

On biofuels and trade: Tariffs, standards or import subsidies?

Mads Greaker, Gothenburg
University & Statistics Norway

EU targets for biofuels:

- ◆ Motivation:
 - Reduction of GHG emissions
 - Energy security
 - (Support to agriculture)
 - ((Needs of the EU car industry))
- ◆ 2003: Portfolio standard 5,75% in 2010
- ◆ 2008: Tightened to 10% in 2020
(provided that production is “sustainable” and “environmentally sound”)

EU policy:

- ◆ GHG tax on conventional fuels
- ◆ Subsidy to own farmers growing biofuels (Euro 45 per hectare)
- ◆ Tax exemption (not only GHG tax)
- ◆ Blending mandate (portfolio standard)
- ◆ Import duty (diversified between countries)
- ◆ Biofuels product standard:
 - Net reduction in carbon emissions minimum 35% (50% from 2017)
 - No use of land with high biodiversity
 - No land use change involving large releases of carbon

Our research questions:

- ◆ What is the second best policy when you have import of biofuels from countries without GHG emission restrictions?
- ◆ What is the effect of introducing a portfolio standard on top of the other instruments?

Results

- ◆ If a portfolio standard is introduced on top of other instruments to control GHG:
 - A portfolio standard is identical to i) An additional tax on all conventional fuels and ii) A subsidy to all biofuels with the constraint that there is no net income from the additional taxation
 - Hence a portfolio standard can never be optimal if there is only the climate externality
 - A portfolio standard should be supplemented with higher (lower) tariff than in the second best to the extent that imports have increased (decreased)
 - A product standard still improves welfare

Simulations:

