

Green Growth

What could be in it for Georgia?

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Introduction

- Numerous drivers of green growth have been identified
- We assess the most important ones and check whether they are relevant for Georgia

Structure

1. Potential benefits of green policies
2. Potential cost of green policies
3. Conclusion

Green Policies might stimulate growth

Climate policies

- Avoided climate change cost
- Monetizing emission reductions

Fiscal and macro policies

- Keynesian demand stimulus
- “Double Dividend” of recycling pollution taxes

Industrial policies

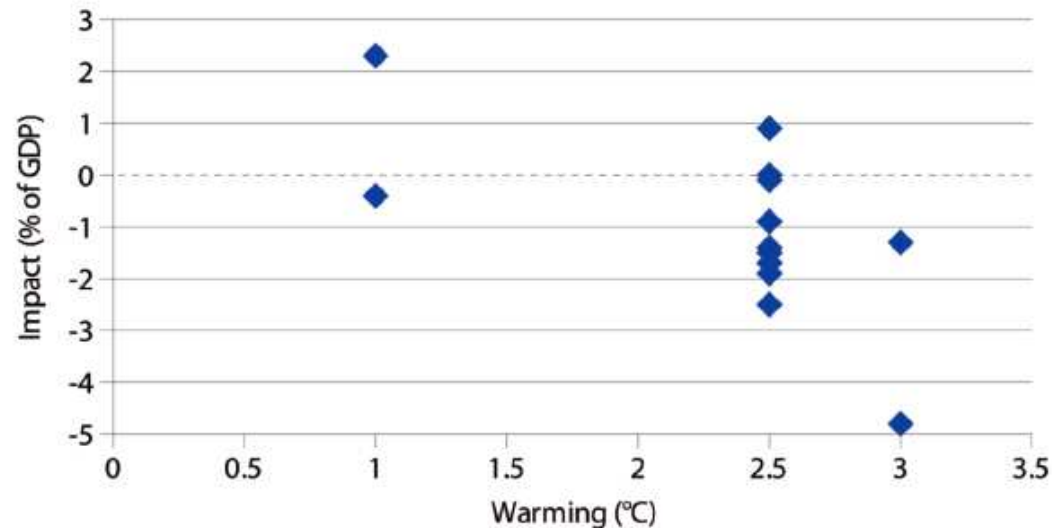
- Increased innovation
- Drive sectoral shift
- Green industrial policy

Trade policies

- Improve energy-import terms-of-trade

Avoided climate change cost

Survey of estimates of the welfare impact of climate change (expressed as an equivalent income gain or loss in percent GDP)



Source: Tol 2009.

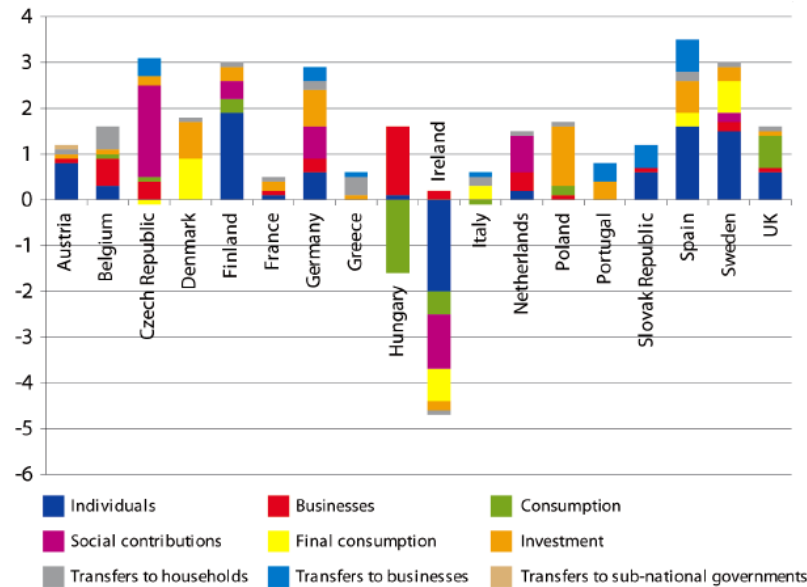
- Base case -> Modest impact
 - Worst case -> catastrophic impact (=> an 'insurance' problem)
-
- Georgia has no impact on climate change
 - But, abstaining global efforts might have high political cost

Monetising emission reductions

- Different forms of international cooperation
 - International carbon credits (CERs)
 - Linking to Emission Trading Systems (e.g., EU ETS)
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- At sufficient baseline, Georgia's cheap emission reduction (or slower-increase) potential can be sold to countries with higher abatement cost
 - Illustration: Reducing emissions by one quarter allows to sell permits for 5 Gt in 2030 [If 2030 commitment is 30 percent less than 1990 (-> 34 Gt) while the 2030 baseline is 38 Gt, additional savings of 25 percent below the baseline (-> 29 Gt) allow to sell permits for 5 Gt in 2030.]
- > at USD 40 per permit this yields USD 200 m

Keynesian demand stimulus

Size of stimuli 2008-2010 in% of GDP



Source: OECD.

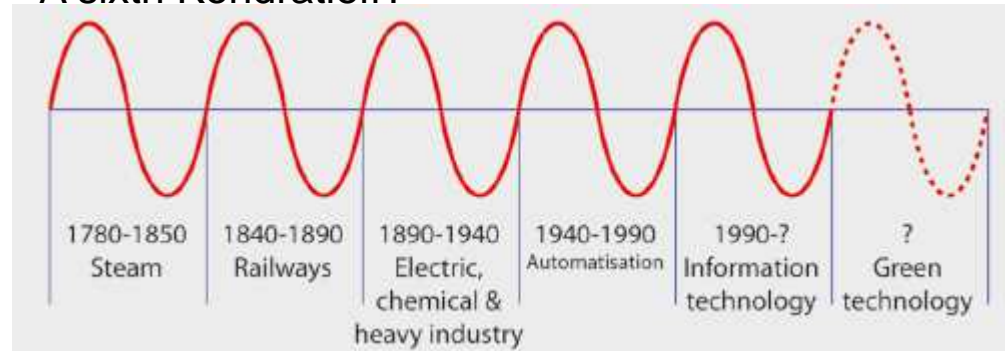
- Most EU countries use discretionary spending to stabilise business cycles
 - Debate about the multipliers of „green“ investments
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- Less relevant for Georgia: Only makes sense in cyclical downturn

“Double Dividend” of recycling pollution taxes

- emission allowances or taxes can generate significant revenues
 - Will replacing taxes on labour and capital with green taxes generate growth?
 - Possibly, if you start with a very distorted system
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- Currently less relevant for Georgia as taxes are low

Increased innovation

A sixth Kondratieff?



- A sixth Kondratieff: unlikely
 - Porter Hypothesis: regulation -> innovation? More „green“ innovation but unclear impact on GDP
 - Avoiding a dead-end: endogenous technology growth in „brown“ sectors might be limited
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- Georgia: more an issue for economies at the innovation frontier

Sectoral shift I

- ‘green policies’ as modernisation strategy to move away from ‘brown’ sectors without clear competitive advantage.



Sectoral shift II

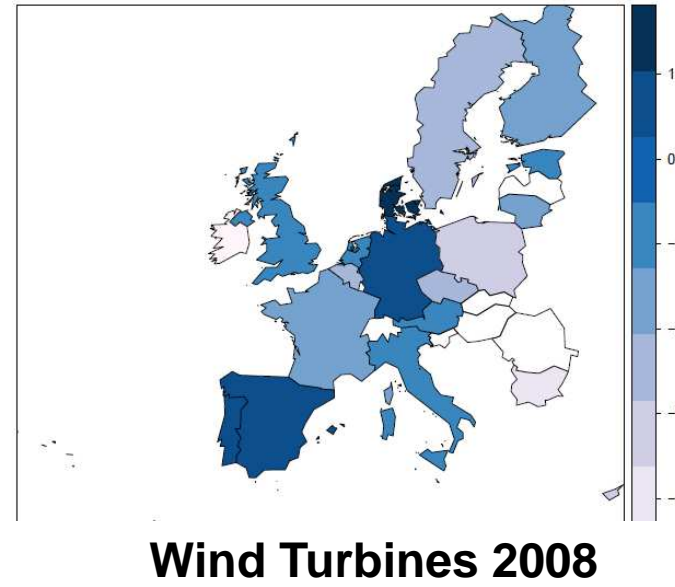
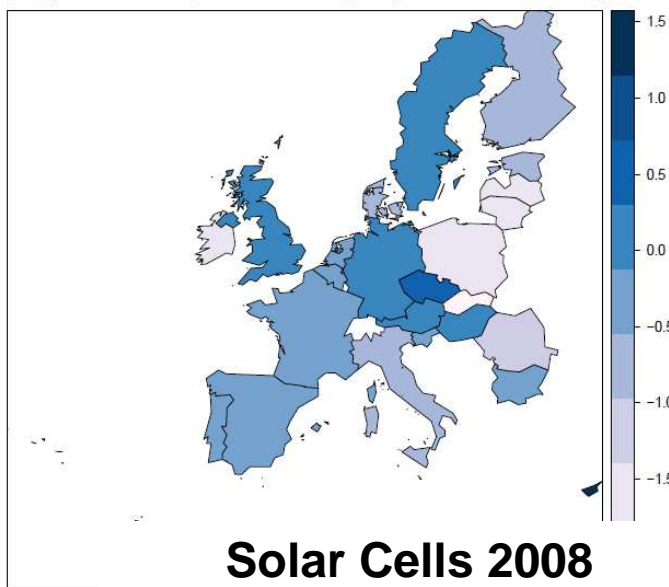
- Can generate economic growth and employment - 'brown' sectors on average have relatively less value added and fewer jobs
- shift the economy away from 'brown' sectors to
 - dedicated 'green' sectors which contribute to reducing pollution and resource consumption (e.g., renewables technology or isolation material),
 - Or other sectors that are not particularly resource intensive or polluting ('grey sectors').



- Might be part of a new 'business model' for Georgia

Green Industrial Policy

Revealed Comparative Advantage (RCA):



Data: UN UN COMTRADE data 1996-2008

- Countries which promoted wind turbines acquire competitive advantage
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- Limited opportunity for Georgia, as success contingent on initial strength and cost-Benefit even unclear for “success cases”

Improved terms-of-trade

- Replacing cheap imports with expensive domestic production is not growth-friendly
 - If lower demand reduces dependence this might allow negotiating lower fossil fuel prices
 - Reduced effect of volatile fuel import prices on the macro-economy
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- Less relevant for Georgia as
 - ‘fair’ import prices (-> might change with strongly increasing demand)
 - Georgian GDP is uncorrelated with oil price

Side Benefits

- Public health
- Energy security
- ...

2. Potential cost of green policies

1. Potential benefits of green policies
2. Potential cost of green policies
3. Conclusion

Green policies might restrain growth

- Green policies are costly - green regulations and taxes *ceteris paribus* reduce production and consumption and thus GDP.
- Accounting effect: Energy efficiency measures might under some assumptions (negative abatement cost, ...) be welfare enhancing but GDP reducing.
- Green policies require significant policy intervention. Correspondingly government failures are far more likely and without them. (National green policies might reduce international trade, pick wrong technologies, waste public money, ...)

3. Conclusion

1. Potential benefits of green policies
2. Potential cost of green policies
3. Conclusion

Initial assessment of relevance for Georgia

Policy	Relevance for Georgia
Climate policies	
Avoided climate change cost	o
Monetizing emission reductions	+++
Fiscal and macro policies	
Keynesian demand stimulus	o
“Double Dividend” of recycling pollution taxes	o
Industrial policies	
Increased innovation	+
Drive sectoral shift	++
Green industrial policy	o
Trade policies	
Improve energy-import terms-of-trade	+

Tentative conclusion

- Quite complex menu of drivers contingent on implementation and initial conditions
- Good „green“ policies that replace less good existing policies might be growth enhancing
- Side-note: For military spending, we still do not know their growth effects after decades.



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