



# LONG-TERM FISCAL FORECASTS: OECD Approach

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# Outline

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- OECD long-term projections:
  - comparative perspective
  - global consistency
  - this comes at some cost
- Three aspects of OECD framework:
  1. Economic projections
  2. Fiscal projections
  3. Health + long-term care projections



## Old approach (Befy *et al.*)

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- Medium-Term Baseline (MTB) model
  - production function approach
  - HP filter based on ST projections
  - population growth based on UN
  - actual investment rates, PIM capital stock



## (1) BLT – Baseline Long Term model

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- Conditional convergence framework
  - C-B constant returns production function
  - conditional TFP convergence
  - structural/ policy determine end point
  - policies converge towards best practice
- “Catch up” growth
- Output gaps closed over 4 or 5 years

See Johansson et al (2013)



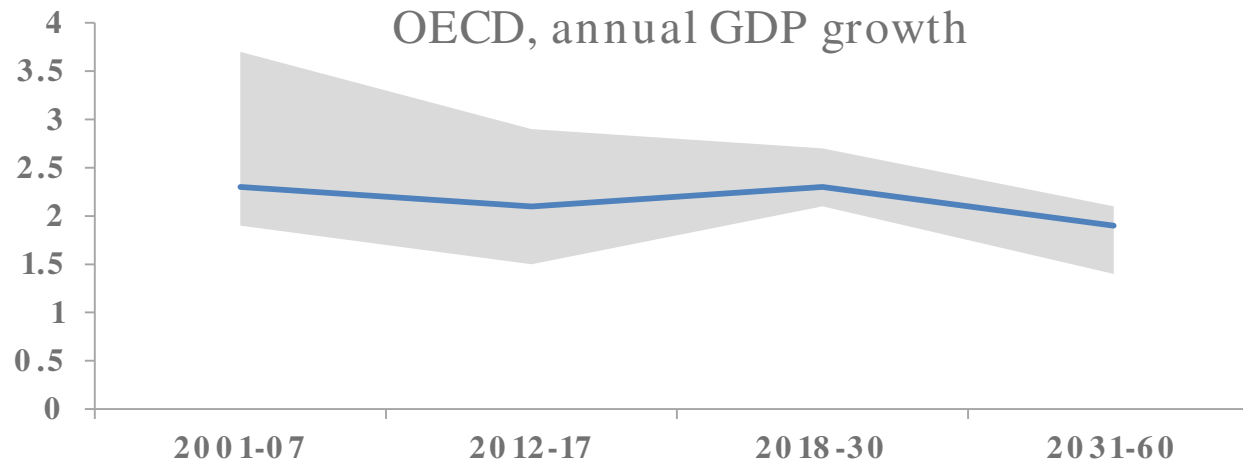
# Savings & Investment

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- Domestic factors
  - private savings rate (Kerdrain *et al* 2010)
    - old-age/ youth dependency
    - {terms of trade, productivity, oil, credit }
  - fiscal policy – stabilisation of debt/ GDP
    - 40% Ricardian offset to private saving
  - monetary policy rule
- L-R global interest rate
  - global current account balance set to zero
- Risk premium on government debt
  - 2bps/ 1pp debt over 75%; +2bps/ 1pp over 125%



# Long-term projections



|           | Potential real GDP |         | Labour productivity |         | Employment |         |
|-----------|--------------------|---------|---------------------|---------|------------|---------|
|           | 2012-17            | 2018-30 | 2012-17             | 2018-30 | 2012-17    | 2018-30 |
| OECD      | 2.1                | 2.3     | 1.3                 | 1.7     | 0.8        | 0.6     |
| Non-OECD  | 6.9                | 5.1     | 5.8                 | 4.4     | 1          | 0.6     |
| World     | 3.3                | 2.4     | 2.7                 | 2.3     | 0.6        | 0.1     |
| USA       | 2.1                | 2.4     | 1.3                 | 1.4     | 0.8        | 0.9     |
| Euro Area | 1.5                | 1.8     | 1.1                 | 1.7     | 0.4        | 0       |
| Japan     | 0.9                | 1.3     | 1.2                 | 1.7     | -0.3       | -0.3    |
| China     | 8.9                | 5.5     | 8.4                 | 5.9     | 0.5        | -0.3    |



## (2) Fiscal scenarios

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- Stable 60 % debt/ GDP ratio by 2060
- Short-/ medium- term consolidation need
  - 1pp changes in primary structural balance
  - *reach* 60 % by 2060
- Long-term consolidation need
  - primary balance to *stabilise* debt at 60 %



# Long-term spending pressures

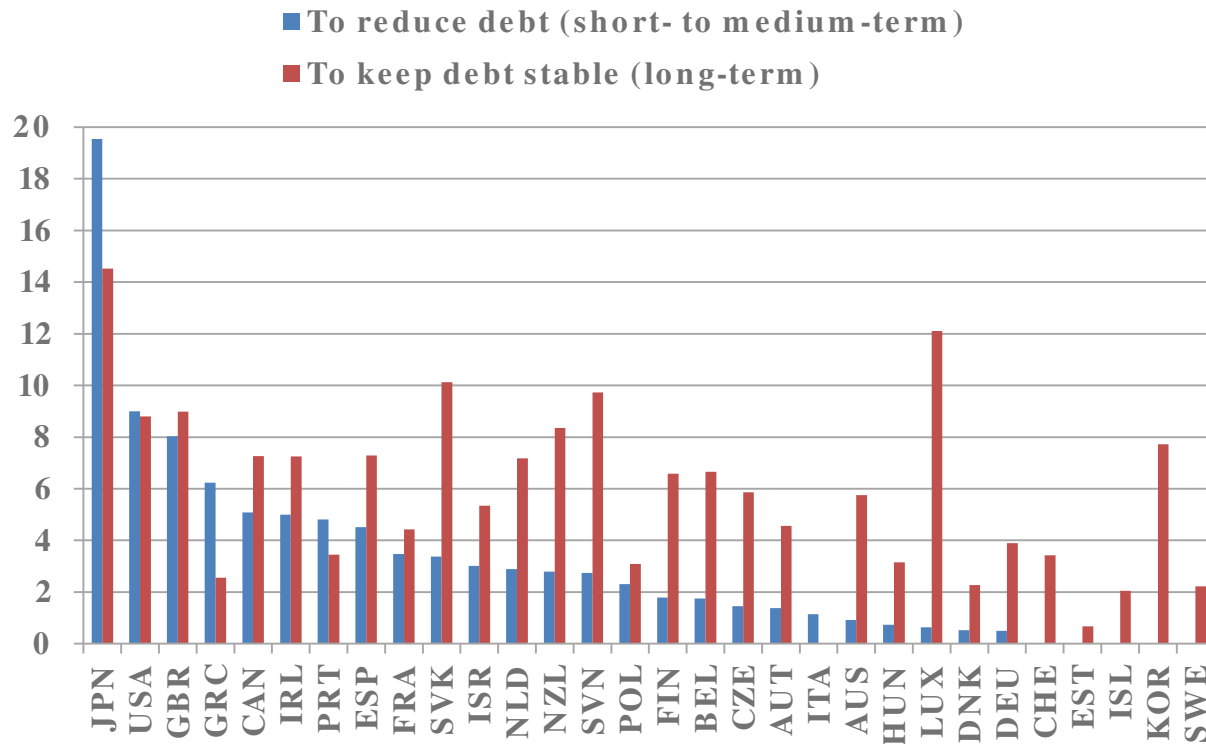
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- Long-term consolidation accommodates underlying trend pressures
- Expected social pensions
  - current policy basis
- Health and long-term care
  - based cost containment scenario





# Consolidation scenario



- Long-term needs typically dominate



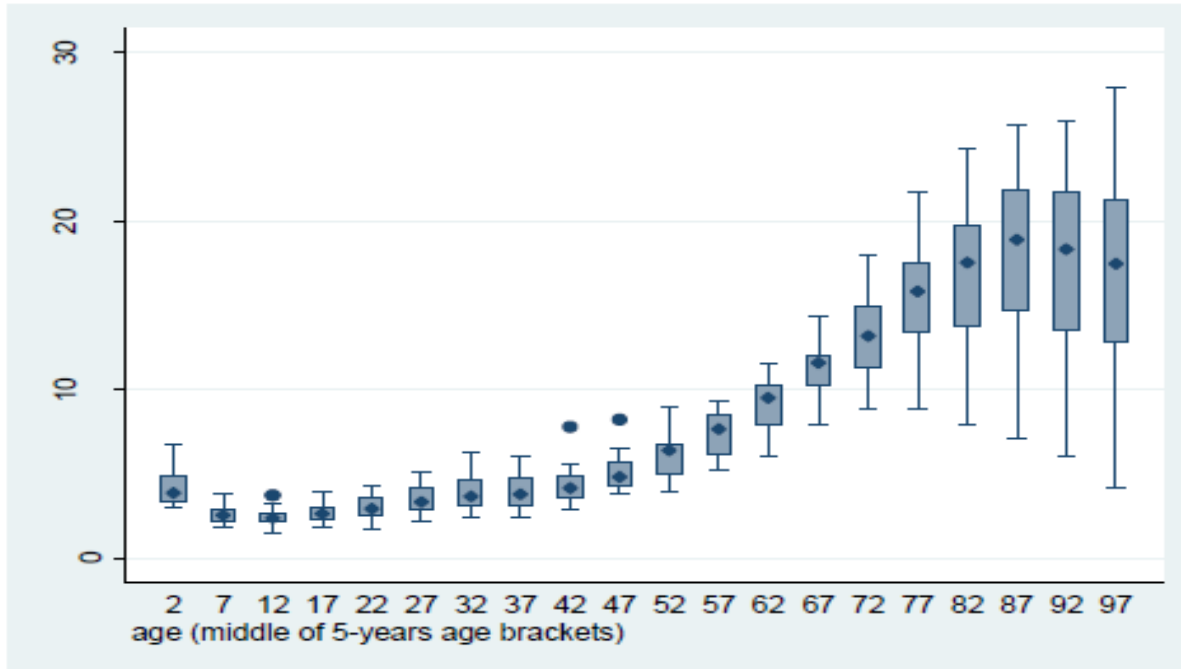
### (3) Health and long-term care

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- Health care driven by technology, relative prices, institutions and policies
  - income elasticity of 0.8
  - significant residual
- Long-term care driven by weak productivity
- Around 6% of GDP in 2006-10
- 9.5% in 2060 in a *cost containment scenario*
- 14% of GDP in a *cost-pressure scenario*
  - no stepped-up policy action



# Health spending is age related

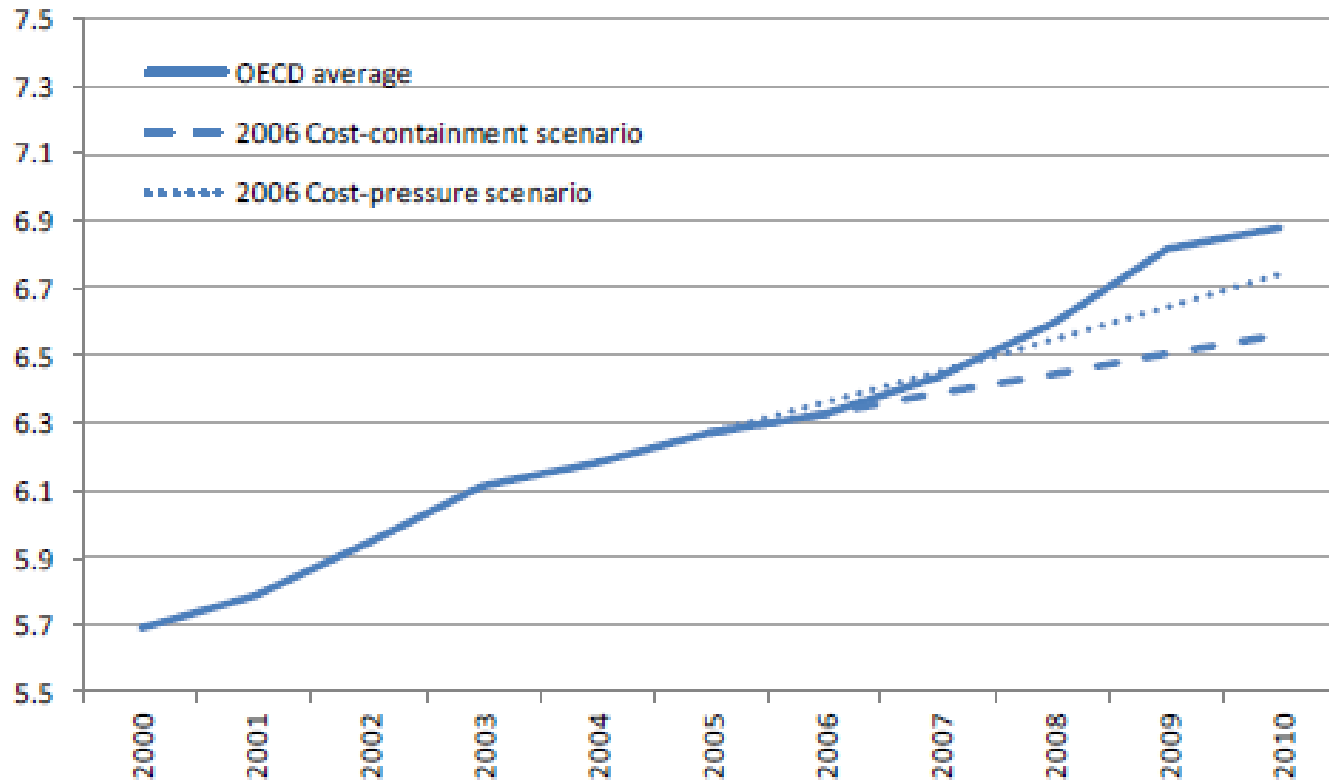


- But demographics are not main driver
- 1995-2009 = 4.5% average y-o-y real growth
  - 1.7pp incomes, 0.5pp demographics



# Rising health and long-term care costs

Unweighted average as % GDP





# Scenarios for public health expenditure

- Wide variation in demographic effects
- Income effects more powerful for BRIICS

|                               | Average<br>2006-2010 | Percentage point deviations from starting period in 2030 |               |                                  |                  |
|-------------------------------|----------------------|----------------------------------------------------------|---------------|----------------------------------|------------------|
|                               |                      | Contributions of demographic and income effects          |               | Total increase in spending ratio |                  |
|                               |                      | Demographic effect                                       | Income effect | Cost-pressure                    | Cost-containment |
| Australia                     | 5.6                  | 0.4                                                      | -0.4          | 2.0                              | 1.5              |
| Austria                       | 6.6                  | 0.4                                                      | -0.2          | 2.1                              | 1.7              |
| Belgium                       | 5.8                  | 0.2                                                      | -0.3          | 1.8                              | 1.4              |
| Canada                        | 5.8                  | 0.6                                                      | -0.3          | 2.2                              | 1.8              |
| Chile                         | 3.1                  | 0.9                                                      | -0.6          | 2.3                              | 1.8              |
| Czech Republic                | 5.5                  | 0.4                                                      | -0.5          | 1.9                              | 1.4              |
| Denmark                       | 6.3                  | 0.4                                                      | -0.2          | 2.1                              | 1.6              |
| Estonia                       | 4.3                  | 0.2                                                      | -0.5          | 1.6                              | 1.1              |
| Finland                       | 5.2                  | 0.4                                                      | -0.3          | 2.0                              | 1.5              |
| France                        | 7.4                  | 0.3                                                      | -0.3          | 1.9                              | 1.4              |
| Germany                       | 7.3                  | 0.5                                                      | -0.3          | 2.1                              | 1.6              |
| Greece                        | 5.4                  | 0.3                                                      | -0.3          | 1.9                              | 1.4              |
| Hungary                       | 4.8                  | 0.2                                                      | -0.5          | 1.6                              | 1.2              |
| Iceland                       | 5.8                  | 0.3                                                      | -0.2          | 2.0                              | 1.5              |
| Israel                        | 4.0                  | 0.3                                                      | -0.2          | 2.0                              | 1.5              |
| Ireland                       | 5.5                  | 0.3                                                      | -0.2          | 2.1                              | 1.6              |
| Italy                         | 6.1                  | 0.3                                                      | -0.2          | 2.1                              | 1.6              |
| Japan                         | 6.1                  | 0.6                                                      | -0.3          | 2.3                              | 1.8              |
| Korea                         | 3.3                  | 1.1                                                      | -0.5          | 2.6                              | 2.1              |
| Luxembourg                    | 4.4                  | 0.4                                                      | -0.1          | 2.2                              | 1.7              |
| Mexico                        | 2.5                  | 0.6                                                      | -0.5          | 2.1                              | 1.6              |
| Netherlands                   | 6.4                  | 0.6                                                      | -0.3          | 2.2                              | 1.8              |
| New Zealand                   | 6.4                  | 0.5                                                      | -0.3          | 2.1                              | 1.6              |
| Norway                        | 5.1                  | 0.3                                                      | -0.4          | 1.9                              | 1.4              |
| Poland                        | 4.1                  | 0.4                                                      | -0.5          | 1.9                              | 1.4              |
| Portugal                      | 6.5                  | 0.4                                                      | -0.2          | 2.0                              | 1.6              |
| Slovak Republic               | 5.4                  | 0.5                                                      | -0.5          | 1.9                              | 1.5              |
| Slovenia                      | 5.2                  | 0.5                                                      | -0.3          | 2.1                              | 1.7              |
| Spain                         | 5.6                  | 0.4                                                      | -0.3          | 2.0                              | 1.6              |
| Sweden                        | 6.6                  | 0.2                                                      | -0.3          | 1.8                              | 1.3              |
| Switzerland                   | 5.7                  | 0.4                                                      | -0.3          | 2.1                              | 1.6              |
| Turkey                        | 3.8                  | 0.7                                                      | -0.6          | 2.0                              | 1.5              |
| United Kingdom                | 6.5                  | 0.2                                                      | -0.2          | 1.9                              | 1.4              |
| United States                 | 7.1                  | 0.4                                                      | -0.3          | 2.0                              | 1.5              |
| OECD average <sup>†</sup>     | 5.5                  | 0.4                                                      | -0.3          | 2.0                              | 1.6              |
| Brazil                        | 3.7                  | 0.8                                                      | -0.6          | 2.1                              | 1.6              |
| China                         | 1.9                  | 0.9                                                      | -1.1          | 1.7                              | 1.3              |
| India                         | 1.2                  | 0.3                                                      | -1.0          | 1.3                              | 0.8              |
| Indonesia                     | 1.2                  | 0.6                                                      | -0.8          | 1.7                              | 1.3              |
| Russia                        | 3.1                  | 0.1                                                      | -0.6          | 1.5                              | 1.0              |
| South Africa                  | 3.2                  | 0.0                                                      | -0.6          | 1.4                              | 0.9              |
| Non-OECD average <sup>†</sup> | 2.4                  | 0.5                                                      | -0.8          | 1.6                              | 1.2              |
| Total average <sup>†</sup>    | 5.0                  | 0.4                                                      | -0.4          | 2.0                              | 1.5              |



# References

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Johansson et al (2013), "Long-term growth scenarios", OECD Economics WP100

Beffy et al (2006), New OECD methods for supply-side and medium-term assessments: a capital services approach , OECD Economics WP482

de la Maisonnette et al (2013), "Public Spending on Health and Long-Term Care: A New Set of Projections", mimeo