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EU Population Aging Fiscal Challenges

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Agenda

- 1. Europe's Unprecedented Demographic Transition**
- 2. Impact of Population Aging on the Economy**
- 3. Impact of Population Aging on Public Finances**

Related Research

» **Moody's Special Comments**

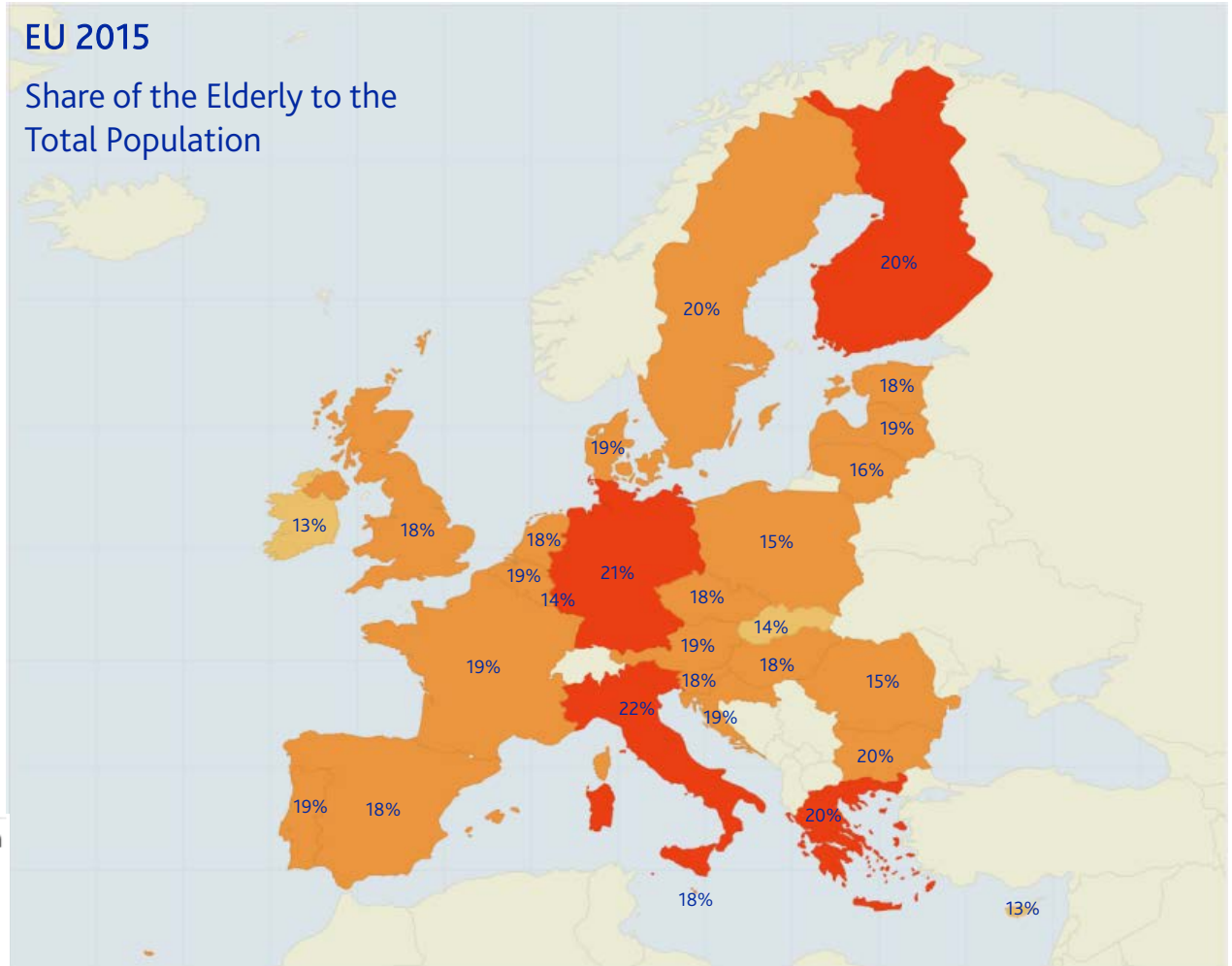
- » [Population Aging Will Dampen Economic Growth over the Next Two Decades, August 2014](#)
- » [Assessing Future Health- and Age-Related Government Expenditures in France, Germany, the UK and the US, December 2011](#)

1

Europe's Unprecedented Demographic Transition

Unprecedented Scale of Aging in the EU (1)

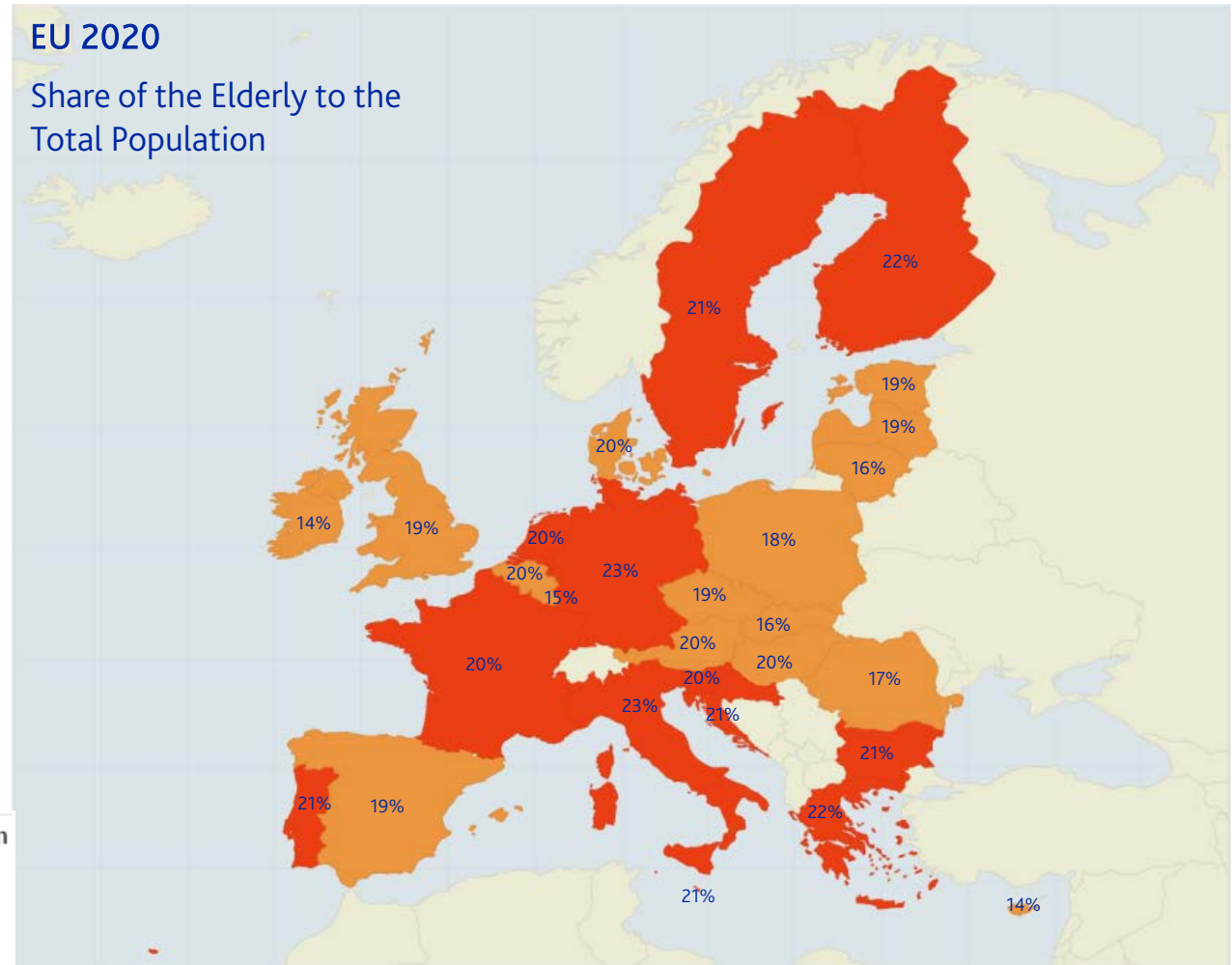
- » 'Super-aged' is the UN's definition for populations with more than 20% elderly (age 65+)
- » 'Super-aged' societies in the EU will increase from 4 in 2015 (Finland, Germany, Greece and Italy)



Source: UN

Unprecedented Scale of Aging in the EU (2)

- » 'Super-aged' societies will increase to 12 in 2020

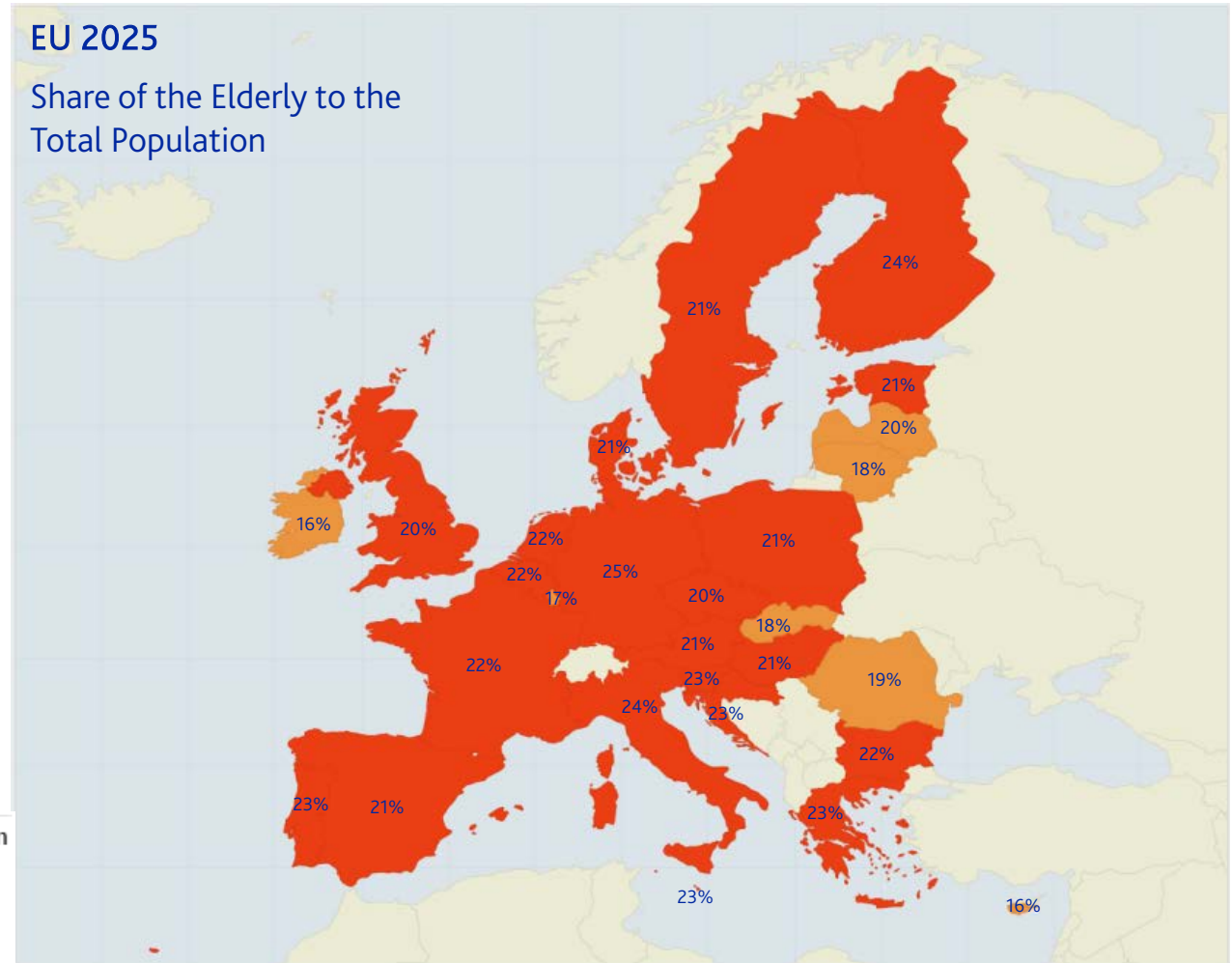


Source: UN

Note: Some ratios round up in the map, for example Belgium's ratio is 19.8% which maps to the 'aged' category

Unprecedented Scale of Aging in the EU (3)

- » 'Super-aged' societies will increase to 21 in 2025

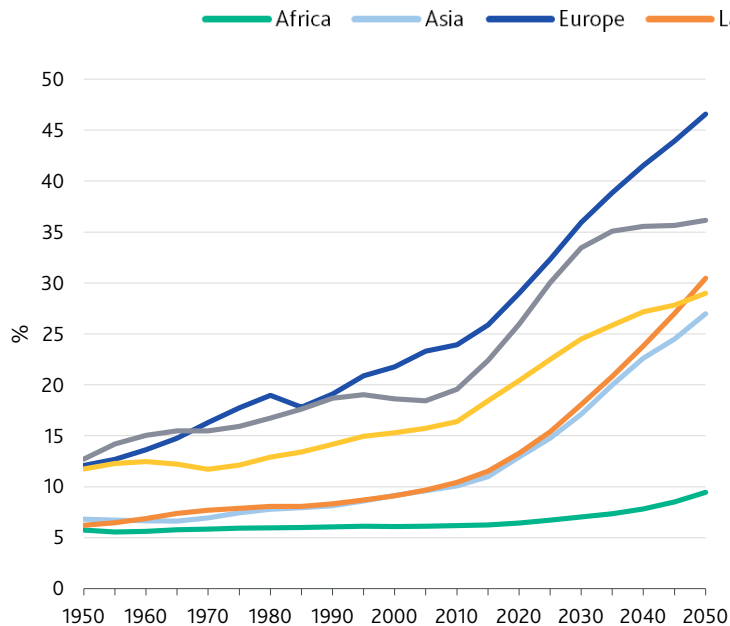


Source: UN

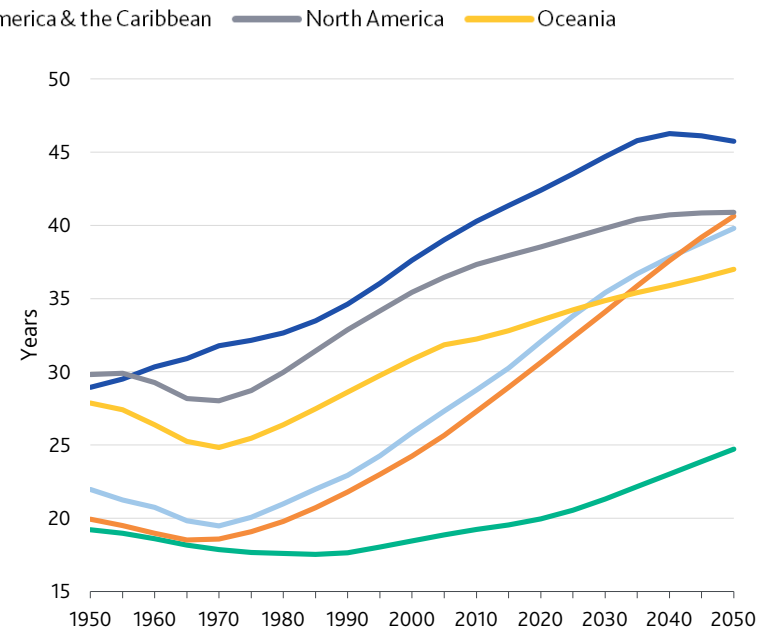
Globally, Population Aging In Europe Is Most Advanced

- » From a regional perspective, Europe is and will continue to be the grayest region
- » Moreover, the UN expects the pace of aging to accelerate in the future

Old Age Dependency Ratio (%)



Median Population Age (Years)



Source: UN

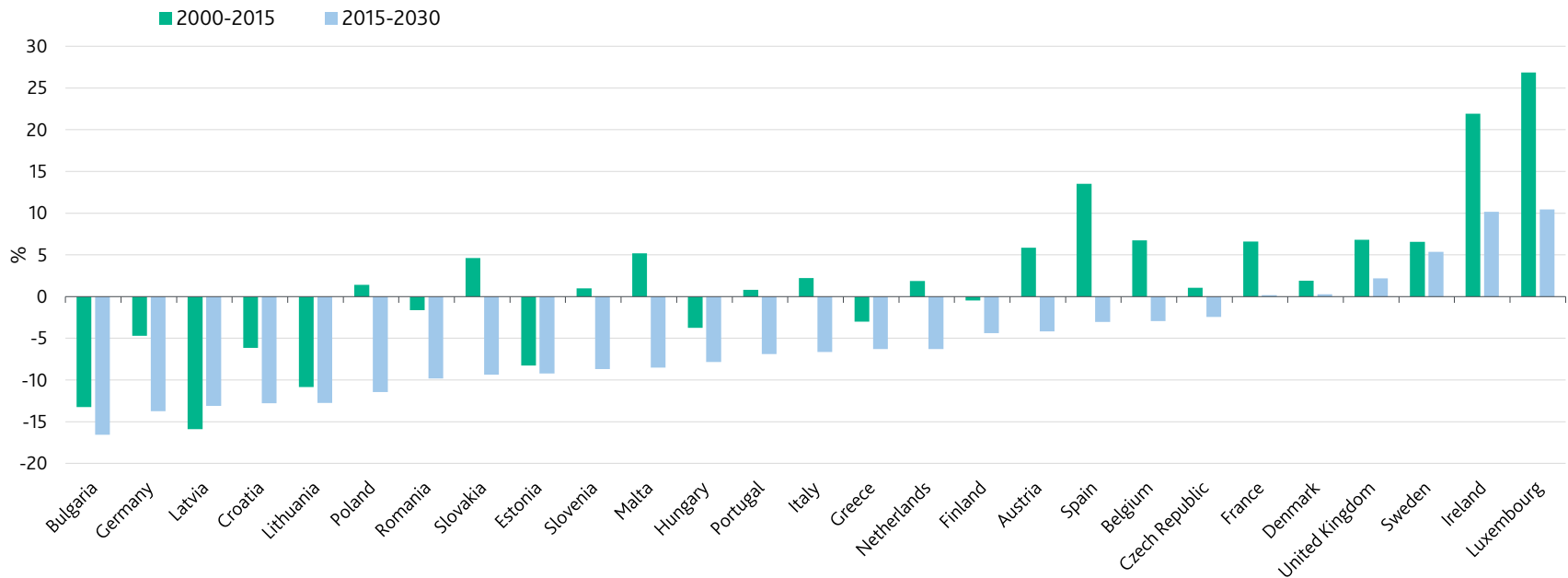
2

Impact of Population Aging on the Economy

Working-Age Population Growth Will Fall Dramatically

- » On average across the EU, working-age population growth will fall from 1.7% over 2000-2015 to -5.5% over 2015-2030
- » All EU countries will face either a slower-growing or declining working-age population, and corresponding pressure on labor supply

Growth In Working-Age Population Across the EU (%)

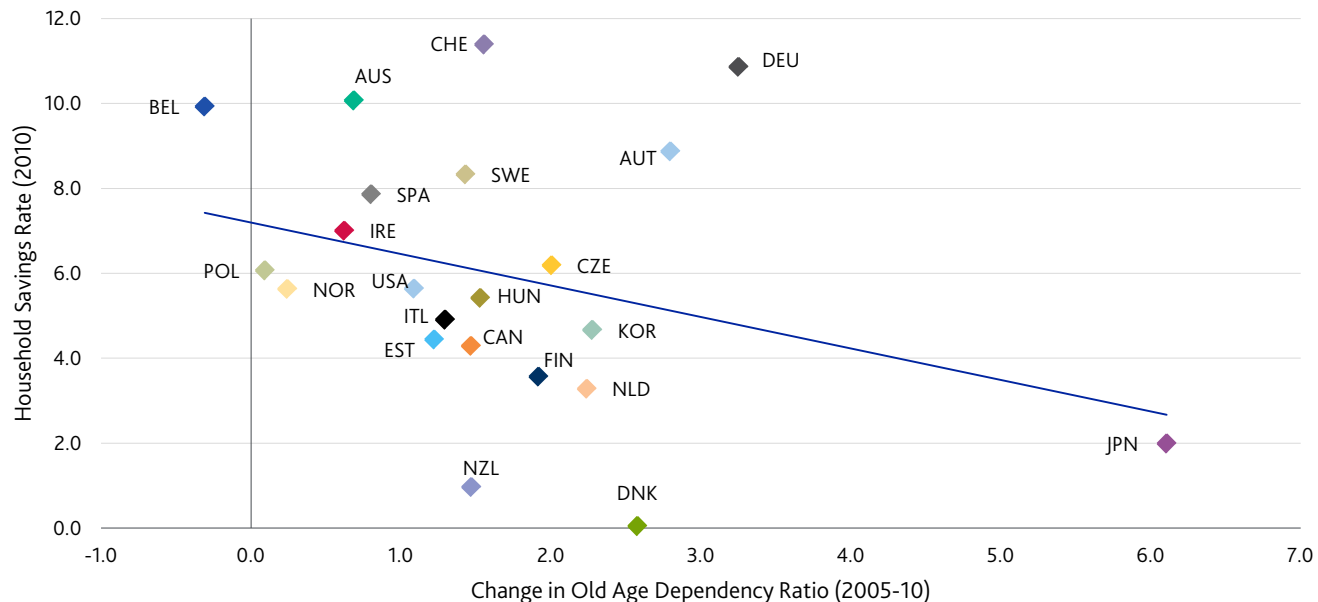


Source: UN

Aging Will Also Reduce the Economy's Savings Rate

- » In addition to reducing labor supply, population aging will reduce the economy's savings rate, and in turn, investment
- » The academic literature using the life-cycle model estimates declines in the average savings rate of 0.5-1.2 pp from a one pp rise in the old age dependency ratio

Old Age Dependency Ratio and Household Savings Rate (OECD countries)



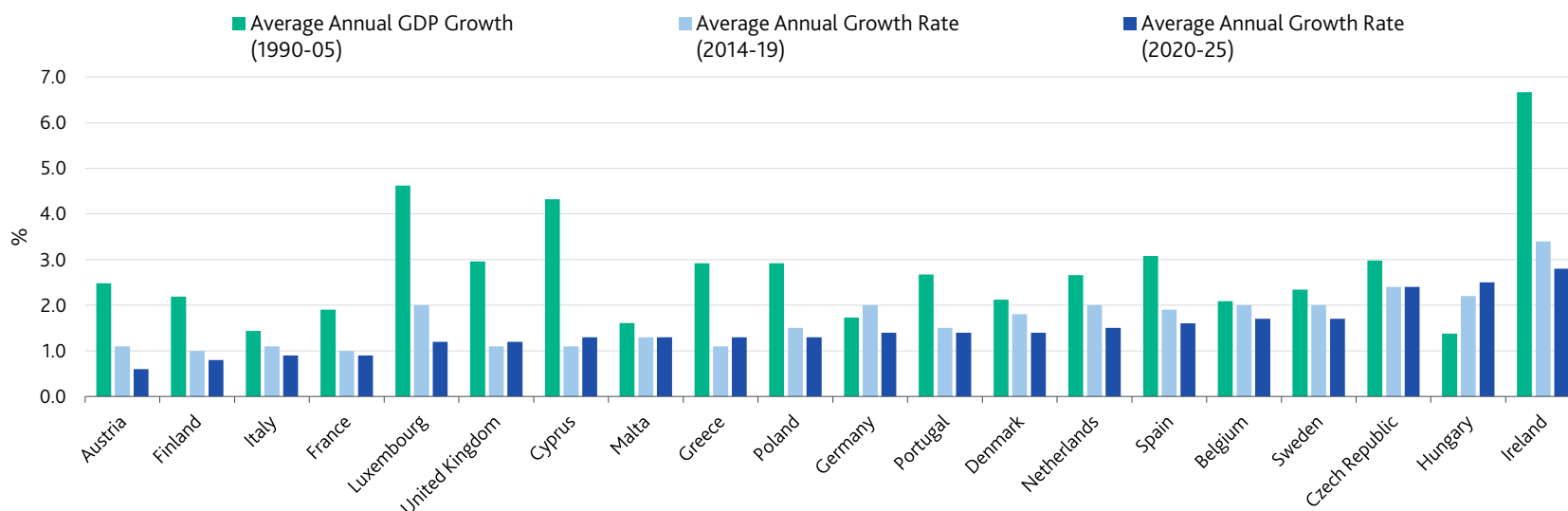
Source: UN, OECD

Note: The chart is for illustration purposes only, sensitivity estimates rely on larger samples

Aging Will Negatively Affect Economic Growth

- » The Conference Board estimates indicate that aging can reduce the EU aggregate annual growth rates by as much as 0.6 pp during 2014-2019 and by 0.9 pp during 2020-2025 from the 1990-2005 average annual growth rate of 2.1%
- » Policy reforms that improve labor participation, encourage immigration, financial inflows, innovation and technological progress can dampen the effects of demographics

The Conference Board Projections for Average Annual Economic Growth Given Aging (%)



Source: The Conference Board, IMF

Note: Some variables, such as TFP growth, are difficult to project and are subject to a higher degree of uncertainty

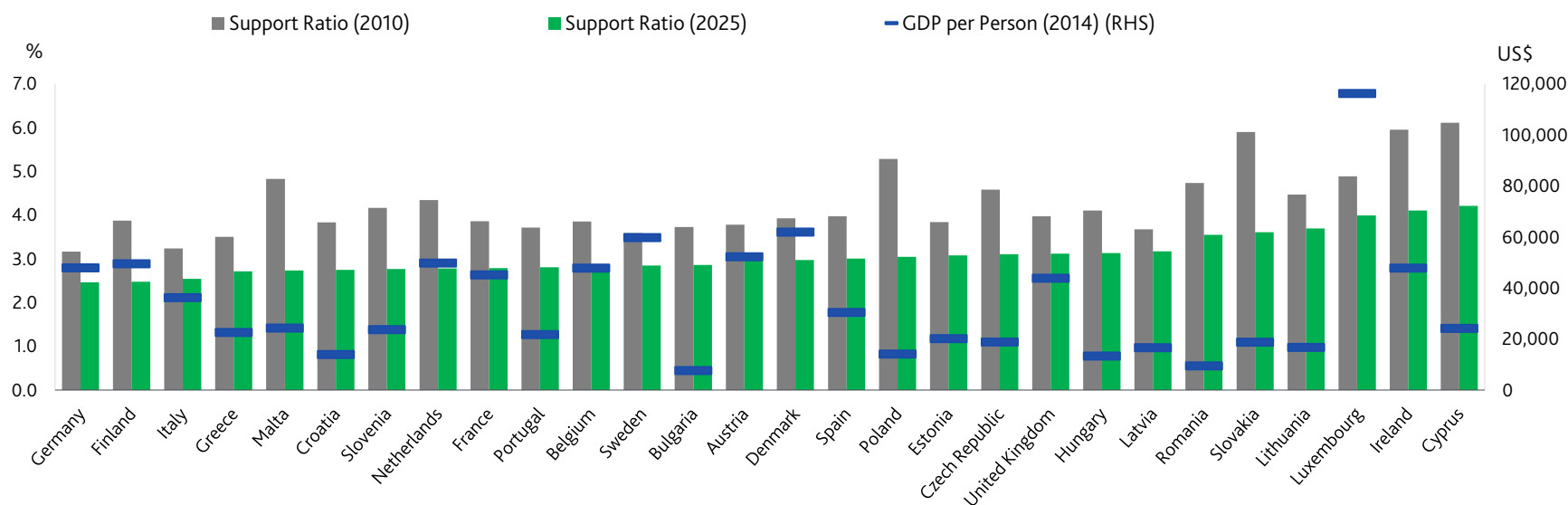
3

Impact of Population Aging on Public Finances

Support Ratios Will Transition Rapidly in the Next Decade

- » By 2025, on average across countries, the burden of one 65+ adult in the EU will be carried by just 3.1 working-age adults, compared to 4.2 in 2010
- » The support ratio will be as low as 2.5 in Germany and Italy
- » A number of countries will face aging pressures at lower income levels

Support Ratios Across the EU (The ratio of working-age population to the elderly, %)



Source: UN, IMF

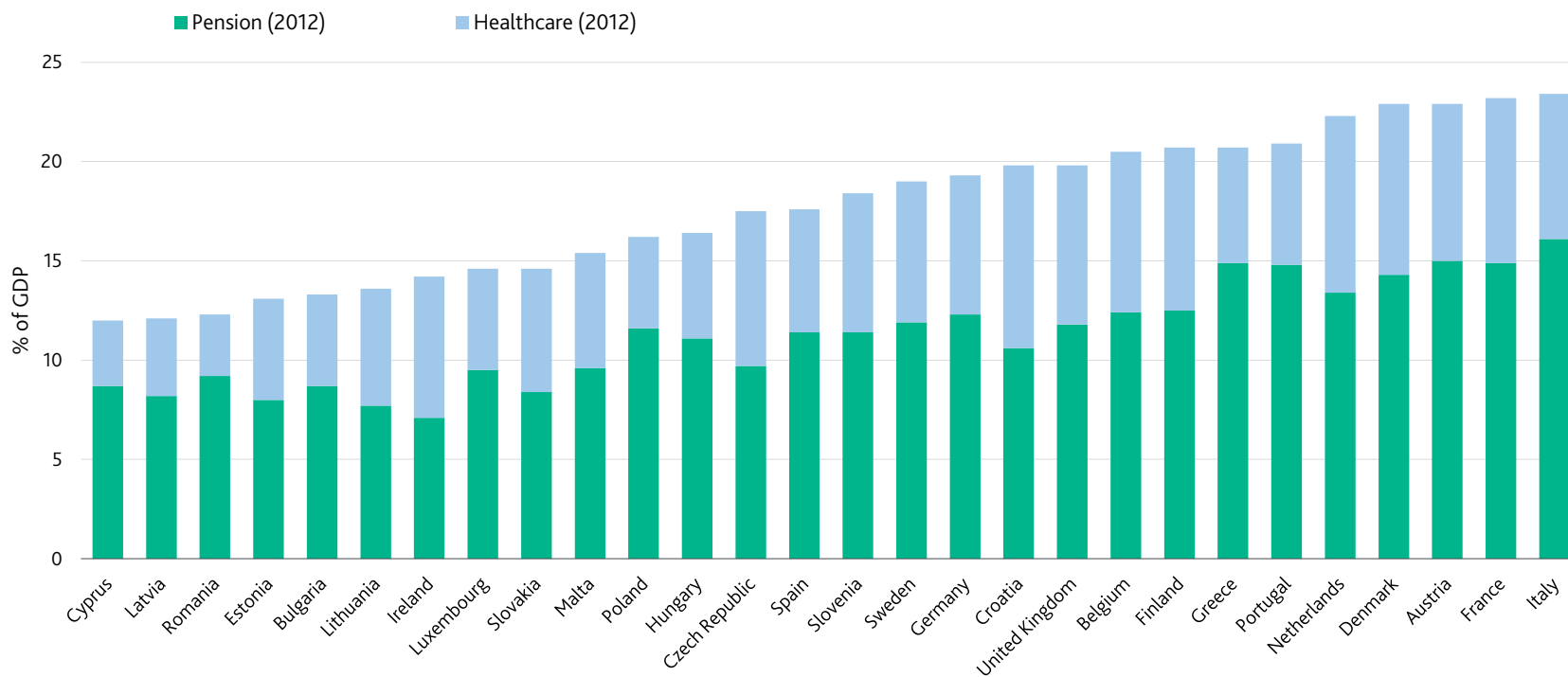
Demography Will Present Formidable Fiscal Challenge

- » Moody's expenditure projections under different scenarios for France, Germany and the UK suggest the following
- » **With respect to health care expenditures:**
- » Keeping program eligibility, cost and generosity unchanged, over 2011-2050 aging alone will require governments to spend additional 1%-2% of GDP every year on health care
- » Rapid health care cost growth can raise the estimate to 2%-4% of GDP annually
- » **In terms of pension expenditures:**
- » Assuming constant program benefits, aging will require new pension spending of 1%-4% of GDP annually on average over the next 40 years
- » Under an alternative (and possibly more realistic) scenario where the average pension benefits increase in line with the average nominal wage bill, pension spending would represent a much smaller challenge, with relative expenditure staying constant. In this scenario, the decline in generosity offsets the increase in the pensioners to employees ratio. In practice, such a scenario would require significant decrease in benefits

Pension and Healthcare Expenditures Are Already High

- » 9 out of the 28 EU countries already spend more than one-fifth of their GDP on pension support and healthcare (pension spending is about twice spending on healthcare)

Share of GDP Spent on Pensions and Healthcare (%)



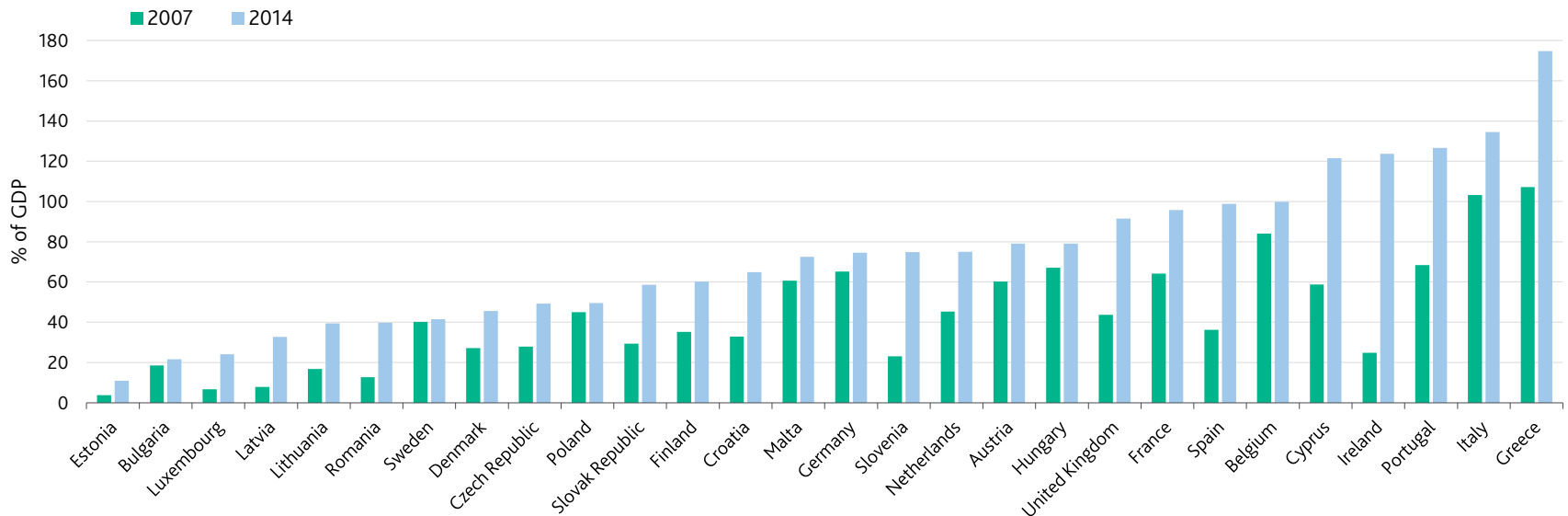
Source: Eurostat

Note: 2012 pension values for Austria, Germany, Latvia, Lithuania, Malta, Netherlands, Slovakia and Sweden; 2011 pension values for other countries

The Financial Crisis Led to a Large Increase in EU Debt Levels, Further Pressuring Fiscal Sustainability

- » The demographic transition is occurring in the context of the global financial crisis and recession, which led to dramatic increase in debt levels for a number of countries
- » The average EU debt-to-GDP ratio rose from 43.4% in 2007 to 73.6% in 2014

Debt-to-GDP Ratios Across the EU (%)



Source: IMF

Many Factors Can Mitigate the Impact of Aging on the Economy But Fiscal Challenges Will Remain

- » A number of developments can dampen the impact of aging on the economy:
 - » Policy reforms that improve labor force participation rates
 - » Raised retirement age
 - » Investment in 'silver' industries
 - » Immigration flows
 - » Financial inflows, which could fill a domestic savings-investment gap
 - » Innovation and technological progress in the long run
 - » Human capital development and increased productivity
- » However, the fiscal challenges are large and will require re-thinking of social programs, most of which were designed for a growing-population model
- » Further, the historical experience is one of under-estimation of the pace of population aging: populations have aged more rapidly than forecasted

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