



The economics of protecting the Baltic Sea – are the preferences greening?

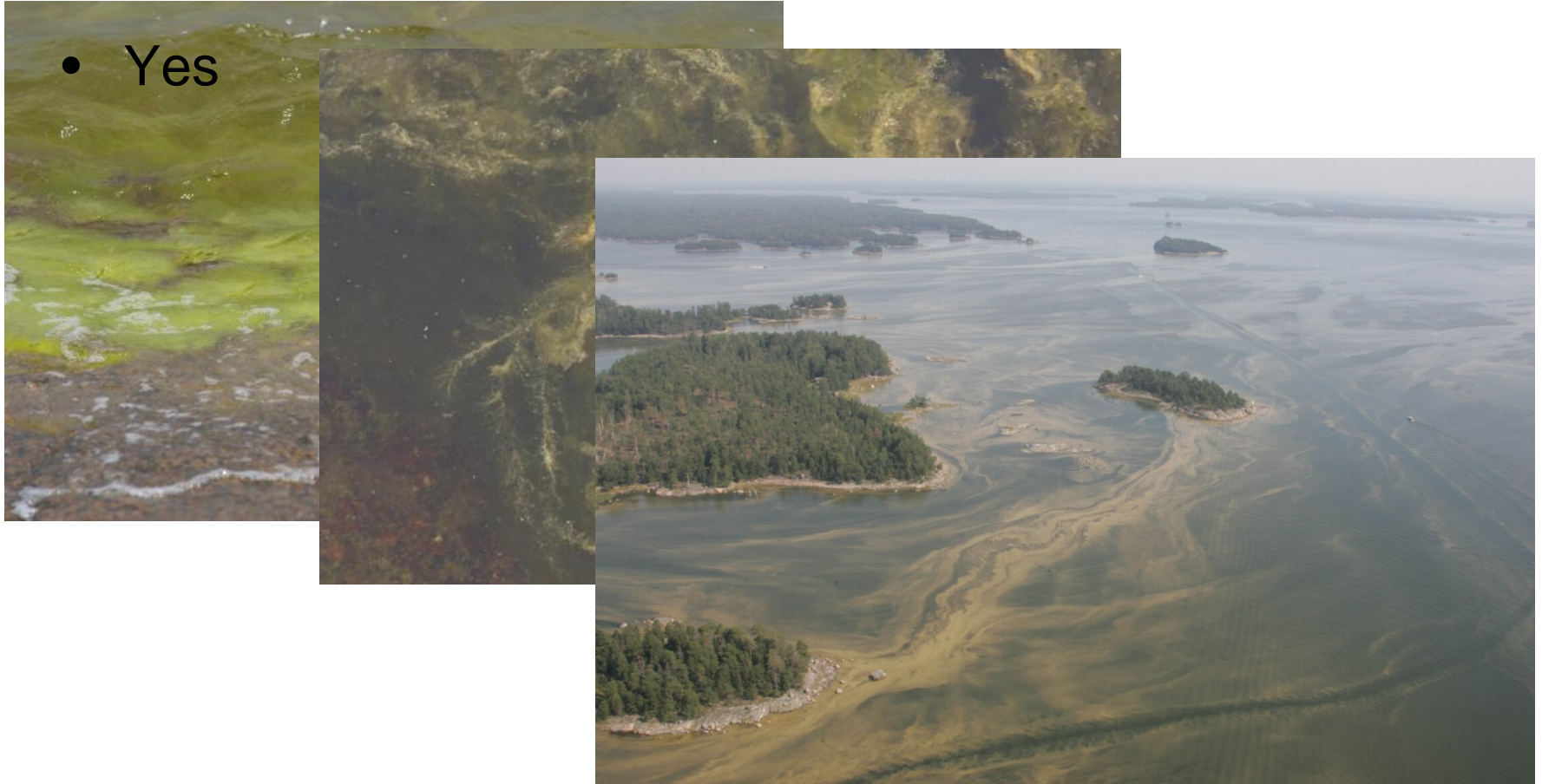
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Do we see green growth in the Baltic Sea region?

- Yes



→ If we measure the growth in terms of algae blooms!!!

Two (controversial) hypotheses on economic growth and the environment

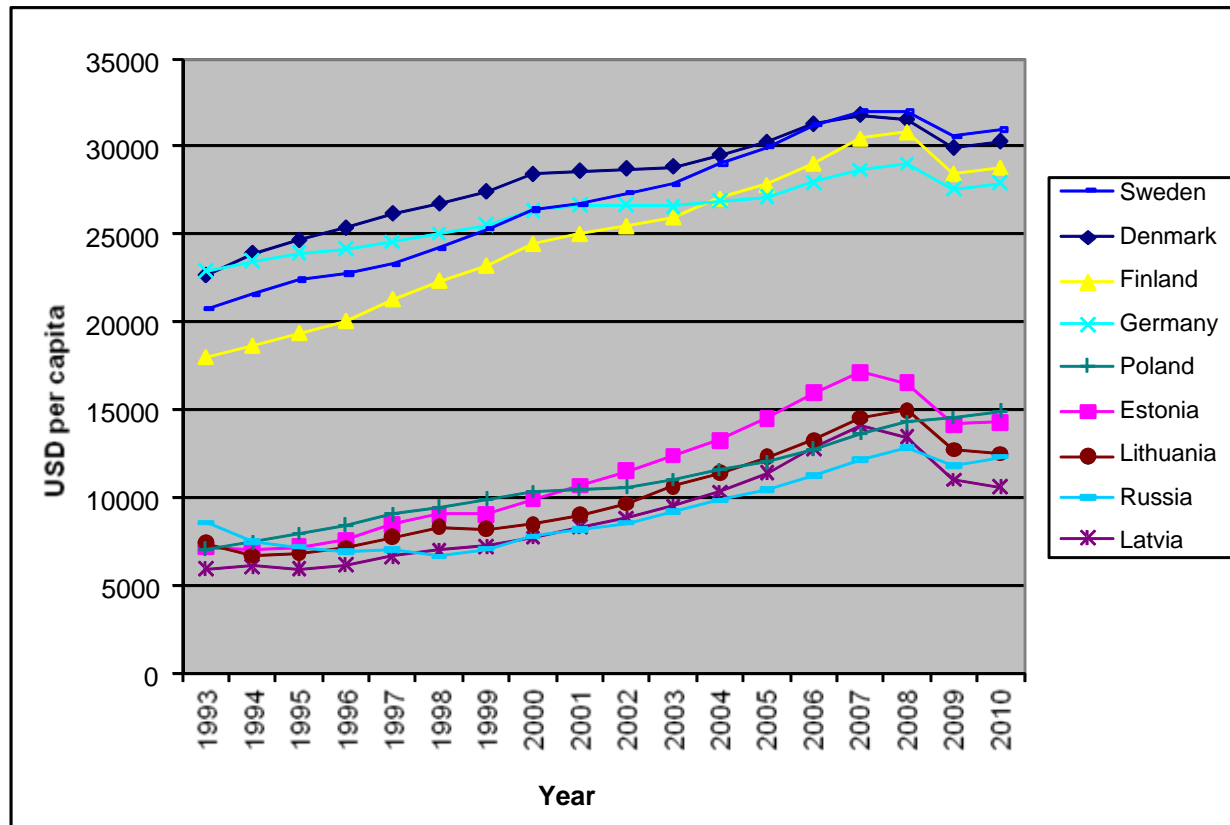
- **Resource curse hypothesis:**

“(Developing) countries with abundant natural resources experience lower rates of economic growth than countries with few natural resources”

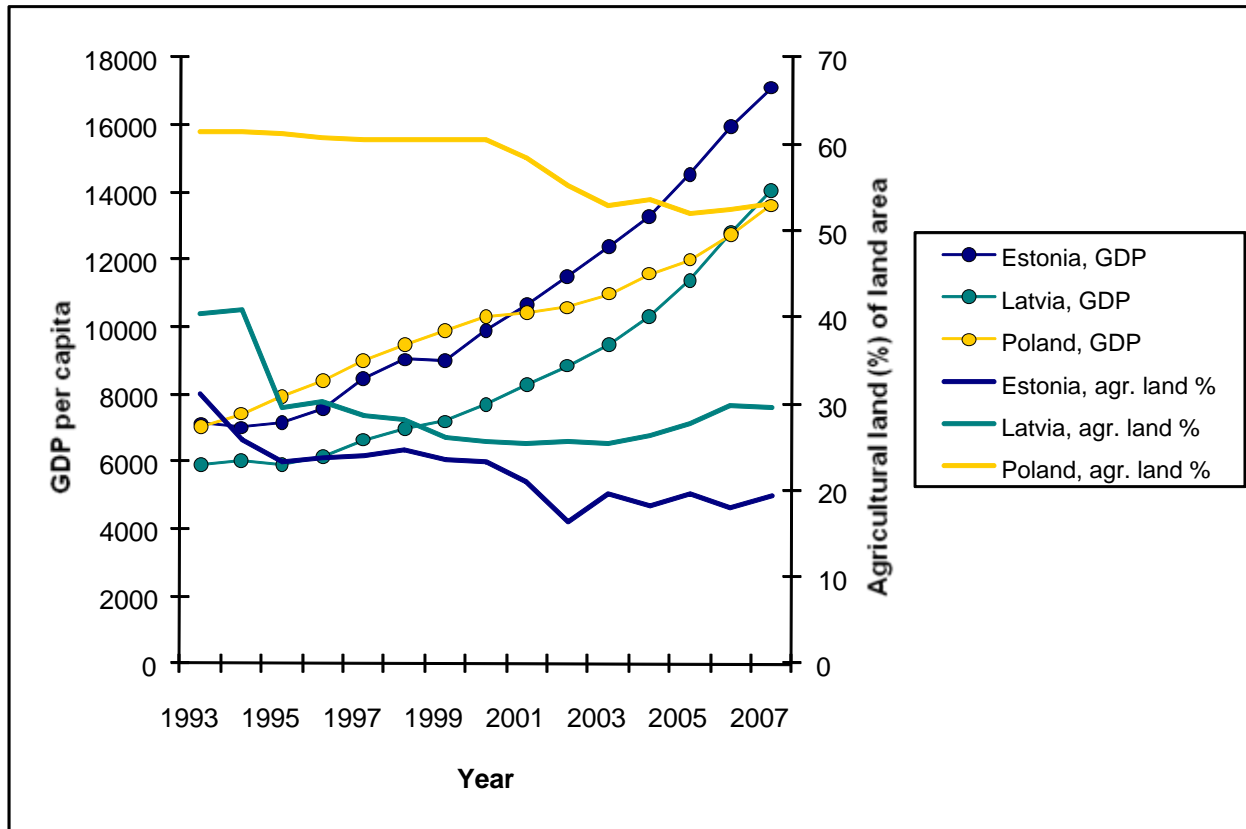
- **Environmental Kuznets curve hypothesis:**

“The relationship between income and environmental impacts follows an inverted U-shape curve, i.e., at a certain level of economic development, the total emissions of in a given economy start to decrease and the environment improves”

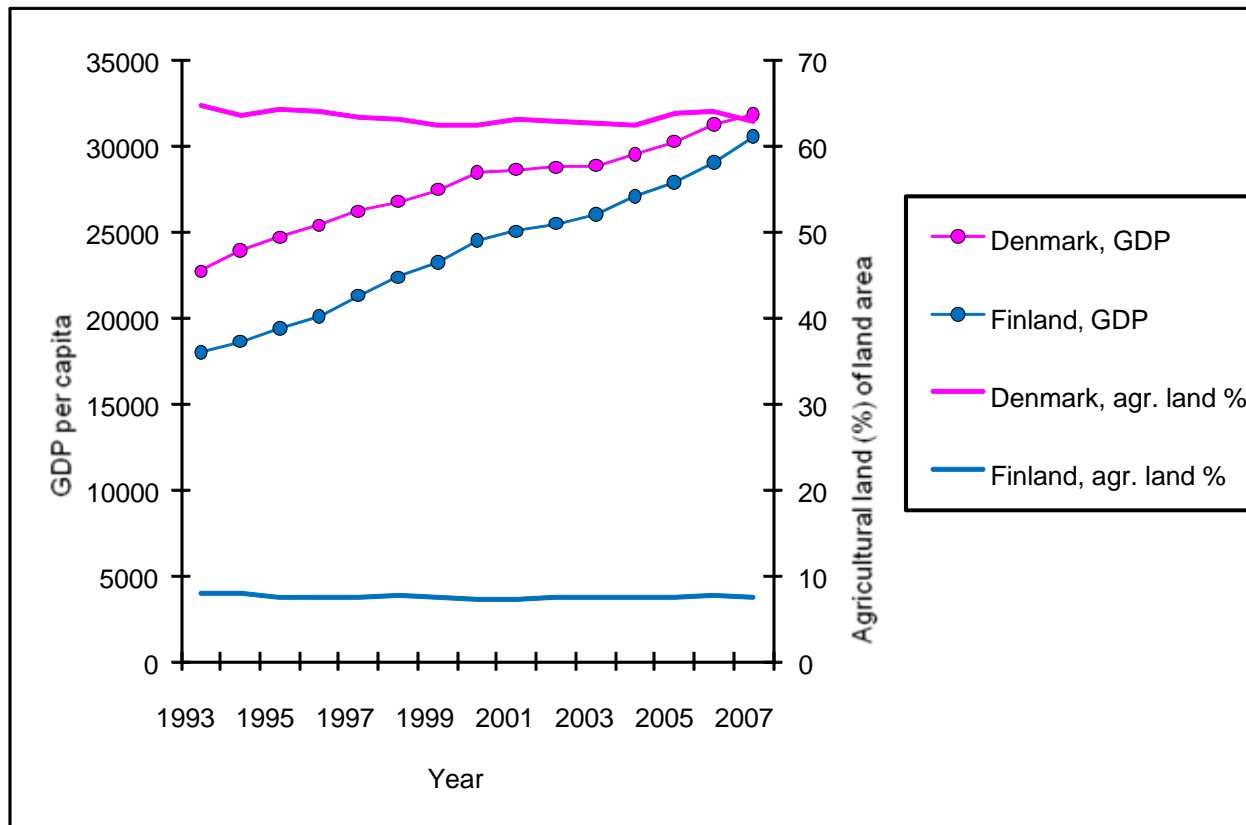
Development of GDP in the countries sharing the coastline of the Baltic Sea



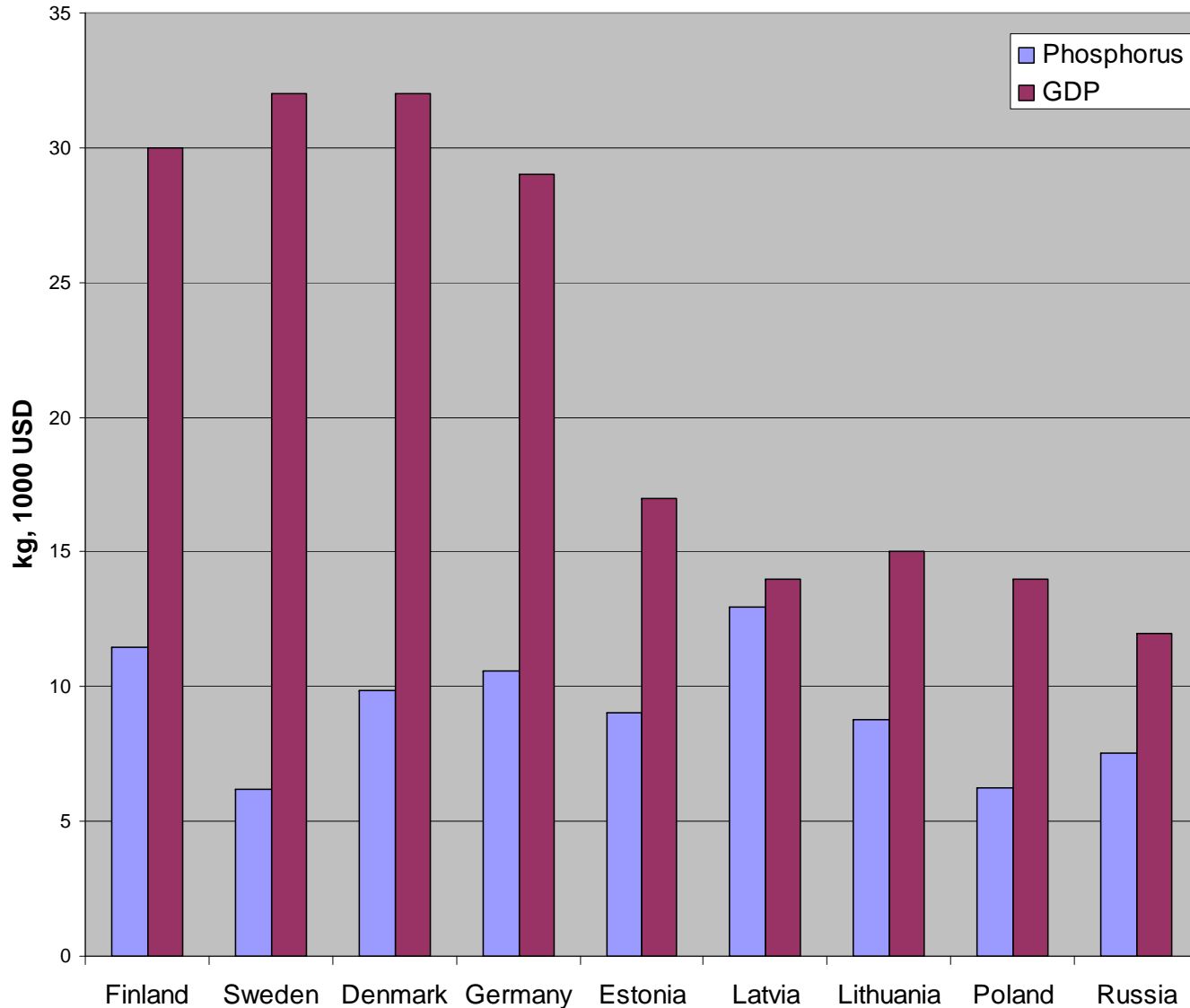
Development of GDP and share of agricultural land...



Development of GDP and share of agricultural land



Cumulative P emissions to the Baltic Sea 1990-2000 (kg) and GDP in 2007 (1000 USD) per capita in the coastal areas



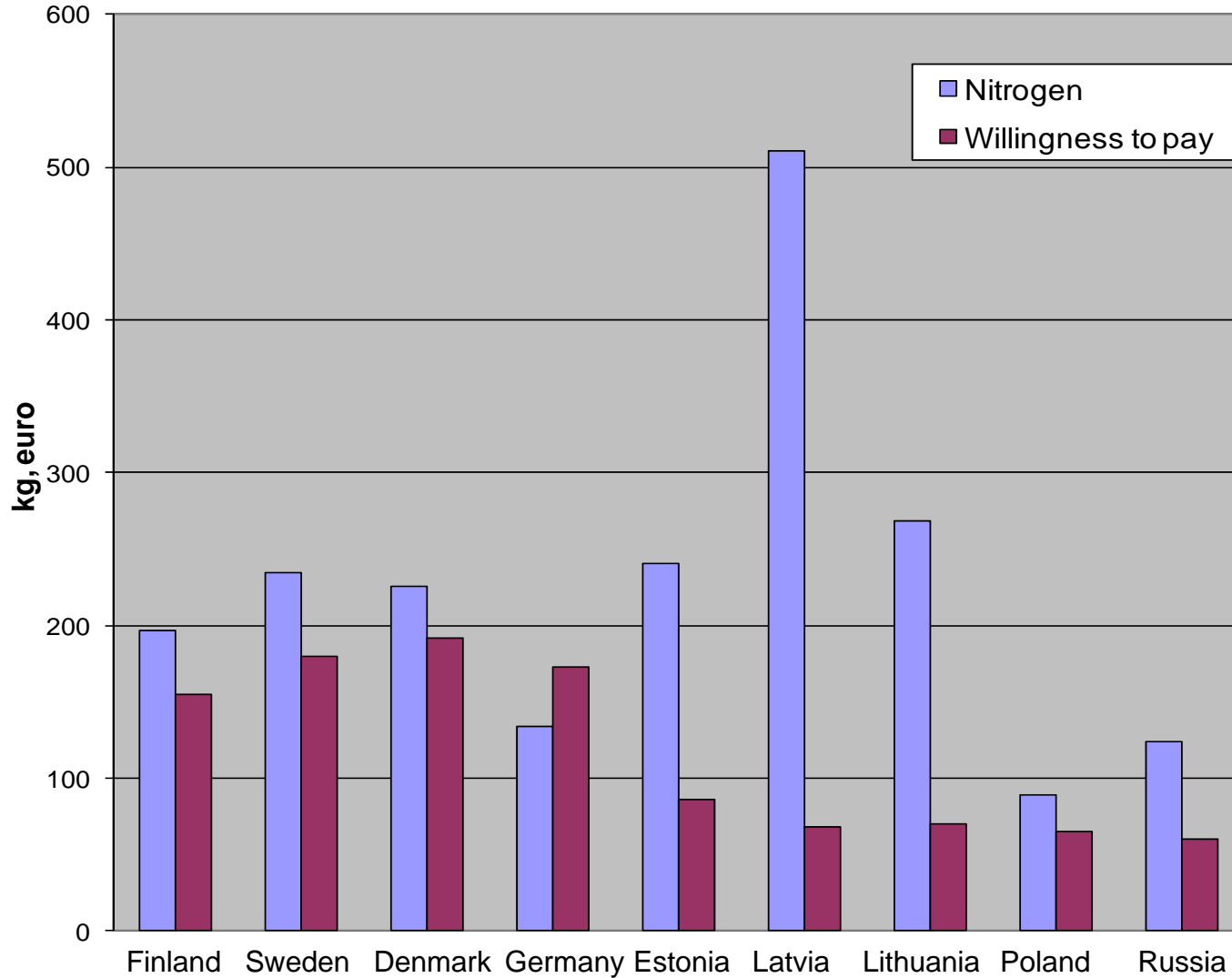
Conclusions 1

- By visual inspection we cannot see obvious evidence that would support the two hypotheses on the relationship between economic growth and the environment/natural resources
- It seems that the countries still struggle to attain the income level necessary to prioritise protection of the Baltic Sea

What about greening preferences?

- The benefits of environmental protection are difficult to measure
- Non-market valuation methods are used
- Preferences for the environment can be studied by contingent valuation method where people's **willingness to pay** (WTP) for environmental protection is elicited in monetary terms

Cumulative N emissions to the Baltic Sea 1990-2000 (kg) and WTP (2007 euros) per capita in the coastal areas



Conclusions 2

- Willingness to pay for environmental protection seems to correlate with GDP/income rather than with cumulative emissions
- If increasing income leads to greening preferences, there will be increasing pressure to control non-point source pollution from agriculture too

- **Thank you!**

Data sources and references

- IMF

<http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx>

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- Research assistance by Tuija Lankia and Anita Ojala, MTT
- Photographs by Janne Artell, MTT, and Päivi Korpinen, Syke