

# **OECD DEMOGRAPHIC FISCAL CRISIS**

## **Strategic Assessment Report**

### **From Post-WWII Prosperity to Structural Decline (1945-2035)**

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# EXECUTIVE SUMMARY

The social welfare systems established across OECD countries after World War II were designed for sustained population growth and favorable worker-to-dependent ratios. These assumptions held from 1945 to approximately 2000. Since 2000, every demographic indicator has reversed, creating structural fiscal gaps that are mathematically impossible to close through conventional policy. This represents the end of the post-WWII social model.

## Key Findings

### Demographic Reversal (Verified OECD Data):

| Indicator   | 2000 | 2025 | 2035 (Projected) |
|---|------|------|------------------|
| Old-age dependency (65+ per 100 workers aged 20-64) | 22   | 33   | 42               |
| Change from 2000 baseline                           | —    | +50% | +91%             |
| OECD fertility rate (children per woman)            | 1.67 | 1.51 | ~1.5             |
| Female labor force participation                    | 60%  | 58%  | 56-57%           |

The 27% deterioration from 2025-2035 is demographically locked—no policy can alter it. Policy enacted today cannot alter the 2035 demographic structure; these people are already alive. Significant policy impact begins only in the 2040s.

### Fiscal Arithmetic:

| Component                           | Impact (% of GDP per year by 2035)  |
|-------------------------------------|---|
| Age-related spending increase       | +2.5 to 3.5   |
| Realistic revenue increase capacity | +1.0 to 2.0   |
| <b>Structural fiscal gap</b>        | <b>1.0 to 3.0</b> (prepared countries)<br><b>5.0 to 8.0</b> (crisis-risk countries) |

Note: Child-related public spending has NOT declined despite lower fertility—per-child costs have increased. No fiscal offset is available.

### **Why Conventional Solutions Cannot Close Gaps for At-Risk Countries:**

For countries with structural gaps exceeding 3-4% of GDP per year, conventional policy tools—tax increases, benefit cuts, immigration, and productivity gains—even combined, cannot offset the arithmetic of dependency ratio deterioration. The mathematics are binding:

- Tax increases sufficient to close gaps would damage economic growth and tax base
- Benefit cuts at required scale (25-30%) are politically impossible absent acute crisis
- Immigration at required scale (2-3% population growth per year) exceeds political tolerance
- Productivity gains cannot mathematically offset dependency ratio deterioration

### **Current Interest Rate Environment Worsens All Projections:**

- Historical debt projections assumed low interest rates (2010-2021 environment)
- Current rates (4-5%) dramatically accelerate debt accumulation
- US example: Interest payments currently consume approximately 35% of discretionary federal revenue (excluding dedicated entitlement taxes), rising toward 60% by 2030 as debt rolls over at higher rates

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# 1. INTRODUCTION: THE POST-WWII SOCIAL CONTRACT

## 1.1 Origins of the Modern Welfare State

The modern OECD welfare state emerged from the ashes of World War II. Between 1945 and 1960, every major developed country established comprehensive social insurance systems based on principles of universal coverage and defined benefits. This represented a fundamental transformation in the relationship between citizens and the state.

The post-war settlement was shaped by several converging forces:

**The Great Depression Legacy:** The 1930s demonstrated that unregulated markets could produce catastrophic outcomes. Mass unemployment, bank failures, and social dislocation created political demand for government intervention and social protection.

**Wartime Mobilization:** Total war required unprecedented government coordination of economic activity. Citizens who had sacrificed during wartime expected peacetime benefits. The Beveridge Report (1942) in Britain articulated this expectation explicitly.

**Cold War Competition:** Western democracies sought to demonstrate that capitalism could deliver broad-based prosperity, countering Soviet claims about worker exploitation. Generous social programs were partly ideological tools.

**Demographic Tailwinds:** The baby boom generation (1946-1964) created an expanding workforce. Each year brought more workers relative to retirees, making pay-as-you-go systems appear sustainable indefinitely.

These systems shared common features across all models:

- **Pay-as-you-go pensions:** Current workers fund current retirees through payroll taxes
- **Defined benefits:** Promised benefits calculated by formula regardless of demographic changes
- **Universal healthcare:** State-provided or state-funded medical care for all citizens
- **Universality:** Coverage for all citizens as a right, not means-tested charity

## 1.2 The Three Models of Welfare Capitalism

While all OECD countries established comprehensive welfare states, three distinct models emerged:

**The Nordic Model (Sweden, Denmark, Norway, Finland):** - Highest tax burdens (45-50% of GDP per year) - Most comprehensive universal benefits - Strong labor

market policies and active government - High female labor force participation supported by public childcare

**The Continental Model (Germany, France, Italy, Spain):** - Contribution-based social insurance tied to employment - Strong role for occupational and family-based welfare - Moderate tax burdens (35-45% of GDP per year) - Pay-as-you-go pensions as cornerstone

**The Anglo-Saxon Model (United States, United Kingdom, Canada, Australia):** - Lower tax burdens (25-35% of GDP per year) - Greater reliance on private provision and means-testing - More residual safety net approach - Earlier movement toward funded pensions (Australia, Canada)

These structural differences, established 60-80 years ago, now largely determine which countries face manageable challenges versus existential crises.

### **1.3 The Demographic Assumptions (1945-2000)**

The post-war welfare state was built on demographic assumptions that held true for 55 years:

#### **1. Sustained Population Growth**

Annual population growth of 1-1.5% was assumed to continue indefinitely. The baby boom generation—76 million in the United States alone—seemed to herald permanent demographic expansion. Policymakers in 1960 could not imagine sustained below-replacement fertility.

#### **2. Each Generation Larger Than the Previous**

Pay-as-you-go systems require each generation of workers to be larger than the previous generation of retirees. From 1945 to 2000, this held true. The ratio of workers to retirees remained favorable, typically 4-5 workers per retiree.

#### **3. Favorable Old-Age Dependency Ratios**

Old-age dependency ratios (persons 65+ per 100 working-age persons 20-64) remained in the 15-22 range throughout this period. At these ratios, a moderate payroll tax (10-15%) could fund adequate retirement benefits.

#### **4. Rising Labor Force Participation**

Women's entry into the paid workforce provided a massive one-time boost to the tax base. Female labor force participation rose from 35% (1970) to 60% (2000)—a 25-percentage-point increase that masked underlying demographic pressures.

#### **5. Relatively Short Retirement Periods**

When Social Security was established in 1935, life expectancy at 65 was approximately 13 years. Retirement was expected to be brief. Systems were designed for perhaps 10-15 years of benefit collection, not 20-25+ years.

## 1.4 The Golden Age: 1945-2000

For 55 years, the post-war settlement delivered on its promises:

**Economic Growth:** Real GDP per capita grew 2-3% annually across OECD countries. Each generation was materially better off than the previous.

**Rising Living Standards:** Median incomes rose steadily. Home ownership expanded. Consumer goods became affordable to working families.

**Expanding Benefits:** Pension replacement rates increased. Healthcare coverage expanded. Educational access broadened. The welfare state grew more generous over time.

**Fiscal Sustainability:** Most countries maintained manageable debt levels. Periodic deficits were offset by growth. The systems appeared actuarially sound.

**Social Stability:** Class conflict diminished. Strike activity declined. Political extremism faded. The welfare state achieved its goal of social cohesion.

This success created a dangerous complacency. Policymakers assumed the favorable conditions were permanent rather than historically contingent.

## 1.5 The Critical Turning Point: 2000

The year 2000 represents the high-water mark of the post-war system. Every major demographic and fiscal indicator peaked around this time before reversing:

**Labor Force Participation:** Overall participation reached 67%, driven by female workforce entry. This was the ceiling—there was no additional untapped labor pool.

**Women's Workforce Participation:** Reached 60%, up from 35% in 1970. The 25-percentage-point increase that masked demographic pressures was complete.

**Old-Age Dependency Ratio:** At 22 per 100 workers, this was near its most favorable post-war level. The baby boomers were in their peak earning years, funding benefits for their parents' smaller generation.

**Fiscal Position:** Many countries ran surpluses. The United States had four consecutive surplus years (1998-2001). Debt-to-GDP ratios were declining.

**Pension System Solvency:** Under existing assumptions, most pension systems appeared actuarially sound for decades.

After 2000, every indicator reversed. This was not a cyclical downturn or temporary disruption. It was the end of the demographic conditions that had enabled the post-war settlement.

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## 2. THE DEMOGRAPHIC REVERSAL: WHAT HAS ALREADY HAPPENED (2000-2025)

### 2.1 Old-Age Dependency Ratio Deterioration

The old-age dependency ratio is the single most important metric for understanding fiscal sustainability. It measures the number of persons aged 65 and older per 100 working-age persons (typically defined as ages 20-64).

**Table 2.1: Old-Age Dependency Ratios (Persons 65+ per 100 Working-Age Persons 20-64)**

| Year         | OECD Average | Japan | Germany | France | United States | Canada | Australia |
|--------------|--------------|-------|---------|--------|---------------|--------|-----------|
| 1980         | 19           | 14    | 24      | 22     | 19            | 15     | 16        |
| 1990         | 20           | 18    | 22      | 23     | 21            | 17     | 18        |
| 2000         | 22           | 26    | 24      | 25     | 21            | 19     | 19        |
| 2010         | 24           | 36    | 31      | 26     | 22            | 21     | 20        |
| 2020         | 29           | 49    | 34      | 33     | 27            | 27     | 26        |
| 2025         | 33           | 52    | 37      | 37     | 29            | 30     | 28        |
| 2035 (proj.) | 42           | 58    | 49      | 45     | 38            | 39     | 35        |

Source: *OECD Employment Outlook 2025*, *OECD Pensions at a Glance 2025*, *UN World Population Prospects 2024*

#### Key observations:

**Japan leads deterioration:** Japan's ratio has nearly quadrupled since 1980, from 14 to 52. It serves as a preview of what other countries will experience with a 15-20 year lag.

**Germany deteriorating rapidly:** Germany's ratio has increased from 24 (1980) to 37 (2025), with projection to 49 by 2035—a doubling in 55 years.

**Anglo-Saxon countries lagging but following:** United States, Canada, and Australia show lower ratios due to higher immigration, but the trajectory is identical.

**2025-2035 acceleration:** The next decade sees the steepest increase as the baby boom generation (born 1946-1964) fully enters retirement. This acceleration is locked in—these people are already 61-79 years old.

*[Chart 2.1: Old-Age Dependency Ratio Trajectories 1980-2035 - Line chart showing trajectories for Japan, Germany, France, US, Canada, Australia, OECD average]*

## 2.2 Why Child Dependency Has NOT Offset Elderly Dependency

A critical misconception pervades policy discussions: that lower fertility should reduce child-related costs, offsetting rising elderly costs. **This has not occurred.**

**The Theory:** Fewer children should mean lower education spending, lower pediatric healthcare costs, and reduced family support expenditures. This “demographic dividend” should partially offset rising pension and elderly healthcare costs.

**The Reality:** Child-related public spending has remained stable or increased across OECD countries despite falling birth rates.

**Table 2.2: Child-Related Public Spending (% of GDP per year)**

| Category                             | 1990       | 2000       | 2010       | 2025       |
|--------------------------------------|------------|------------|------------|------------|
| Education<br>(primary/sec<br>ondary) | 3.8        | 3.9        | 4.0        | 4.2        |
| Childcare<br>subsidies               | 0.3        | 0.5        | 0.7        | 0.9        |
| Child<br>healthcare                  | 0.8        | 0.9        | 1.0        | 1.1        |
| Family<br>allowances                 | 1.2        | 1.3        | 1.4        | 1.5        |
| <b>Total</b>                         | <b>6.1</b> | <b>6.6</b> | <b>7.1</b> | <b>7.7</b> |

*Source: OECD Social Expenditure Database*

### Why costs increased despite fewer children:

**1. Rising Per-Child Education Costs** - Class sizes reduced (from 25-30 to 18-22 students) - Special education expanded dramatically (from 2% to 12% of students receiving services) - Technology requirements increased - Teacher compensation rose faster than inflation - Extended school years and enrichment programs added

**2. Expanded Childcare Subsidies** - As women entered workforce, public childcare subsidies expanded - Cost of childcare rose faster than inflation - Coverage extended to younger ages (0-3)

**3. Healthcare Cost Inflation** - Pediatric healthcare costs rose with overall medical inflation - Expanded vaccination schedules - Mental health services expanded - Obesity-related treatments increased

**4. Extended Dependency Period** - Higher education became near-universal expectation - Workforce entry delayed from age 18 to 22-25 - “Failure to launch”

phenomenon—young adults remaining dependent longer - Graduate education expansion

**The net result:** The potential fiscal dividend from fewer children has been fully absorbed by higher per-child spending. There is no offset available for rising elderly costs.

## 2.3 Fertility Collapse: 30 Years Below Replacement

Total fertility rate (TFR)—the average number of children per woman—has collapsed across all OECD countries and remained below replacement level (2.1) for three decades.

**Table 2.3: Total Fertility Rates (Children per Woman)**

| Country             | 1960       | 1970       | 1980       | 1990       | 2000        | 2010        | 2024        |
|---------------------|------------|------------|------------|------------|-------------|-------------|-------------|
| United States       | 3.65       | 2.48       | 1.84       | 2.08       | 2.06        | 1.93        | 1.62        |
| France              | 2.73       | 2.47       | 1.95       | 1.78       | 1.89        | 2.03        | 1.68        |
| United Kingdom      | 2.72       | 2.43       | 1.90       | 1.83       | 1.64        | 1.92        | 1.56        |
| Germany             | 2.37       | 2.03       | 1.56       | 1.45       | 1.38        | 1.39        | 1.36        |
| Italy               | 2.37       | 2.38       | 1.64       | 1.33       | 1.26        | 1.41        | 1.24        |
| Spain               | 2.86       | 2.90       | 2.20       | 1.36       | 1.23        | 1.37        | 1.19        |
| Japan               | 2.00       | 2.13       | 1.75       | 1.54       | 1.36        | 1.39        | 1.20        |
| South Korea         | 6.00       | 4.53       | 2.82       | 1.57       | 1.47        | 1.23        | 0.72        |
| Canada              | 3.90       | 2.33       | 1.68       | 1.83       | 1.49        | 1.63        | 1.44        |
| Australia           | 3.45       | 2.86       | 1.89       | 1.91       | 1.76        | 1.95        | 1.63        |
| <b>OECD Average</b> | <b>3.2</b> | <b>2.7</b> | <b>2.0</b> | <b>1.8</b> | <b>1.67</b> | <b>1.74</b> | <b>1.51</b> |

Source: *OECD Family Database, UN World Population Prospects 2024*

[Chart 2.2: Total Fertility Rates 1960-2024 - Line chart showing collapse across countries]

### Critical observations:

#### 1. No country has recovered to replacement level

Once fertility falls below 1.5, no developed country has successfully restored it to replacement level (2.1). Thirty years of pronatalist policies across dozens of countries have universally failed to reverse the trend.

## **2. The decline continues**

Even countries with relatively high fertility (France, United States) are now declining. The 2024 OECD average of 1.51 represents an all-time low.

## **3. South Korea represents the extreme**

At 0.72 children per woman, South Korea faces demographic collapse. This is the lowest fertility rate ever recorded in a developed nation. At this rate, each generation is one-third the size of the previous.

## **4. Cultural and economic factors dominate policy**

Countries with the most generous family policies (Nordic countries) have seen fertility decline alongside countries with minimal support (Southern Europe). This suggests that fertility is driven by factors beyond policy control—female education, urbanization, housing costs, career competition, cultural changes in family formation.

### **Why this matters fiscally:**

Each 0.1 reduction in fertility compounds over generations: - 1.5 TFR: Each generation is 71% the size of the previous - 1.3 TFR: Each generation is 62% the size of the previous - 0.72 TFR (Korea): Each generation is 34% the size of the previous

At current rates, the working-age population of most OECD countries will decline 15-25% by 2050, while the elderly population increases 40-60%.

## **2.4 Labor Force Participation: The Exhausted Dividend**

The entry of women into the paid workforce was the largest single expansion of labor supply in modern history. It provided a one-time demographic dividend that masked underlying dependency ratio deterioration.

**Table 2.4: Female Labor Force Participation (% of women aged 15-64)**

| Country        | 1970 | 1980 | 1990 | 2000 | 2010 | 2025 |
|----------------|------|------|------|------|------|------|
| Sweden         | 59   | 74   | 81   | 76   | 77   | 79   |
| United States  | 49   | 60   | 68   | 70   | 66   | 67   |
| Canada         | 44   | 57   | 68   | 70   | 74   | 75   |
| United Kingdom | 51   | 58   | 66   | 69   | 70   | 72   |
| Germany        | 48   | 52   | 57   | 64   | 71   | 74   |

| Country             | 1970      | 1980      | 1990      | 2000      | 2010      | 2025      |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| France              | 48        | 54        | 58        | 62        | 66        | 69        |
| Japan               | 55        | 54        | 60        | 59        | 63        | 71        |
| Italy               | 34        | 40        | 45        | 47        | 51        | 56        |
| <b>OECD Average</b> | <b>48</b> | <b>54</b> | <b>60</b> | <b>60</b> | <b>64</b> | <b>65</b> |

*Source: OECD Labor Force Statistics*

*[Chart 2.3: Female Labor Force Participation 1970-2025]*

**The dividend is exhausted:**

From 1970 to 2000, female participation rose from 48% to 60%—a 12-percentage-point increase that added roughly 10% to the total labor force. This was a one-time shift. The rate has now plateaued or begun declining as the population ages.

**Overall labor force participation is declining:**

| Year         | OECD Overall Participation Rate |
|--------------|---------------------------------|
| 1990         | 64%                             |
| 2000         | 67% (peak)                      |
| 2010         | 65%                             |
| 2025         | 63%                             |
| 2035 (proj.) | 59-61%                          |

The decline reflects population aging. Older populations participate in the labor force at lower rates regardless of policy. A society where 25% of the population is over 65 will have lower overall participation than one where 15% is over 65.

**No equivalent untapped labor pool exists:**

The female workforce entry cannot be repeated. There is no equivalent demographic cohort outside the labor force that could provide similar expansion. The options are: - Increased elderly workforce participation (marginal gains, health constraints) - Immigration (politically constrained) - Automation (productivity effects, not labor supply)

## 2.5 Life Expectancy: Longer Retirements

Life expectancy gains are a triumph of modern medicine and public health. They are also a fiscal challenge of unprecedented scale.

**Table 2.5: Life Expectancy at Age 65 (Additional Years)**

| Country             | 1970        | 1990        | 2000        | 2025        | 2035 (proj.) |
|---------------------|-------------|-------------|-------------|-------------|--------------|
| Japan               | 14.1        | 18.2        | 20.1        | 22.5        | 24.0         |
| France              | 14.4        | 18.0        | 19.7        | 21.8        | 23.0         |
| Italy               | 14.0        | 17.5        | 19.4        | 21.2        | 22.5         |
| Canada              | 15.0        | 17.8        | 19.0        | 21.0        | 22.2         |
| Australia           | 13.8        | 17.2        | 19.0        | 21.4        | 22.6         |
| United Kingdom      | 13.5        | 16.1        | 17.9        | 20.1        | 21.5         |
| Germany             | 13.0        | 16.0        | 18.1        | 20.0        | 21.3         |
| United States       | 15.0        | 17.3        | 17.9        | 19.5        | 20.5         |
| <b>OECD Average</b> | <b>13.5</b> | <b>16.8</b> | <b>18.2</b> | <b>20.4</b> | <b>21.8</b>  |

Source: *OECD Health Statistics*

### **Fiscal implications:**

When pension systems were designed, a person reaching age 65 was expected to live approximately 13 additional years. Current life expectancy at 65 is 20+ years—an increase of more than 50%.

### **Benefit duration has increased accordingly:**

| Era  | Typical Retirement Age | Life Expectancy at Retirement | Expected Benefit Years |
|------|------------------------|-------------------------------|------------------------|
| 1960 | 65                     | 78                            | 13                     |
| 1990 | 63                     | 81                            | 18                     |
| 2025 | 64                     | 85                            | 21                     |

This represents a 60% increase in the number of years benefits are collected. Pension systems designed for 13 years of benefits now pay for 21+ years.

### **Healthcare costs concentrate in final years:**

Approximately 25-30% of lifetime healthcare spending occurs in the final two years of life. As life expectancy extends, these high-cost years are postponed but not eliminated.

Moreover, the period of frailty and chronic disease management before death has extended, adding years of high healthcare utilization.

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### **3. THE FISCAL ARITHMETIC: WHY THE GAP CANNOT BE CLOSED**

#### **3.1 Age-Related Spending Trajectory**

Age-related public spending encompasses three major categories: pensions, healthcare, and long-term care. Together, these represent the fiscal expression of demographic aging.

**Table 3.1: Age-Related Public Spending by Category (OECD Average, % of GDP per year)**

| Category              | 1980 | 1990 | 2000 | 2010 | 2025 | 2035<br>(proj.) |
|-----------------------|------|------|------|------|------|-----------------|
| <b>Pensions</b>       |      |      |      |      |      |                 |
| - Old-age benefits    | 4.5  | 5.2  | 5.8  | 6.5  | 7.3  | 8.2             |
| - Survivor benefits   | 1.0  | 1.0  | 0.9  | 0.9  | 1.2  | 1.3             |
| - Subtotal            | 5.5  | 6.2  | 6.7  | 7.4  | 8.5  | 9.5             |
| <b>Healthcare</b>     |      |      |      |      |      |                 |
| - Acute care          | 3.5  | 4.0  | 4.3  | 5.2  | 5.8  | 6.5             |
| - Pharmaceuticals     | 0.8  | 1.0  | 1.2  | 1.3  | 1.7  | 2.0             |
| - Subtotal            | 4.3  | 5.0  | 5.5  | 6.5  | 7.5  | 8.5             |
| <b>Long-term Care</b> |      |      |      |      |      |                 |
| - Institutional       | 0.3  | 0.4  | 0.5  | 0.7  | 0.9  | 1.2             |
| - Home-based          | 0.1  | 0.2  | 0.3  | 0.4  | 0.4  | 0.6             |

| Category     | 1980        | 1990        | 2000        | 2010        | 2025        | 2035<br>(proj.) |
|--------------|-------------|-------------|-------------|-------------|-------------|-----------------|
| - Subtotal   | 0.4         | 0.6         | 0.8         | 1.1         | 1.3         | 1.8             |
| <b>TOTAL</b> | <b>10.2</b> | <b>11.8</b> | <b>13.0</b> | <b>15.0</b> | <b>17.3</b> | <b>19.8</b>     |

Source: *OECD Social Expenditure Database, OECD Health at a Glance 2025, OECD Pensions at a Glance 2025*

[Chart 3.1: Age-Related Spending Components 1980-2035 - Stacked area chart]

#### Key observations:

##### 1. Total increase of 9.6 percentage points over 55 years

Age-related spending has nearly doubled as a share of GDP, from 10.2% (1980) to projected 19.8% (2035). This represents an enormous reallocation of economic resources from working-age priorities to elderly support.

##### 2. Healthcare growing faster than pensions

While pensions remain the largest category, healthcare is growing more rapidly—from 4.3% (1980) to projected 8.5% (2035), nearly doubling. This reflects both aging (elderly use more healthcare) and medical cost inflation (new treatments, technologies, drugs).

##### 3. Long-term care accelerating

Long-term care is the fastest-growing category in percentage terms—from 0.4% (1980) to 1.8% (2035), more than quadrupling. This reflects the rapid growth of the 80+ population, which requires intensive care services.

#### Country variation is substantial:

**Table 3.2: Age-Related Spending by Country (% of GDP per year, 2025)**

| Country        | Pensions | Healthcare | Long-term Care | Total |
|----------------|----------|------------|----------------|-------|
| France         | 13.8     | 9.2        | 1.8            | 24.8  |
| Italy          | 15.6     | 6.8        | 1.7            | 24.1  |
| Germany        | 10.2     | 10.8       | 2.1            | 23.1  |
| Japan          | 10.1     | 9.2        | 2.0            | 21.3  |
| United Kingdom | 6.8      | 9.8        | 1.5            | 18.1  |
| United States  | 7.1      | 8.5        | 0.5            | 16.1  |
| Canada         | 5.2      | 7.8        | 1.4            | 14.4  |

| Country   | Pensions | Healthcare | Long-term Care | Total |
|-----------|----------|------------|----------------|-------|
| Australia | 4.8      | 6.8        | 0.8            | 12.4  |

Italy and France already spend nearly 25% of GDP per year on age-related programs—leaving limited room for other government functions or further expansion.

### 3.2 Revenue Constraints: The Tax Ceiling

Revenue is the other side of the fiscal equation. If spending must rise, can taxes rise commensurately?

**Methodology note:** This analysis uses federal plus state/provincial tax revenue only. Local/municipal taxes are excluded because they fund local services (schools, roads, police, sanitation) and cannot legally or practically be redirected to national pension and healthcare programs.

**Table 3.3: Tax Revenue by Level of Government (% of GDP per year, 2025)**

| Country        | Federal/Central | State/Provincia<br>l | Local | Total<br>(Fed+State)      |
|----------------|-----------------|----------------------|-------|---------------------------|
| France         | 34              | —                    | 12    | <b>46</b> (unitary state) |
| Germany        | 23              | 12                   | 5     | <b>40</b>                 |
| Italy          | 43              | —                    | 3     | <b>43</b> (unitary state) |
| United Kingdom | 33              | —                    | 2     | <b>35</b> (unitary state) |
| Canada         | 18              | 14                   | 3     | <b>32</b>                 |
| Australia      | 22              | 7                    | 3     | <b>29</b>                 |
| United States  | 17              | 10                   | 5     | <b>27</b>                 |
| Japan          | 19              | 12                   | 3     | <b>34</b>                 |

*Source: OECD Revenue Statistics 2025*

*[Chart 3.2: Tax Revenue Composition by Country]*

**The Tax Ceiling Problem:**

Most OECD countries face practical limits on tax increases that prevent closing fiscal gaps through revenue alone:

### **1. Economic Damage**

Tax increases above certain thresholds reduce economic growth, shrinking the tax base. The relationship is nonlinear—the first 10% of GDP in taxes has minimal growth impact; the next 10% has moderate impact; above 40%, each additional point significantly constrains growth.

### **2. Capital Flight**

Mobile capital and high earners relocate to lower-tax jurisdictions. In a globalized economy with free capital movement, extreme tax differentials are unsustainable. France's 75% top rate (2012-2014) was abandoned after capital outflows.

### **3. Political Limits**

Democracies have consistently rejected tax burdens above approximately 45% of GDP per year. The Nordic countries approach this ceiling; attempts to exceed it have been reversed by subsequent governments.

### **4. Laffer Curve Effects**

At high marginal rates, further increases may reduce revenue as taxpayers adjust behavior, relocate, or engage in avoidance. The revenue-maximizing rate varies by tax type and country, but clearly exists.

**Table 3.4: Realistic Revenue Increase Capacity (% of GDP per year by 2035)**

| Country        | Current Revenue | Ceiling Estimate | <b>Realistic Capacity</b> |
|----------------|-----------------|------------------|---------------------------|
| France         | 46              | 47               | <b>0.5</b>                |
| Italy          | 43              | 44               | <b>1.0</b>                |
| Germany        | 40              | 42               | <b>1.5</b>                |
| United Kingdom | 35              | 38               | <b>2.0</b>                |
| Japan          | 34              | 37               | <b>2.0</b>                |
| Canada         | 32              | 36               | <b>2.5</b>                |
| Australia      | 29              | 35               | <b>3.5</b>                |
| United States  | 27              | 29               | <b>1.5</b>                |

### **3.3 The United States: Constrained Revenue Capacity**

The United States requires special analysis because its revenue constraints are more severe than headline figures suggest.

#### **Current position:**

- Federal + state revenue: 27% of GDP per year (lowest among G7)
- Federal alone: 17-18% of GDP per year
- Large structural deficit already exists (6%+ of GDP per year)

#### **Why US revenue increase capacity is limited to 1-2% of GDP per year maximum:**

##### **1. TCJA Extension (2025)**

The Tax Cuts and Jobs Act was renewed, removing the primary vehicle for revenue increases from political consideration. The extension locks in lower individual and corporate rates through at least 2033. Any revenue increases would require new legislation overcoming this baseline.

##### **2. Historical Revenue Ceiling**

US federal revenue has never sustainably exceeded 20% of GDP per year regardless of statutory rates. When top marginal rates were 91% (1950s) and when they were 28% (1988), federal revenue remained in the 17-19% range. This “Hauser’s Law” phenomenon reflects economic adjustments to tax policy—high rates drive avoidance, behavioral change, and reduced economic activity.

##### **3. Market Sensitivity**

US equity markets are more sensitive to tax policy than European markets due to higher equity ownership and capital gains realizations. Significant tax increases would depress valuations, reducing capital gains tax revenue and potentially triggering recession through wealth effects.

##### **4. State Tax Competition**

Fifty states compete for business and residents, limiting state-level increases. States raising taxes face outmigration to lower-tax states. Florida, Texas, and other no-income-tax states constrain what California and New York can collect.

##### **5. Political Structure**

The combination of federalism, separation of powers, Senate filibuster, and frequent elections makes major tax reform extremely difficult. Sustained tax increases require durable political majorities that rarely exist.

#### **Interest Burden on Discretionary Revenue:**

A critical constraint specific to the United States is the distinction between total federal revenue and discretionary revenue.

Total federal revenue (~\$5 trillion) includes approximately \$1.9 trillion in dedicated entitlement taxes: - Social Security payroll taxes: ~\$1.3 trillion - Medicare payroll taxes: ~\$0.4 trillion - Other dedicated taxes: ~\$0.2 trillion

These funds are legally committed to Social Security and Medicare. They cannot fund other programs.

**Discretionary revenue** (income taxes, corporate taxes, excises, customs) is approximately \$3.0 trillion.

With interest payments at ~\$1.1 trillion (FY2025), **interest currently consumes approximately 35% of discretionary federal revenue, rising toward 60% by 2030** as debt rolls over at higher rates.

This means that within five years, over half of all discretionary federal revenue will go to interest payments—leaving less than half for defense, non-defense discretionary spending, and any new priorities.

### 3.4 The Structural Fiscal Gap

The structural fiscal gap is the difference between required spending increases and realistic revenue capacity. It represents the minimum adjustment required to stabilize fiscal trajectories.

**Structural Fiscal Gap = Required Spending Increase - Realistic Revenue Capacity**

**Table 3.5: Structural Fiscal Gaps by Country (% of GDP per year by 2035)**

| Country     | Spending Increase | Revenue Capacity | Structural Gap | Classification |
|-------------|-------------------|------------------|----------------|----------------|
| Australia   | 2.0               | 1.5              | <b>0.5</b>     | Sustainable    |
| Canada      | 2.5               | 2.5              | <b>~0</b>      | Sustainable    |
| Denmark     | 2.2               | 1.8              | <b>0.4</b>     | Sustainable    |
| Sweden      | 2.5               | 2.0              | <b>0.5</b>     | Sustainable    |
| Netherlands | 2.8               | 2.0              | <b>0.8</b>     | Sustainable    |
| Norway      | 2.0               | 2.0              | <b>~0</b>      | Sustainable    |
| Germany     | 3.5               | 1.5              | <b>2.0</b>     | Manageable     |

| Country        | Spending Increase | Revenue Capacity | Structural Gap | Classification |
|----------------|-------------------|------------------|----------------|----------------|
| United Kingdom | 4.0               | 2.0              | <b>2.0</b>     | Manageable     |
| Belgium        | 3.8               | 1.5              | <b>2.3</b>     | Manageable     |
| Austria        | 3.5               | 1.5              | <b>2.0</b>     | Manageable     |
| Japan          | 5.0               | 2.0              | <b>3.0</b>     | Crisis Risk    |
| United States  | 4.5               | 1.5              | <b>3.0</b>     | Crisis Risk    |
| Spain          | 5.0               | 1.5              | <b>3.5</b>     | Crisis Risk    |
| France         | 5.5               | 0.5              | <b>5.0</b>     | Crisis Risk    |
| Italy          | 6.0               | 1.0              | <b>5.0</b>     | Crisis Risk    |
| Portugal       | 5.5               | 1.0              | <b>4.5</b>     | Crisis Risk    |
| Greece         | 6.5               | 0.5              | <b>6.0</b>     | Crisis Risk    |
| South Korea    | 6.0               | 2.0              | <b>4.0</b>     | Crisis Risk    |

[Chart 3.3: Structural Fiscal Gaps by Country - Horizontal bar chart]

#### Classification criteria:

- **Sustainable (Gap <1%):** Can be closed through minor policy adjustments without major disruption
- **Manageable (Gap 1-3%):** Requires significant reform but achievable within democratic processes
- **Crisis Risk (Gap >3%):** Cannot be closed through conventional policy; requires structural transformation or crisis-driven adjustment

### 3.5 Debt Levels and the Interest Rate Environment

The starting debt position matters enormously for fiscal sustainability. Countries entering the demographic crunch with high debt face compounding pressures.

**Table 3.6: Public Debt Levels (Federal + State, % of GDP)**

| Country        | Gross Debt<br>(2024) | Net Debt<br>(2024) | Change Since<br>2000 | Interest Cost<br>(% GDP/year) |
|----------------|----------------------|--------------------|----------------------|-------------------------------|
| Japan          | 255                  | 170                | +117                 | 3.5                           |
| Greece         | 172                  | 160                | +68                  | 3.8                           |
| Italy          | 144                  | 130                | +35                  | 4.2                           |
| United States  | 128                  | 100                | +73                  | 3.8                           |
| France         | 113                  | 100                | +55                  | 2.8                           |
| Spain          | 111                  | 95                 | +52                  | 2.9                           |
| Canada         | 107                  | 81                 | +24                  | 2.4                           |
| United Kingdom | 98                   | 85                 | +57                  | 3.1                           |
| Austria        | 78                   | 60                 | +12                  | 1.8                           |
| Germany        | 63                   | 45                 | +3                   | 1.5                           |
| Netherlands    | 52                   | 35                 | -2                   | 1.2                           |
| Australia      | 56                   | 30                 | +32                  | 1.8                           |
| Sweden         | 35                   | -15                | -18                  | 0.8                           |
| Norway         | 45                   | -280               | -30                  | -2.0 (net<br>recipient)       |

*Note: Gross debt used for cross-country comparison; net debt (subtracting financial assets) considered in country-specific analysis. Countries with sovereign wealth funds (Norway) or large funded pension reserves (Canada, Australia, Sweden) show large gross-net differentials.*

*[Chart 3.4: Gross vs Net Debt by Country]*

### **The Interest Rate Environment:**

Most long-term debt projections in circulation were developed during the 2010-2021 period of extraordinarily low interest rates. The OECD Long-Term Model, IMF projections, and national estimates assumed interest rates would remain near zero indefinitely.

Current conditions are dramatically different:

| Period    | 10-Year Government Bond Yields<br>(Average) |
|-----------|---|
| 2010-2015 | 1.5-2.5%                                    |
| 2015-2020 | 0.5-1.5%                                    |
| 2020-2021 | 0.5-1.0%                                    |
| 2024-2025 | 4.0-5.0%                                    |

The shift from 1% to 4.5% interest rates transforms debt dynamics:

**Example - Italy:** - Debt: 144% of GDP - At 1% interest: 1.4% of GDP per year in interest  
- At 4.5% interest: 6.5% of GDP per year in interest - Difference: 5.1 percentage points of GDP per year

This difference alone exceeds Italy's entire structural fiscal gap and explains why crisis-risk countries face acute pressure even before demographic spending increases fully materialize.

### **The Debt Spiral Dynamic:**

At current interest rates, countries with debt exceeding 100% of GDP face potential debt spirals:

1. Primary deficit (before interest) of 2-3% of GDP per year
2. Plus interest costs of 4-6% of GDP per year
3. Equals total deficit of 6-9% of GDP per year
4. Which increases debt by 6-9 percentage points annually
5. Which increases next year's interest costs
6. Requiring additional borrowing to cover interest
7. Creating self-reinforcing spiral

This dynamic explains why debt-to-GDP ratios continue rising even when primary budgets are near balance.

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## 4. WHY CONVENTIONAL SOLUTIONS CANNOT WORK FOR AT-RISK COUNTRIES

### 4.1 The Mathematical Impossibility

For countries with structural gaps exceeding 3-4% of GDP per year, conventional policy tools cannot close the gap. This is not a political judgment but a mathematical reality.

#### Tax Increases at Required Scale Would Damage the Tax Base

##### Example - France:

France faces a 5.0% of GDP per year structural gap. Current tax revenue is 46% of GDP per year—already the highest in the OECD.

To close the gap through taxes alone, France would need to raise revenue to 51% of GDP per year.

##### Why this cannot work:

1. **No precedent exists:** No democracy has ever sustained tax revenue above 50% of GDP per year. The Nordic countries peaked at 48-49% and have since reduced.
2. **Capital flight would accelerate:** France already experiences significant high-earner emigration (approximately 12,000 high-net-worth individuals departed 2017-2022). Further increases would accelerate this trend.
3. **Growth would suffer:** Each percentage point of additional taxation above 45% reduces GDP growth by an estimated 0.2-0.3 percentage points. Slower growth reduces the tax base, partially or fully offsetting the rate increase.
4. **Political backlash is certain:** The Yellow Vest movement (2018-2019) demonstrated French political limits on taxation. Further increases would trigger comparable resistance.

**Net assessment:** France might achieve 0.5-1.0% of GDP in additional revenue through base-broadening and enforcement, but cannot close a 5.0% gap through taxation.

#### Benefit Cuts at Required Scale Are Politically Impossible

##### Example - Italy:

Italy faces a 5.0% of GDP per year structural gap. Pension spending alone is 15.6% of GDP per year.

To close the gap through pension cuts alone, Italy would need to reduce pensions by approximately 30%.

##### Why this cannot work:

1. **Electoral mathematics:** Italians over 60 represent 35% of the electorate and vote at higher rates than younger cohorts. No government can survive proposing 30% pension cuts.
2. **Constitutional constraints:** Italian courts have struck down pension reforms as violations of acquired rights. The 2015 Constitutional Court decision limited retroactive benefit changes.
3. **Social stability:** Italian retirees often support extended families. A 30% pension cut would create immediate poverty for millions and collapse household finances across generations.
4. **Historical precedent:** No democracy has implemented benefit cuts exceeding 15-20% without crisis forcing the issue. Even Greece, under Troika supervision during acute crisis, achieved only ~20% effective cuts.

**Net assessment:** Italy might achieve 1-2% of GDP per year in benefit reductions through indexation changes and retirement age increases, but cannot close a 5.0% gap through cuts.

## Immigration at Required Scale Is Politically Untenable

### The arithmetic of immigration-based solutions:

To offset a 20% decline in working-age population through immigration alone, a country would need:

- Immigration equal to 2-3% of population annually
- Sustained over 20+ years
- With immigrants matching native worker productivity

### Example - Germany:

Germany's working-age population is projected to decline by 8 million (15%) by 2035. To offset this entirely through immigration would require:

- 800,000 working-age immigrants annually
- For 10 years
- Plus their dependents (approximately 400,000 additional)
- Total: 1.2 million immigrants per year (1.4% of population)

### Why this cannot work:

1. **Political backlash:** Germany accepted approximately 1 million refugees in 2015. The political consequences—rise of AfD, government instability, social tensions—demonstrate the limits of absorption capacity.
2. **Integration challenges:** Labor market integration of immigrants takes 5-10 years on average. Credential recognition, language acquisition, and cultural adaptation create friction.
3. **Fiscal impact of immigration is mixed:** Immigrants generate fiscal benefits only if they work, pay taxes, and do not draw disproportionate benefits. High-skill immigration is beneficial; low-skill or humanitarian immigration may be fiscally negative for decades.
4. **Source countries are also aging:** The traditional sources of young immigrants (Eastern Europe, Latin America) are themselves aging. Global competition for young, skilled immigrants is intensifying.

**Net assessment:** Immigration can contribute 0.5-1.0% of GDP per year in fiscal improvement through labor force growth, but cannot offset demographic decline at required scale.

## Productivity Gains Cannot Offset Dependency Ratios

### The productivity illusion:

Some argue that productivity growth can offset demographic decline—fewer workers producing more output can maintain living standards.

### The arithmetic:

- Dependency ratio deterioration 2025-2035: 27% (from 33 to 42)
- This means 27% more dependents per worker
- To maintain living standards, output per worker must rise 27%
- Over 10 years, this requires 2.4% annual productivity growth

### Historical productivity growth:

| Period    | OECD Productivity Growth (Annual) |
|-----------|-----------------------------------|
| 1970-1980 | 2.8%                              |
| 1980-1990 | 1.8%                              |
| 1990-2000 | 1.7%                              |
| 2000-2010 | 1.2%                              |

| Period    | OECD Productivity Growth (Annual) |
|-----------|-----------------------------------|
| 2010-2020 | 0.9%                              |
| 2020-2025 | 1.0%                              |

Productivity growth has been declining for 50 years. Achieving 2.4% annual growth would require reversing this trend to levels not seen since the 1970s.

### Why a productivity miracle is unlikely:

1. **Low-hanging fruit exhausted:** The easy productivity gains (electrification, mass production, computerization) have been captured.
2. **Services resist productivity:** Economies have shifted toward services, which show slower productivity growth than manufacturing.
3. **Measurement issues:** Some productivity may be unmeasured (quality improvements, convenience), but this doesn't generate taxable income.
4. **AI uncertainty:** Artificial intelligence may boost productivity, but timing, magnitude, and labor market effects remain speculative.

**Net assessment:** Even optimistic productivity growth of 1.5% annually yields only 16% cumulative gain by 2035—far short of the 27% needed to offset dependency ratio deterioration.

## 4.2 The Irreversibility Problem

**Policy enacted today cannot alter the 2035 demographic structure—these people are already alive. Significant policy impact begins only in the 2040s.**

### The fertility lag:

Children born in 2025 enter the workforce around 2045-2050, not 2035. Even if fertility magically rose to replacement level tomorrow:

- No workforce impact for 20 years
- During those 20 years, child dependency ratios INCREASE
- Net fiscal impact is NEGATIVE until 2045+
- Only children born before 2015 affect 2035 workforce

### The retirement timing:

Baby boomers (born 1946-1964) are currently aged 61-79. Their retirement is occurring NOW, regardless of any policy change:

- Those born 1946-1960: Already retired

- Those born 1961-1964: Retiring 2025-2029
- Peak retirement wave: 2020-2030
- No policy can prevent this

### **The mortality reality:**

The elderly population of 2035 is not a projection—these people are alive today:

- Everyone who will be 65+ in 2035 is already 55+ today
- Everyone who will be 80+ in 2035 is already 70+ today
- Their numbers are known with near-certainty

### **The only variables policy can affect are:**

1. **Participation rates:** Encouraging work past 65 (marginal gains, health-constrained)
2. **Benefit levels:** Reducing promised benefits (politically constrained)
3. **Revenue rates:** Raising taxes (economically constrained)
4. **Immigration:** Adding workers (politically constrained)

None of these can change the fundamental demographic structure through 2035.

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## **5. COUNTRY AND REGIONAL ASSESSMENTS**

### **5.1 Classification Framework**

Countries fall into three tiers based on structural fiscal gap severity and institutional capacity to respond:

**Table 5.1: Country Classification Summary**

| Tier               | Gap (%<br>GDP/year) | Countries   | Key Characteristics   |
|--------------------|---------------------|---|---|
| <b>Sustainable</b> | <1                  | Australia, Canada, Denmark, Sweden, Norway, Netherlands | Funded pensions, strong immigration, low/moderate debt, independent monetary policy |

| Tier               | Gap (%<br>GDP/year) | Countries  | Key Characteristics  |
|--------------------|---------------------|--|--|
| <b>Manageable</b>  | 1-3                 | Germany, UK, Austria, Belgium, Finland                         | Partial reforms, some fiscal room, mixed monetary independence                     |
| <b>Crisis Risk</b> | >3                  | US, France, Italy, Spain, Portugal, Greece, Japan, South Korea | Pay-as-you-go systems, high debt, constrained policy options, eurozone trap (some) |

**The difference between tiers reflects decisions made 25-40 years ago:**

- Australia established mandatory superannuation in 1992
- Canada reformed CPP/QPP in the 1990s
- Nordic countries shifted to notional defined contribution systems
- France, Italy, Spain maintained unreformed pay-as-you-go systems

These historical choices now determine fiscal futures.

## 5.2 Regional Patterns

### Southern Europe: The Crisis Zone

**Countries:** Italy, Greece, Spain, Portugal, France

**Common characteristics:** - Pay-as-you-go pension systems with defined benefits - High existing debt (111-172% of GDP) - Eurozone membership preventing monetary policy response - Limited remaining tax capacity - Political fragmentation and reform resistance - High youth unemployment reducing future pension contributions

#### Why Southern Europe faces existential crisis:

The combination of demographic pressure, high debt, and eurozone constraints creates a trap:

1. Demographics require spending increases of 5-6% of GDP per year
2. Tax capacity is exhausted (already 37-46% of GDP per year)
3. Eurozone membership prevents currency devaluation
4. ECB constraints limit monetary financing
5. Northern creditors resist fiscal transfers

6. Debt dynamics are unstable at current interest rates

**Timeline:** Acute crisis risk 2028-2035, with Italy and France most vulnerable.

## **Northern Europe: Funded Systems Provide Cushion**

**Countries:** Denmark, Sweden, Norway, Finland, Netherlands

**Common characteristics:** - Reformed pension systems (notional defined contribution or funded) - Sovereign wealth funds (Norway) or large pension reserves - High but stable tax burdens - Strong institutions and reform capacity - Independent monetary policy (outside eurozone, except Finland/Netherlands)

### **Why Northern Europe is manageable:**

1. Pension reforms in 1990s-2000s shifted risk to workers
2. Pre-funding reduces reliance on current workers
3. Strong institutions enable further adjustment
4. Norway's sovereign wealth fund (\$1.7 trillion) provides extraordinary cushion

**Timeline:** Gradual adjustment 2025-2040, no acute crisis expected.

## **Anglo-Saxon Countries: Mixed Outcomes**

**Countries:** United States, United Kingdom, Canada, Australia

**Common characteristics:** - Lower tax burdens leaving some capacity - Greater private provision of pensions - Independent monetary policy - Higher immigration rates - Less generous defined benefits

### **Why outcomes vary:**

- **Australia:** Early superannuation reform (1992) = best positioned
- **Canada:** CPP/QPP reform (1990s) + immigration = sustainable
- **United Kingdom:** Independent policy but NHS pressure = manageable
- **United States:** Unique constraints (TCJA, political gridlock) = crisis risk

## **East Asia: The Extremes**

**Countries:** Japan, South Korea

**Common characteristics:** - Extremely low fertility (1.2 and 0.72 respectively) - Rapid aging (oldest populations globally) - Limited immigration historically - High household savings rates

**Japan:** The endpoint—30 years into demographic decline, functioning through financial repression and BOJ monetization. Debt at 255% of GDP. Not replicable in other contexts.

**South Korea:** Crisis incoming—world's lowest fertility guarantees catastrophic dependency ratios by 2040. Current strong fiscal position will deteriorate rapidly.

## 5.3 Detailed Country Case Studies

### ITALY: Highest Systemic Risk

**Fiscal Position:** - Gross debt: 144% of GDP - Net debt: 130% of GDP - Tax revenue: 43% of GDP per year - Structural gap: 5.0% of GDP per year - Classification: Crisis Risk

#### Why Italy represents greatest systemic risk:

**1. Scale:** Italy is the eurozone's third-largest economy (15% of GDP). Unlike Greece, it is too large to bail out through existing mechanisms.

**2. Debt dynamics:** At current interest rates (4-5%), Italy's interest burden is approximately 6% of GDP per year. Combined with primary deficits, debt trajectory is explosive.

**3. No independent monetary policy:** Unlike Japan, Italy cannot monetize debt through central bank purchases. ECB purchases require political consensus that Germany may block.

**4. Political instability:** Italy has had 70+ governments since 1946. Coalition governments cannot sustain multi-year reform programs. Populist parties (Five Star, Lega) resist austerity.

**5. Demographics:** Second-oldest population after Japan (median age 48). Southern regions face depopulation. Youth emigration accelerating.

**6. Growth stagnation:** Italy has experienced near-zero per capita growth for 20 years. This reflects structural problems (labor rigidity, legal system, education mismatch) unlikely to resolve quickly.

**Net debt consideration:** Italy's net debt (130%) is only marginally below gross debt—limited financial assets provide minimal cushion.

**Potential crisis triggers:** - Bond spread to Germany exceeds 300 basis points - ECB constrained from intervention by German opposition - Political shock (government collapse, snap election producing anti-EU coalition) - Contagion from France or Spain

**Most likely outcome:** Italy requires ECB unlimited intervention to prevent bond yields spiking above 7% (crisis threshold). If ECB refuses, Italy faces choice: brutal austerity or eurozone exit and debt restructuring.

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## FRANCE: Political Paralysis Meets Fiscal Emergency

**Fiscal Position:** - Gross debt: 113% of GDP - Net debt: 100% of GDP - Tax revenue: 46% of GDP per year (highest in OECD) - Total government spending: 57% of GDP per year (highest in OECD) - Structural gap: 5.0% of GDP per year - Classification: Crisis Risk

### Why France is in fiscal emergency:

- 1. Tax capacity exhausted:** At 46% of GDP per year, France has no room for revenue increases. The political and economic ceiling has been reached.
- 2. Spending embedded:** At 57% of GDP per year, French public spending exceeds any comparable economy. Cutting spending means cutting services that citizens expect.
- 3. Reform resistance:** French political culture resists reform. Pension reforms (1995, 2010, 2019, 2023) have triggered massive strikes and protests. Each reform achieves less than required.
- 4. Political fragmentation:** The traditional party system has collapsed. Macron's centrist bloc, Le Pen's National Rally, and leftist coalitions create gridlock. No stable majority for reform exists.
- 5. Eurozone constraints:** France cannot devalue currency or pursue independent monetary policy. Unlike the UK, it cannot inflate away debt.
- 6. Demographic pressure accelerating:** France's fertility rate, once the highest in the EU (1.9-2.0), has declined to 1.68. The demographic advantage is eroding.

**Net debt consideration:** France's net debt (100%) provides no meaningful cushion—financial assets are minimal relative to liabilities.

**Timeline:** Without ECB unlimited support, bond crisis likely 2030-2035. France is “too big to fail” for the eurozone but may be “too big to save.”

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## UNITED STATES: Reserve Currency Buffer with Escalating Risks

**Fiscal Position:** - Gross debt: 128% of GDP (federal + state) - Net debt: 100% of GDP - Tax revenue: 27% of GDP per year (federal + state) - Structural gap: 3.0% of GDP per year - Classification: Crisis Risk

### Unique US dynamics:

- 1. Reserve currency privilege:** The dollar's role as global reserve currency allows the US to borrow at rates below what fundamentals would suggest. Foreign central banks, sovereign wealth funds, and global investors hold Treasuries as safe assets regardless of yield.

**This privilege:** - Allows persistent deficits without immediate crisis - Postpones day of reckoning - Does not eliminate the underlying problem - May erode if alternative reserve assets emerge

## **2. Entitlement trust fund dynamics:**

Social Security: - Trust fund depletion: 2033 - Upon depletion: Automatic 21-24% benefit cut (only current payroll taxes can be paid) - Required action: Congress must legislate solution or cuts occur automatically

Medicare Part A: - Trust fund depletion: 2036 - Upon depletion: Automatic payment reductions to providers - Healthcare access implications significant

## **3. Interest burden:**

Interest payments currently consume approximately 35% of discretionary federal revenue, rising toward 60% by 2030 as debt rolls over at higher rates.

FY2025 federal interest: \$1.1 trillion—exceeding defense spending for first time.

## **4. TCJA constraint:**

Tax Cuts and Jobs Act renewal removes revenue options from political consideration. Any future tax increases must overcome this baseline plus political resistance.

## **Additional Risks Under Current Policy Direction:**

| Policy                                   | Fiscal/Economic Impact  |
|--|---|
| Defense spending increase to \$1.5T/year | +2-3% of GDP per year in outlays; widens structural deficit   |
| Reduced immigration                      | Worsens dependency ratio; reduces payroll tax revenue; accelerates Social Security depletion                                  |
| Trade conflicts and tariffs              | Inflationary pressure; higher interest rates; retaliatory impacts on exports  |
| US brand/reputation damage               | Reduced demand for US corporate products; lower corporate profits and tax revenue; potential erosion of dollar reserve status |

These factors could add 2-4 percentage points to the structural gap by 2035.

**Most likely outcome:** Gradual crisis rather than acute collapse. Social Security faces automatic cuts in 2033 absent Congressional action. Medicare faces payment reductions in 2036. Living standards erode through sustained inflation and benefit erosion.

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## CANADA: Best Positioned Among Large Economies

**Fiscal Position:** - Gross debt: 107% of GDP (federal + provincial) - Net debt: 81% of GDP - Tax revenue: 32% of GDP per year - Structural gap: ~0% of GDP per year - Classification: Sustainable

### Why Canada is best positioned:

#### 1. CPP/QPP reform (1990s):

Canada reformed its pension system in 1997, creating a partially funded model: - Contribution rates increased from 6% to 9.9% - Benefits adjusted for sustainability - CPP Investment Board established to invest surplus - Current assets: C\$600+ billion - Actuarially sound to 2075+

This single decision, made 28 years ago, now determines Canada's favorable position.

#### 2. Immigration policy:

Canada maintains high, sustained immigration: - 400,000-500,000 permanent residents annually - Approximately 1.1% population growth per year - Points system selects working-age, skilled immigrants - Integration outcomes better than European comparisons

#### 3. Low net debt:

Canada's net debt (81% of GDP) is significantly below gross debt (107%) due to CPP/QPP assets and provincial pension reserves. This provides genuine fiscal room.

#### 4. Provincial flexibility:

Healthcare is provincially administered, allowing policy experimentation. Successful innovations can spread; failures are contained.

#### 5. Political capacity:

Canada has demonstrated ability to implement difficult reforms: - CPP/QPP reform (1990s) with federal-provincial agreement - Deficit elimination (1995-1997) through spending cuts - GST implementation despite political cost

**Net debt advantage:** Canada's 26-percentage-point differential between gross and net debt reflects CPP/QPP assets—genuine resources available for future obligations, not accounting fiction.

**Outlook:** Canada is well-positioned to become a safe haven for capital and talent as crises develop in the US and Europe.

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## AUSTRALIA: The Model Outcome

**Fiscal Position:** - Gross debt: 56% of GDP - Net debt: 30% of GDP - Tax revenue: 29% of GDP per year - Structural gap: 0.5% of GDP per year - Classification: Sustainable

## Why Australia demonstrates what early reform achieves:

### 1. Superannuation (1992):

Australia established mandatory private pensions in 1992: - Employer contribution: Initially 3%, now 11%, rising to 12% - Accumulated assets: A\$4+ trillion (>150% of GDP) - Benefit: Removes public pension burden almost entirely - Worker ownership: Assets belong to workers, not government liability

This single policy change, implemented 33 years ago, now makes Australia the best-positioned major economy.

### 2. Strong immigration:

Australia maintains high immigration: - 1.3% population growth per year - Skilled migration emphasis - Geographic advantage (English-speaking, desirable destination)

### 3. Tax capacity remaining:

At 29% of GDP per year, Australia has substantial room for revenue increases if needed: - GST could increase from 10% to 12-15% - Income tax bracket creep provides automatic increases - Resource taxation provides unique revenue source

### 4. Trivial fiscal gap:

The 0.5% of GDP per year structural gap could be closed with: - Minor GST increase, OR - Modest superannuation guarantee increase, OR - Slight means-testing of age pension

No dramatic reform required—fine-tuning is sufficient.

**Net debt advantage:** Australia's 26-percentage-point differential between gross and net debt reflects superannuation accumulations and Future Fund assets.

**Lesson for other countries:** Australia's favorable position resulted from one reform decision in 1992. The window for other countries to achieve similar outcomes has largely closed—demographic pressure is now too immediate.

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## GERMANY: Manageable Domestically, Burdened by Eurozone

**Fiscal Position:** - Gross debt: 63% of GDP (lowest among G7) - Net debt: 45% of GDP - Tax revenue: 40% of GDP per year - Structural gap: 2.0% of GDP per year - Classification: Manageable

### Germany's domestic position is manageable:

**1. Low debt:** At 63% gross debt, Germany has significant fiscal room. The “Schwarze Null” (black zero) balanced budget policy, while economically debatable, has kept debt controlled.

**2. Partial pension reforms:** The Riester (2001) and Rürup (2005) reforms introduced private pension supplements, reducing future public pension burden.

**3. Strong export economy:** Germany's manufacturing and export strength provides robust tax base, though this is vulnerable to trade disruption and Chinese competition.

**4. Net position:** Germany's net debt (45%) is lowest among major economies, providing genuine cushion.

#### **The eurozone burden:**

Germany cannot escape the eurozone crisis regardless of domestic fiscal position:

#### **The German dilemma:**

**Option A: Fiscal union** - Accept permanent transfers of 2-3% of GDP per year to Southern Europe - Politically toxic domestically ("Why should German taxpayers fund Italian pensions?") - AfD and others would capitalize on resentment - Requires constitutional changes and referendum risk

**Option B: Allow eurozone breakup** - Southern exits would cause Deutsche Mark (or successor) appreciation of 20-30% - German exports become uncompetitive - Export-dependent economy enters recession - Banking system faces losses on Southern European exposure

**Option C: Muddling through** - ECB continues bond purchases - Germany tacitly accepts monetary financing - Inflation erodes German savings - Tension rises without resolution

Germany faces no good options. Its domestic fiscal strength is partially negated by eurozone membership.

#### **Aging faster than expected:**

Germany's support ratio is declining from 3.0 workers per retiree (2025) to 2.2 (2035) as baby boomers retire. The favorable fiscal position will erode even without eurozone burdens.

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## **UNITED KINGDOM: Independent but Pressured**

**Fiscal Position:** - Gross debt: 98% of GDP - Net debt: 85% of GDP - Tax revenue: 35% of GDP per year - Structural gap: 2.0% of GDP per year - Classification: Manageable

#### **UK advantages:**

**1. Monetary sovereignty:** Unlike eurozone members, the UK retains independent monetary policy through Bank of England. It can pursue financial repression if needed.

**2. Pension system partially reformed:** The shift from final salary to career average pensions, plus auto-enrollment in private pensions, reduces future public burden.

**3. Tax capacity:** At 35% of GDP per year, the UK has 2-3 percentage points of revenue capacity before hitting political ceilings.

#### **UK challenges:**

**1. NHS crisis:** The National Health Service consumes 9% of GDP per year and faces: - Waiting list crisis (7+ million waiting for treatment) - Staff shortages (100,000+ vacancies) - Infrastructure decay - Projected growth to 12% of GDP per year by 2035

NHS represents the UK's primary fiscal pressure point.

**2. Brexit effects:** Brexit reduced GDP growth by an estimated 1.5-2% annually since 2020 through: - Trade friction with largest trading partner - Reduced immigration - Investment diversion - Regulatory divergence costs

**3. Triple lock:** The pension "triple lock" (benefits rise by highest of inflation, wages, or 2.5%) is politically untouchable but fiscally expensive.

**Most likely outcome:** Gradual decline through sustained inflation (3-4%) and service erosion rather than acute crisis. Living standards 10-15% below counterfactual by 2035. Pound depreciation against dollar accelerates.

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## JAPAN: The Extreme Endpoint

**Fiscal Position:** - Gross debt: 255% of GDP (highest globally) - Net debt: 170% of GDP - Tax revenue: 34% of GDP per year - Structural gap: 3.0% of GDP per year - Classification: Crisis Risk (but unique)

### Why Japan continues functioning:

Japan represents 30 years into demographic decline. Its experience offers lessons but is not replicable elsewhere.

**1. Domestic debt holding:** Over 90% of Japanese government debt is held domestically—by Japanese institutions, households, and the Bank of Japan. This eliminates currency crisis risk from foreign creditor flight.

**2. Current account surplus:** Japan runs persistent current account surpluses. It is a net creditor to the world, with foreign assets exceeding foreign liabilities. The yen has domestic support.

**3. Bank of Japan monetization:** BOJ owns over 50% of government bonds. It sets interest rates by fiat through yield curve control. This suppresses interest costs despite debt levels.

**4. Social cohesion:** Japan has accepted declining living standards without political instability. Real wages have stagnated for 30 years with minimal social unrest.

**5. Deflation/low inflation:** Japan experienced deflation for decades, reducing nominal interest rates and debt service burden. Recent inflation (2022-2024) is testing this.

### Why Japan is not a model:

- 1. Domestic holding impossible elsewhere:** Most countries cannot achieve 90%+ domestic debt holding. Foreign creditors demand market returns.

2. **Current account deficits:** Most crisis-risk countries run current account deficits, requiring foreign financing.
3. **Eurozone membership:** Italy, France, Spain cannot control their central banks.
4. **Social tolerance:** Western societies may not accept Japanese-style stagnation without political disruption.

**Net debt consideration:** Japan's net debt (170%) is significantly below gross debt (255%) due to government financial assets, including postal savings and pension reserves. Still highest in OECD.

**Japan's future:** Continued financial repression and gradual decline. No acute crisis expected given unique characteristics, but no resolution either.

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## SOUTH KOREA: Crisis Incoming

**Fiscal Position:** - Gross debt: 55% of GDP - Net debt: 15% of GDP - Tax revenue: 28% of GDP per year - Structural gap: ~4.0% of GDP per year (and rising rapidly) - Classification: Crisis Risk

### Why Korea faces demographic catastrophe:

**1. World's lowest fertility:** At 0.72 children per woman (2024), South Korea's fertility is the lowest ever recorded in a developed nation. This guarantees demographic collapse:

| Year | Working-Age Population (millions) | Change   |
|------|-----------------------------------|----------|
| 2025 | 36.0                              | Baseline |
| 2035 | 31.5                              | -12%     |
| 2050 | 23.0                              | -36%     |

**2. Limited immigration:** Korea has historically resisted immigration. Cultural homogeneity is valued. Immigration cannot offset demographic decline at required scale.

**3. Current position misleading:** Korea's low debt (55% gross, 15% net) and strong fiscal position mask incoming crisis. The national pension fund is accumulating surpluses now but faces depletion by 2055 under current trajectories.

**4. Speed of deterioration:** Korea's demographic transition is occurring faster than any other developed country. Japan took 40 years to reach current aging levels; Korea will reach them in 25 years.

**Outlook:** Korea's favorable current fiscal position will deteriorate rapidly. The window for reform is narrow. Without dramatic intervention (massive immigration, fertility

recovery, or radical pension restructuring), Korea faces Japan-style stagnation within 15-20 years—but without Japan’s unique financing advantages.

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## 6. POLICY OPTIONS AND REFORM APPROACHES

### 6.1 Conventional Measures: Necessary but Insufficient

Conventional policy tools can close 40-60% of structural gaps for most countries. They are necessary but insufficient for crisis-risk countries.

**Table 6.1: Conventional Policy Tools - Detailed Assessment**

| Measure   | Fiscal Impact<br>(% GDP/year) | Political<br>Feasibility | Implementation<br>Challenges                            | Countries<br>Where<br>Applicable                                |
|---|-------------------------------|--------------------------|---|---|
| <b>Retirement<br/>age 65→68</b>                   | +1.5 to 2.0                   | Moderate                 | Health<br>disparities;<br>manual labor;<br>unemployment | All   |
| <b>Retirement<br/>age linked to<br/>longevity</b> | +0.5 to 1.0<br>additional     | Moderate-Hig<br>h        | Automatic,<br>reduces political<br>cost                 | Denmark,<br>Netherlands,<br>Finland<br>(already<br>implemented) |
| <b>Benefit<br/>formula<br/>adjustment</b>         | +0.5 to 1.0                   | Low-Moderat<br>e         | Affects all<br>retirees;<br>visibility                  | All   |
| <b>Means-testi<br/>ng<br/>expansion</b>           | +0.3 to 0.5                   | Moderate                 | Administrative<br>cost;<br>middle-class<br>resentment   | Anglo-Saxon<br>countries  |
| <b>Healthcare<br/>efficiency</b>                  | +0.5 to 1.0                   | Moderate                 | Quality<br>concerns;<br>provider<br>resistance          | All   |

| Measure                                | Fiscal Impact<br>(% GDP/year) | Political<br>Feasibility | Implementation<br>Challenges                       | Countries<br>Where<br>Applicable          |
|--|-------------------------------|--------------------------|--|---|
| <b>Revenue<br/>base<br/>broadening</b> | +0.5 to 1.0                   | Low                      | Visibility;<br>loophole<br>beneficiaries<br>resist | All                                       |
| <b>VAT/GST<br/>increase</b>            | +0.3 to 0.5                   | Low                      | Regressive;<br>inflation impact                    | Countries with<br>room (US,<br>Australia) |

**Total conventional capacity: +3.0 to 5.0% of GDP per year**

**Assessment by country type:**

- **Sustainable countries (gap <1%):** Conventional measures more than sufficient
- **Manageable countries (gap 1-3%):** Conventional measures can close gap with full implementation
- **Crisis-risk countries (gap >3%):** Conventional measures close roughly half the gap; additional measures required

## 6.2 Novel Reform Approaches

Beyond conventional measures, structural reforms can improve economic efficiency and provide fiscal relief. These are not substitutes for conventional reforms but complements that address underlying inefficiencies.

**Table 6.2: Novel Reform Approaches - Detailed Framework**

### Remote Work Expansion and Geographic Rebalancing

**Mechanism:** Expand remote work to reduce cost-of-living inflation concentration in major metropolitan areas.

**Economic logic:** - Housing costs in major cities (London, Paris, New York, Sydney) consume 40-50% of median income - Wage demands rise to compensate, driving inflation - Public sector wages must match, increasing government costs - Infrastructure concentration creates redundant investment needs

**Policy implementation:** - Incentivize employers to offer remote positions - Invest in digital infrastructure in secondary cities - Adjust public sector work requirements - Office-to-residential conversion programs in expensive metros

**Fiscal impact:** - Reduced infrastructure pressure: 0.1-0.2% GDP/year - Moderated wage-price spiral in public sector: 0.1-0.2% GDP/year - Broader payroll tax base geographically: 0.05-0.1% GDP/year - **Total: 0.2-0.5% GDP/year**

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## Reduced Education Years / Accelerated Workforce Entry

**Mechanism:** Reduce time from secondary education to productive employment through streamlined credentials and apprenticeship expansion.

**Economic logic:** - Current system keeps workers in education until 22-25 (versus 18-20 historically) - Each year of delayed entry = 2% smaller effective workforce - Much education is credential inflation rather than skill acquisition - Apprenticeship models (Germany, Switzerland) demonstrate alternatives

**Policy implementation:** - Expand apprenticeship programs with employer incentives - Recognize alternative credentials (vocational, competency-based) - Reduce university degree requirements for public sector positions - Eliminate credential inflation in regulated professions

**Fiscal impact:** - Earlier payroll tax contribution: 0.1-0.2% GDP/year - Reduced education spending per capita: 0.1-0.2% GDP/year - Larger effective workforce: productivity gains - **Total: 0.2-0.4% GDP/year**

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## Healthcare Labor Optimization

**Mechanism:** Address healthcare labor shortages that drive cost growth through scope-of-practice reform and credential recognition.

**Economic logic:** - Healthcare costs grow 1-2 percentage points faster than GDP annually - 30-40% of cost growth is labor-driven (wages, shortages) - Artificial restrictions limit who can provide services - International credential recognition is slow and incomplete

**Policy implementation:** - Expand nurse practitioner and physician assistant scope of practice - Recognize international medical credentials with bridging programs - Technology-enabled care delivery (telemedicine, AI diagnostics) - Reduce administrative burden consuming clinical time

**Fiscal impact:** - Moderated healthcare wage growth: 0.2-0.4% GDP/year - Reduced shortage-driven inefficiency: 0.1-0.2% GDP/year - Lower public sector healthcare costs: 0.1-0.2% GDP/year - **Total: 0.4-0.8% GDP/year**

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## Immigration Optimization

**Mechanism:** Optimize immigration policy for fiscal impact through targeting and integration improvement.

**Economic logic:** - Not all immigration has equal fiscal impact - Working-age, skilled immigrants with children are most beneficial - Integration speed determines fiscal contribution - Current systems often suboptimal for fiscal outcomes

**Policy implementation:** - Points systems emphasizing fiscal contribution factors - Fast-track credential recognition for high-demand occupations - Language and integration support to accelerate employment - Family reunification weighted toward working-age dependents

**Fiscal impact:** - Higher fiscal contribution per immigrant: varies by country - Faster integration = earlier tax contribution - Reduced dependency ratio pressure - **Total: 0.3-0.6% GDP/year** (highly country-dependent)

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## Rural-Targeted Fertility Incentives

**Mechanism:** Concentrate fertility incentives in lower-cost rural areas to maximize births per dollar spent.

**Economic logic:** - Urban fertility support is expensive (housing costs, childcare costs) - Rural areas offer lower costs but face depopulation - Same dollar buys more fertility support in lower-cost regions - Addresses two problems simultaneously (fertility, rural decline)

**Policy implementation:** - Higher child allowances in designated rural/regional areas - Housing subsidies for families in target regions - Childcare and education investment in regional areas - Remote work infrastructure enabling rural family formation

**Fiscal impact:** - Higher births per dollar than urban-focused programs - Regional economic development co-benefits - Long-term workforce impact (2045+) - **Near-term cost: 0.3-0.5% GDP/year; long-term benefit: 0.5-1.0% GDP/year (2045+)**

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## Incentivized Retirement Abroad

**Mechanism:** Develop bilateral agreements with lower-cost countries to incentivize retirees to relocate abroad, reducing domestic healthcare burden while maintaining full pension payments.

**Economic logic:** - Pension payments go further in lower-cost countries (purchasing power parity advantage) - Domestic healthcare system burden reduced (most expensive final years shifted abroad) - Housing stock freed for working-age population in

constrained markets - Receiving countries benefit from stable foreign currency inflow and healthcare system utilization

**Policy implementation:** - Bilateral agreements guaranteeing healthcare access for relocated retirees - Continued pension payments at full domestic rate (still net savings due to healthcare cost differential) - Tax treaty coordination to prevent double taxation - Enhanced consular support and guaranteed repatriation rights - Quality of care monitoring with pilot programs in 2-3 partner countries (e.g., Cuba, Costa Rica, Portugal)

**Fiscal impact:** - Average OECD healthcare spending on 65+: \$15,000-25,000/year; partner country costs: \$3,000-8,000/year - Net savings per relocated retiree: \$10,000-15,000/year - Housing and infrastructure pressure relief in high-cost domestic markets - Near-term savings (5% participation): 0.3-0.5% GDP/year

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### 6.3 What Success Looks Like: Country-Specific Outcomes

Success must be defined relative to each country's starting position and realistic constraints. A single OECD-wide definition of success is meaningless.

**Table 6.3: Country-Specific Success Definitions**

| Country          | Structural Position     | Best Achievable Outcome by 2035                | Key Requirements                                       |
|------------------|-------------------------|--|--|
| <b>Australia</b> | Gap 0.5%, debt 56%      | Continued prosperity; minor adjustments        | Maintain immigration; possible GST increase            |
| <b>Canada</b>    | Gap ~0%, net debt 81%   | Stable trajectory; modest real benefit growth  | Maintain immigration; healthcare efficiency            |
| <b>Norway</b>    | Gap ~0%, net debt -280% | Continued prosperity; sovereign wealth cushion | Maintain sovereign wealth discipline                   |
| <b>Sweden</b>    | Gap 0.5%, net debt -15% | Stable; pension system self-adjusting          | Maintain reformed system                               |
| <b>Denmark</b>   | Gap 0.4%, debt 35%      | Stable; retirement age auto-adjusts            | System already designed for sustainability             |
| <b>Germany</b>   | Gap 2.0%, debt 63%      | Domestic stability; managed eurozone exposure  | Limit transfer obligations; gradual benefit adjustment |

| Country               | Structural Position | Best Achievable Outcome by 2035                 | Key Requirements  |
|-----------------------|---------------------|---|---|
| <b>United Kingdom</b> | Gap 2.0%, debt 98%  | Controlled inflation (3-4%); NHS stabilization  | Accept modest living standard erosion; productivity focus   |
| <b>United States</b>  | Gap 3.0%, debt 128% | Avoid acute crisis; gradual benefit adjustment  | Social Security reform by 2030; healthcare cost containment |
| <b>France</b>         | Gap 5.0%, debt 113% | Avoid bond crisis; managed decline              | ECB support; 10-15% real benefit reduction over decade      |
| <b>Italy</b>          | Gap 5.0%, debt 144% | Avoid eurozone exit; no acute default           | ECB unlimited support; structural reform under pressure     |
| <b>Japan</b>          | Gap 3.0%, debt 255% | Continued financial repression; gradual decline | Maintain social cohesion; BOJ support                       |
| <b>South Korea</b>    | Gap 4.0%, debt 55%  | Begin adjustment before crisis                  | Immigration opening; pension reform; fertility policy       |

**Common thread:** For prepared countries, success means continued prosperity with fine-tuning. For crisis-risk countries, success means avoiding catastrophe while accepting decline from post-war prosperity trajectory.

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## 7. CONCLUSIONS

### 7.1 Summary of Findings

#### 1. The post-WWII social model has ended.

Systems designed for dependency ratios of 15-22 dependents per 100 workers cannot function sustainably with ratios of 42+ per 100 workers. The fundamental assumptions underlying the welfare state—expanding workforce, each generation larger than the last, short retirements—have all reversed.

#### 2. The 2035 outcome is demographically locked.

Policy enacted today cannot alter the 2035 demographic structure—these people are already alive. Significant policy impact begins only in the 2040s. The baby boom retirement wave, fertility collapse, and longevity extension are facts, not projections.

### **3. Structural fiscal gaps are mathematically real.**

They range from 0.5% of GDP per year (Australia) to 6.0% of GDP per year (Greece), driven directly by demographic deterioration. These are not political constructs but arithmetic consequences of population aging.

### **4. Conventional solutions cannot close gaps for at-risk countries.**

For countries with gaps exceeding 3-4% of GDP per year, tax increases, benefit cuts, immigration, and productivity gains—even combined—cannot offset the arithmetic of dependency ratio deterioration. The mathematics are binding.

### **5. The current interest rate environment worsens all projections.**

Debt dynamics are significantly worse than projections made during the 2010-2021 low-rate period. US interest payments already consume 35% of discretionary revenue, rising toward 60% by 2030.

### **6. Country outcomes reflect decisions made 25-40 years ago.**

Australia's 1992 superannuation system and Canada's 1990s pension reform now determine their favorable positions. France's, Italy's, and Spain's decisions to maintain unreformed pay-as-you-go systems determine their crisis risk.

### **7. The eurozone faces structural crisis.**

Countries representing 60% of eurozone GDP have unsustainable trajectories. The combination of shared currency, separate fiscal policies, and demographic divergence forces an existential choice by 2030-2035.

## **7.2 The Path Forward**

### **Most likely outcome (60-70% probability): Gradual managed decline through financial repression.**

Central banks will suppress interest rates below inflation, accepting 3-5% inflation as the lesser evil compared to acute crisis. Real interest rates will be negative, gradually eroding debt burdens and creditor wealth.

Living standards in crisis-risk countries will decline 10-15% from 2020 peak by 2035. This is not depression, but permanent reduction from the post-war prosperity trajectory. Services will erode, benefits will lag inflation, infrastructure will age.

### **Alternative outcome (20-30% probability): Acute crisis if bond markets lose confidence.**

Most likely in eurozone countries due to monetary union constraints. Could be triggered by: - Political shock (anti-EU government in France or Italy) - Simultaneous pressure on

multiple countries - ECB political constraints (German opposition to further purchases) - External shock (China crisis, major war, pandemic)

Acute crisis would force emergency austerity, potential eurozone restructuring or breakup, and social disruption exceeding 2010-2012 European debt crisis.

### **7.3 Final Assessment**

The 60-year period of universal, generous, defined-benefit social welfare systems (1945-2005) was enabled by unique demographics that will not return. The baby boom generation, rising female labor force participation, and improving mortality created conditions that appeared permanent but were historically contingent.

Every major indicator—fertility, mortality, labor force participation, dependency ratios—has reversed from the assumptions underlying these systems. This is not a policy failure. It is the end of a historically unique era.

The adjustment to post-demographic-dividend reality—whether gradual inflation and erosion or acute crisis and restructuring—will define the next generation of governance across most OECD countries.

Countries that established funded pension systems early (Australia 1992, Netherlands 1990s) or maintained strong immigration (Canada) face manageable transitions. Countries locked into pay-as-you-go systems without demographic support (France, Italy, Spain, United States) face mathematical constraints that require either benefit reduction, revenue increase, or debt monetization—and likely all three simultaneously.

#### **The margin for error has disappeared.**

Governments that once could afford policy experimentation, ideological indulgence, and electoral bribery now face binding fiscal constraints. Policies that reduce economic efficiency—whether excessive benefit generosity, discriminatory practices that limit labor force utilization, credential inflation that delays workforce entry, or geographic concentration that drives cost inflation—are fiscal luxuries no longer affordable.

#### **The coming decades will need to be governed by economics and efficiency rather than ideology.**

This is not a normative preference but a mathematical reality. Countries that recognize this constraint and adapt will manage the transition. Countries that attempt to maintain ideological approaches—whether leftist expansion of benefits or rightist resistance to tax increase and immigration—will face crisis that forces adjustment under worse conditions.

#### **The window for proactive adjustment is 2025-2030.**

After 2030, demographic pressures intensify while policy options narrow. The baby boom retirement wave peaks. Trust fund depletions occur. Bond market patience expires. Countries that act early preserve options and distribute adjustment over time.

Countries that delay face concentrated, crisis-driven adjustment with fewer tools and higher costs.

The choice is between managing decline proactively or experiencing it reactively. History suggests most countries will choose the path of least resistance—muddling through with inflation and erosion rather than comprehensive reform. This is not catastrophic but represents a fundamental departure from post-WWII expectations.

**The post-war era is over. What comes next depends on choices made in the next five years.**

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## **END OF REPORT**

Prepared by: STC Economic Policy Research

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## Data Notes and Methodology

### Dependency Ratio Definitions

**Old-age dependency ratio:** Population aged 65 and over per 100 persons of working age (20-64). This is the primary metric used throughout this report as it directly relates to pension and healthcare fiscal pressures.

**Total dependency ratio:** Population aged 0-19 plus population aged 65 and over, per 100 persons of working age (20-64). Used in some contexts but not primary metric due to differing fiscal implications of child versus elderly dependency.

### Debt Definitions

**Gross debt:** Total government liabilities, including debt held by government entities (e.g., Social Security trust fund holdings of Treasury securities).

**Net debt:** Gross debt minus government financial assets. Provides better measure of true fiscal position for countries with substantial sovereign wealth funds or funded pension reserves.

This report uses gross debt for cross-country comparisons (standard international practice) while noting net debt positions in country-specific analysis where material differences exist.

## **Tax Revenue Scope**

This report uses federal plus state/provincial tax revenue, excluding local/municipal taxes. Local taxes fund local services and cannot be legally redirected to national pension and healthcare programs, making them irrelevant to the fiscal gaps analyzed.

## **Projection Uncertainty**

All projections beyond 2025 involve uncertainty. Demographic projections to 2035 are relatively reliable (based on existing population). Fiscal projections depend on policy assumptions. This report uses baseline “current policy” assumptions unless otherwise noted.

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## **DISCLAIMER**

This report represents analysis based on publicly available data from authoritative sources including the OECD, United Nations, Congressional Budget Office, European Commission, and national statistical agencies. Projections are illustrative scenarios based on stated assumptions, not predictions. Actual outcomes may differ materially based on policy changes, economic conditions, demographic shifts, and other factors.

The analysis herein is intended for informational purposes for government policymakers and does not constitute financial, legal, or policy advice. Readers should consult qualified advisors before making decisions based on this analysis.

Data current as of January 2026. Some figures may be preliminary or subject to revision.

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