CONFERENCE OF CONSULTING ACTUARIES

CCA Annual Meeting 2026

The Long-Term Outlook for Health-Care Spending in the Developed Countries

Richard Jackson*

*The presenter would like to thank Liaw Huang, who collaborated in producing an earlier version of this presentation and updated the projections for the current one.

PRESENTATION GOALS

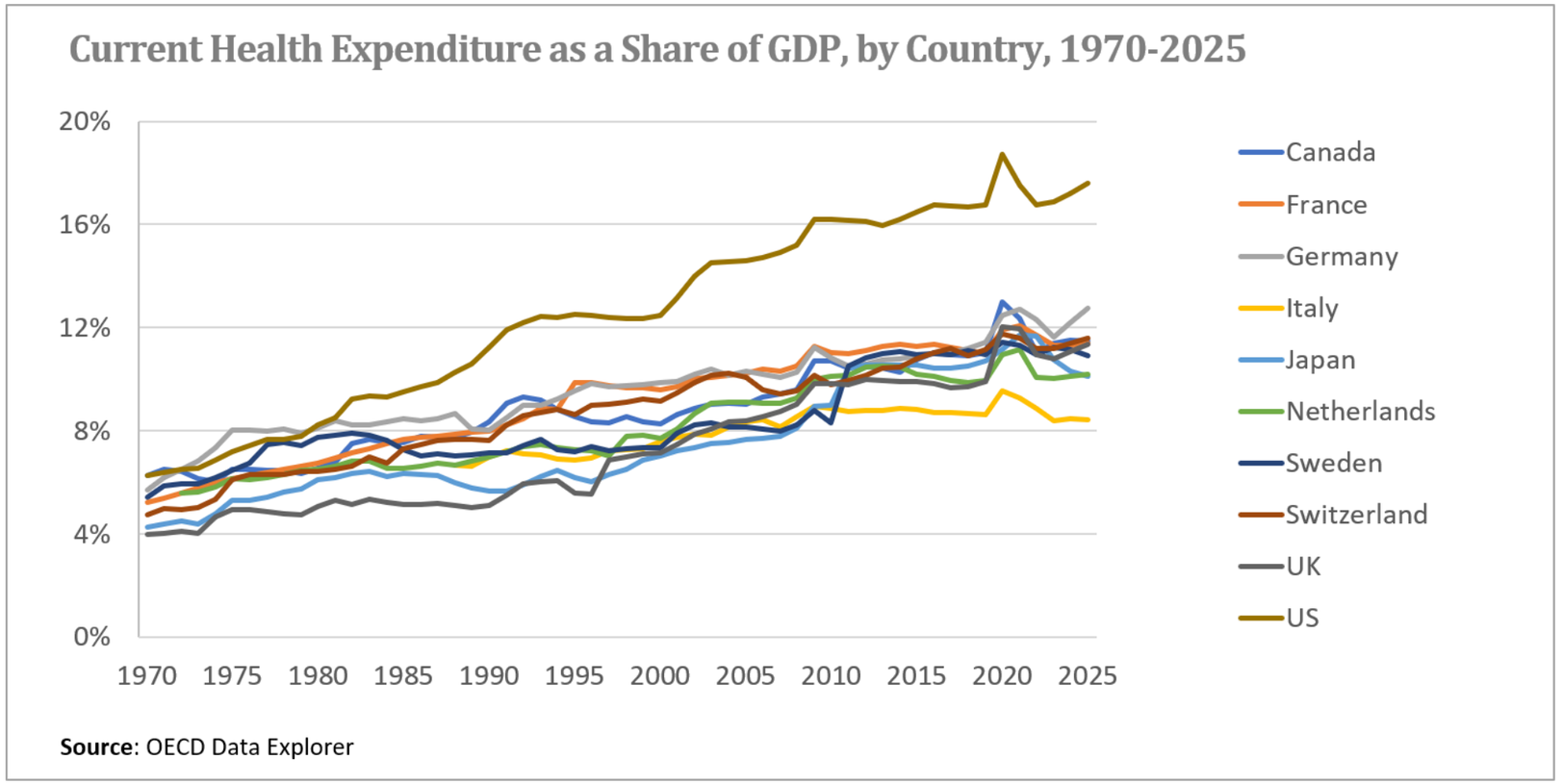
- Examine the long-term drivers of health-care spending in the United States and other developed countries.
- Assess whether the slowdown in health-care spending that many countries have experienced since the Great Recession is likely to be lasting.
- Present a range of scenarios that bracket the likely future growth in health-care spending as a share of GDP.
- Explore why the United States spends far more on health care than other developed countries.

SCOPE OF ANALYSIS

- The analysis is limited to high-income OECD countries with mature welfare states.
- Ten countries are included: Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the UK, and the United States.
- The analysis is based on historical trends from 1970 to the present. The projections extend to 2060.
- The analysis focuses on current health expenditure, which in principle includes all categories of health-care consumption. However, the data for some countries exclude spending on long-term care.

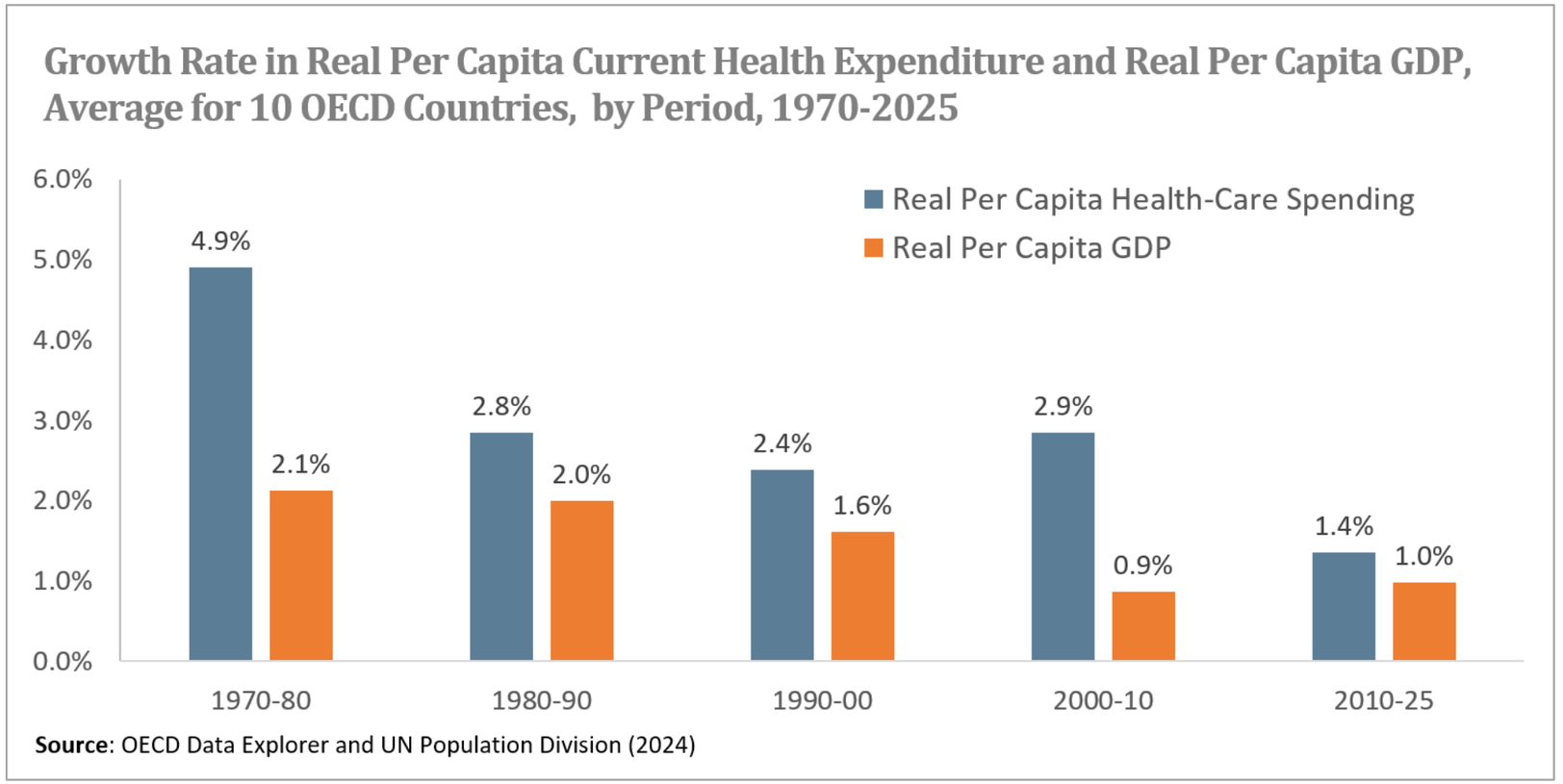
Historical Spending Trends

Since the Great Recession, the growth in health-care spending as a share of GDP has moderated in most developed countries.

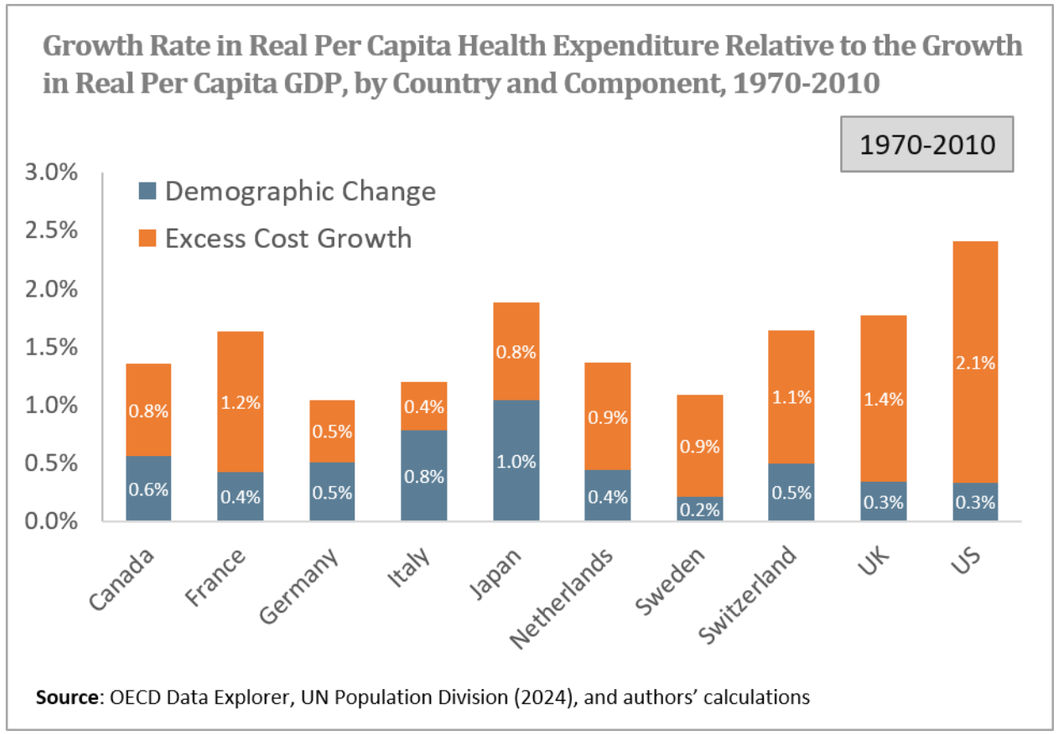


Source: OECD Data Explorer

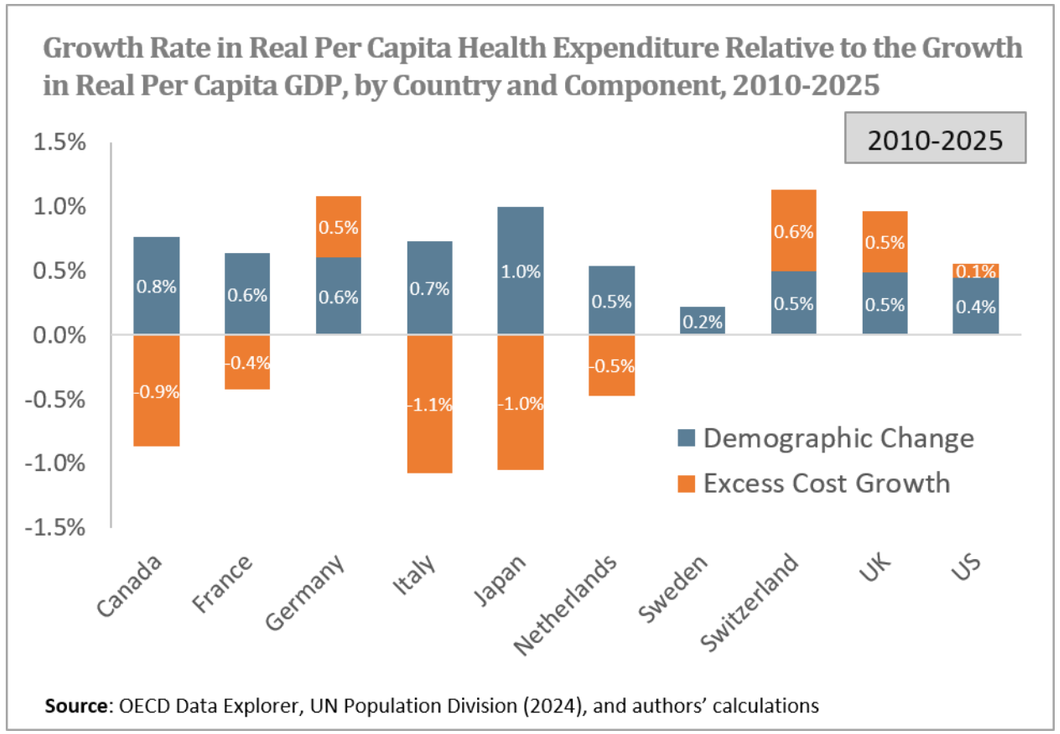
The growth in per capita health-care spending has slowed dramatically relative to the growth in per capita GDP.



There are two components to the growth in health-care spending as a share of GDP: Growth due to demographics and "excess cost growth."



Source: OECD Data Explorer, UN Population Division (2024), and authors' calculations



Source: OECD Data Explorer, UN Population Division (2024), and authors' calculations

Note: "Excess Cost Growth" is calculated as a residual. It is the amount by which the growth in real per capita health-care spending exceeds the growth in real per capita GDP after taking into account the impact of demographic change.

REASONS FOR THE SLOWDOWN

- The recent slowdown in health-care spending growth is almost entirely due to reductions in “excess cost growth.”
- Several developments appear to have played a role in reducing excess cost growth, including sluggish real income growth, the more efficient use of health-care technologies, improvements in health-care sector productivity, and more effective government cost-control measures.
- Although some health-care economists believe that these developments will continue to put downward pressure on costs, health-care spending growth is once again accelerating in a number of developed countries, including the United States.

Long-Term Spending Drivers

HEALTH-CARE SPENDING DRIVERS

NEAR-TERM DRIVERS (1-3 years)

In the near term, spending is largely determined by such factors as provider/insurance contracts, health-care budgets, case mix, utilization patterns, and government regulation.

MEDIUM-TERM DRIVERS (3-10 years)

In the medium term, spending is also influenced by the business cycle, changes in health-care sector labor supply, and industry trends such as health-care consolidation.

LONG-TERM DRIVERS (10-30+ years)

In the long term, spending is driven by demographic trends and trends in the underlying economic, technological, and social forces that contribute to "excess cost growth."

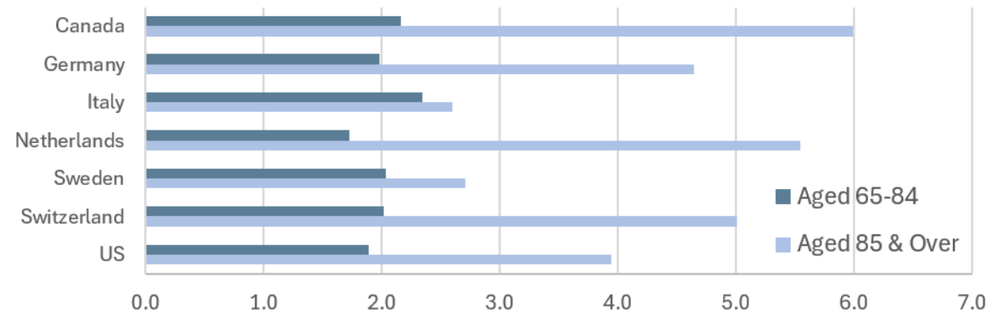
Demographic Drivers: Population Aging and Population Health

Excess Cost Growth Drivers: Income Elasticity, Health-Care Sector Productivity, Technological Change, Public Expectations, and Government Policy

POPULATION AGING

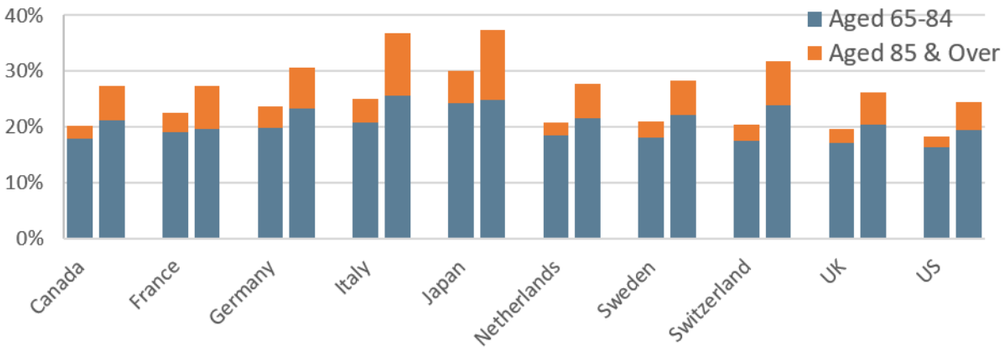
- Population aging affects health-care spending growth through four age-related multipliers:
  - The elderly consume more per capita in health-care services than the nonelderly.
  - The elderly are the fastest growing segment of the population.
  - The older the elderly are, the more health care they consume.
  - The oldest elderly age brackets are the fastest growing of all.
- As population aging has accelerated—and excess cost growth has slowed—demographic trends have become a more important long-term driver of health-care spending.

Ratio of Per Capita Health-Care Spending by the Elderly to Average Per Capita Spending, by Country in 2018 or Most Recent Available Year



Source: Morgan and Mueller (OECD, October 2023)

Elderly (Aged 65 & Over) as a Share of the Population, by Elderly Age Group and Country, 2025 and 2060



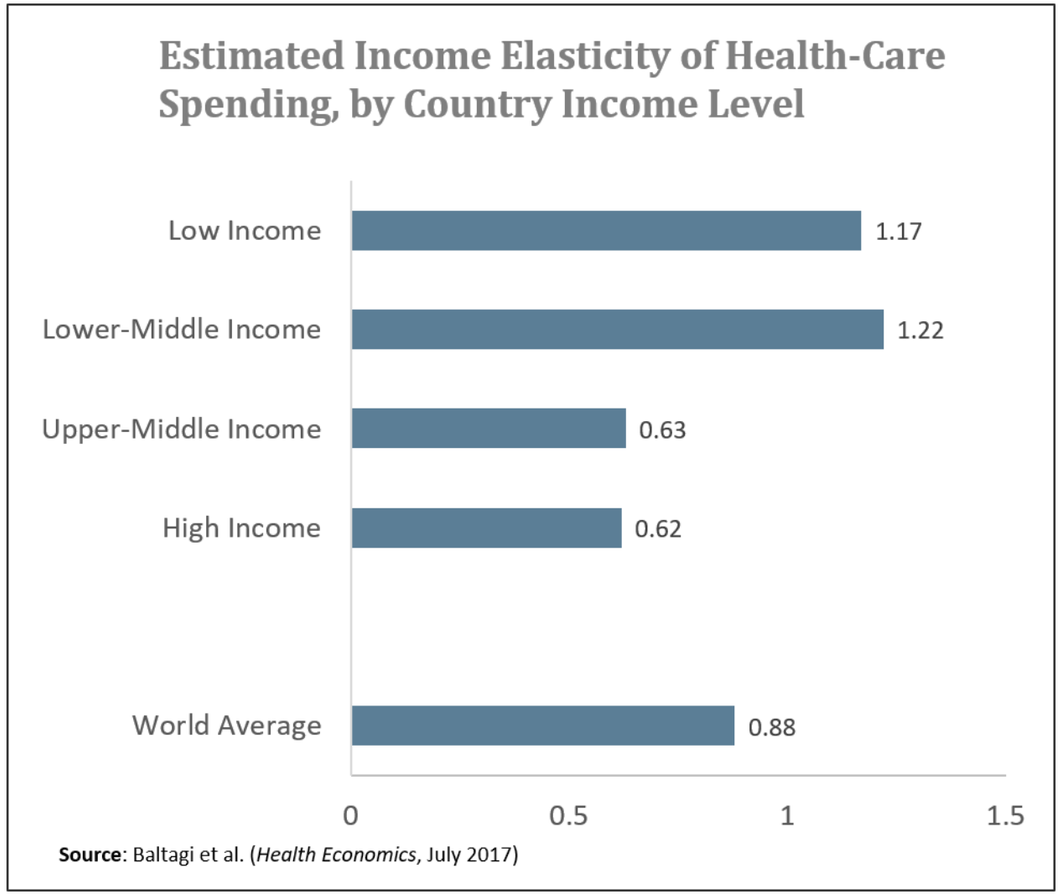
Source: UN Population Division (2024)

POPULATION HEALTH

- Trends in health at older ages can mitigate or exacerbate the impact of population aging on health-care spending.
- Three possible future scenarios:
  - Constant Morbidity: Health expectancy grows in tandem with life expectancy, leaving the number of high-cost years toward the end of life unchanged.
  - Expansion of Morbidity: Life expectancy rises faster than health expectancy, increasing the number of high-cost years toward the end of life.
  - Compression of Morbidity: Healthy aging and/or biomedical advances cause health expectancy to rise faster than life expectancy, reducing the number of high-cost years toward the end of life.
- The empirical jury is still out. While rates of disability among the elderly have fallen in most developed countries in recent decades, rates of chronic morbidity in most have been flat or rising.

INCOME ELASTICITY

- It is well established that there is a close relationship between a society's income level and how much it spends on health care. Poor societies spend little as a share of GDP, developing ones spend more, and affluent ones spend most of all.
- There also appears to be a close relationship between income growth and health-care spending growth. Several studies have concluded that slower GDP growth has contributed to slower health-care spending growth since the Great Recession.
- The developed world's aging societies will likely continue to have slow-growth economies, which in turn suggests that income elasticity is likely to remain a negative driver.



HEALTH-CARE SECTOR PRODUCTIVITY

- Industries with lower-than-average productivity growth tend to grow as a share of the economy. This well-documented dynamic is known as "Baumol's cost disease."
- Historically, health-care sector productivity has been unusually resistant to productivity improvements. Most health-care economists agree that this resistance has been a significant driver of excess cost growth.
- There is some evidence that this may be changing due to such developments as the adoption of EMR systems and the substitution of lower-cost health-care professionals for physicians. It is also possible that AI could raise health-care sector productivity growth in the future.
- Whether these developments will significantly slow future health-care spending growth is as yet uncertain.

Estimate of Baumol's Cost Disease Coefficient

$$\Delta \log(C^{NP}) = \lambda[\Delta \log(W) - \Delta \log(Y)]$$

where:

$\Delta\log(C^{NP})$ = the change in unit costs in the non-productive sector (e.g., health care)

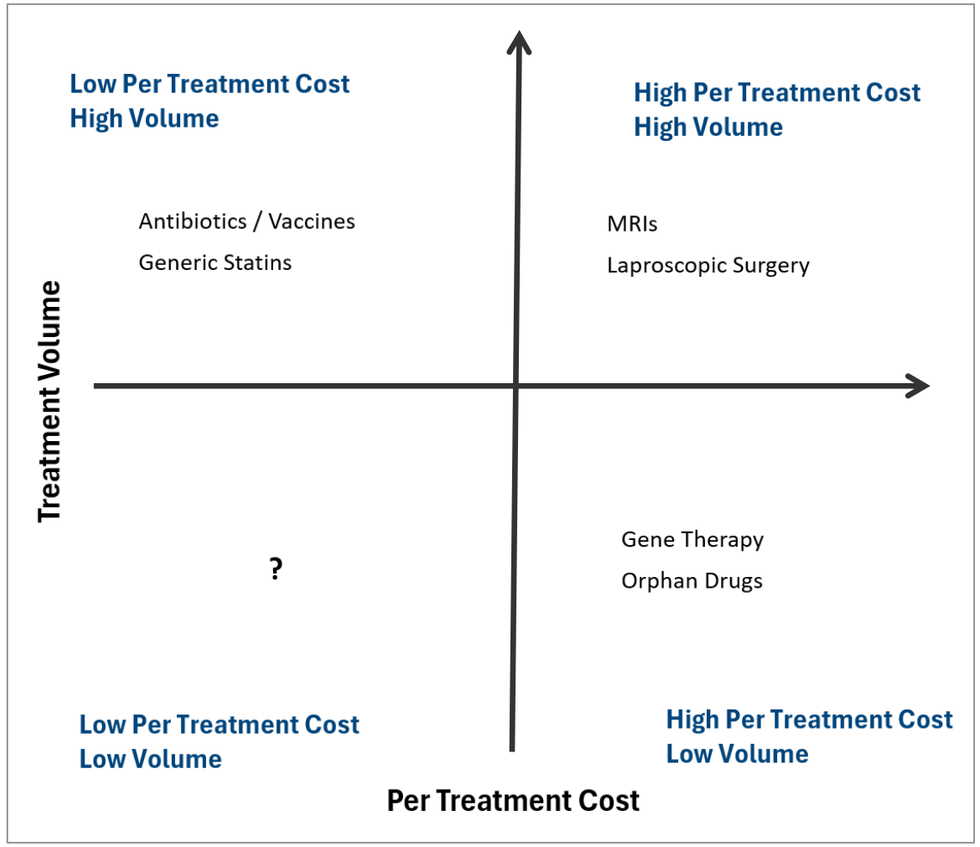
$\Delta\log(W)$ = the growth rate in wages in the overall economy

$\Delta\log(Y)$ = the growth rate in labor productivity (output per worker) in the overall economy

TECHNOLOGICAL CHANGE

- Historically, technological change in the health-care sector has usually added to costs.
  - New technologies tend to be additive rather than to substitute for old technologies.
  - Even when new technologies reduce per treatment costs, they may increase treatment volume by allowing earlier detection of disease, treatment of subtler degrees of morbidity, and/or less invasive procedures.
  - Advances in biomedicine allow ever-greater customization of medical interventions.
- There is some evidence that the more efficient use of new technologies, along with government policies that limit the diffusion of those technologies, may be making technological change a less potent cost driver.

Technological Change & Health-Care Costs



PUBLIC EXPECTATIONS

- Good health is not a fixed goal, but a subjective standard that rises over time as societies become more affluent, better educated, and less tolerant of risk or "bad health."
- At the same time, widespread public access to information about the latest tests and treatments makes it more difficult for payers or providers to set limits.
- As growing public expectations interact with medical advances, health care is becoming a lifelong process of diagnostics and fine-tuning in which any extra dollar or euro or yen spent is likely to confer some perceived benefit.
- All of this suggests that rising public expectations will continue to put upward pressure on health-care spending.

GOVERNMENT POLICY

- Most studies agree that government cost-control efforts have played an important role in the recent slowdown in health-care spending growth. These efforts include:
  - Shifting to reimbursement policies that reward the "value" rather than volume of services
  - Encouraging greater efficiency through reductions in hospital re-admissions, emergency room utilization, etc.
  - Making more effective use of global budgeting enforced by price controls and/or volume controls
  - Stressing prevention and healthy lifestyles
- Such cost-control efforts are likely to intensify as aging societies with slow-growth economies face increasing fiscal constraints. As they do, they may collide with rising public expectations about care and cure.

Projection Scenarios

All other things being equal, population aging alone will drive up health-care spending as a share of GDP.

Assumptions

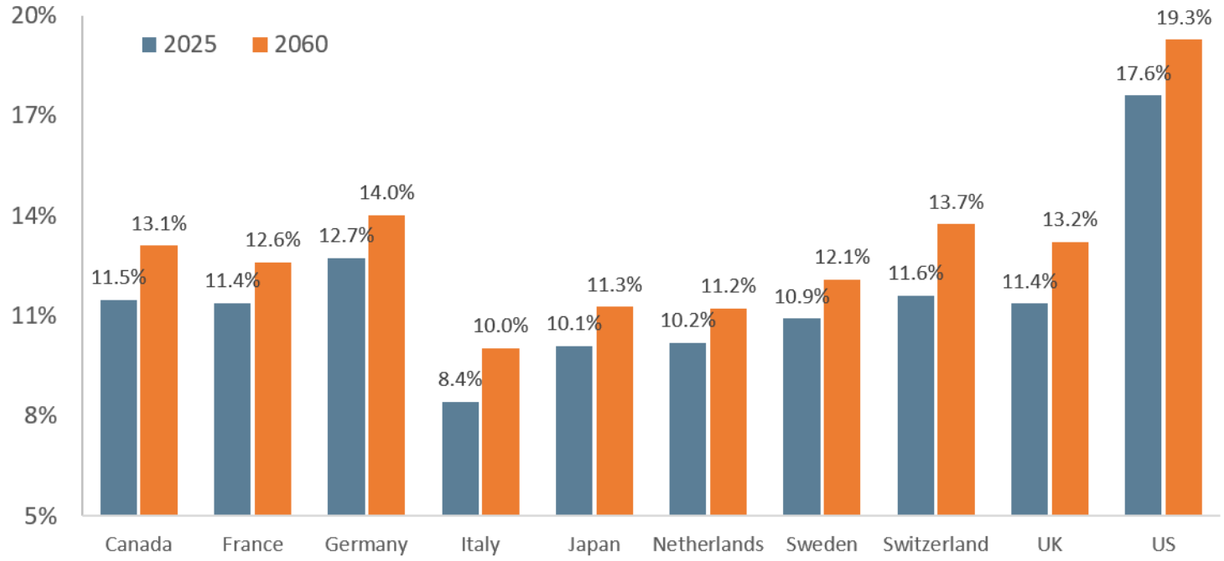
DEMOGRAPHICS

Constant morbidity scenario

EXCESS COST GROWTH

Income Elasticity:	1.0
Healthcare Productivity:	0
Technological Change, Expectations & Policy	0

Current Health Expenditure as a Share of GDP, by Country, 2025 and Projection for 2060 Assuming No Excess Cost Growth



Source: Authors' calculations

Assumptions

DEMOGRAPHICS

Effective Cost Control: Compression of Morbidity
Moderate Cost Pressure: Constant Morbidity
High Cost Pressure: Expansion of Morbidity

EXCESS COST GROWTH

Effective Cost Control:

Income Elasticity	0.73
Healthcare Productivity	0.2
Technological Change, Expectations & Policy	0.0025

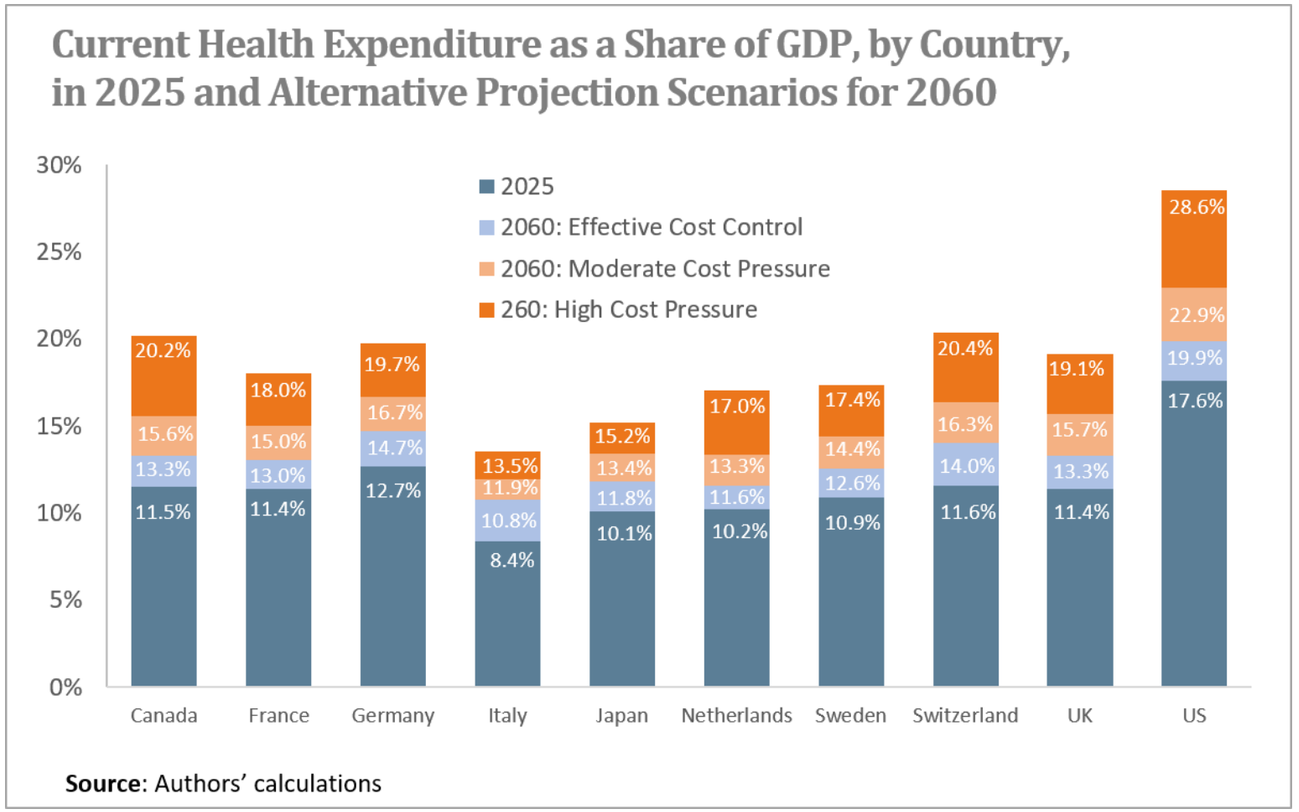
Moderate Cost Pressure:

Income Elasticity	0.73
Healthcare Productivity	0.265
Technological Change, Expectations & Policy	0.005

High Cost Pressure:

Income Elasticity	0.73
Healthcare Productivity	0.4
Technological Change, Expectations & Policy	0.0075

Three Scenarios for Health-Care Spending



Source: Authors' calculations

Why the United States Spends So Much More

SPECIAL U.S. COST DRIVERS

- No budget constraint. Health-care spending in the United States, both public and private, is largely open-ended, whereas most national health systems have global budgets that are enforced through price and volume controls.
- Higher prices and volume. Much of higher U.S. spending is attributable to higher unit prices, though some is attributable to higher service volume, especially for low-probability-of-success "heroic" procedures and elective procedures.
- Higher administrative costs. The U.S. health system has far higher administrative costs. Ironically, much of the burden is the result of efforts to control costs. Tax subsidies, fee-for-service-billing, and third-party payment drive costs up, and payers then slap on layer upon layer of regulation to control them.
- Worse morbidity profile. Sick people consume more in health-care services, and the United States has higher rates of obesity, diabetes, and substance abuse than any other developed country.

