



**THE OHIO STATE UNIVERSITY**

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# Healthcare Sector Presentation

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- We recommend to maximize our SIM fund overweight of the healthcare sector to 3% above the S&P 500 weighting:
  - Outperformance of all sectors (besides tech) on a 5 year basis
  - Aging population
  - Maximize defensive weightings amid potential economic recession
  - Steady growth in the industry with little downside risk
  - Strong growth potential with improving technology and increasing R&D
  - Strong demonstrated free cash flow
  - Low unemployment, low uninsured rates



## Sector Breakdown



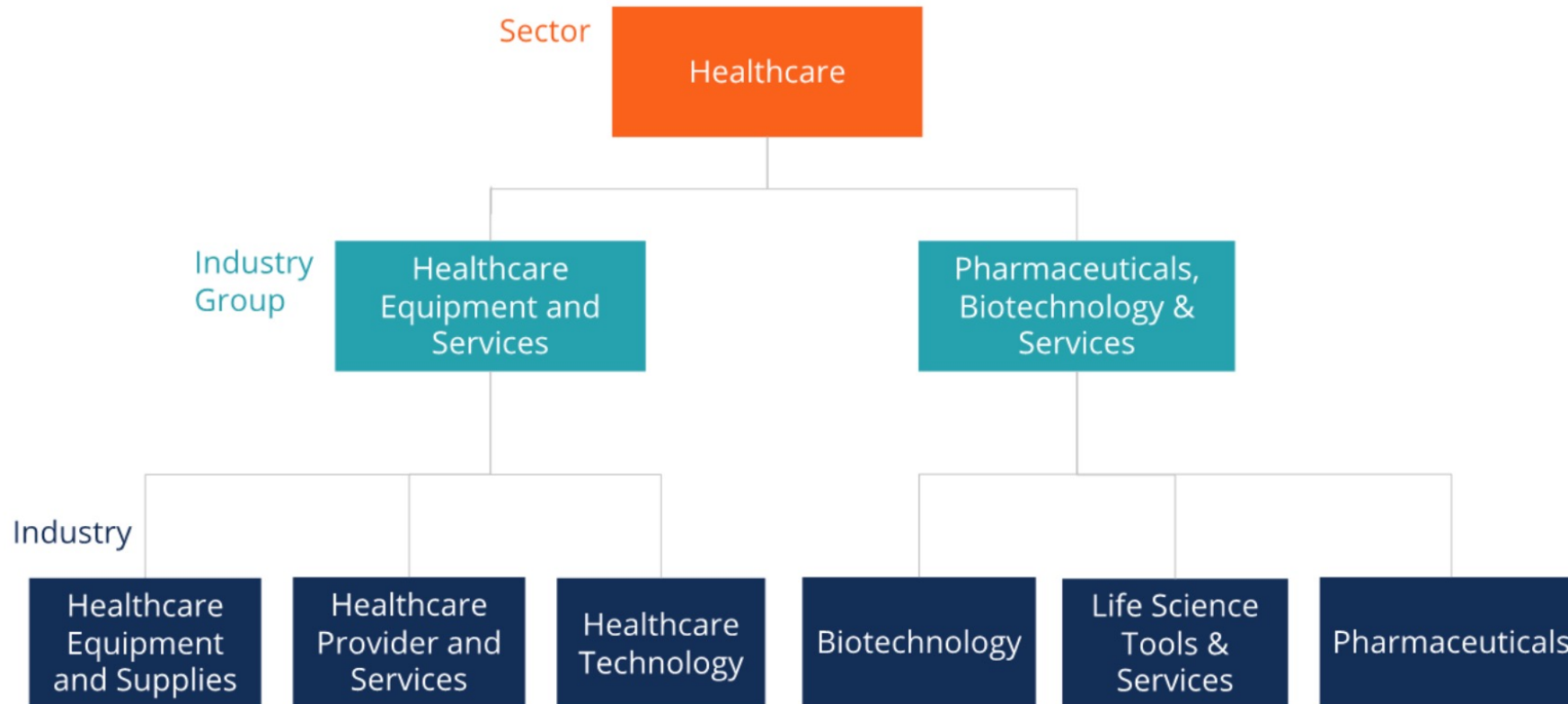
SECTOR	INDEX WEIGHT
Information Technology	28.0%
Health Care	13.7%
Financials	12.5%
Consumer Discretionary	10.2%
Communication Services	8.8%
Industrials	8.2%
Consumer Staples	6.9%
Energy	4.2%
Utilities	2.7%
Real Estate	2.4%
Materials	2.4%

- Currently overweight by 2.44%
  - S&P 500 at 13.72%
  - SIM at 16.16%
- 2023 performance
  - -3.40% YTD
  - +1.92% QTD



## Industries in Healthcare sector:

Healthcare - Global Industry Classification Standard (GICS)





<input type="checkbox"/> Symbol	Name	Price (Intraday)	Change	% Change	Volume	Avg Vol (3 month)	Market Cap	PE Ratio (TTM)	52 Week Range
<input type="checkbox"/> UNH	UnitedHealth Group Incorporated	479.05	+2.30	+0.48%	2.569M	3.369M	446.011B	21.90	445.68 - 558.10
<input type="checkbox"/> LLY	Eli Lilly and Company	457.68	+4.68	+1.03%	2.58M	2.967M	434.463B	72.88	296.32 - 462.20
<input type="checkbox"/> JNJ	Johnson & Johnson	165.62	+1.74	+1.06%	4.393M	6.886M	430.402B	34.65	150.11 - 183.35
<input type="checkbox"/> NVO	Novo Nordisk A/S	160.02	-0.52	-0.32%	848,546	1.375M	358.832B	40.61	95.02 - 172.97
<input type="checkbox"/> MRK	Merck & Co., Inc.	113.72	+2.56	+2.30%	6.248M	6.785M	288.558B	22.21	84.52 - 119.65
<input type="checkbox"/> ABBV	AbbVie Inc.	137.41	+0.55	+0.40%	3.72M	5.445M	242.431B	32.41	131.10 - 168.11
<input type="checkbox"/> AZN	AstraZeneca PLC	73.95	+0.57	+0.78%	5.299M	4.143M	231.544B	48.97	52.65 - 76.56
<input type="checkbox"/> PFE	Pfizer Inc.	38.73	-0.17	-0.44%	14.575M	24.667M	221.116B	7.64	36.17 - 54.93
<input type="checkbox"/> NVS	Novartis AG	100.54	-0.37	-0.37%	885,771	2.152M	213.106B	30.84	74.09 - 105.56
<input type="checkbox"/> TMO	Thermo Fisher Scientific Inc.	528.31	+2.36	+0.45%	732,643	1.528M	203.78B	34.42	475.77 - 611.06
<input type="checkbox"/> ABT	Abbott Laboratories	108.25	+2.00	+1.88%	3.912M	5.096M	188.241B	32.90	93.25 - 115.69
<input type="checkbox"/> DHR	Danaher Corporation	236.38	-1.33	-0.56%	2.092M	3.234M	174.425B	25.44	221.22 - 303.82
<input type="checkbox"/> BMY	Bristol-Myers Squibb Company	65.30	-0.20	-0.31%	5.77M	7.895M	137.186B	19.04	63.07 - 81.44



## OSU SIM Composition Companies and Portfolio Percentages



**MERCK** 4.57%



3.58%



**United  
Healthcare** 4.60%



**Bristol Myers  
Squibb**<sup>TM</sup>

3.40%




# Healthcare Sector – SIM Holding Performance Metrics


Metric	P/E	P/S	P/B	ROCE	Dividend Yield	Debt to Equity Ratio	Free Cash Flow (\$MM)
BMY	<b>12.3</b>	1.8	3.1	24.6	3.53	0.34	12,630
ELV	22.8	0.9	2.1	16.6	1.32	<b>0.17</b>	1,391
MRK	17.6	<b>3.6</b>	4.3	<b>27.3</b>	<b>3.73</b>	0.25	11,038
UNH	20.9	1.36	<b>5.2</b>	26.5	2.26	0.23	<b>12,865</b>
VHT	17.1	1.7	2.6	28.4	1.33	0.15	14,320

\*VHT is not held by the portfolio, but is representative of the entire sector for comparison purposes



# Healthcare Sector Valuation

S5HLTH ↑ 1533.99 -2.26 















 At 17:00 O 1535.37 H 1541.15 L 1522.38 Prev 1536.25

S5HLTH Index 96) Actions ▾ 97) Export ▾ 98) Settings

S&P 500 Health Care Sector GICS Level 1 Index Compare <Sec> Periods 10 Annuals ▾ Cur FRC (USD) ▾

1) Key Stats 2) Fundamentals 3) Custom

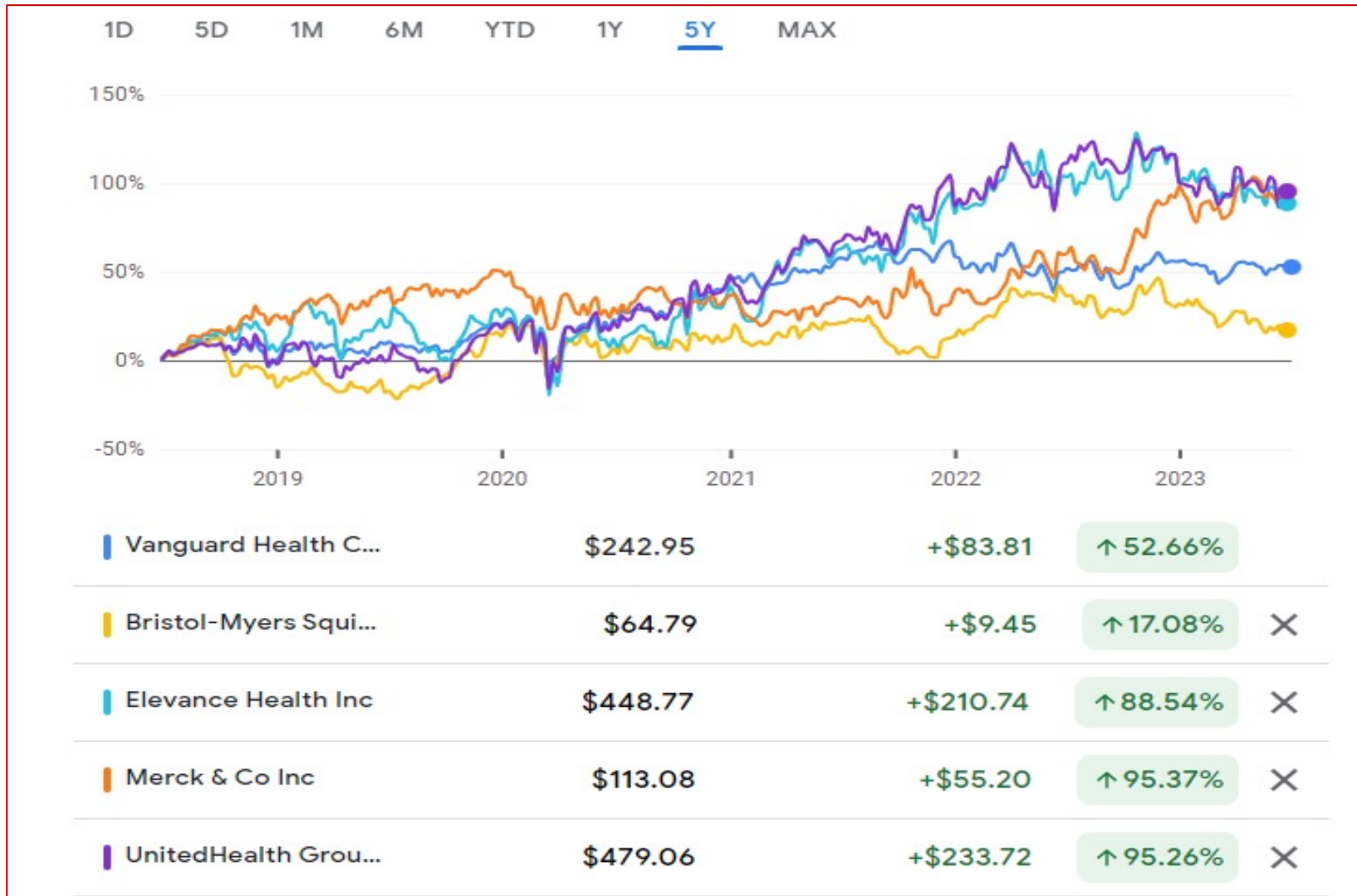
11) Highlights 12) Valuation 13) Profitability 14) Leverage & Liquidity 15) Market Data

	2015 Y	2016 Y	2017 Y	2018 Y	2019 Y	2020 Y	2021 Y	2022 Y	2023 Y Est	2024 Y Est
12 Months Ending	12/31/2015	12/30/2016	12/29/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/30/2022	12/30/2023	12/30/2024
 Price/Earnings	21.22	18.72	20.27	19.27	21.99	22.99	22.52	18.75	17.89	16.45
 Price/Earnings before XO	24.83	21.95	25.84	28.60	26.87	27.18	28.03	24.21		
 Price/Earnings, Dil. Cont Ops	21.22	18.72	20.27	19.27	21.99	22.99	22.52	18.75		
 Price/Earnings, Positive	23.04	21.28	23.76	27.90	25.00	26.26	25.02	22.49	21.84	19.15
 Price/Cash Flow	16.86	13.54	15.93	16.27	17.71	16.47	16.57	15.10	15.45	14.39
 Price/Sales	1.83	1.64	1.88	1.68	1.92	1.94	2.13	1.82	1.66	1.58
 Price/EBITDA	13.04	11.26	13.12	13.21	14.53	15.02	16.39	13.52	12.38	11.38
 Price/Book Value	3.86	3.39	3.99	4.07	4.72	4.80	5.47	5.05	4.33	3.97
 EV/Sales	2.02	1.79	2.04	1.80	2.13	2.16	2.33	1.96	1.81	1.68
 EV/EBITDA	13.28	12.81	14.09	15.84	14.88	15.73	16.30	13.17	13.51	12.12
 Dividend Yield	1.58	1.76	1.60	1.74	1.64	1.59	1.40	1.58	1.75	1.91
 Dividend Yield (Gross)	1.58	1.76	1.60	1.74	1.64	1.59	1.40	1.58		
 Dividend Yield (Net)	1.58	1.76	1.60	1.74	1.64	1.59	1.40	1.58		
 Free Cash Flow Yield	4.86	6.23	5.27	5.01	4.61	5.09	5.17	5.62		



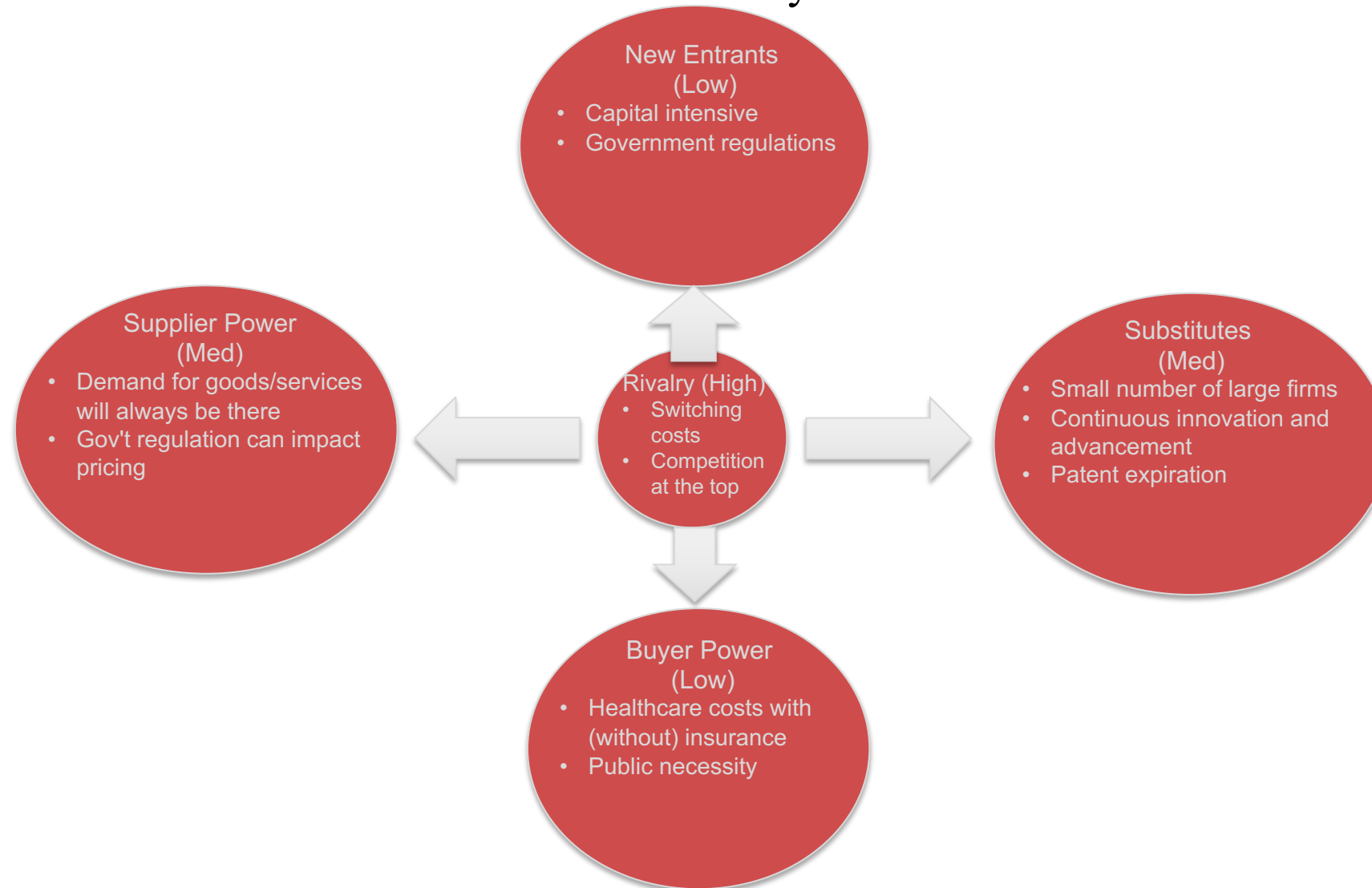


# Stock Performance





## Five Porter's Analysis





## Historical Performance of Sectors across the business cycle

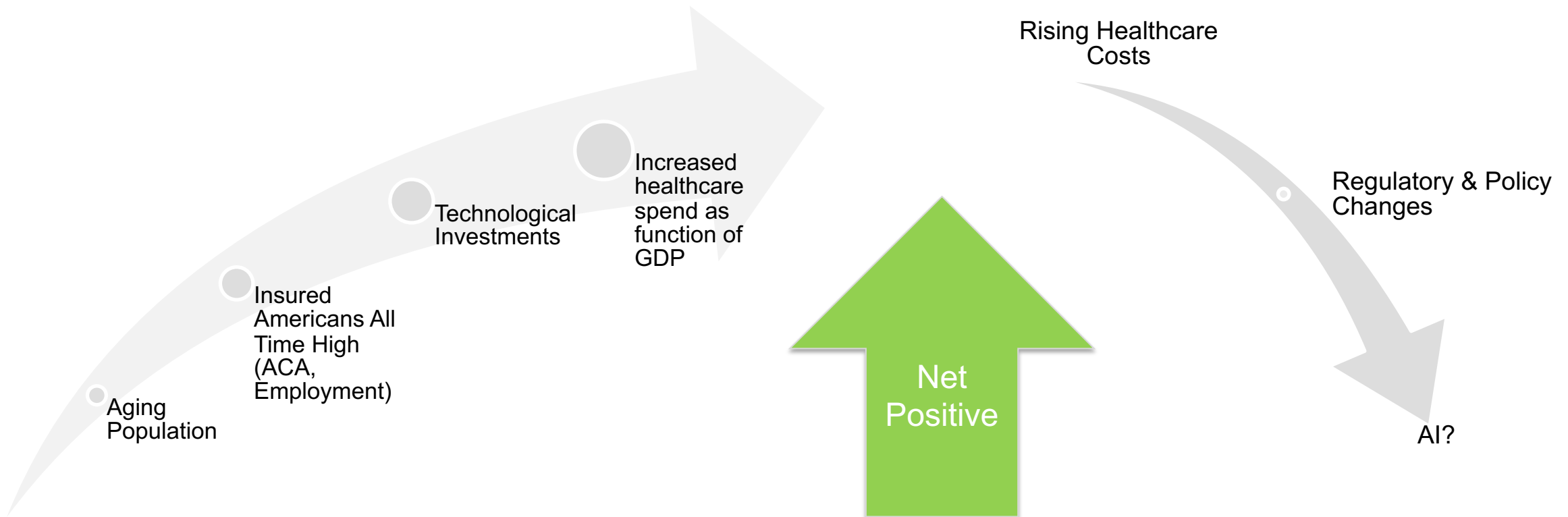
Sector	Early Rebounds	Mid Peaks	Late Moderates	Recession Contracts
Financials	+			--
Real Estate	++	-	+	--
Consumer Discretionary	++		--	+
Technology	+	+	-	--
Industrials	++			--
Materials	+	--		
Consumer Staples		-	+	++
Health Care	--			++
Energy	--		++	
Communication Services		+		-
Utilities	--	-	+	++

Business cycle graph

- Defensive sector
- Outperforms market during recession
- However, slight decline in revenues due to higher unemployment --> more uninsured
- Current unemployment levels (3.5%) = good sign for Health Care sector

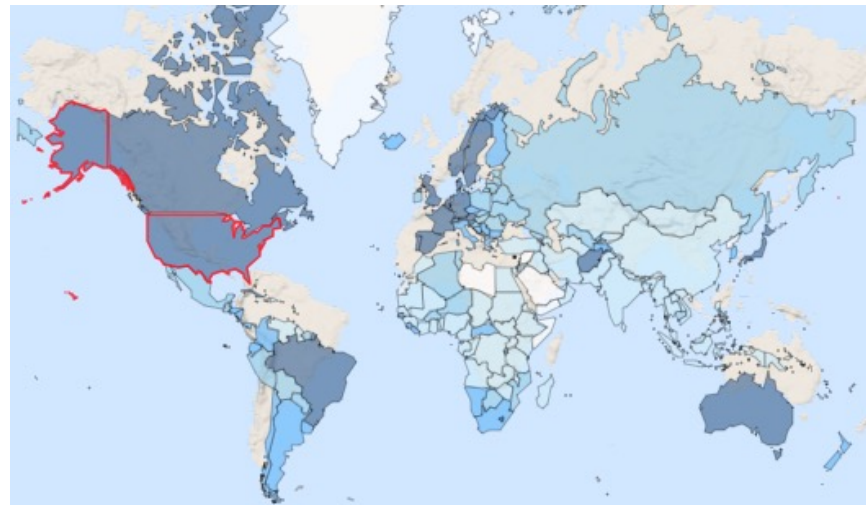
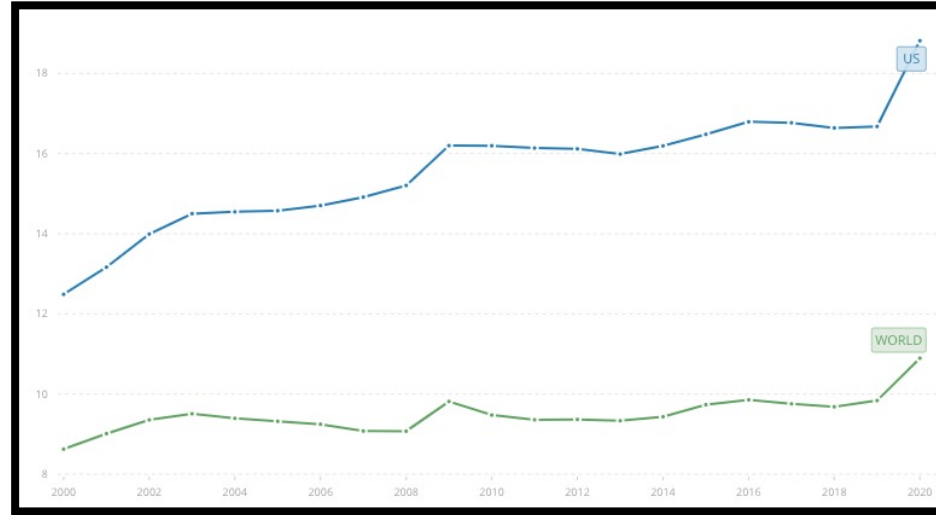
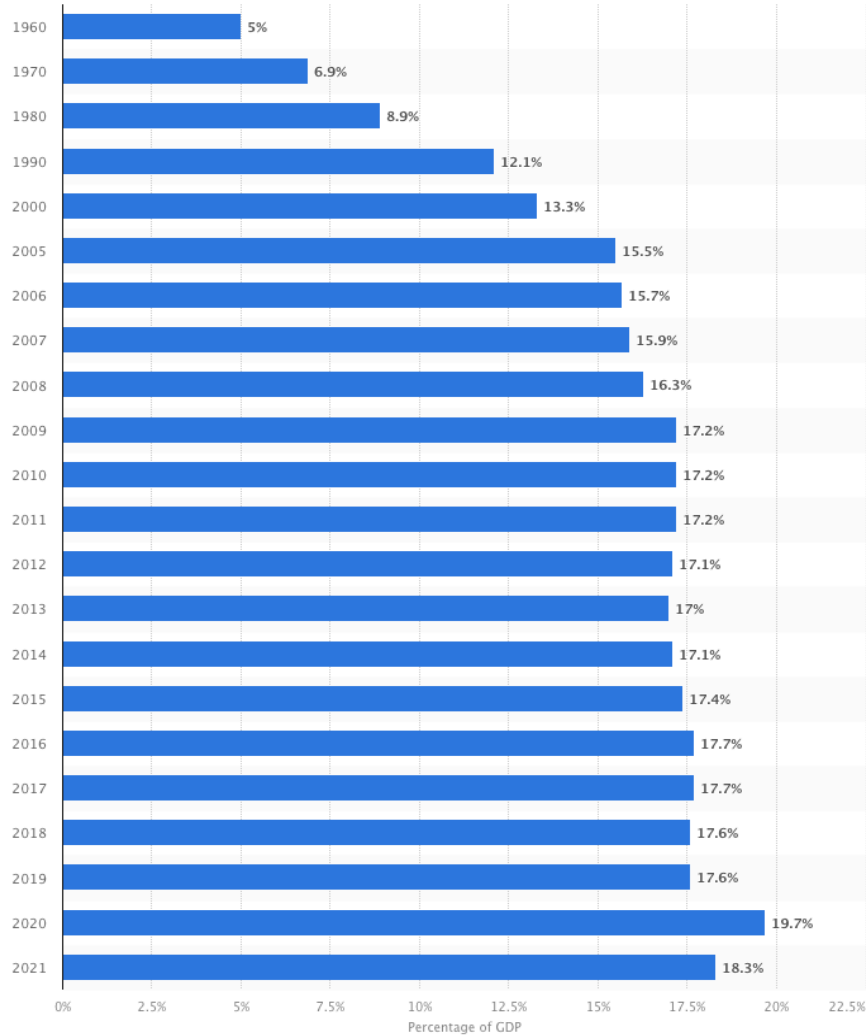


# Macro-Trends for Healthcare Sector





# US and Global Healthcare spending (% of GDP)



- Global healthcare spending increasing
- US spending much more significant than the rest of the world
- CMS projects spending to increase at an average rate of 5.4% through 2028



# Pricing Pressure for Pharmaceuticals: Inflation Reduction Act

Medicare Drug Price Negotiation Timeline for 2026 & 2027

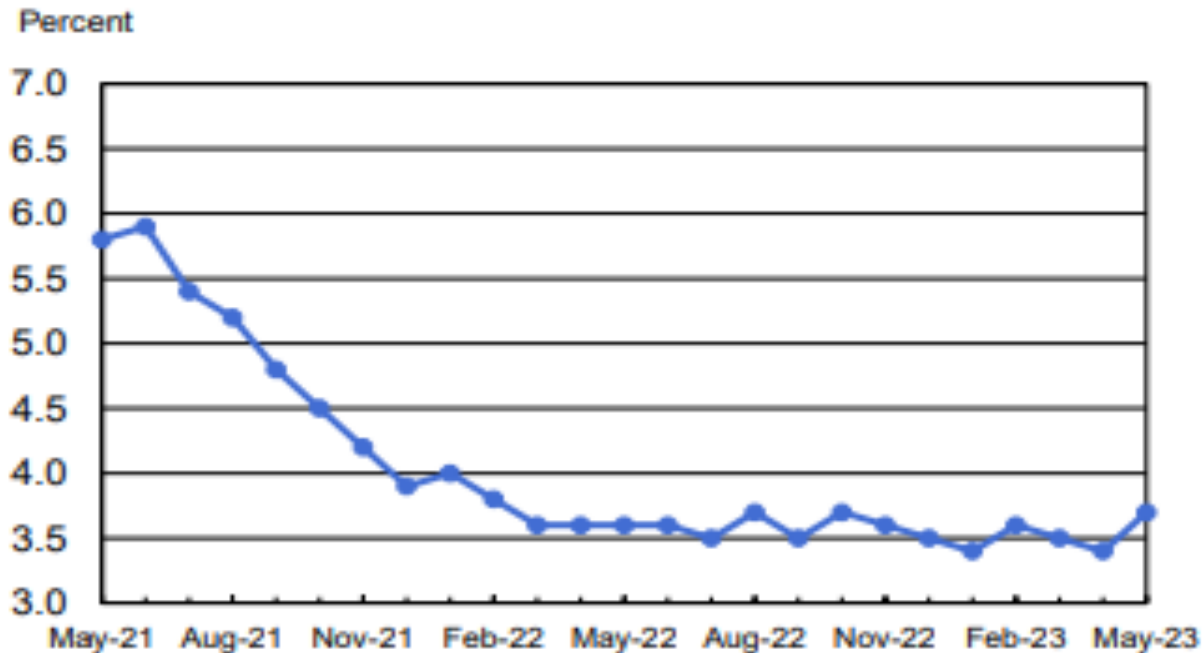


- Currently:
  - Price for Medicare-covered treatments cannot exceed the rate of inflation
  - Companies must pay rebates to Medicare if prices exceed inflation
- Future outlook:
  - 2026-2029: price negotiation targeted at treatments without alternatives in the market
    - 60 Part D (retail prescription) drugs subject to HHS negotiation
    - 40 Part B (physician prescribed) drugs
- 65% excise tax on US sales for failure to comply with negotiations
  - Increases by 10% per quarter until max of 95%



# Demographic level: Change in employment

Flat levels of unemployment



Unemployment rate, seasonally adjusted, May 2021-  
May 2023 (USBLS)

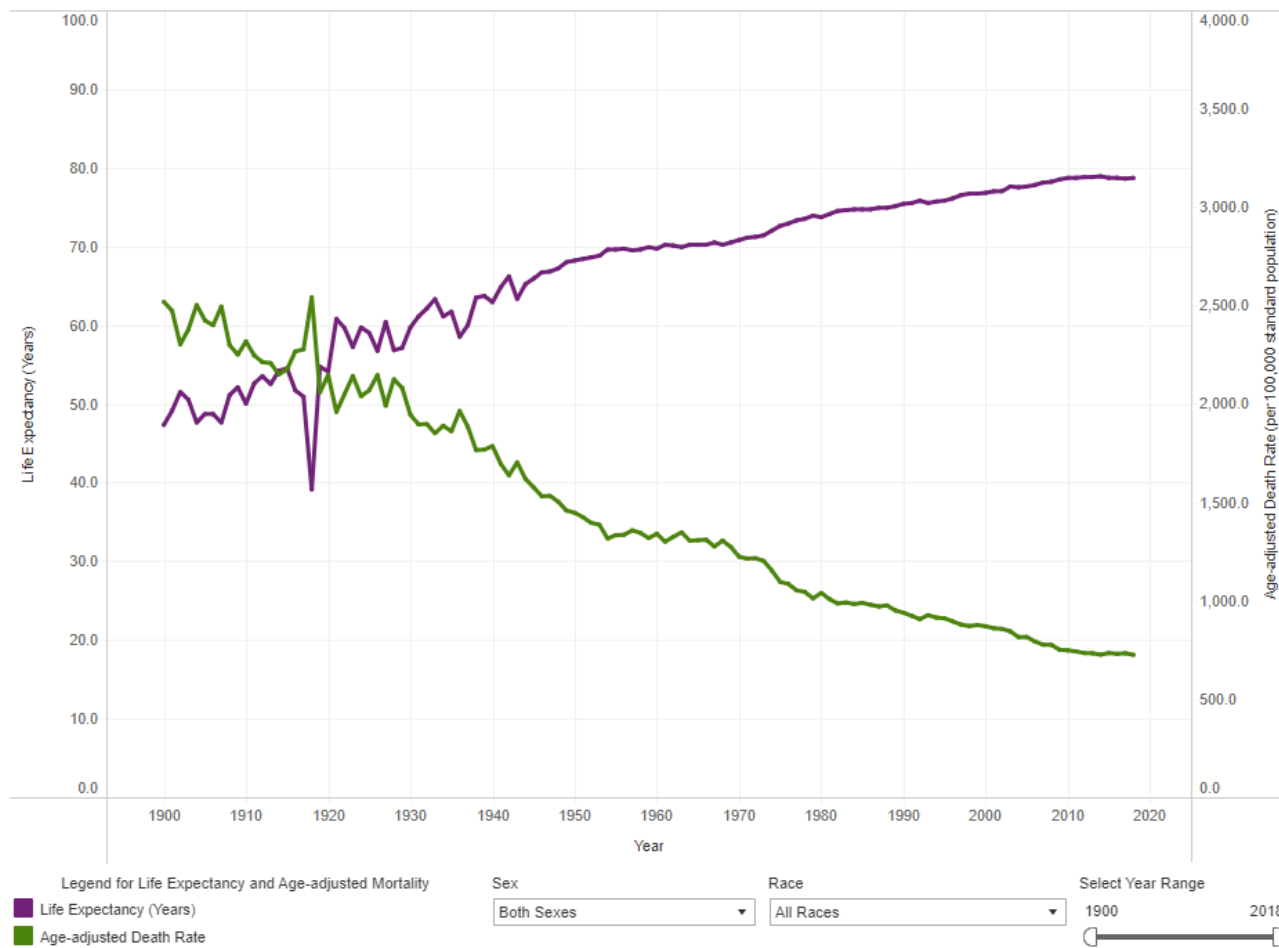
Positive indicator for healthcare industry

Low unemployment = increasing numbers of insured Americans

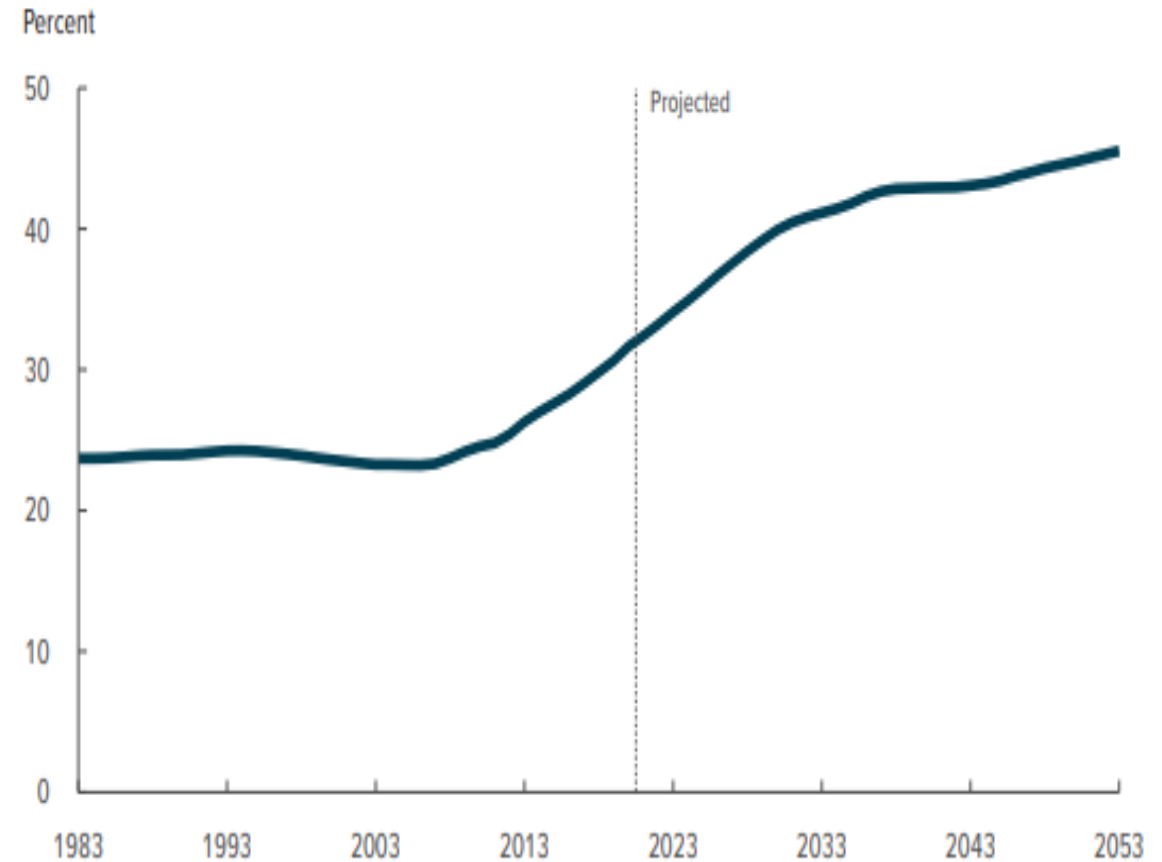


# Aging population, Increased Reliance on Healthcare

Age-adjusted Death Rates† and Life Expectancy at Birth (Both Sexes, All Races): United States, 1900 to 2018‡‡



Population Age 65 or Older as a Share of the Population Ages 25 to 64



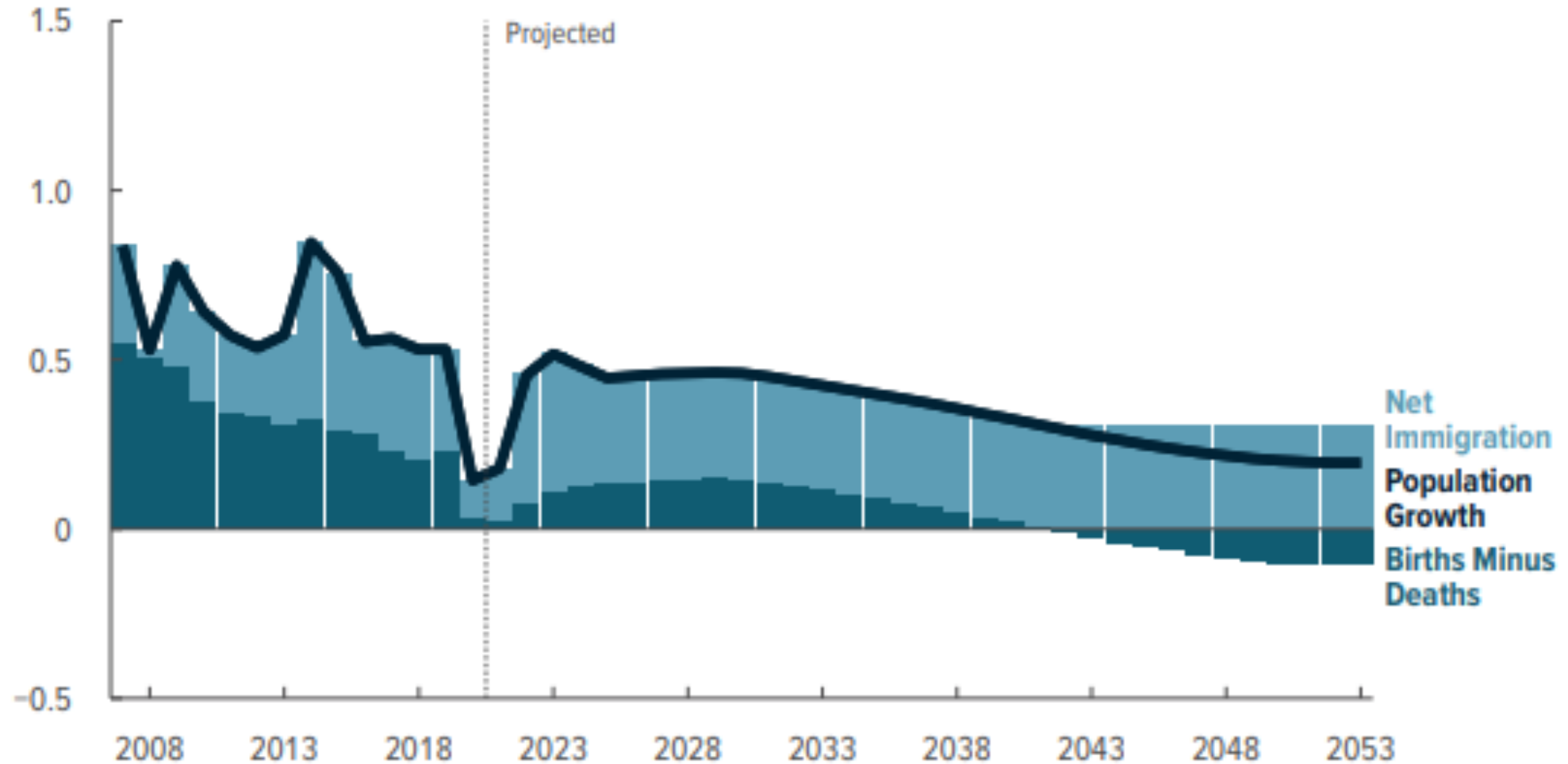




# Population Stagnation

Demographic Factors That Determine Population Growth

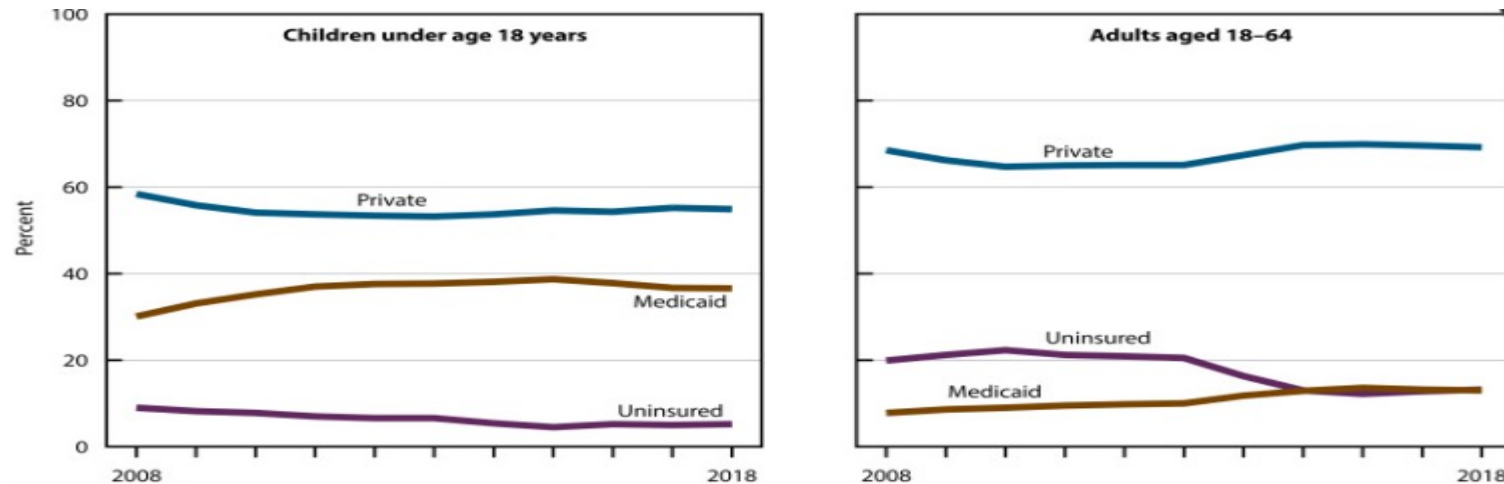
Percent





# Governmental Level : Healthcare Insurance

Uninsured population goes to all time low of 8.3%



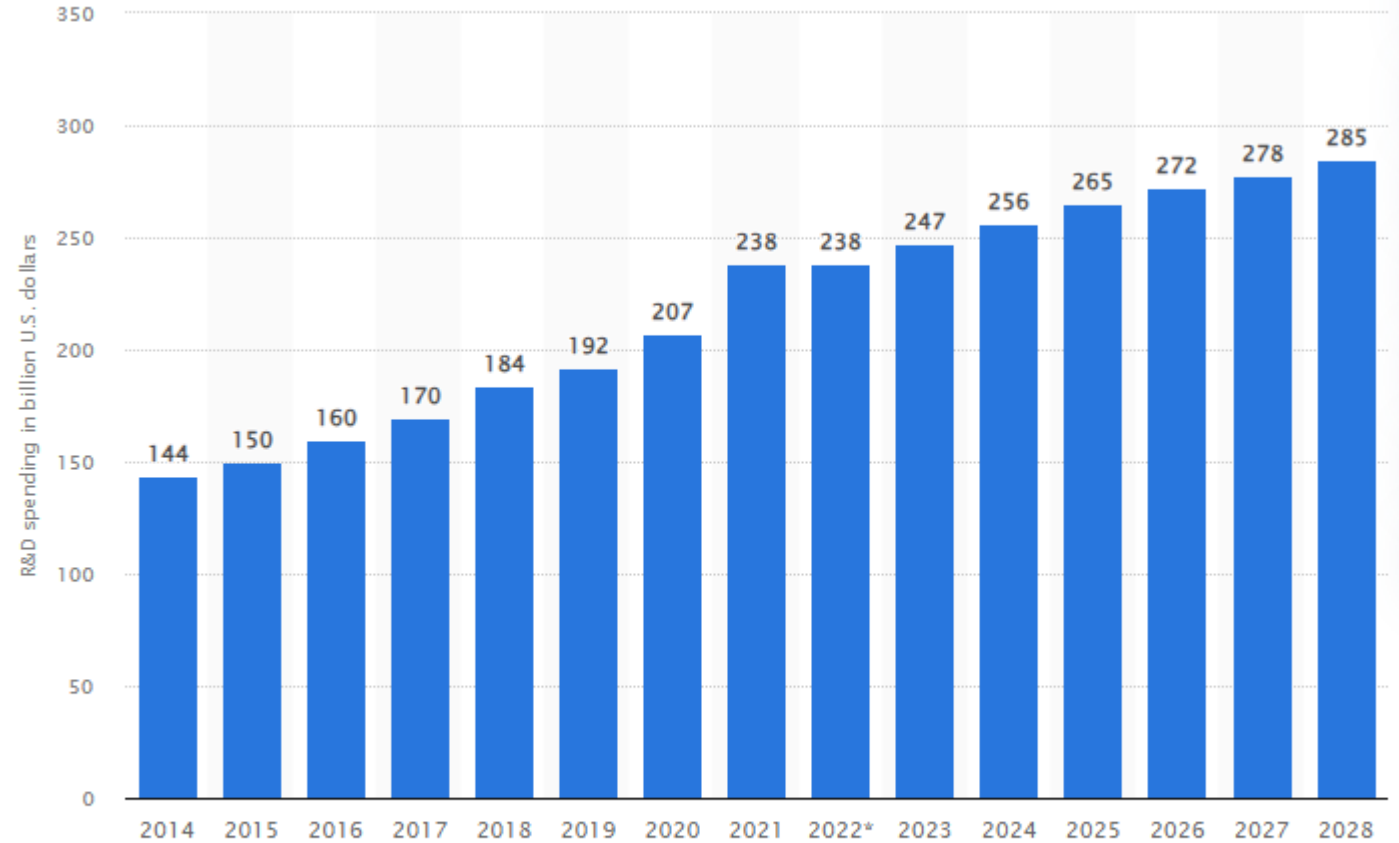


# Investment in pharmaceuticals continues to grow



Source: Statista, Congressional Budget Office

### Total global spending on pharmaceutical research and development 2014-2028 (US \$B)



[Additional Information](#)

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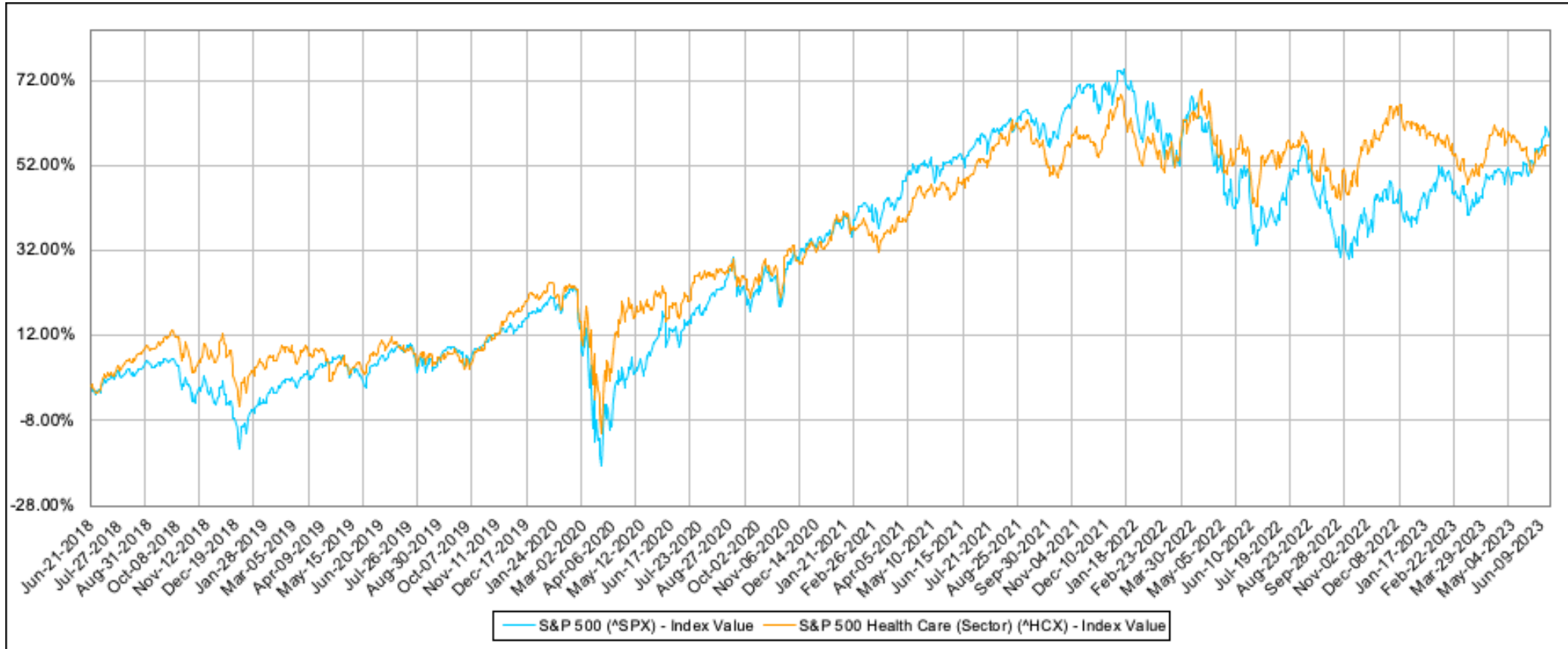
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# Healthcare (blue) vs Other Sector Growth



Beyond tech, healthcare is the best performing index on a 5 year time basis



- Sector tends to fall behind S&P during market growth
- Regains advantage during market downturns



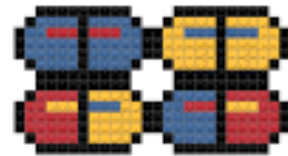


## Pros

- Defensive
- Consistent performance
- Aging population
- Barriers to Entry

## Cons

- High costs
- Regulation
- Risk (policy)







## Sources

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[%2C%20U.S.%20national%20health,GDP%20share%20among%20developed%20countries.](https://www.statista.com/statistics/184968/us-health-expenditure-as-percent-of-gdp-since-1960/#:~:text=U.S.%20health%20expenditure%20as%20percent%20of%20GDP%201960%2D2021&text=In%202021%2C%20U.S.%20national%20health,GDP%20share%20among%20developed%20countries.)

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[1W&start=2000&view=map&year=2004](https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?end=2020&locations=US-1W&start=2000&view=map&year=2004)

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[act/#bullet01](https://www.kff.org/medicare/issue-brief/explaining-the-prescription-drug-provisions-in-the-inflation-reduction-act/#bullet01)