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#### **Greening of Subsidies and Food Security**

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# Greening of Subsidies and Food Security

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### 13-14 April 2014 GLOBAL COMMODITIES FORUM 2015 TRADE IN COMMODITIES: CHALLENGES AND OPPORTUNITIES





### **Agreement on Agriculture and Domestic Support**

 Agriculture provides maximum employment to the world's poor and offers comparative advantage to many developing and least developed countries.

• The Agreement on Agriculture (AoA), negotiated in the 1986-94 Uruguay Round, marked a significant step towards bringing trade-distorting domestic support or agricultural subsidies, particularly in the developed countries, into the ambit of international disciplines.



### **Reasons for 'Greening Subsidies'**

- The idea of exempting production and trade-neutral subsidies from WTO commitments was first proposed by US in 1987 and subsequently endorsed by EU
- The rationale for supporting **Green Box** was to compensate farmers in the developed countries for any potential losses following agriculture reforms and allow the governments to deliver on public goods without disrupting international trading pattern.
- "<u>Green Box</u>"- subsidies which are not production and trade distorting, or at most cause minimal distortion.



### Green Box includes:

- *General services* provided by governments like agricultural training services and extension and advisory services etc.
- **Decoupled income support** or direct payments to producers delinked with their production decisions.
- Public stockholding programs for food security purposes.
- Domestic food aid
- General research, research related to particular products, pests and disease control, etc
- Income insurance and income safety-net programs
- Payments for relief from natural disasters
- Structural adjustment assistance through producer retirement programs
- Structural adjustment assistance provided through resource retirement programs
- Structural adjustment assistance through investment aids
- Environmental programs
- Regional assistance programs



• Following the modalities, developed countries have significantly reduced their domestic support measures under amber and blue box.

 However, the decline in amber box and blue box subsidies has been more than compensated by substantial increases in green box subsidies in these countries -"Box shifting"



## **Box Shifting by EU** Based on WTO Notifications: 1995-2010





# *"Box Shifting"* by US based on WTO Notifications:1995-2010







GB subsidies have increased more than 150% in Australia; around 75% in Norway; and more than 50% in Switzerland and Canada. The spurt in the growth occurred post 2000 and continues to grow.



### Growing Theoretical and Empirical Evidence of Production and Trade Distorting Impact of Green Box Subsidies

- GB can affect production and thereby distort trade through (a) risk effects; (b) land price effects; (c) credit effects; (d) labour participation effects; and (e) expectations effect.
- Empirical Evidence- Breustedt and Habermann (2011) an additional euro of land premium payments increases rents by 38 cents. 1996 FAIR ACT increased plantings of program crops by 38 to 59 percentage points.



### The new EU CAP (2014-2020)

- The total amount allocated is EUR 363 billion, of which EUR 278 billion (76.5%) will be spent on direct payments and market related expenditures (pillar 1).
- To increase agricultural competitiveness, the new CAP reforms have removed all the existing restrictions on production volumes especially for sugar, diary and the wine sector.
- new risk insurance schemes including insurance schemes for crops, animals and plants and responsive safety net measures have been introduced
- Start-up aid will be given to young farmers, expenditures on innovation and training, green payments are introduced
- Direct payments are no longer based on uneven historical references but are now based on converging per hectare payment at national or regional level.



# The US Farm Bill of 2014

- eliminates direct and countercyclical payments to farmers but offers expanded crop insurance programs for risk-management.
- new programs Price Loss Coverage and Agriculture Risk Coverage. The farmers can choose between the two programs. Price Loss Coverage pays out if crop prices fall too low, or if farm revenue falls below certain benchmarks.
- to compensate cotton producers, a new crop insurance policy for cotton producers is introduced called Stacked Income Protection Plan (STAX) which is similar to Area Revenue Protection.
- It covers revenue losses of not less than 10 per cent and not more than 30 per cent of expected county revenue. Producers receive a premium discount equal to 80 per cent of the STAX premium, and on behalf of the producers an administrative and operative expense of 12 per cent of premium is paid to the crop insurance companies.
- Further, Farm Bill 2014 reauthorizes many of the larger conservation programs and makes available subsidized crop insurance to producers,



# Impact of **Green Box** Subsidies using DEA and ATPSM

- Impact on Agricultural Total Factor Productivity Growth
- Impact on agricultural production
- Impact on export revenue and import costs



### Impact of Green Box Subsidies on Total Factor Productivity: Data Envelpoment Analysis (DEA)Results for 26 countries for the period 1995-2010

- In 1995-2010, total factor productivity growth in agriculture in EU was 3.7% per annum without GB subsidies, but it increased to 8.3% per annum due to GB subsidies.
- For USA, total factor productivity increased from 2.6% per annum to 6.8% per annum with GB
- This implies that over 13 years, agricultural productivity has increased around 60% in EU and 51% in USA on account of green box subsidies.



### Total Factor Productivity Growth in Agriculture Production with and without GB in EU and US: 2000-2007





# Simulations Results using ATPSM of capping of Green Box Subsidies in 2007: 50% cut in EU and 40% cut in USA GB subsidies

	Percentage Change in Production	Percentage Change in Export Volumes	Percentage Change in Import Volumes	Percentage Change in Export Revenue	Percentage Change in Import Cost
European Union	-8%	-4%	35%	-3%	36%
USA	-5%	-4%	67%	-2%	43%
Developed Countries	-5%	-1%	22%	2%	22
Developing Countries	1%	12%	-5%	17%	-4%
Net Food Importing Countries	1%	19%	-4%	24%	-3%
Sub Saharan Africa	1%	6%	-2%	6%	-0.3%
Central America	1%	3%	-5%	3%	-4%
Caribbean	1%	5%	-3%	8%	-0.5%
Central Asia	2%	18%	-8%	21%	-3%
Central and Eastern Europe	2%	14%	-13%	18%	-4%
Least Developed Countries	1%	10%	-4%	10%	-1%
North Africa and Middle East	2%	29%	-3%	47%	-0.1%
North America	-4%	-2%	42%	0%	33%
Oceania	2%	6%	-4%	9%	5%
South America	1%	7%	-8%	13%	-7%
Western Europe	-8%	-3%	33%	-2%	34%
World	-1%	5%	5%	8%	8%



#### Capping of Green Box Subsidies at 2001 Level in EU and US: Simulations Results

	Percentage Change in Production	Percentage Change in Export Volumes	Percentage Change in Import Volumes	Percentage Change in Export Revenue	Percentage Change in Import Cost
European Union	-19%	-10%	85%	-8%	91%
USA	-15%	-10%	226%	-8%	149%
Developed Countries	-14%	3%	64%	5%	65%
Developing Countries	3%	41%	-10%	55%	-6%
Net Food Importing Countries	4%	67%	-10%	81%	-4%
Sub Saharan Africa	3%	23%	-5%	19%	0%
Central America	4%	10%	-14%	11%	-10%
Caribbean	1%	17%	-8%	25%	0%
Central Asia	5%	53%	-17%	65%	-5%
Central and Eastern Europe	6%	69%	-22%	76%	-8%
Least Developed Countries	3%	33%	-8%	32%	-1%
North Africa and Middle East	5%	90%	-8%	145%	1%
North America	-13%	5%	158%	-1%	114%
Oceania	5%	17%	-9%	27%	14%
South America	4%	23%	-13%	42%	-9%
Western Europe	-19%	8%	80%	-5%	85%
World	3%	17%	17%	25%	25%



# International Disciplines on Green Box are needed

- There have been many efforts in the past to reopen and redefine the criteria on green box in order to make the subsidies listed in Annex 2 meet the criteria of the annex's first paragraph.
- Chair's overview paper in 2002 (TN/AG/6, 18 December 2002) based on proposals received on possible changes in the provisions green box and comments of G-20 ( JOB (06)/145, May 16, 2006) on the review paper reports the proposed changes.



# Subsidies by Developing Countries

### Latest Notification of subsidies show

- US (2012) USD 127 billion GB /5 million poor (\$1.25 day)
- EU (2011)-Euros 70 billion GB / 2.5 million poor (\$1.25 day)
- India (2010) USD 19 billion GB / 397 million poor (\$1.25 day)

 Article 6.2 - subsidies exempted from reduction to encourage rural and agricultural development for low income and resource poor producers. These are generally in form of investment subsidies or agricultural input subsidies.



# **India's National Food Security Act and Procurement Requirements for Domestic Consumption**

- The recently introduced (September 2013) National Food Security Act (NFCA) increases domestic consumption further
- The Act provides coverage of up to 75% of the rural population and upto 50% of the urban population for receiving subsidized food grains under Targeted Public Distribution System (TPDS), thus covering about two-thirds of the population
- most of the studies show just enough supply to meet the requirements and some studies even show a deficit/
- The country may even need to resort to imports in some bad years (of production shocks).



## Five broad principles need to be adopted

- Capping total green box expenditures for developed countries for avoiding any further box shifting.
- Limit or completely eliminate subsidies provided under decoupled payments as these payments will necessarily be coupled, either directly or indirectly
- Allow direct payments only in case of natural disasters and/or otherwise where production loss has been above a threshold level.
- Structural adjustments programs have to be time-bound; else they may lead to cumulative production and trade distorting impacts.
- Strengthen the review mechanism to ensure that expenditures categorized under green box satisfy the basic principle of Annex 2.

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Thank You for your kind attention

