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Preliminaries

Topic: comparative analysis of the agri-enviro nexus

- The term “nexus” refers exclusively to Federal policies
 - ★ U.S. Farm Bills
 - ★ EU CAP
- We’ll interpret “agri-environmental” in the broadest way
 - ★ Conservation Title of the Farm Bill
 - ★ Much (but not all) of Pillar II of the CAP
 - essentially, we mean non-trade concerns

Outline

- Compare the “shapes” of the agri-env nexi
 - ★ hard to say what the shape of a nexus is
 - ★ easy to compare shapes of two nexi

A. Propose three complementary explanations for shapes

- ★ vast literature that addresses each of them
- ★ what weights should be assigned to each one?

B. Why is the answer interesting? Ans relates to WTO

C. Discuss four key differences between the two shapes

D. Offer some ideas on appropriate weights

A. Three possible explanations of the nexus

- “Cairns:”
 - ★ rectify distortions introduced by misguided ag policies
- “multifunctionalist:”
 - ★ take proper account of externalities
- “cynical:”
 - ★ preserve rents in a post-Uruquay world
- Each in its pure form is a “straw man”

The “Cairns” straw man

- Perhaps most eloquently presented in Anderson (2000)
- Env problems arise from distorted signals to producers
- Distorted signals arise from misguided ag. policy
- Remove the distortions
 - ★ the environment would take care of itself
 - ★ the nexus would disappear

The “multifunctionalist” straw man

- Many eloquent expositions; my favorite: Burrell (2001)
- Agriculture and “non-trade concerns” are jointly produced
- For many joint outputs, markets don’t exist, hence
 - ★ externalities (positive and negative)
 - ★ public goods and bads
- The nexus is required to correct the market failures

The “cynical” straw man

- No eloquence contest here: Agra Europe, 9/28/01
 - “[the EU] has gone to enormous lengths to create, both domestically and internationally, the camouflage of multifunctionality to justify the continuation and probable increase of expenditure of more than 40 billion a year on bolstering an industry which is quite capable of surviving without subsidies.”
- Agricultural policy resulted in enormous rents
- The rules changed with the Uruguay round
- Rent-seekers “created” the nexus to preserve status quo

Explaining shapes of the U.S., EU nexi?

- For each of the U.S. and the EU
 - ★ can we assign weights to the three explanations?
 - ★ can we explain why two nexi are so different?
- Answers obviously inter-related
 - ★ if the multifunctional explanation dominates
 - differences must be due to
 - ♠ nature of joint production
 - ♠ structure of externalities
 - ★ if the cynical explanation dominates
 - differences must be due to
 - ♠ political economic factors
 - ♠ channels thru which rents acquired/maintained

B. Why do we care?

- In order to complete the Doha Round, necessary to reconcile U.S. & EU conceptions of nexus
- From the EC's 2003 negotiating proposal:
“...the EU together with an increasing number of WTO members insists that non-trade concerns be given a prominent role in the negotiations.”
- From a speech by USTR Robert Zoellick, 2003:
“The Bush Administration has stood firm against efforts to use so-called non-trade concerns, including using unjustified trade-distorting measures under the guise of environmental policy, to undermine the agenda for agricultural liberalization.”
- The compromise: Doha Work Programme, July 2004
“Green Box criteria will be reviewed...and take due account of non-trade concerns.”

- The U.S. and EU are still far apart
 - ★ further evolution of “box system” inevitable/necessary
- Normative question:
 - ★ How would we like to see the WTO evolve?
- Answer should depend on weights on above explanations
 - ★ If the “Cairns” explanation dominates, answer:
 - should move in direction of (ex)-Cairns group
 - ★ if the “multifunctional” explanation dominates, answer:
 - must accommodate a range of different nexi
 - ★ if the “cynical” explanation dominates, answer
 - should be designed to minimize rent-seeking

C. Comparison of nexus shapes

We'll discuss four differences:

1) *substitutability* (US) vs *complementarity* (EU)

★ emphasis on *negative* vs *positive* externalities

- with U.S., -ve emphasis is overwhelming
- with EU, +ve emphasis is mixed with -ve

2) The nature of farmers' property rights to land

3) Problems with *extensive* (US) vs *intensive* (EU) ag.

4) Focus on *polluting outputs* (US) vs *ag. processes* (EU)

#1-#2 substantially more significant than #3-#4 for WTO

Difference #1: Substitutability & Complementarity

Positive vs negative relationship between ag. & env.

- U.S. focuses on -ve aspects: ag. encroaches on env.
 - ★ CRP (dominates conservation title): takes land out of ag.
 - ★ EQIP: criteria for funding: (NRCS (2004))
 - reduce nonpoint source pollution (pesticides, etc.)
 - reduce emissions (nitrogen oxides, etc)
 - reduce soil erosion and sedimentation
 - promotion of at-risk species habitat conservation.
 - ♠ positive or negative externality?
 - ♠ more about mitigating harm to species

- EU focus: *primarily* but not exclusively on +ve externalities:

- ★ *Appropriately managed* ag. can benefit environment

- ★ Agri-env measures related to productive land mgmt:

From European Commission (2005)

Measures in **green** designed to promote +ve externalities

- Input reduction
- Extensification of livestock
- Water Use reduction measures
- Convert arable land to grassland
- Actions in areas of special biodiversity interest
- Maint of existing sustainable & extensive systems
- Farmed Landscape
- Genetic diversity
- Organic farming
- Undersowing

- ★ Ag-env Measures related to non-productive land mgmt:
 - **Set-aside** *with appropriate management*
 - Upkeep of abandoned farmland & woodlands
 - Maint of countryside & landscape features
 - Public Access

Cross Compliance

EU Cross-compliance requirements:

- ★ Farm mgmt practices providing minimal protection for
 - natural resources (soil, air, water, etc.)
 - cultural resources (landscape, bldgs, etc.)
 - farm livestock (health & welfare)
 - farm labor (safety)
 - the general public (food safety/health)

All focus on farmers' responsibilities as *land stewards*

Difference #2: Farmers' property rights to land

Appears to be a fundamental difference between U.S. & EU

- in the U.S.:
 - ★ farmers' rights like any other rights
 - ★ pure private ownership
- in the EU:
 - ★ property rights to land have a *social* dimension
 - ★ ownership comes with “stewardship” obligations attached
 - ★ limit of obligations is fuzzy and has changed over time
 - ★ society contracts with farmers for addnl stewardship

this is one of the cornerstones of multifunctionality.

Implications clearest in comparing cross-compliance

- U.S.: cross-compliance obligations driven by *land properties*
 - ★ sodbuster: highly erodible land
 - ★ swampbuster: wetlands
 - ★ no requirements on other land
 - ★ no sense that compliance is linked to property rights
- EU: cross-compliance now precondition for *any* direct pymt
 - ★ farmer have to fulfil social obligation to get paid
 - ★ obligation codified in form of “Good Farming Practices”
 - spells out minimal requirements for stewardship
 - cross-compliance related to “polluter pays” concept

Difference #3: Extensification & Intensification

Focus on problems assoc with *extensive* vs *intensive* ag.

- In this case, US position is more nuanced
- EU: Where externalities are negative, blame intensification
 - ★ Of the 4 -ve externalities addressed by ag-env meas, 2
 - Input reduction
 - Extensification of livestockclearly reduce intensification
 - ★ biodiversity equilibrium upset by
 - intensification of production
 - underutilization of land

- US: concerned more about extensive than intensive margin
 - ★ CRP: takes marginal ag land out of production
 - obviously reduces extensification
 - tendency to promote intensification
 - ★ EQIP: problems addressed assoc with intensive ag,
 - usual targets
 - ♠ nitrates
 - ♠ pesticides
 - ♠ animal wastes, etc
 - use “structural and management practices”
 - ♠ most struct practices don’t reduce intensification
 - ★ CSP: payment for “over & above” structural practices
 - similarly, don’t necessarily reduce intensification

Difference #4: Focus on inputs & outputs

3) Focus on *polluting outputs* (US) vs *ag. processes* (EU)

- U.S. tends to define project objectives in terms of outputs
i.e. *left-hand side* variables of the ag-env joint prod funct
 - ★ Recall the National priorities specified for EQIP
 - reduce nonpoint source pollution (pesticides, etc.)
 - reduce emissions (nitrogen oxides, etc)
 - reduce soil erosion and sedimentation
 - promotion of at-risk species habitat conservation.
 - ★ To obtain funds, applicants must present plan for improving these outputs in a cost-effective way

- EU tends to define programs in terms of inputs/“practices”
i.e. *right-hand side* variables of the ag-env joint prod funct
 - ★ The concepts of “Good Farming/Agricultural Practices”
 - By defn, these practices relate to r.h.s. variables
 - ★ Recall the categories of measures for ag-env payments
 - Input reduction
 - Extensification of livestock
 - Water use reduction measures
 - Convert arable land to grassland
 - Actions in areas of special biodiversity interest
 - Maint of existing sustainable & extensive systems
 - Farmed Landscape
 - Genetic diversity
 - Organic farming
 - Undersowing
- almost all of these relate to *inputs* or *processes*

i) The nexi vs the fundamentals

- The two nexi are clearly distinctly different
- The “fundamentals:” linkage between ag & env reflected in
 - ★ academic literature
 - ★ environmentalists’ commentary
 - ★ press reports
- Based on these sources
 - ★ the linkages appear more similar than the nexi suggest

In the US literature (see e.g. Hellerstein et. al. (2002))

- **Widespread concern about positive externalities**
 - ★ **pro the family farm; anti the factory farm**
 - **family farm rhetoric intense during farm-bill debates**
 - ★ **importance recognized for wide range of rural amenities**
 - **the list almost exactly matches the European list**
 - ★ **concern about urban encroachment on farm-land**
 - ★ **positive externalities addressed by states and NGO's**
 - **All 50 states have adopted right-to-farm laws**

In the EU literature:

- Widespread concern about negative externalities:
 - ★ Especially those associated with factory farms
 - E.g., Baldock et. al (2002) lists main env effects of ag
 - ♠ water pollution ♠ unsustainable water extraction
 - ♠ air pollution (ammonia) ♠ greenhouse gas emiss
 - ♠ soil pollution ♠ increasing homog landscapes
 - ★ Study by Pretty, Brett, Gee and Hine (2001)
 - compared -ve externalities in U.S., U.K, Germany

(In U.K. pounds)	UK	DE	US
Costs per hect arable land	228	166	48
Costs per kg of pesticide	8.6	3.9	2.2

- ★ studies are difficult to reconcile with Difference #1

Implications for weights

- The “Cairns” explanation

- ★ (rectify distortions introduced by misguided ag policies)
- ★ distortions have effected linkages in broadly similar ways

- The “multifunctionalist” explanation

- ★ (take proper account of externalities)
- ★ externality pattern *clearly* less different than nexi suggest

- The “cynical” explanation

- ★ (preserve rents in a post-Uruquay world)
- ★ this is the residual claimant, so weight increases

ii) Whatever happened to family farm?

- In both EU and U.S.
 - ★ the *family* farm delivers most of the +ve externalities
 - ★ the factory farm delivers primarily negative externalities
 - ★ yet neither nexus aggressively targets the family farm
- reduces the credibility of the “multifunctionalist” explanation

iii) The nexi and WTO negotiating positions

Striking difference between the U.S. and the EU

- The EU nexus and its negotiation position are congruent
 - ★ it supports agriculture thru the nexus (& generally)
 - ★ its position is supporting that agriculture is appropriate
- The US nexus and its negotiating position are dissonant
 - ★ it supports agriculture thru the nexus (& generally)
 - ★ its position is that supporting agriculture is sinful
- The most plausible candidate for an explanation of this:
 - ★ different configurations of rent-seeking
 - ★ in the USTR,
 - gainers from support offset by gainers from free trade

SUMMARY AND CONCLUSIONS

- We proposed 3 explanations for the shape of the nexi
- We examined 4 dimensions along which US/EU nexi differ
- We offered 3 observations bearing indirectly on weights
 - ★ the fundamentals differ by less than the nexi
 - ★ the nexi “should” focus on the family farm but don’t
- Collectively the observations favor the “cynical” explanation

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