



# Challenges for Europe in the world in 2030

## Macro-model scenarios

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## Europe today and in coming years

Economic and financial issues in Europe today including low GDP growth, unemployment, government deficits and high levels of debt raise fundamental questions about institutions, priorities, standards and policy rules.

During the past three years AUGUR teams have examined these and related global issues. One component of the research has been the preparation of macro-model simulations of possible outcomes to 2030 under different assumptions about the institutional and political context (governance).





# Governance assumptions for scenarios to 2030

<i>Europe</i>		<i>Global contexts</i>
<b><u>Struggling on</u></b> with existing institutions and ad hoc policy adjustments		<b>Reduced government</b> , increased dependence on global business
<b><u>EU break up</u></b> with fragmentation of the euro zone		<b>US-China accommodation</b> with defensive moves by the US and China to protect their economies
<b><u>Multi-speed Europe</u></b> , pegged currencies and greater national autonomy		<b>Regionalisation</b> at the world level with less reliance on global rules and solutions
<b><u>Towards federal Europe</u></b> with centralised powers and budget		<b>Multipolar cooperation</b> to tackle major global problems



## Content of the scenarios

The world is divided into 19 countries and country groups with 50 behavioural equations and 100 accounting identities for each bloc

Historical series cover 1970 to 2012 (43 years)

Projections run from 2013 to 2030 (18 years).

Europe comprises 5 country groups:

- North (Norway, Sweden, Finland, Denmark)

- West (Netherlands, Belgium, France, Germany, Switzerland, Austria, Italy)

- South (Ireland, Portugal, Spain, Greece + islands)

- East (Poland, Czech, Slovakia, Hungary, Bulgaria, Romania etc.)

- and the UK

The rest of the world comprises 4 countries (USA, Japan, China, India) and 10 other groups (by continent and income level)



## Scenario assumptions

Governance hypotheses about institutions and norms provide the basis for explicit assumptions about changes in government and private-sector behaviour. This requires judgement and the modelling exercise has relied on advice from all AUGUR research partners as well as participants from China, India, Brazil and South Africa.

New policies introduced in each scenario have well-defined objectives which may or may not be achievable (considering the historical record)

e.g. government spending cannot be reduced easily or quickly

Policy packages are more effective than single policies and changes implemented by many blocs have a larger impact than those initiated by one country or bloc.

Formal and informal cooperation is captured by visualising responses across Europe or groups of countries in other parts of the world.



## Global trends (in all scenarios)

### Continuing rise of East Asia

30% of the world's population, income and resources

China slowing down and shifting to consumer-led growth

### Emerging market economies in other regions

together with East Asia will account for more than half of world GDP

the US and Europe will be in a minority position

### World energy use and emissions up to 2030

increases of 85% in world GDP, 25% in energy use, 10% CO2 emissions

### Demographic transition (few children, many old people)

urbanisation, low birth rates and extended life expectancy everywhere

child and working-age populations fall and elderly populations increase

## Macro-economics: the crunch issue

“How to achieve sustainable growth rates that match development needs in each country.”

**Sustainable GDP** for an open economy is a growth path of income and spending which can be financed long-term with exports sufficient to pay for imports or stable, long-term capital inflows covering any deficit.

**Development needs** include a high employment rate and rising productivity generating resources for consumption, investment and public services matching social needs and political expectations.

**Imbalances** between development needs and sustainable GDP are widespread and, whether globally or within Europe, can hardly be mitigated by cross-border migration.

**Financial instability** makes governments play safe and reduces growth of trade and GDP in the world as a whole.

## Scenario 1 “struggling on” to 2020 and 2030

Global context: “reduced government”

Resource-driven growth in Africa, Other Asia and America

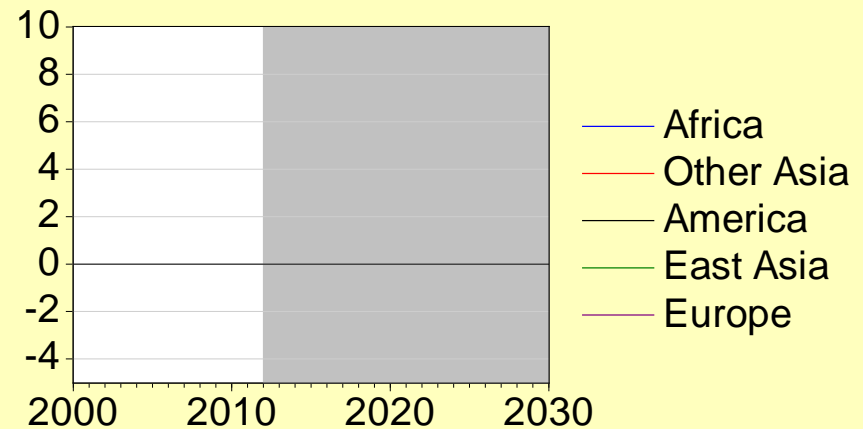
Gradual slow-down in East Asia

Very low growth in Europe (1% p.a. average)

It will be hard to escape from this prospect so long as Europe relies on exports and financial investments

Resources and market shares will continue to drift to newcomers

GDP growth in world regions (% p.a.)



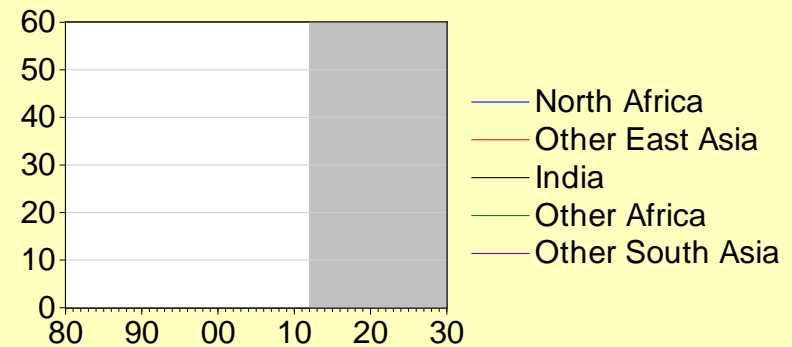


## Haves and have-nots

Japan and other countries in North East Asia have caught up with the US and Europe. China looks capable of doing the same. India is on the way to graduating from low (20% of world average) to low middle income status (50% of world average).

Other parts of East and West Asia are not catching up. Africa and the rest of South Asia with 20% of world population remain too far behind.

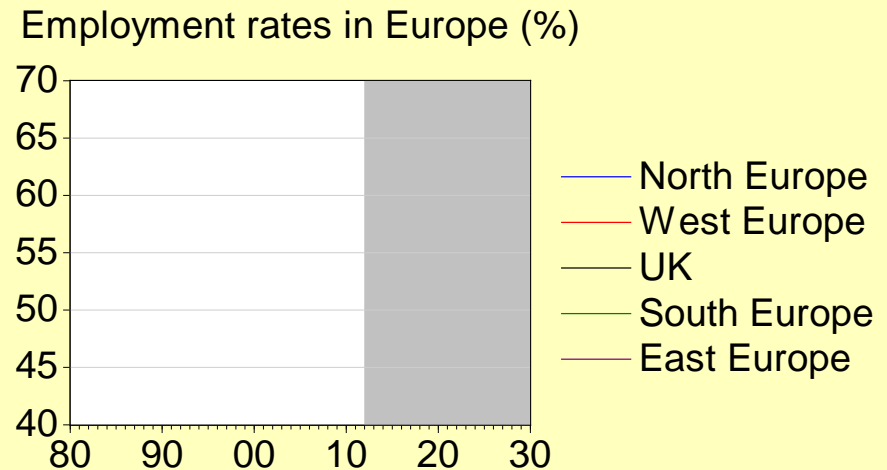
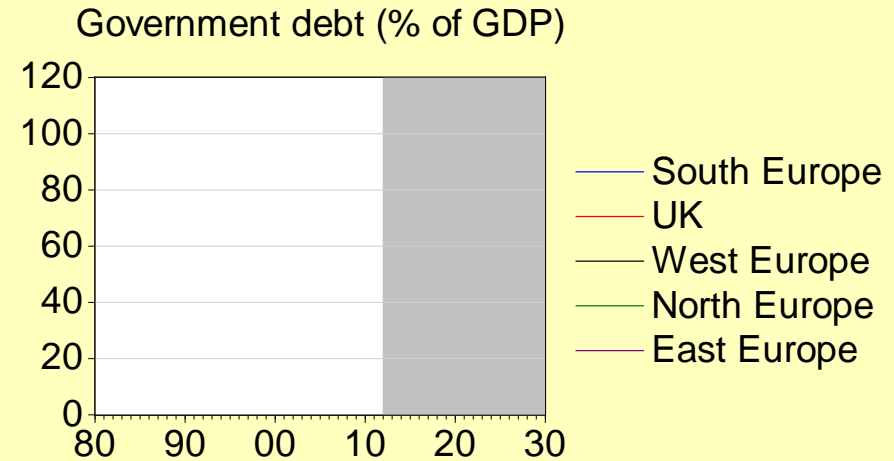
Low income regions relative to world average (%)



## Debt reduction in Europe

It may take a long time to reduce debt/GDP ratios in the UK and South Europe to the 60% level which is supposed to be the ceiling for government debt in the European Union. Meantime austerity will rule, holding down growth of GDP.

Employment rates in South and East Europe are much lower than in the North and likely to remain low for many years. Per capita income in South Europe may be no higher in 2030 than in 2007. Other parts of Europe will realise small increases.



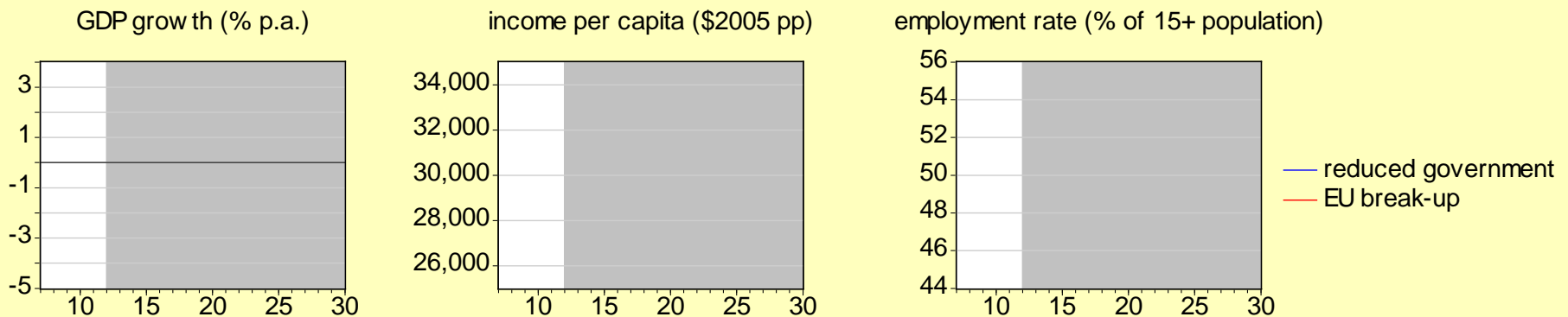
## Scenario 2: “EU break up”

### Prospects for Europe as a whole

- zero GDP growth long term due to weak investment and exports
- reduced income per capita
- declining employment rates and higher unemployment

Compensatory stimulus policies in the US and East Asia may cushion the impact elsewhere with growth rates returning to normal after one or two years.

Europe: GDP, income and employment

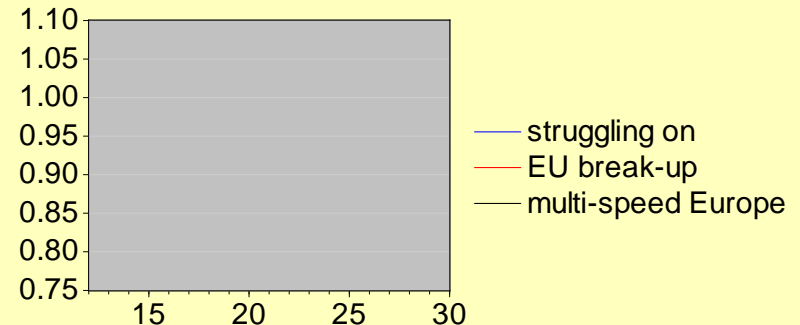


## Scenario 3: “multi-speed Europe”

The key elements are an option for less competitive member states to leave the euro zone by agreement and greater policy flexibility for national governments in a global ‘regionalization’ context.

The scenario assumes a ‘pegged’ exchange rate system versus the euro in which rate changes are progressive and gradual.

Exchange rate index - South Europe vs West Europe

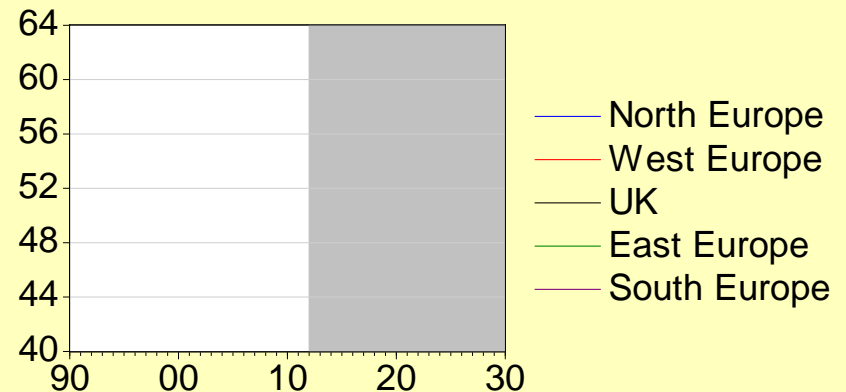


## Employment objectives

National policies should target GDP growth and job creation to reduce unemployment and provide employment opportunities for the growing old-age population.

Exchange-rate realignment, fiscal stimulus and other employment policies raise the ratio of total employment to population (aged 15+) towards 60% in North and West Europe and 55% in South and East Europe where women's participation is lower.

Employment rates (% of 15+ population)



# Government spending

To improve employment and productivity growth government spending needs a boost rather than cut-backs. The projected level of government spending on goods and services needed to achieve full recovery in South Europe and the UK reaches 30% of GDP in 2020 - similar to the current level in North Europe. In other parts of Europe government spending on goods and services could be maintained at 22-25% of GDP.

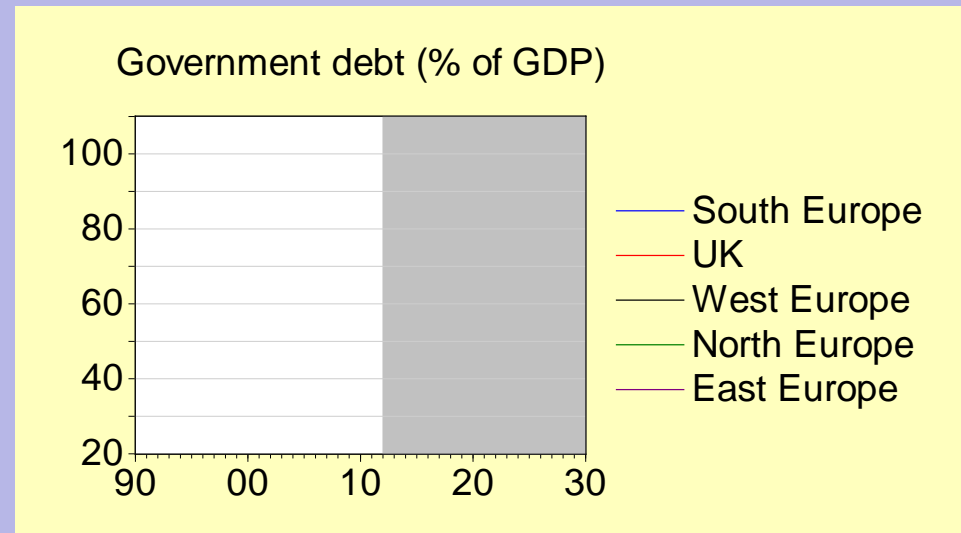
Government spending on goods and services(% of GDP)



## Debt reduction

Countries in South Europe will have a large debt overhang for a long time to come if their economies rely heavily on government spending.

To maintain an orderly pegged exchange-rate system in Europe it would be necessary to maintain a credible, long-term mutual support system for government finance.

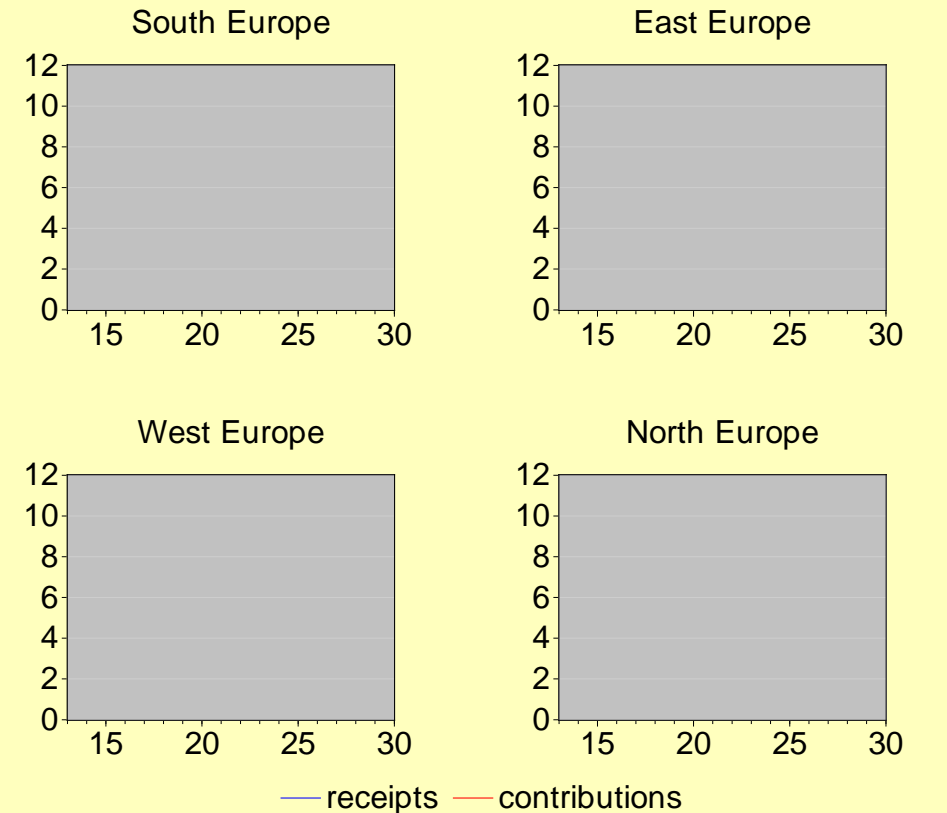


## Scenario 4: “towards Federal Europe”

The key elements are a federal budget rising to 5% of GDP (without the UK) and structural and fiscal policies in member states aimed at restoring GDP growth and a high level of employment.

The federal budget would likely show a significant deficit and national budgets would benefit from net receipts.

European federal budget: net receipts by country group (% GDP)

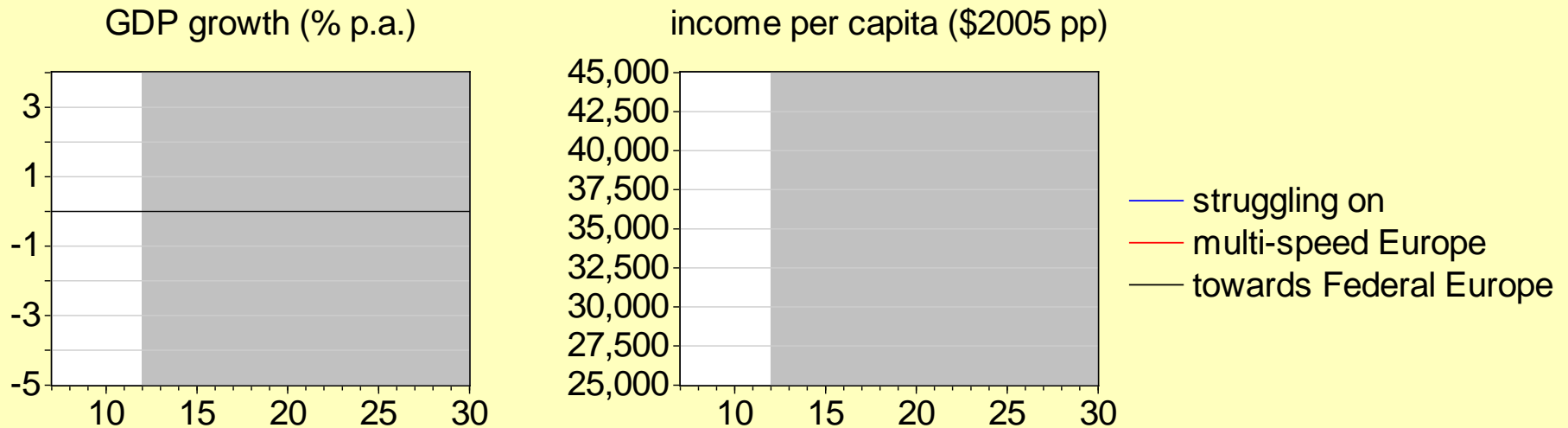




## GDP growth and income per capita

The federal budget and restructuring programs is an alternative to the multi-speed solution. By 2030 income in Europe would be around 25% higher per person than in the baseline (“struggling on” scenario).

Europe: GDP growth and income per capita

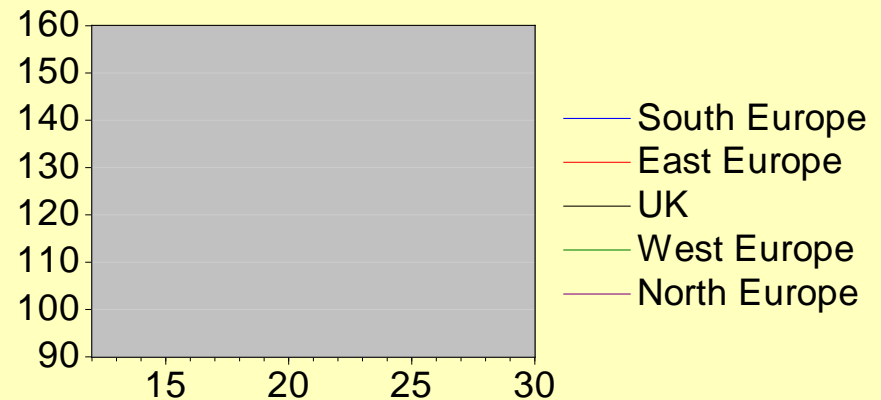


## Impact in each part of Europe

South and East Europe could realize 40-50% income gains relative to “struggling on” while the rest of Europe (including the UK) gains 10-20%.

The projected improvement in growth prospects for Europe under “multi-speed” and “federal” scenarios is assumed to be reinforced by expansionary regional programs in other parts of the world and closer cooperation with Europe’s neighbours.

Income per capita (scenario E1 = 100)



## Scenario 4a: “multipolar collaboration”

Global “regionalisation” leaves several major issues open:

- energy security, greenhouse-gas emissions and adaptation to unavoidable climate change
- global financial imbalances and problems of deficit regions
- the gap in income and wealth between highly-developed countries, emerging market countries and least developed countries

Collaboration specifically addressed to these issues can in principle make important contributions in coming decades and thereby improve economic security and sustainability for all parts of the world including Europe.