All values in trillion 2019 USD unless otherwise stated.

b) Values for revenues, expenditure and nominal GDP 2019 - 2049 from CBO Long-i

c) Values for GDP growth rates 2050 - 2090 and GDP deflator 2019 - 2090 from CBC

d) Expenditure revenue shares of GDP are assumed to be constant post 2049 at 204

e) Policy evaluation takes revenues, expenditures and GDP as given and asks by hov

f) "Year for post 2090 growth rates" indicates the years over which the average gro

g) The discount factor is calculated as $(1/(1 + \text{discount rate}))^{(\text{year} - 2019)}$

h) The GDP deflator is based on the factor between real and nominal GDP assumed

i) The perpetuity factor is $((1 + \text{discount factor}) / (\text{discount factor} - \text{growth rate})) * (1/$



Fiscal gap / GDP
-5.9%
-9.3%
-9.3%
-8.6%

5 trillion USD.

tion after
35.1%
37.4%
40.1%

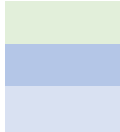
d asks by how much percent one needs to increase (decrease) either after X years to achieve an overall fiscal gap of 0.





Nominal GDP	Percentage of GDP		Growth rate		Inflation
	Revenues	Expenses	NGDP	RGDP	
\$21.30	16.4%	20.7%	NA	NA	NA
\$22.10	16.7%	20.8%	3.8%	1.5%	2.2%
\$22.90	16.6%	21.0%	3.6%	1.6%	2.0%
\$23.80	16.8%	21.4%	3.9%	1.6%	2.3%
\$24.70	17.0%	21.5%	3.8%	2.0%	1.7%
\$25.60	17.2%	21.5%	3.6%	1.6%	2.0%
\$26.70	17.2%	22.1%	4.3%	1.9%	2.3%
\$27.70	18.1%	22.4%	3.7%	1.9%	1.8%
\$28.70	18.5%	22.3%	3.6%	1.6%	2.0%
\$29.90	18.1%	23.1%	4.2%	2.3%	1.9%
\$31.00	18.4%	22.6%	3.7%	1.6%	2.1%
\$32.20	18.3%	23.3%	3.9%	1.9%	2.0%
\$33.30	18.3%	23.4%	3.4%	1.5%	1.9%
\$34.50	18.6%	23.8%	3.6%	1.3%	2.3%
\$35.80	18.4%	24.0%	3.8%	1.9%	1.8%
\$37.00	18.6%	24.3%	3.4%	1.3%	2.1%
\$38.40	18.5%	24.7%	3.8%	1.7%	2.1%
\$39.70	18.6%	24.9%	3.4%	1.4%	2.0%
\$41.10	18.7%	25.3%	3.5%	1.8%	1.7%
\$42.60	18.8%	25.6%	3.6%	1.6%	2.0%
\$44.20	19.0%	25.8%	3.8%	1.8%	1.9%
\$45.80	19.0%	26.2%	3.6%	1.4%	2.2%
\$47.40	19.0%	26.6%	3.5%	1.5%	1.9%
\$49.20	19.1%	26.8%	3.8%	1.7%	2.1%

Legend



\$51.00	19.2%	27.1%	3.7%	1.6%	2.0%
\$52.90	19.3%	27.4%	3.7%	1.9%	1.8%
\$54.90	19.3%	27.7%	3.8%	1.6%	2.1%
\$57.00	19.5%	27.9%	3.8%	1.7%	2.1%
\$59.10	19.5%	28.3%	3.7%	1.8%	1.9%
\$61.30	19.6%	28.5%	3.7%	1.5%	2.2%
\$63.70	19.6%	28.9%	3.9%	2.1%	1.8%
\$66.50	19.6%	28.9%	4.4%	2.3%	2.0%
\$69.47	19.6%	28.9%	4.5%	2.3%	2.2%
\$72.44	19.6%	28.9%	4.3%	2.5%	1.8%
\$75.57	19.6%	28.9%	4.3%	2.2%	2.1%
\$78.80	19.6%	28.9%	4.3%	2.3%	1.9%
\$82.19	19.6%	28.9%	4.3%	2.1%	2.2%
\$85.67	19.6%	28.9%	4.2%	2.2%	1.9%
\$89.40	19.6%	28.9%	4.4%	2.2%	2.1%
\$93.30	19.6%	28.9%	4.4%	2.4%	2.0%
\$97.37	19.6%	28.9%	4.4%	2.3%	2.0%
\$101.45	19.6%	28.9%	4.2%	2.3%	1.9%
\$105.86	19.6%	28.9%	4.3%	2.2%	2.1%
\$110.35	19.6%	28.9%	4.2%	2.2%	2.0%
\$115.19	19.6%	28.9%	4.4%	2.5%	1.8%
\$120.28	19.6%	28.9%	4.4%	2.3%	2.1%
\$125.53	19.6%	28.9%	4.4%	2.4%	1.9%
\$130.88	19.6%	28.9%	4.3%	2.2%	2.1%
\$136.48	19.6%	28.9%	4.3%	2.3%	2.0%
\$142.41	19.6%	28.9%	4.4%	2.2%	2.1%
\$148.69	19.6%	28.9%	4.4%	2.3%	2.0%
\$155.22	19.6%	28.9%	4.4%	2.5%	1.9%
\$162.09	19.6%	28.9%	4.4%	2.2%	2.1%
\$169.30	19.6%	28.9%	4.4%	2.5%	1.9%
\$176.77	19.6%	28.9%	4.4%	2.3%	2.1%
\$184.48	19.6%	28.9%	4.4%	2.4%	1.9%
\$192.63	19.6%	28.9%	4.4%	2.3%	2.0%
\$201.19	19.6%	28.9%	4.4%	2.4%	2.0%
\$210.18	19.6%	28.9%	4.5%	2.4%	2.1%
\$219.43	19.6%	28.9%	4.4%	2.4%	1.9%
\$229.10	19.6%	28.9%	4.4%	2.3%	2.1%
\$239.28	19.6%	28.9%	4.4%	2.5%	1.9%
\$249.63	19.6%	28.9%	4.3%	2.3%	2.0%
\$260.57	19.6%	28.9%	4.4%	2.4%	2.0%
\$271.85	19.6%	28.9%	4.3%	2.3%	2.0%
\$283.47	19.6%	28.9%	4.3%	2.2%	2.0%

\$295.94	19.6%	28.9%	4.4%	2.3%	2.0%
\$308.92	19.6%	28.9%	4.4%	2.4%	2.0%
\$322.40	19.6%	28.9%	4.4%	2.3%	2.0%
\$336.31	19.6%	28.9%	4.3%	2.3%	2.0%
\$350.65	19.6%	28.9%	4.3%	2.2%	2.0%
\$365.66	19.6%	28.9%	4.3%	2.2%	2.1%

CBO Long-term pojections, January 2019

0 from CBO Long-Term Budget Projections, June 2015

2049 at 2049 values.

asks by how much percent one needs to increase either after X years to achieve a fiscal gap of 0.

verage growth rate prior to 2090 was calculated. This growth-rate is assumed to persists after 2090.

P assumed by the CBO normalized such that is has avalue of 1 for 2019.

*rate)) * (1/(1+discountfactor))^(2091-2019)*



an overall fiscal gap of 0.





Authors' calculations
CBO 2019
CBO 2015

