

European Environment Agency

Environmental fiscal reform and transition to a green economy – a political economy analysis

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Environmental fiscal reform (EFR) and policy development at EU level

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Transition and the fiscal system in a changing environment climate
/ energy policies and ageing population

Reflections

The views expressed in this presentation are those of the author and should not be attributed to the European Union nor to the European Environment Agency, its Executive Director or its Management Board

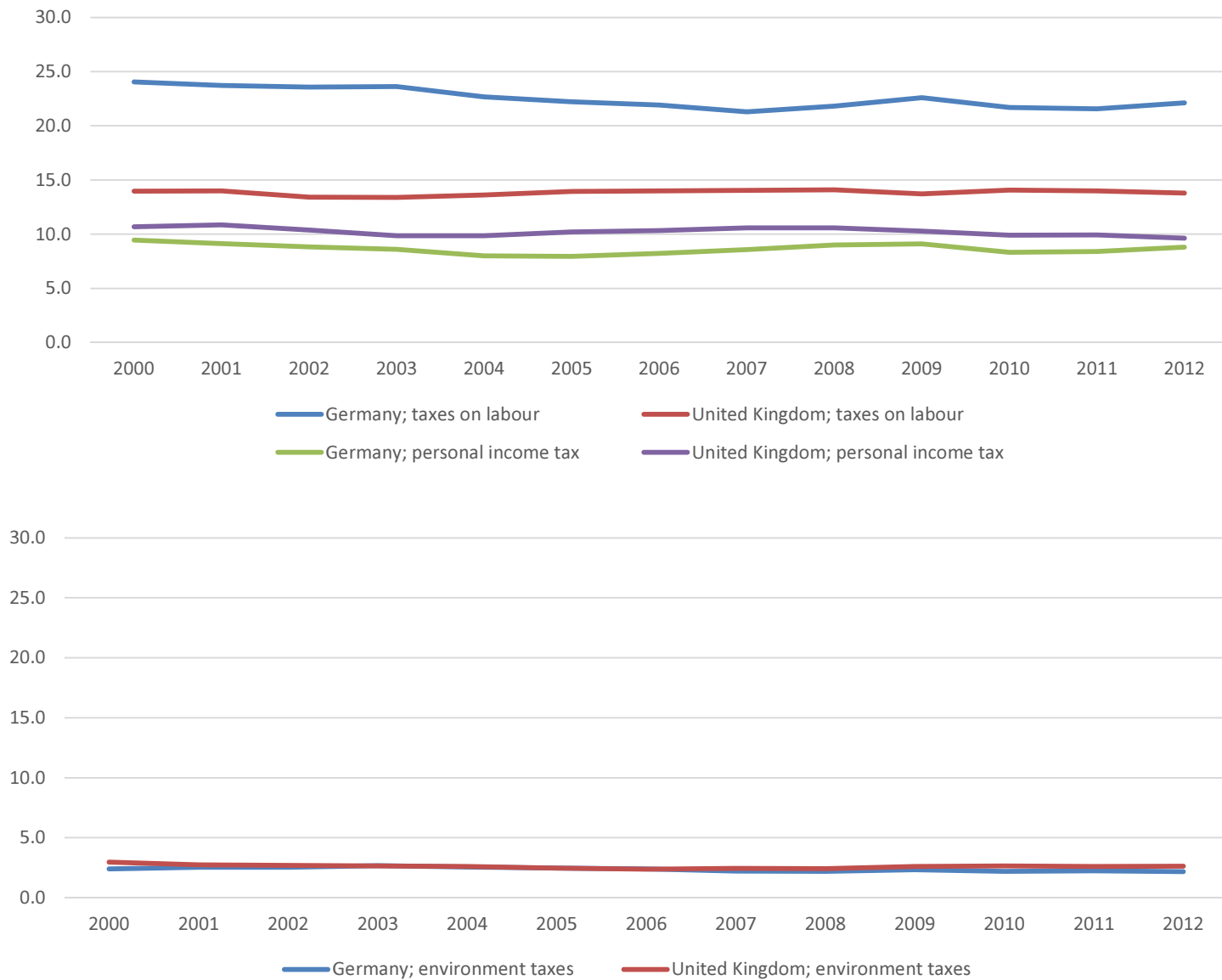
EFR and EC policies

European Commission (2014) [2014 European Semester: Country-Specific Recommendations. Building Growth](#)

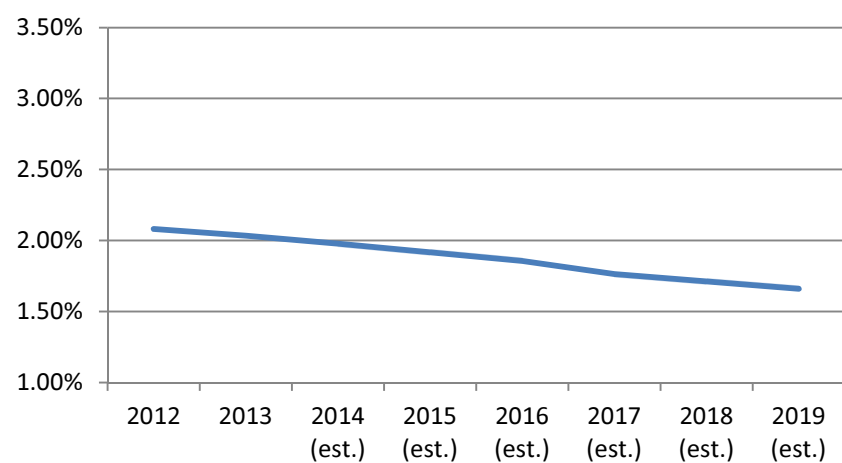
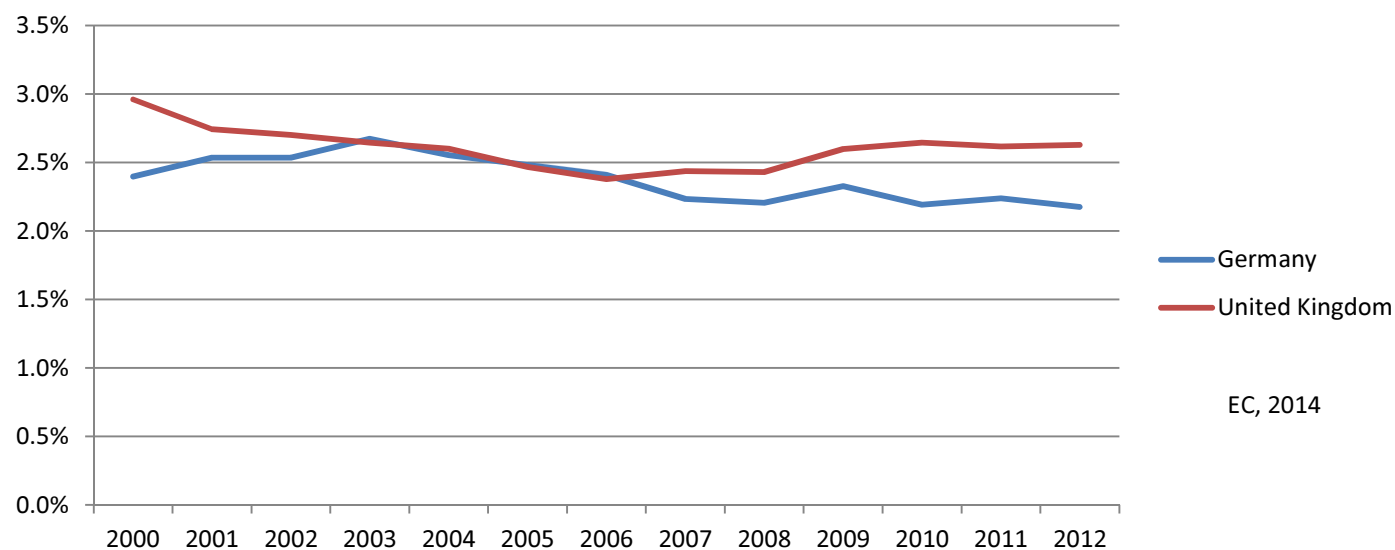
“The structure of tax systems, and particularly the shifting of the tax base from labour to other sources, is an essential aspect of on-going reforms. A priority for many Member States is to alleviate labour taxation

More generally, progress can still be made to reduce the overall tax burden and/or to make the tax system more efficient and less distortive.(...) Some recommendations thus focus on (...) removing environmentally-harmful subsidies and on further shifting the tax base away from labour to taxation which is less detrimental to growth such as environmental or recurrent property taxes.”

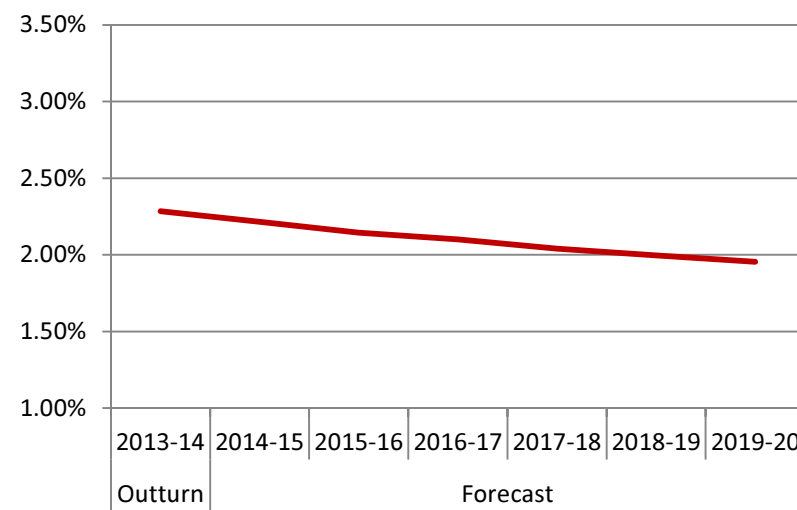
Tax revenue (labour and environment) (% of GDP): Germany and the UK



Environmental tax revenues – Germany and the UK



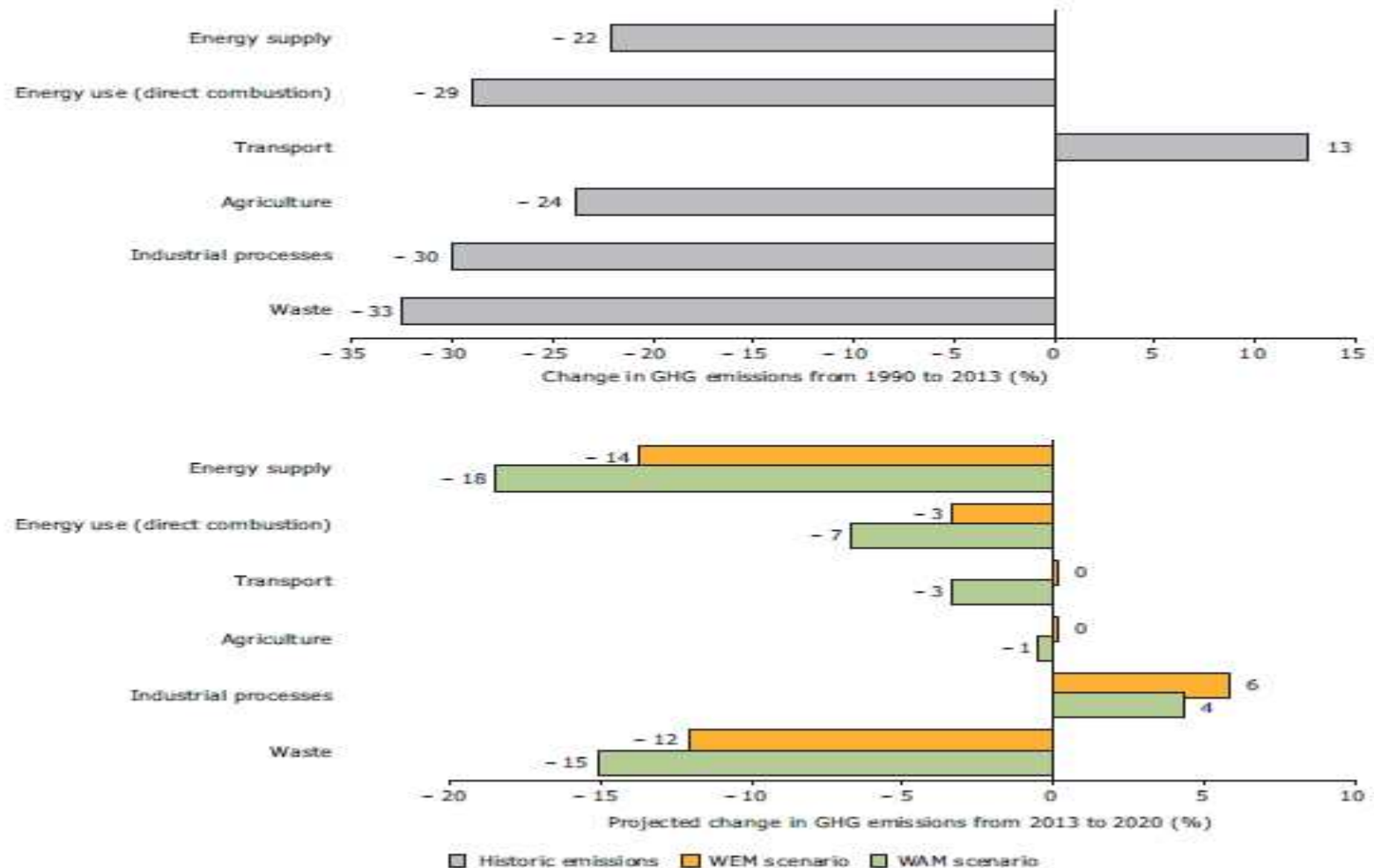
Based on Bundesfinanzministerium, 2014



Based on OBR, 2014

Sectoral GHG emission changes – EU level

Figure 4.2 Emission changes by sector, 1990–2013 (top) and projected changes under the 'with existing measures' scenario, 2013–2020 (bottom)



GHG emissions projections / objectives up to 2050

EC reference 2013 scenario: with existing policies 32% reduction in 2030 and 44% reduction in 2050

EC, 2014

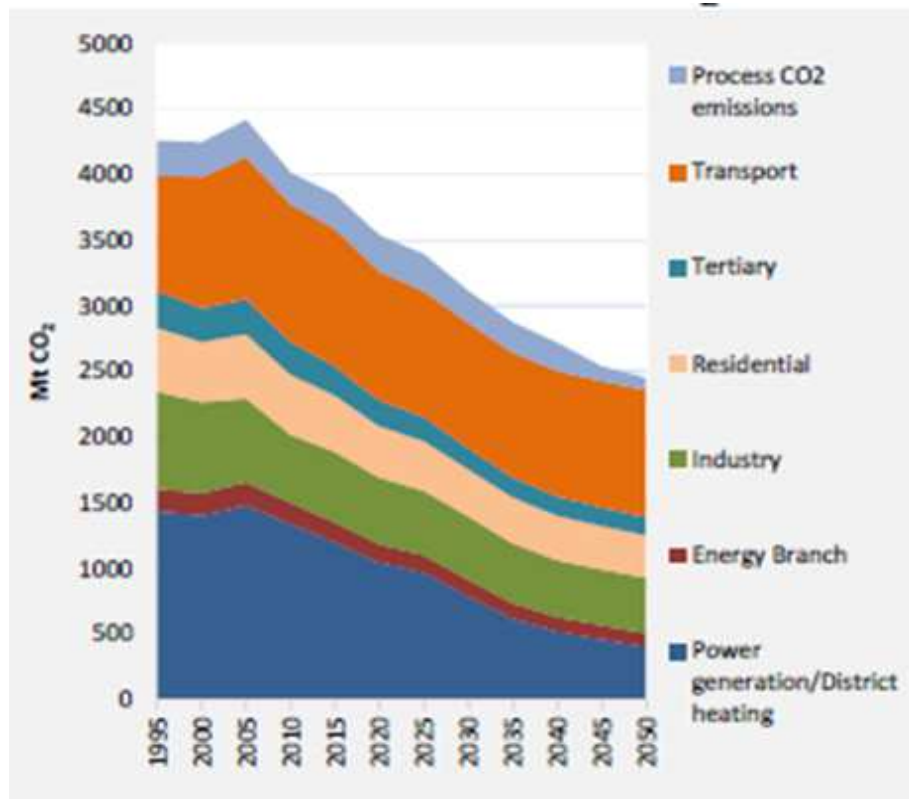
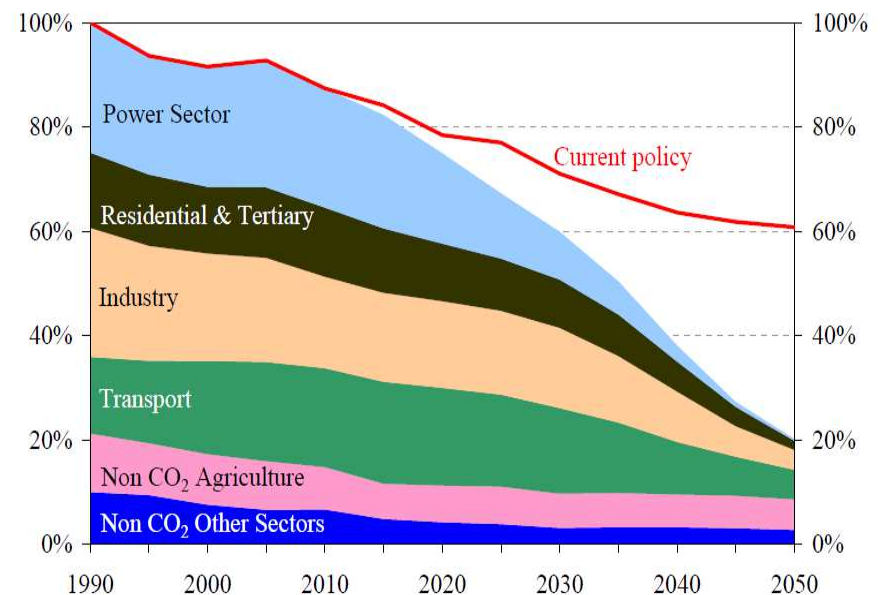


Figure 1: EU GHG emissions towards an 80% domestic reduction (100% = 1990)



EU goal: reduction in GHG reduction by at least 80 % compared to the 1990 level in 2050

EC, 2011

Policy target – transport fuels EU

EC Transport White Paper – aiming for a 70% reduction of transport oil consumption from 2008 levels by 2050 (EEA, 2014)

- Implication: reduction in tax base (petrol and diesel) - reduction of 2.8% p.a.
- Keeping transport oil tax revenues constant would require annual average increase by more than 4% (in real terms) assuming GDP increase of about 78% (2010-2050; EC, 2014)
- Increase in numbers of electric vehicles has also fiscal implications

Denmark: goal for 2050 is that all energy consumption, including the transport sector, will be based on renewable (Danish Climate Policy Plan, 2013)

Ageing Population (EC, 2014)

- Germany – shrinking population (-8%) and increase in elderly population from 21% (2013) to 32% (2050)
 - projection of a reduction of labour force by 21% and increase in GDP by 43%
 - keeping the income tax revenue share (8.3 % of GDP; 2010) constant it would require an increase in income tax revenue per employee of 1.6% p.a. on average as compared to 1% p.a. GDP increase
- UK – increasing population (21%) and increase in elderly population from 17% (2013) to 24% (2050)
 - projection of an increase in labour force by 13% and GDP increase 84%
 - keeping the income tax revenue share (9.9% of GDP; 2010) constant it would require an increase in income tax revenue per employee by 1.2% p.a. as compared to 1.7% p.a. GDP increase

Ageing population

Germany – social security contribution (SCC) for pension

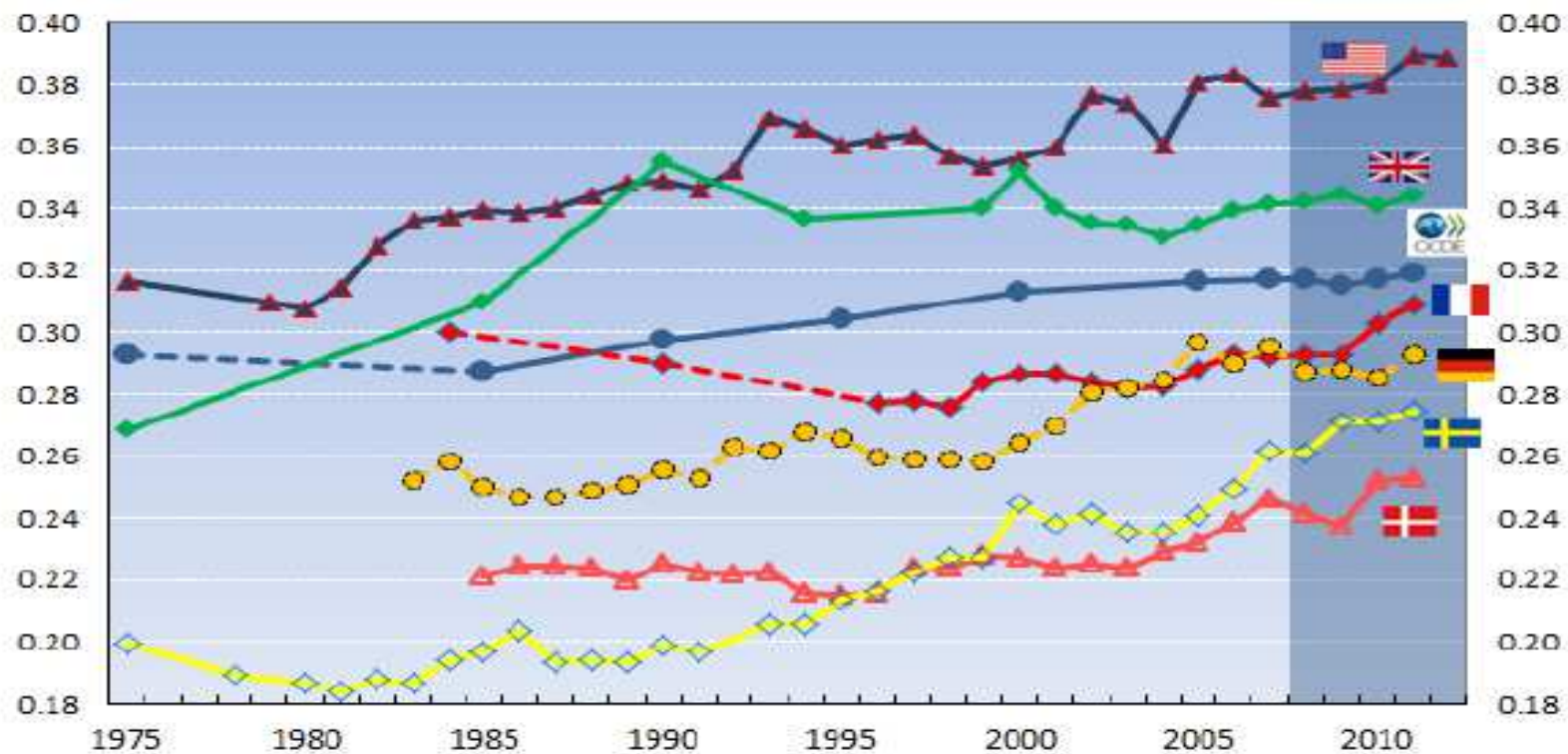
- The 2014 pension SCC was 18.9% of gross income (paid by employee and employer) in 2014 and was reduced to 18.7% in 2015 but is projected to increase to 21.4% in 2028 (BAS, 2014)
- In 1985 average public pension amounted to 57% of income and is predicted to fall to about 43% in 2030 – German Government states that there is the need for investing into private pension plan
- Increase in inequality in Germany and other OECD countries

Income inequality



Income inequality before and since the Great Recession: the facts

Long-term trends in inequality of disposable income (Gini coefficient)



Source: Stefano Scarpetta, presentation Green Growth and Sustainable Development Forum, OECD, 13 November 2014

Reflections

Task: **to establish a resilient tax / fiscal system for the future**

- the challenge is to combine economic, environmental and social policies – offset rather complex policies and country specific conditions in the EU:
- Environmental / energy taxation including EU ETS – stable revenues
- Climate and energy policies – reduction targets
- Ageing population
- Income inequality increase

EFR a policy tool for the short- and medium term but it must be asked whether it is a policy for the longer-term

Thank you!

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