



The Ageing Hammer: How Demographics Are Reshaping Our Future

AECM Annual Meeting
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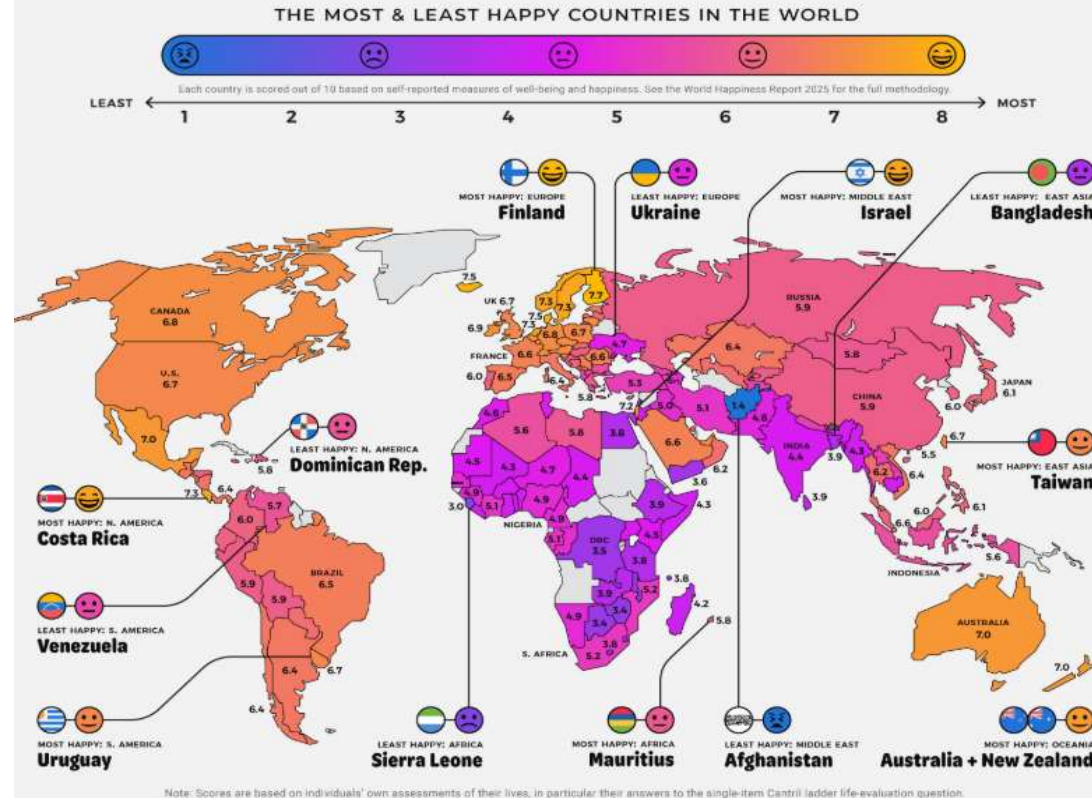
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2. The Finnish Case: Impact of Ageing
3. The World Will Change: Scenarios
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MAPPING GLOBAL Happiness Levels

IN 2025

The Gallup World Poll asks respondents in each country to rate their current life on a scale from 0–10, ranking from highest to lowest.



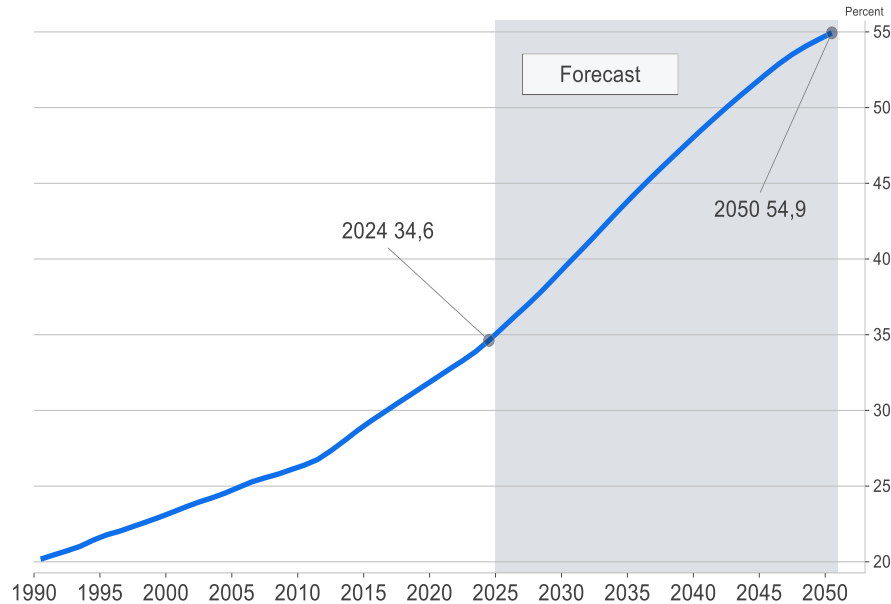
Motivation



Europe is Ageing

Old-age Dependency Ratio in the EU

Source: World Bank



- **Longevity** has increased, but **fertility** declined
- **Immigration** has not been able to fill in
- We're talking about tens of millions of elderly people in EU, hundreds of millions globally
- Ageing will have serious effects on the economy via various channels



“It’s complicated”

- Economic effects of ageing is very complicated subject, because there are mechanisms that run both ways
 - Additionally, the mechanisms are many
 - GG deficit and debt, crowding out, more public services, decline in productivity growth, decreased risk appetite, questions about monetary policy
 - + People are healthier than before, more automation due to labour constraints

In many countries, people not only are living longer but are also aging in better health, which is associated with longer and more productive working lives. Alongside increases in longevity, the functional capacity of older individuals has improved over time. More recent cohorts of older individuals are physically stronger and cognitively abler than earlier cohorts at the same age. Notably, when cognitive capacities are the focus, “the 70s are the new 50s”: Data from a sample of 41 advanced and emerging market economies indicate that, on average, a person who was 70 in 2022 had the same cognitive ability as a 53-year-old in 2000. Over the course of a decade, this pace of improvement in cognitive abilities is associated with an increase of approximately 20 percentage points in the likelihood that individuals remain engaged in the labor market, either by working or actively seeking employment, along with an increase of about six hours in average weekly hours worked and a 30 percent rise in labor earnings, conditional on being employed.

Source: [IMF](#)

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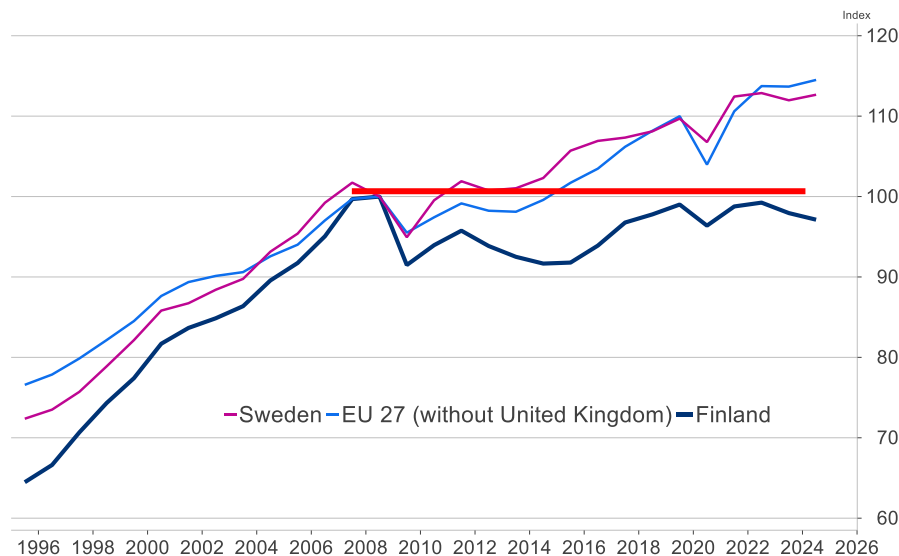
Case Finland

Economic growth has been modest since 2010



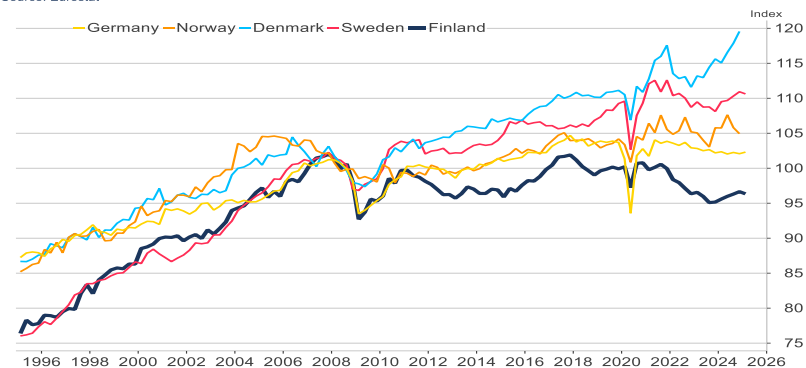
GDP per capita, 2008=100

Source: Eurostat



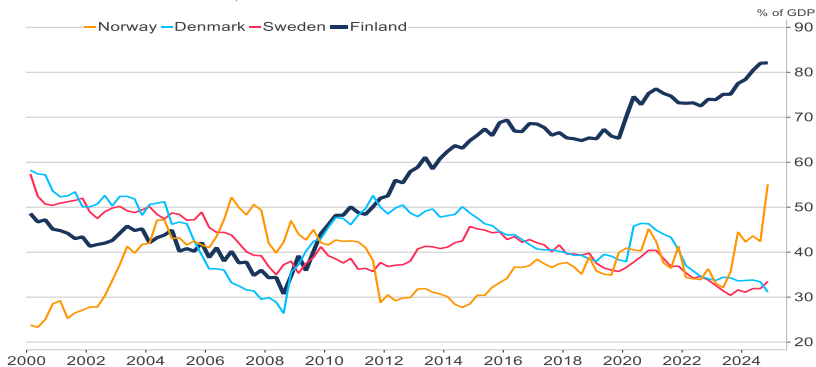
Labor Productivity, 2008=100

Source: Eurostat



General Government Debt in the Nordic Countries

Government Consolidated Gross Debt, Eurostat



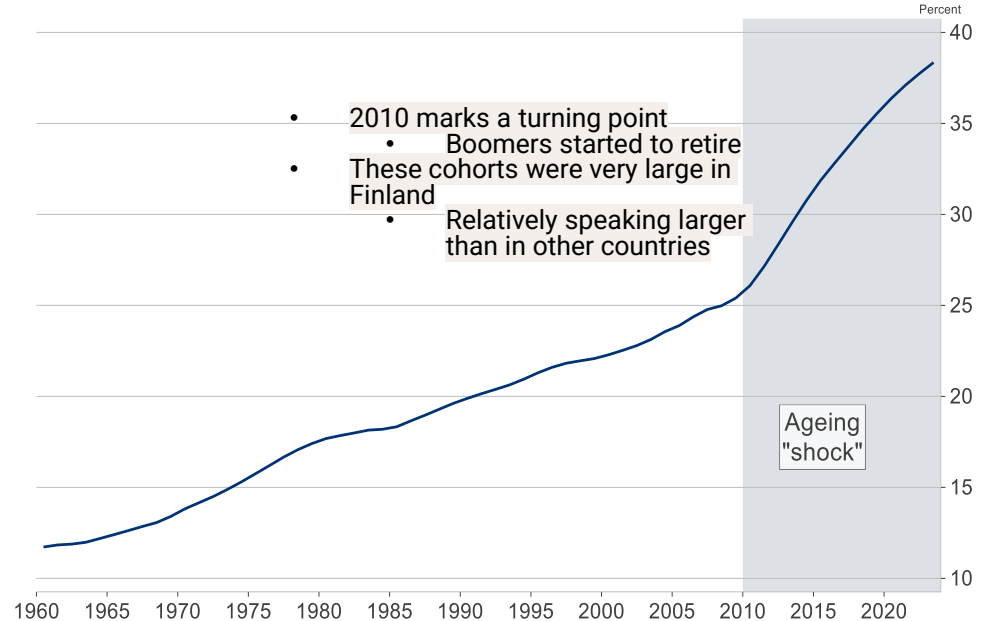


Why Finland is an interesting case?

- Cohorts born after WW2 were very large relatively speaking → Rapid acceleration in ageing after 2010
- Allows us to compare Finland to other similar countries using Synthetic Cohort Method (SCM)
- Allows us to use regional variation using instrumental variable approach (IV)

Old-age Dependency Ratio in Finland

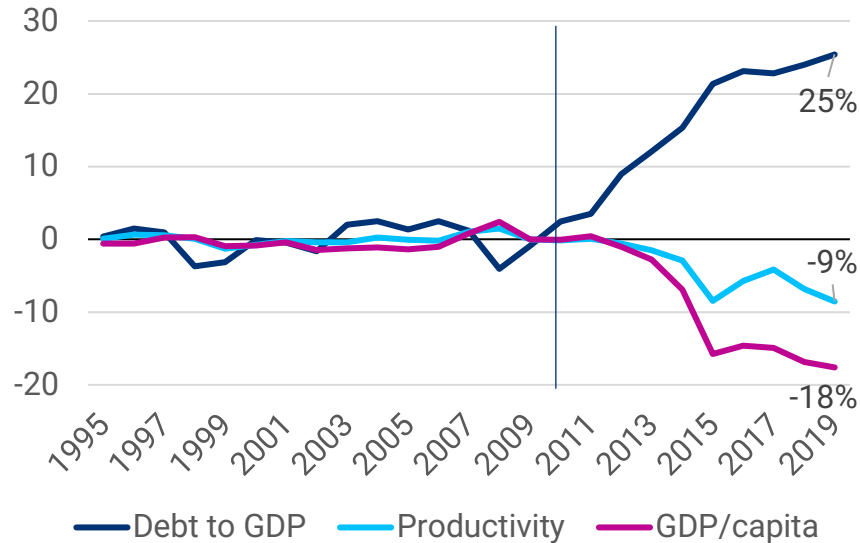
Source: World Bank



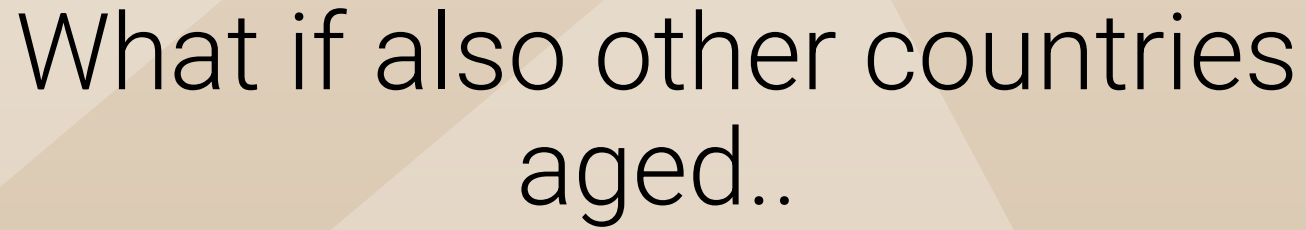


Results in a Nutshell

Impact of Ageing in Finland



- Impact of ageing on the Finnish economy between 2010 and 2019 is significant:
 - GDP per capita: -18 %
 - Productivity: -8 %
 - Debt to GDP: +25 %

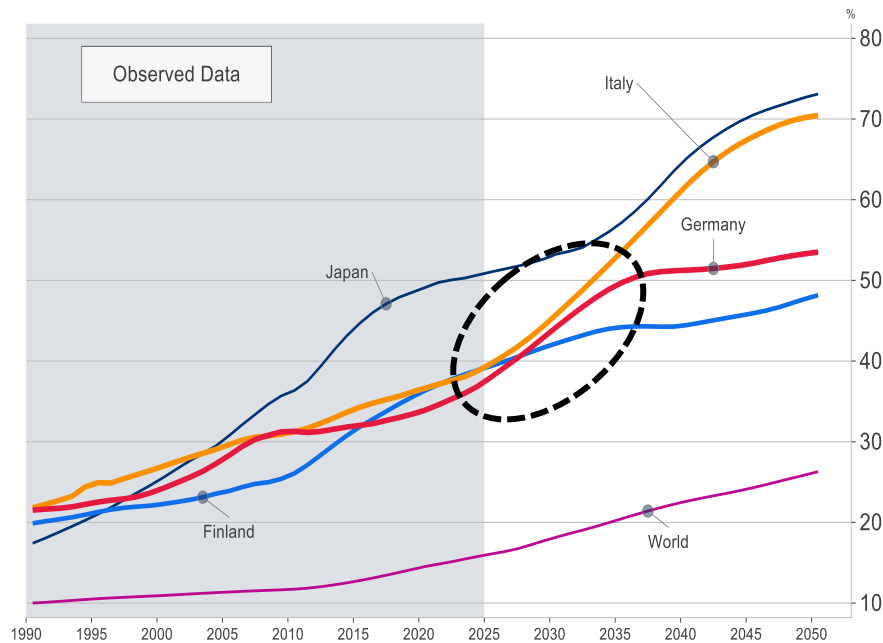


Two Biggest Countries in EU

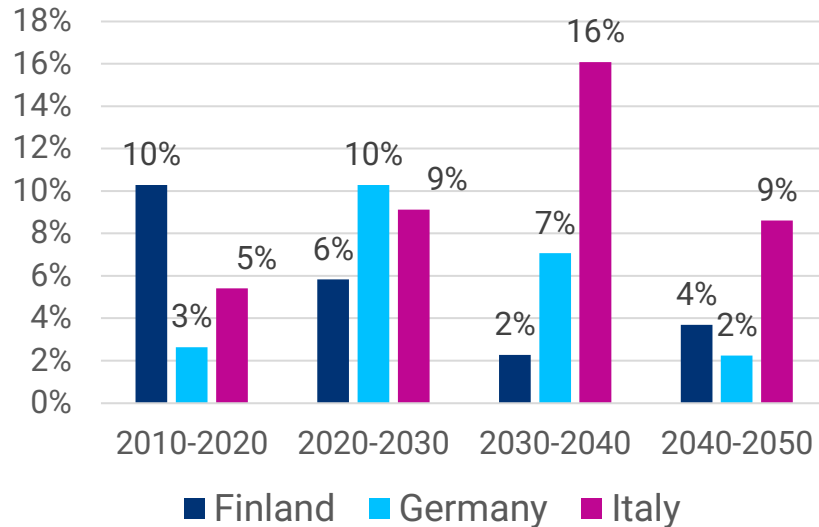


Old-age Dependency Ratio

Source: United Nations Trade & Development



Change in OADR



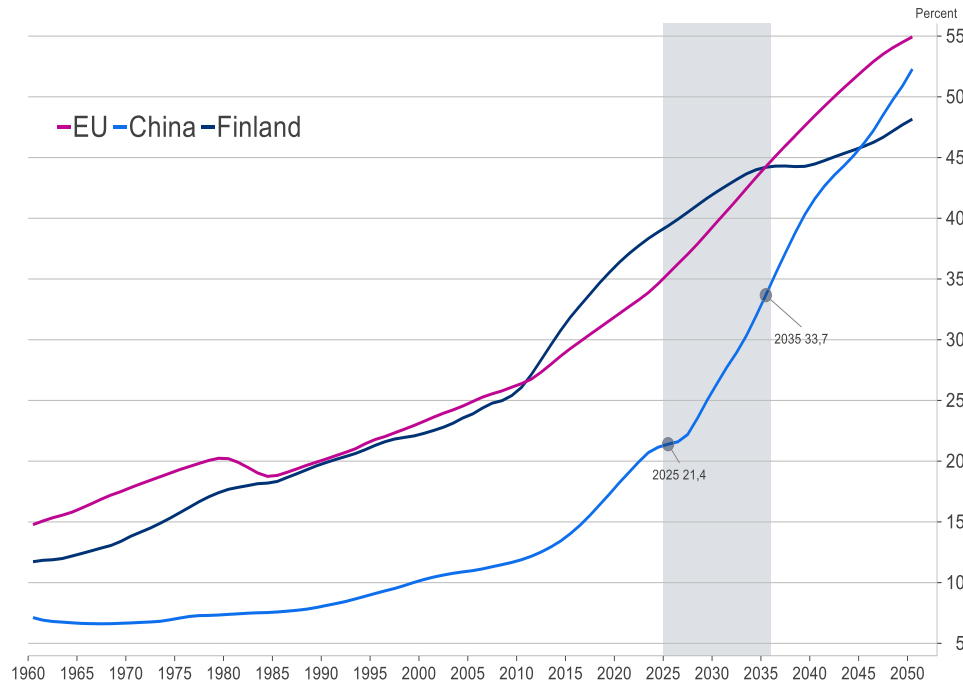


China is Ageing. FAST!

Old-age Dependency Ratio in EU, China and Finland

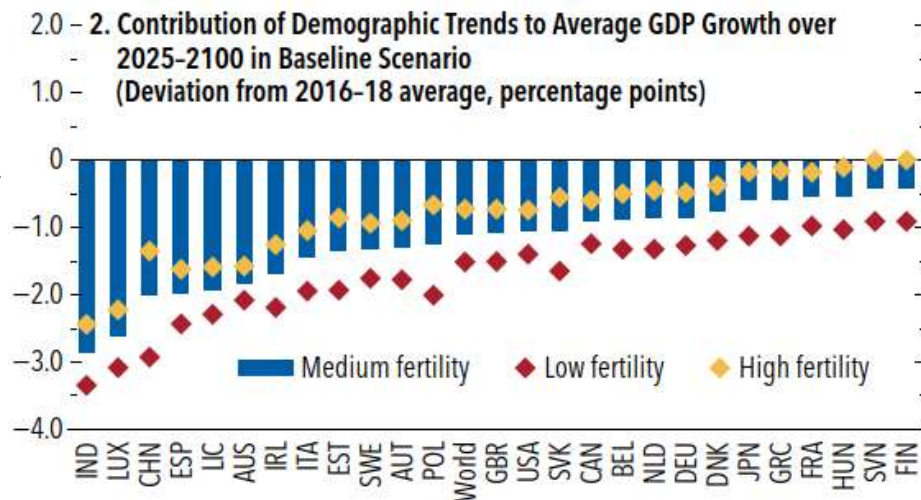
World Bank

	Population (M)		OADR
	Working Age	Old Age	
2015	988	139	14%
2025	979	209	21%
2035	920	310	34%
2045	797	368	46%



Huge Impacts

- According to recent IMF model-based calculations, the economic effects of ageing are absolutely huge
- Our empirical model is in the same ballpark, producing perhaps even slightly larger effects
- The effect will come “*like a thief in the night*”, which makes the political response more difficult
 - It’s unnoticeable on a year-by-year basis, but effect is considerable in the long run



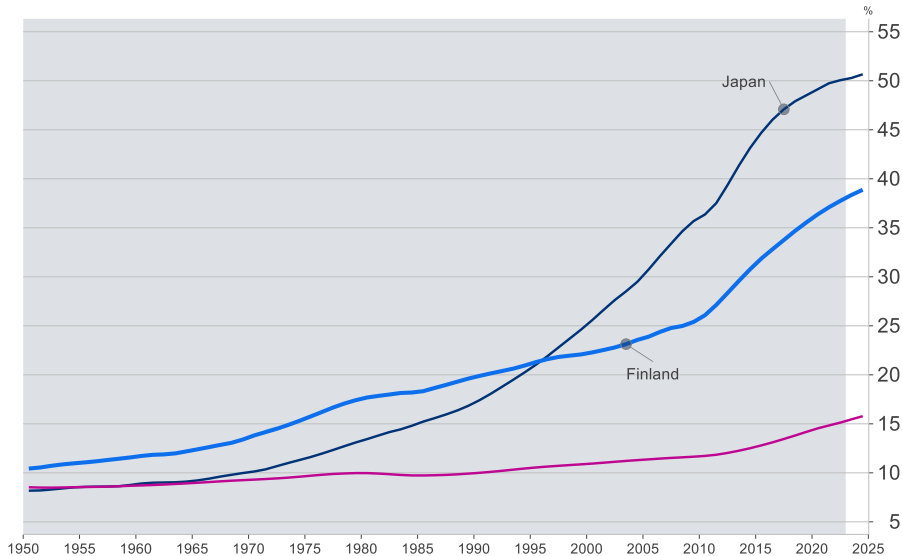
Conclusions and Discussion

Conclusions I

- "The present of Japan is the future of the globe" – Jesús Fernández-Villaverde

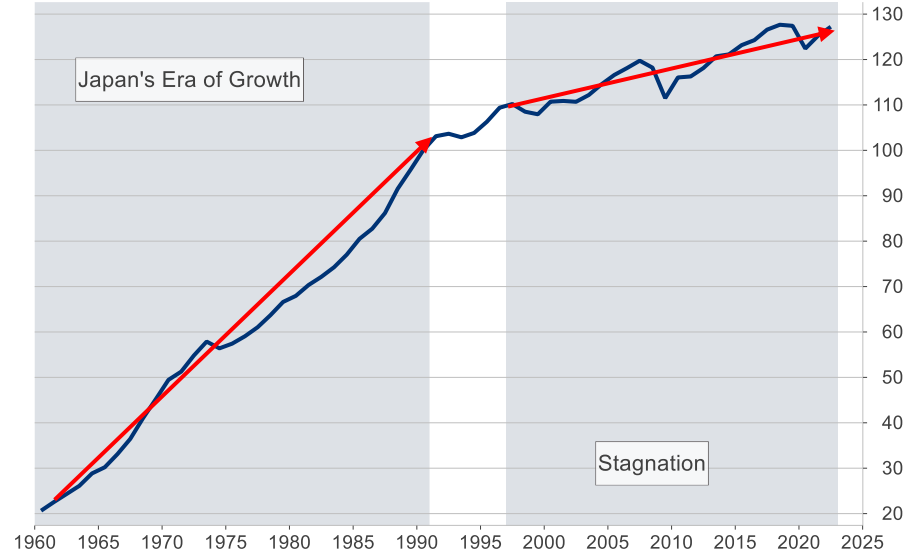
Old-age Dependency Ratio in Japan

Source: United Nations Trade & Development



GDP per capita in Japan (1990=100)

Long-Term Productivity Database

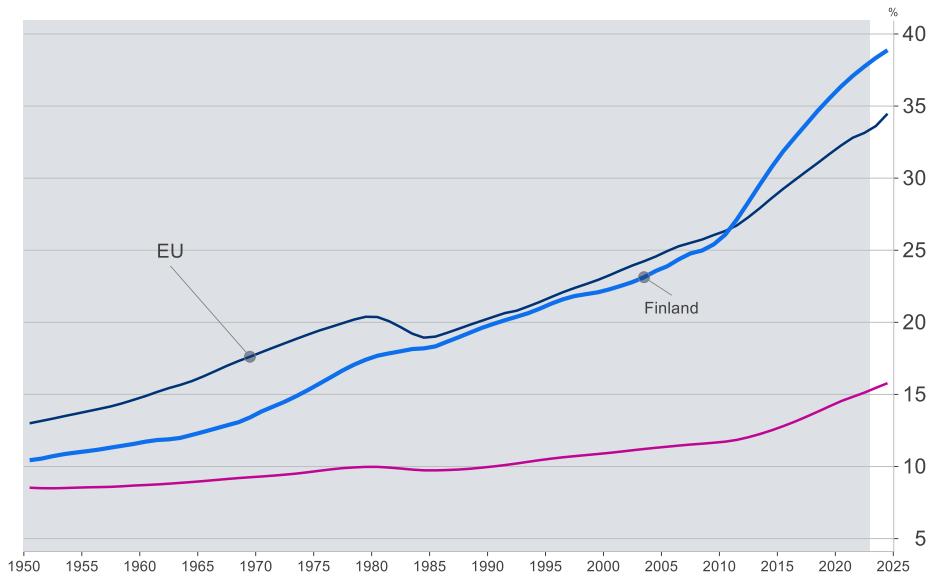


Conclusions II



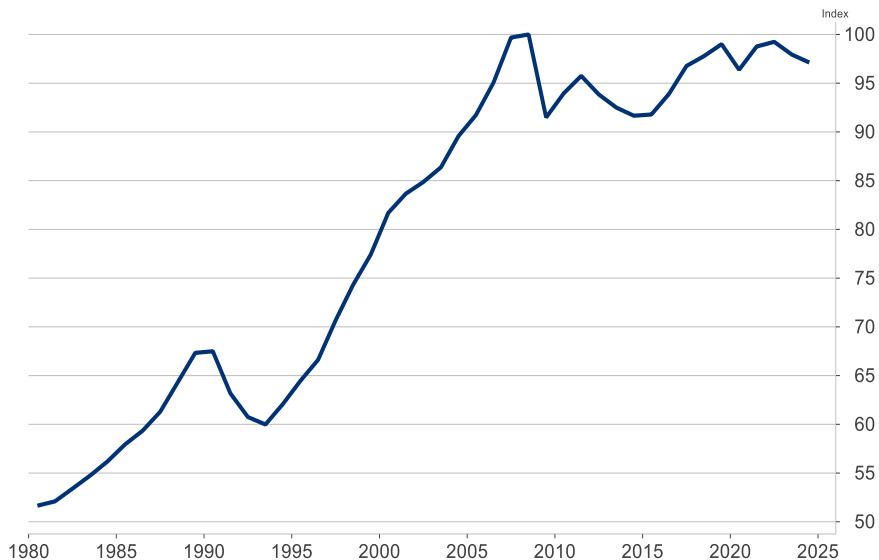
Old-age Dependency Ratio in the EU

Source: United Nations Trade & Development



GDP per capita in Finland, 2008=100

Source: Eurostat



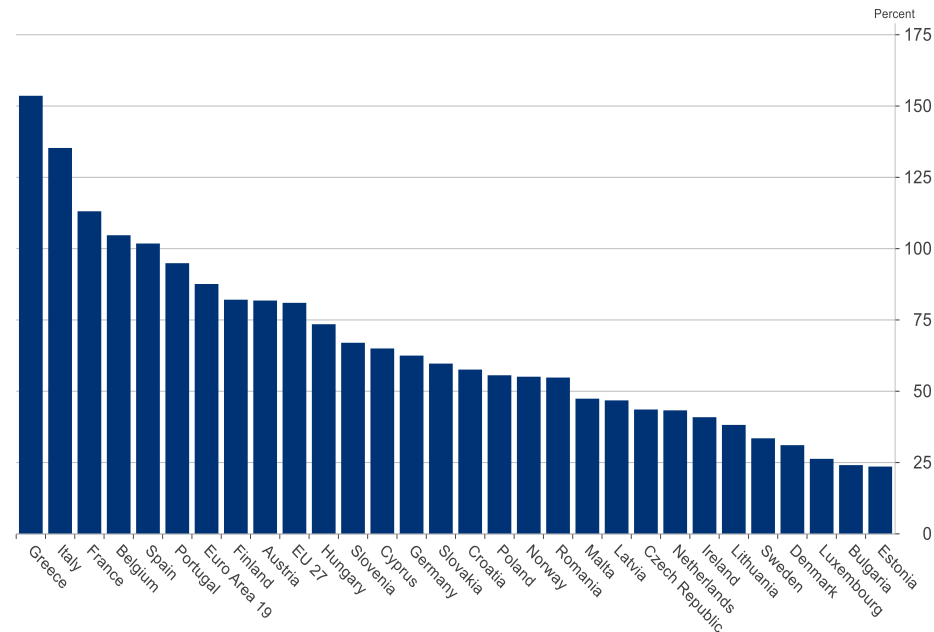
Conclusions III



- There's still time to make adjustments, but time is running out
- Immigration policies are important
- Prepare for continuation of low (lower?) growth in the EU
 - Back to low inflation, low interest rates?
- How will **Italy** as a big EMU country survive with already high public debt and low productivity growth?
 - Debt crisis ahead of us? How can we dodge it? Position and credibility of EU fiscal rules in all this? Are we already kicking the can?
- **China:** Huge economic and societal changes ahead

General Government Debt in Europe

Source: Eurostat





Thank you!