EU EPA or EBA: Are unilateral or bilateral trade preferences better for LDCs?

Doha Group:
Abdella Amin
Djele Dahouda
David Maleleka
Rodgers Mukwaya
Laura Paez
Muhammad Tahir
Chris Onyango

CONTENTS

- INTRODUCTION

- MOTIVATION

- SETUP OF THE MODEL

- MODEL ASSUMPTIONS

- RESULTS

    - EPA SIMULATION

    - EBA SIMULATION (with a base and alternative closures)

- CONCLUSION

- POLICY RECOMMENDATIONS

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

INTRODUCTION

• WTO Doha Round has stalled and countries have resorted to bilateral strategies. EU has been considering extension of existing preferences and/or negotiating FTAs with developing countries

• Of importance to African LDCs:

  – Preferential EU-LDC trade relations governed by the "EBA": a "0" tariff preference on all goods except arms

  – EPA Negotiations which have to be WTO compatible (i.e. MFN, Reciprocity)

• What are the implications for LDCs on welfare, trade, revenues, and employment of: a) full reciprocity in EU-LDC trade relations and b) extension of EBA preferences to developing countries?

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

SETUP OF THE MODEL

- Updated GTAP database 2001

- **Data set** includes 12 regions (CENTAM, China, Egypt, EU, India, Japan, LDCs, MERCOSUR, Mexico, ROW,USA and XME)

- **3 sectors**: agric, non-agric and services

- **26 Commodities:** Agric, NAMA and Services.

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

Model Assumptions

- **From standard closure**

  1. Assume fixed total government revenue

  2. Allow for unemployment in developing countries and LDCs

- **Simulation scenarios**

  1. EBA Simulation: Zero tariffs for all imports into EU from all developing countries

  2. EPA Simulation: 20% Tariff reductions EU-LDC bilateral trade

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

Slide 5

RM1	Rodgers Mukwaya, 4/15/2011

RESULTS

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

EPA SIMULATION

Overall Welfare Impacts

WELFARE	All. Efficiency	Endowment	Terms of Trade	Investment Saving	Total
CENTAM	-1	-1	-2	-1	-4
China	-12	-16	-45	18	-54
Egypt	0	-1	-2	-1	-4
EU	**13**	**0**	**285**	**8**	**306**
India	-8	-5	-14	1	-26
Japan	-1	0	-22	13	-10
LDC	**124**	**-54**	**16**	**-57**	**29**
MERCOSUR	-5	-3	-16	1	-23
MEXICO	-5	-1	-6	2	-10
ROW	-43	-47	-165	27	-229
USA	-5	0	-2	-12	-19
XME	-4	0	-29	1	-32
Total	52	-129	0	0	-77

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

EPA SIMULATION…cntd'

- ## Welfare Impacts

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April
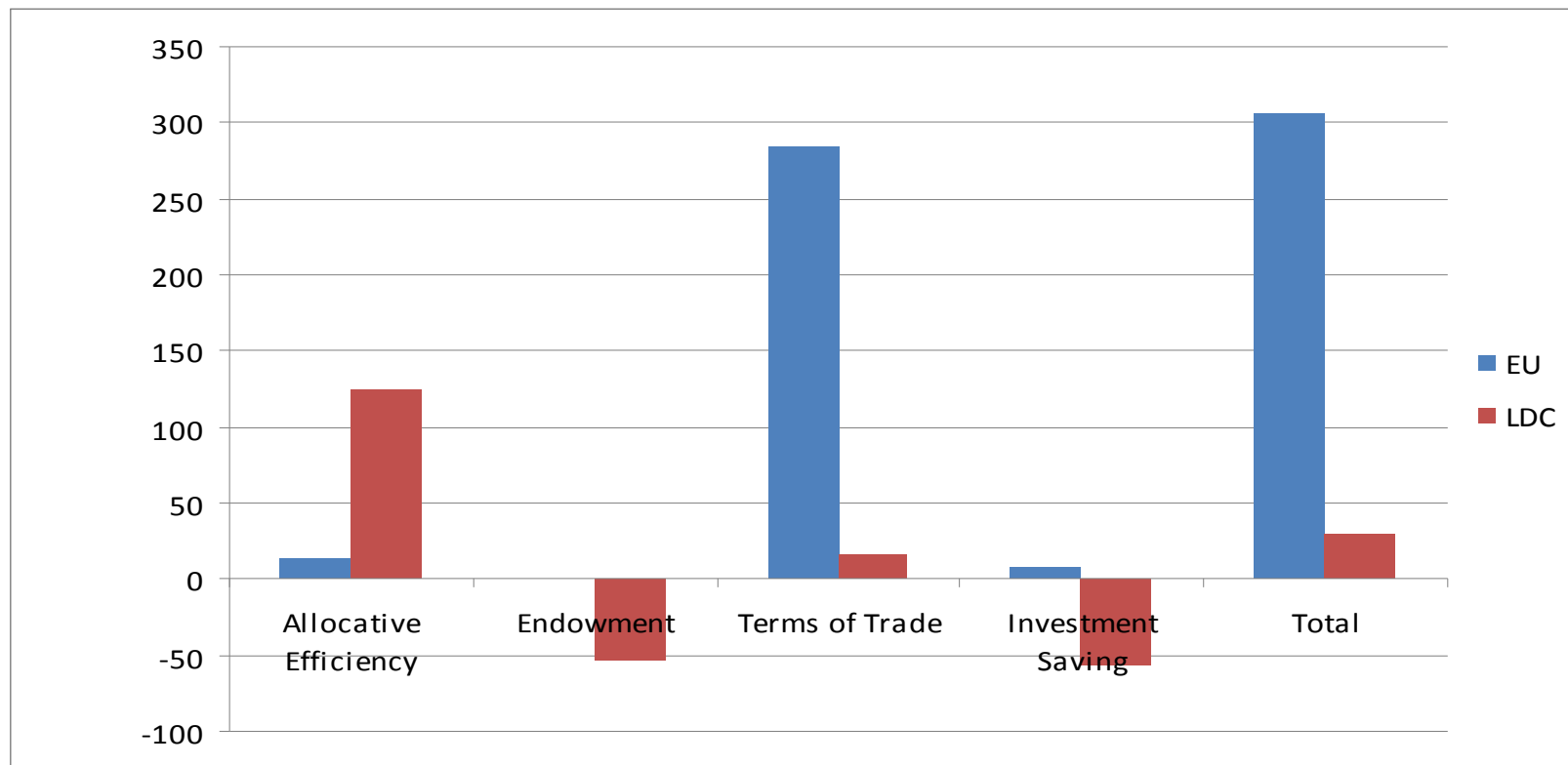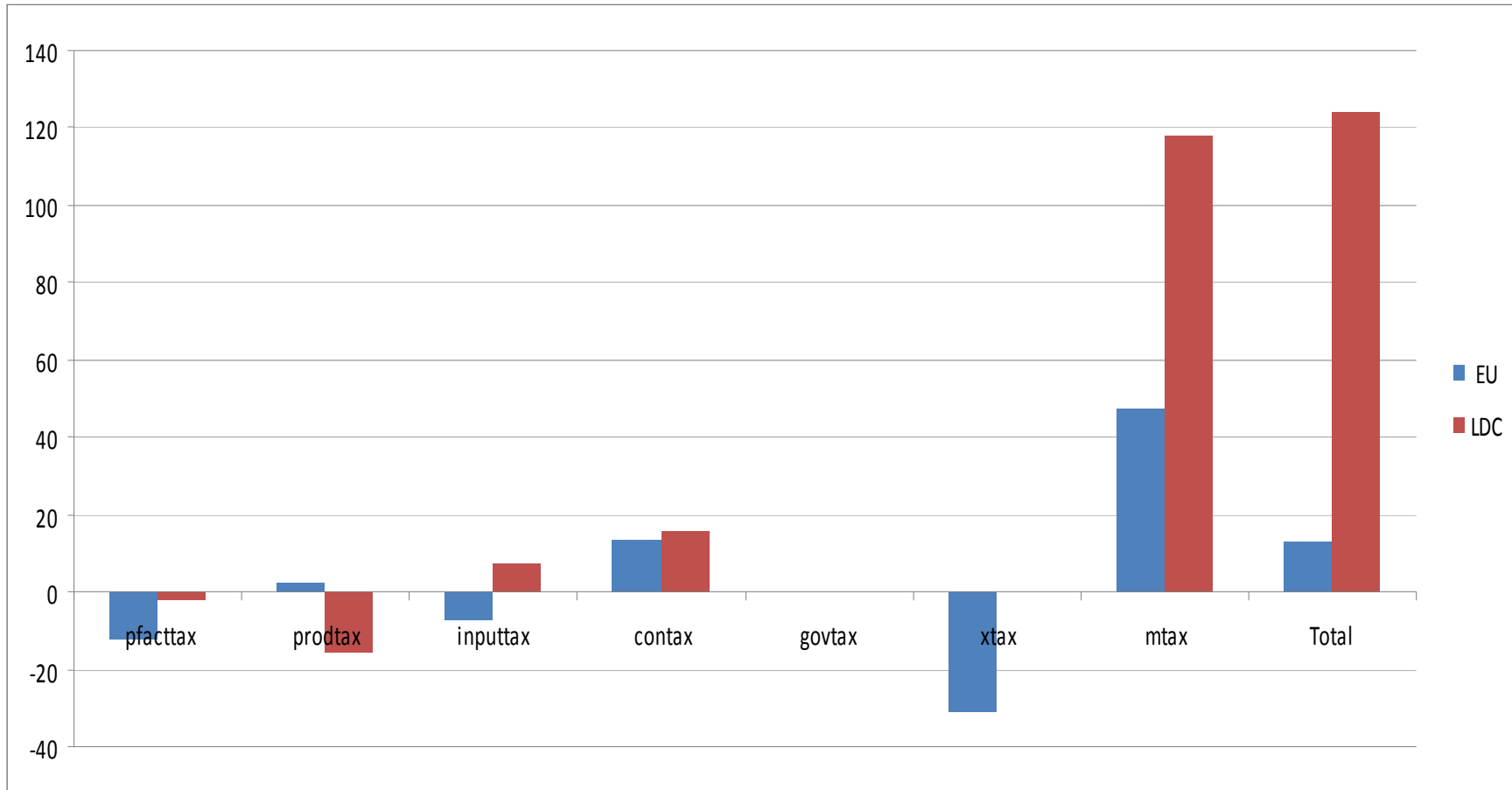
Endowment Effects

- A fall in endowment effects in LDC, no change in the EU due to the full employment assumption in the model.

- Tariff cut resulted in increased imports into LDC resulting in a fall in output of unskilled labour, hence their demand.

- It should be noted that overall output increase.

TOT Effects for LDC and EU

TOT	PWORLD	PEXPORT	PIMPORT	TOTAL
EU	18	401	-133	285
LDC	-1	16	1	16

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April
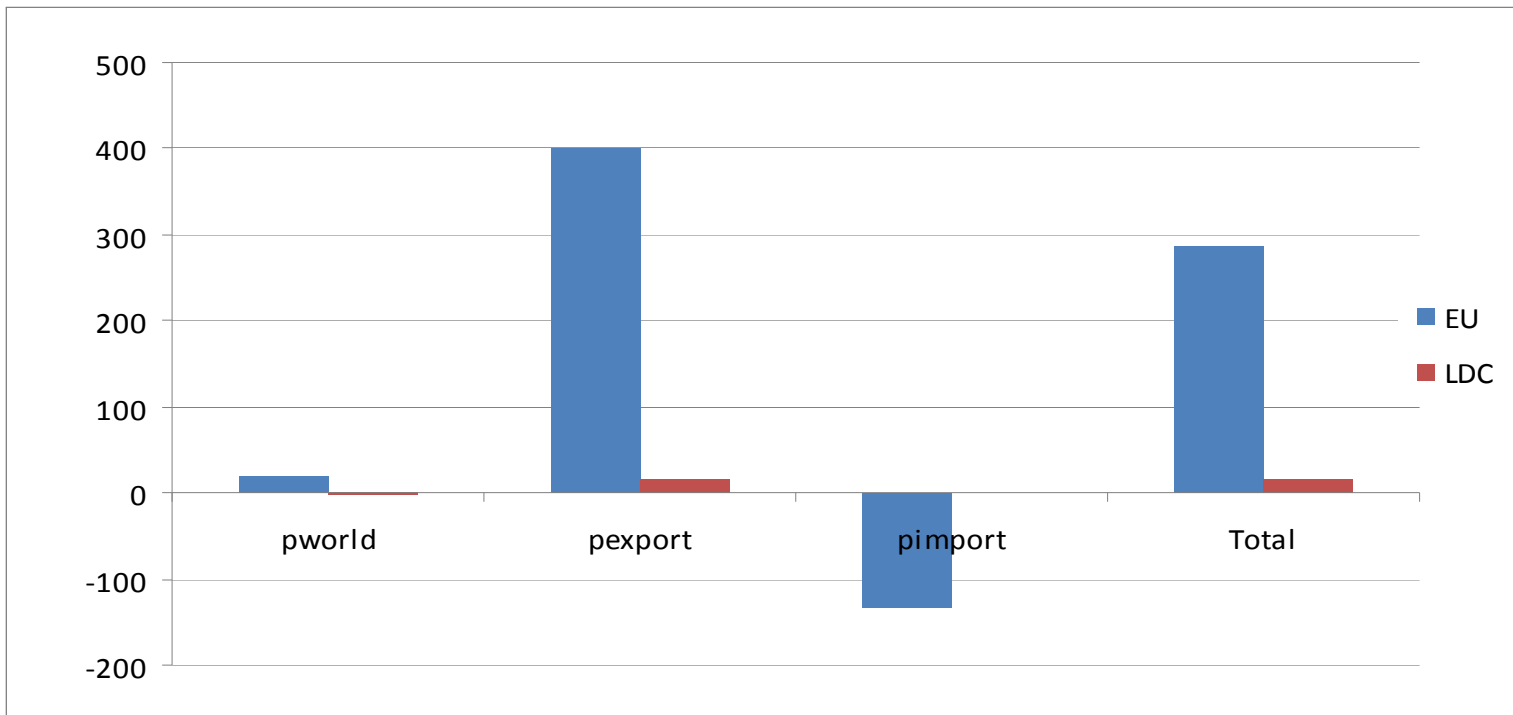
Impacts on Allocative Efficiency

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

Impacts on Trade Balance and Output

Trade Balance		
	LDC	EU
Export	64.6	2.1
Import	133.3	4.2

TOTAL OUT PUT		
Sector	LDC	EU
Agriculture	44.9	0.5
Non-Agriculture	101.7	0.6

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April
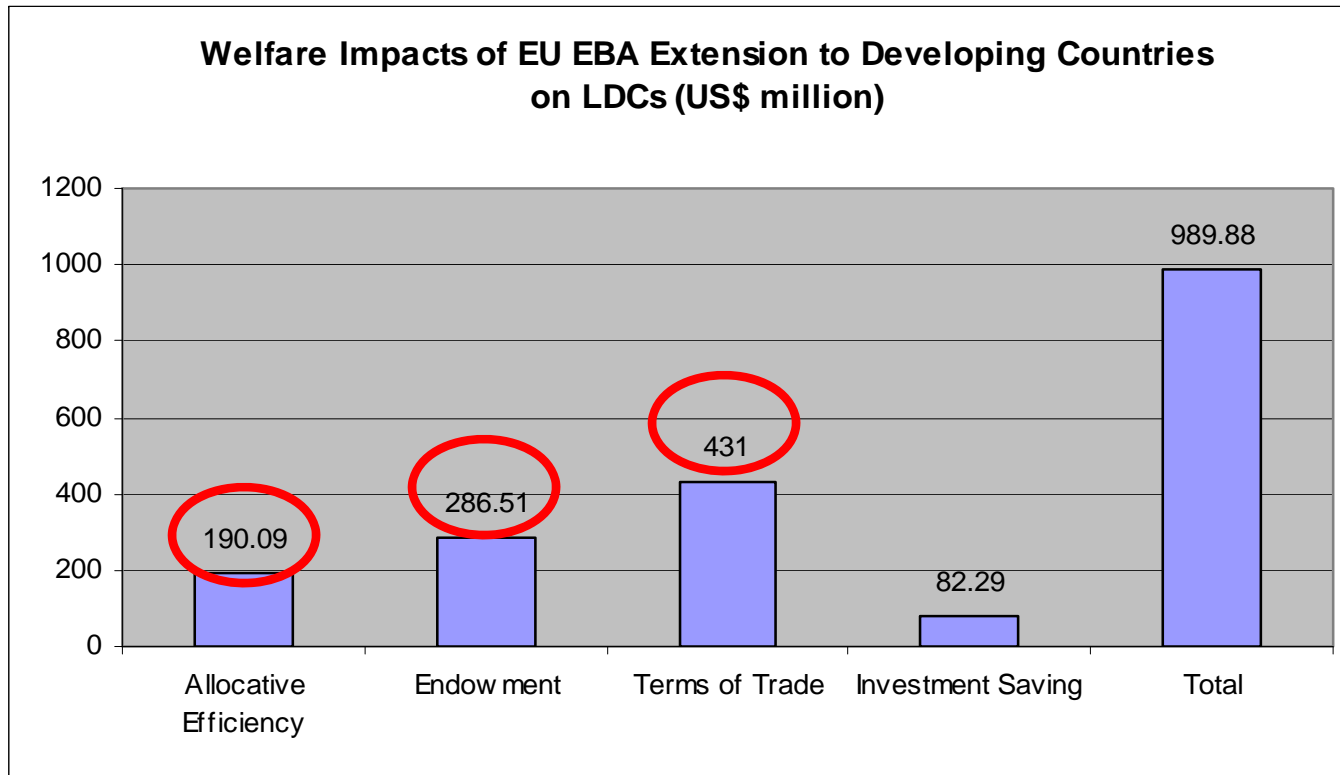
Impacts on Revenue

- 20% tariff cut, overall revenue falls
- LDC falls more than EU
- After tax replacement closure

Swap del_ttaxr (REG) = tp (REG)

- Fall in import revenue is compensated by a proportionate increase in taxes on private consumption (tp)

EBA SIMULATION

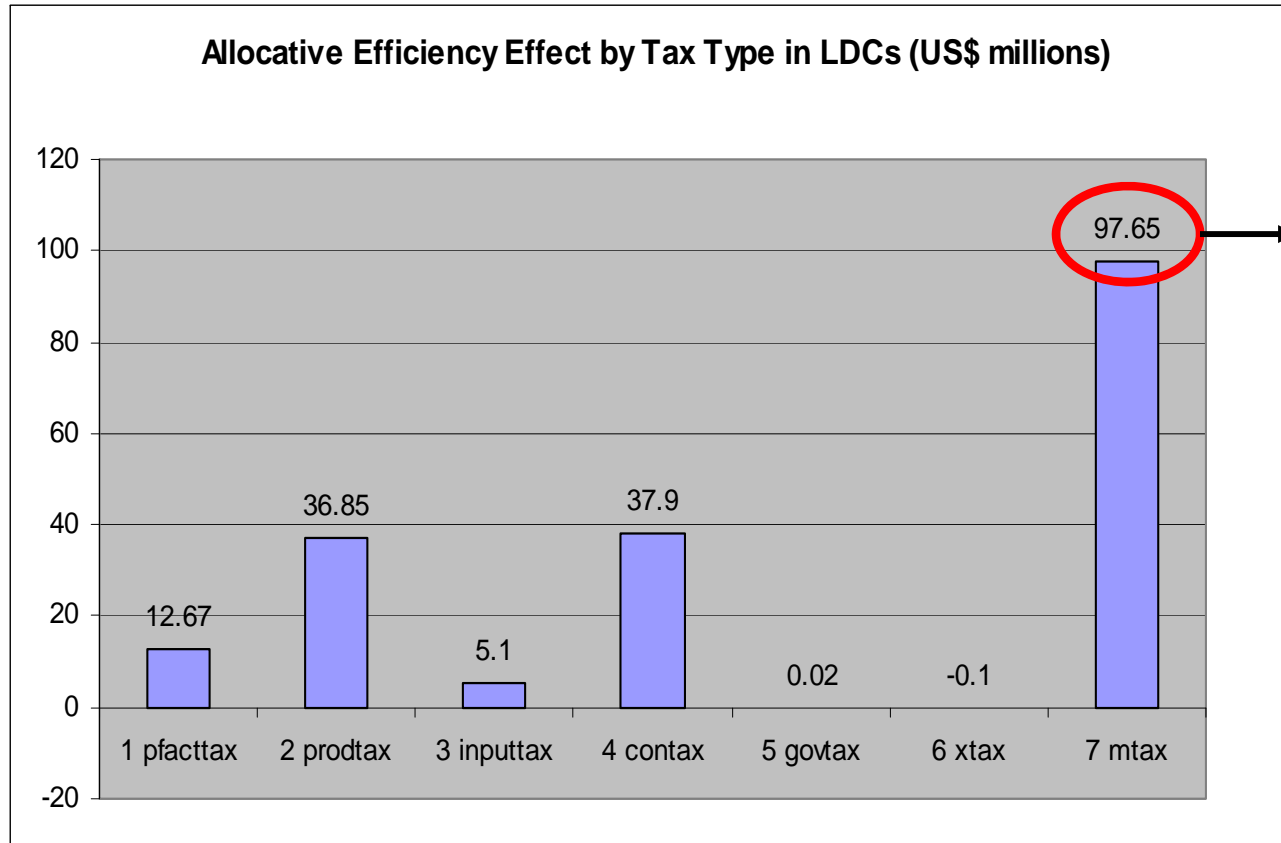• As expected US, Japan, EU and RoW experience welfare losses, whilst all developing countries gain…

Welfare Impacts of EU EBA Extension to Developing Countries on LDCs (US$ million)

Category	Value
Allocative Efficiency	190.09
Endowment	286.51
Terms of Trade	431
Investment Saving	82.29
Total	989.88

• Puzzle: But why are LDCs gaining from an EBA extension to other developing countries???

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

14

EBA SIMULATION

- Digging deeper…

  – Tot effect: agricultural and non-agricultural products combined (except: cereals, wheat and vegetable oils)

  – Endowment effect: from unskilled labour improvements

  – Considerable effect of unskilled labor due to increase in supply of q_o by 0.4% in LDCs

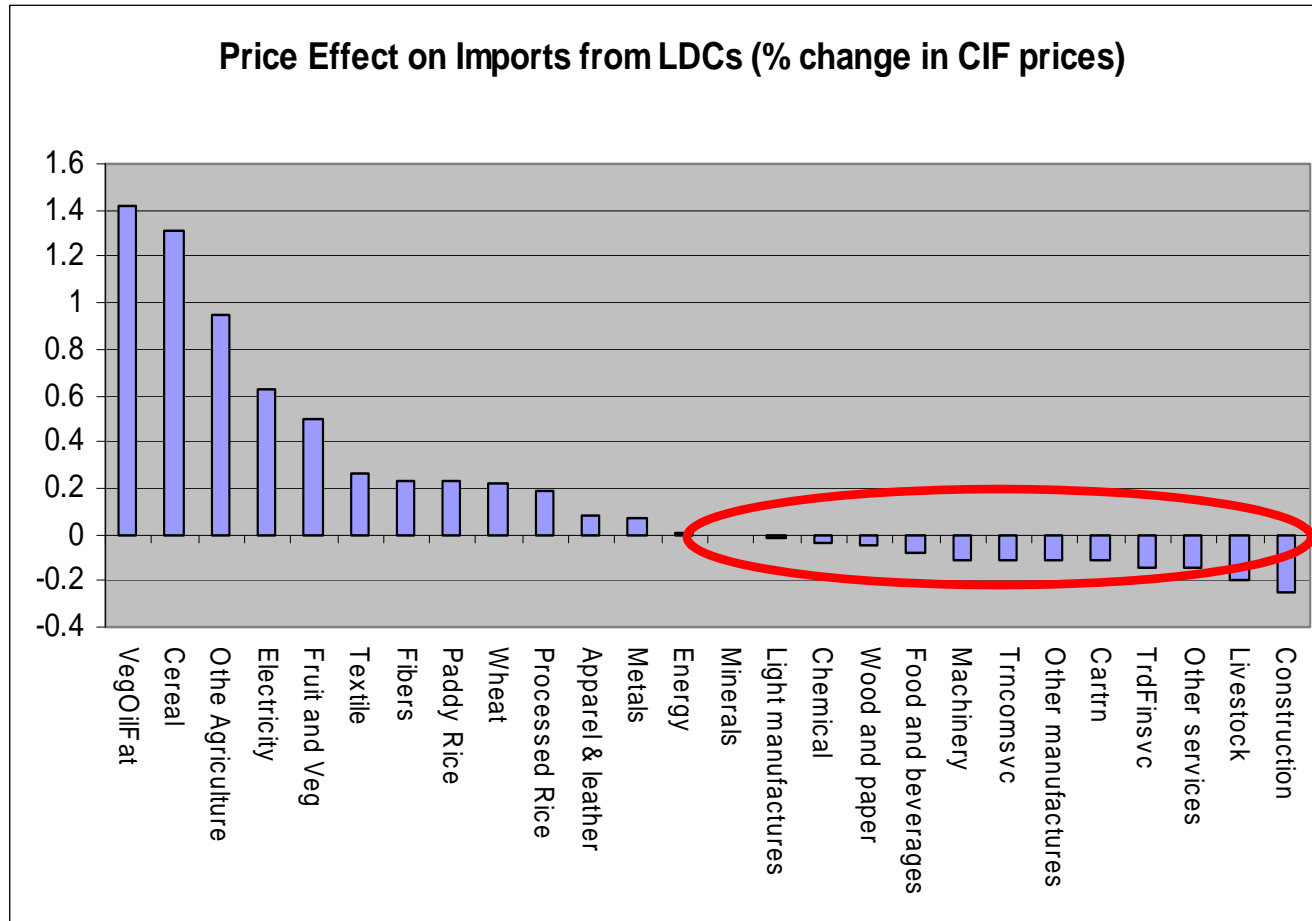 – Allocative efficiency: mostly from mtax revenue gains

EBA SIMULATION

Allocative Efficiency Effect by Tax Type in LDCs (US$ millions)

Bar	Value
1 pfacttax	12.67
2 prodtax	36.85
3 inputtax	5.1
4 contax	37.9
5 govtax	0.02
6 xtax	-0.1
7 mtax	97.65

Tax Trade Effect:

Region	Contribution
CENTAM	-0.95
China	-61.69
Egypt	0.07
EU	123.52
India	-11.63
Japan	4.91
LDC	-3.42
MERCOSUR	-49.2
MEXICO	0.18
ROW	86.29
USA	7.97
XME	1.6
Total	97.65

We know that mtax can increase due to changes in volume or tariffs, but tariffs haven't changed because EU liberalized unilaterally so volume changes must be driven by a price effect on LDC imports…

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

EBA SIMULATION

Price Effect on Imports from LDCs (% change in CIF prices)

Goods	Change in Imports $
TrdFinsvc	155.35
Chemical	87.44
Cartrn	71.67
Livestock	71.54
Other services	67.46
Trncomsvc	65.4
Machinery	53.36
Food & bev	53.1
Wood & paper	32.91
Other Agri	30.38
Minerals	20.69
Other mnfcs	18.4
Minerals	20.69
Light Mnfcs	17.2

Indeed, reduced prices on imports (price effect) explain the increase in the volume of imports in LDCs

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

17

Analyse of output effect of the simulation on "EBA extension to REG_DEV"

- The simulation show that welfare in LDC afetr EBA expansion to Developing country is the endownment is increase by unsklab.
- Here we will analyse the output effect throw the endownment effect.
- Which sector use the unsklab
- Source of factor income

EVFA	1 AppLeat	14 oMnfcs	15 OSR	16 OthAg	17 pfbev	21 TrdFinsvc	23 Vegftnt	Total
1 Land	0	0	0	1810.31	0	0	2109.58	9184.9
2 UnSkLab	1149.24	846.51	9196.29	6450.62	3051.94	18234.47	5576.41	84117.42
3 SkLab	167.61	106.63	10894.68	117.69	564.4	6022.83	52.9	23276.83
4 Capital	1393.46	1282.29	11553.76	1832.5	5509.93	21197.53	1422.92	92044.89
5 NatRes	0	0	0	0	0	0	0	6991.87
Total	2710.31	2235.43	31644.74	10211.11	9126.27	45454.83	9161.81	215615.9

- Unsklab is use in **apparel and leather, other service (OSR) other agriculture (which are not specified), processed food beverages, vegetables, fruit, nuts; trade and finance service**

- We need to see qfe which is "qfe" *demand for endowment i for use in ind. j in region r to understand how the factor is using*

Demand for primary input

qfe	1 AppLeat	15 OSR	16 OthAg	17 pfbev	21 TrdFinsvc	23 Vegftnt
2 UnSkLab	1.28	0.07	7.09	-0.67	-0.26	2.71

- qfe (i, j, r) increased qfe (unsklab, OthAg, LDC) = **7.09**

- it moves greater than the other sector (App leat and Vegftnts..Vegftnt)

- Technical change and aoall are 0, then the increase must come from qva

- Let evaluate qva (i,

qva	LDC
1 AppLeat	1.41
16 OthAg	6.41
17 pfbev	-0.54
23 Vegftnt	2.3

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

- The Decomposition of qva show as that
- qva(OthAg, LDC) increase, so did qva(appleat,LDC) throw the the total output of this sector which increase
- **qo**(OthAg, LDC)= 6.41 it increase
- so let us see the share of this factors
- *SHRDM (i,r) share of domestic sales of i in*

SHRDM	LDC
1 AppLeat	0.019
16 OthAg	0.035
17 pfbev	0.042
21 TrdFinsvc	0.048
22 Vegftnt	0.04

- SHRXMD (i,r,s)
- NMRG_COM [*LDC][*EU] SHRXMD (i,r,s

SHRXMD	LDC
1 AppLeat	0.29
16 OthAg	0.15
17 pfbev	0.07
22 Vegftnt	0.12

- qxs (i,r,s)
- NMRG_COM [*LDC][*EU] qxs (i,r,s) =

qxs	R007
1 AppLeat	6.53
16 OthAg	45.14
21 TrdFinsvc	-3.14
22 Vegftnt	21.72

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

The qxs (i,r,s) show that it is OthAg sector which contribute in increase of qxs of LDC in EU qxs (Vegftnt, LDC, EU)and qxs (**AppLeat**,LDC, EU) are increase too
Decomposition of qxs increase because of expansion and substitution effect

qxs	R007
1 AppLeat	6.53
16 OthAg	45.14
21 TrdFinsvc	-3.14
22 Vegftnt	21.72

TempCoeff	1 AppLeat	15 OSR	16 OthAg	17 pfbev	21 TrdFinsvc	23 Vegftnt	Total
1 e1_ams	0	0	0	0	0	0	0
2 qim	4.79	-0.54	1.79	0.29	-0.49	3.24	117.79
3 e1_ESUBM	-20.46	1.11	-7.45	-1.66	1.23	-12.96	-470.58
Total	-15.67	0.57	-5.66	-1.38	0.74	-9.72	-352.79

But **TrdFinsvc, pfbev decrease, the just contributed in domestic market.**

- Analyse ps (j,LDC)
  - **Ps (OthAg,LDC)= 1.73**
  - **Ps (Vegftnt, LDC)= 2.03**
  - **Ps(Appleat, LDC)= 0.45**   **All increase**
  - **Ps (TrdFinsvc, LDC)= 0.5**

- Decomposition of **ps**
- **Pfe = 0.76**
- ps (j,LDC) increase because pfe (j,LDC) increased
- **Pm = 0.76**
- Pm increase that is why pfe increase

The extension of EBA to all Developing country will have positive impact on the welfare of LDC throw the increased of demand of factor (unsklab, [OthAg, Vegftnt,   TrdFinsvc], LDC).

Unilateral liberalization by EU, whereby EU extends EBA to all developing countries across the globe,

Closure is just the classification of variables as either "exogenous" and "endogenous" variables

In our exercise, we deviate from standard GTAP closure to tax replacement closures; namely, tp and tor:
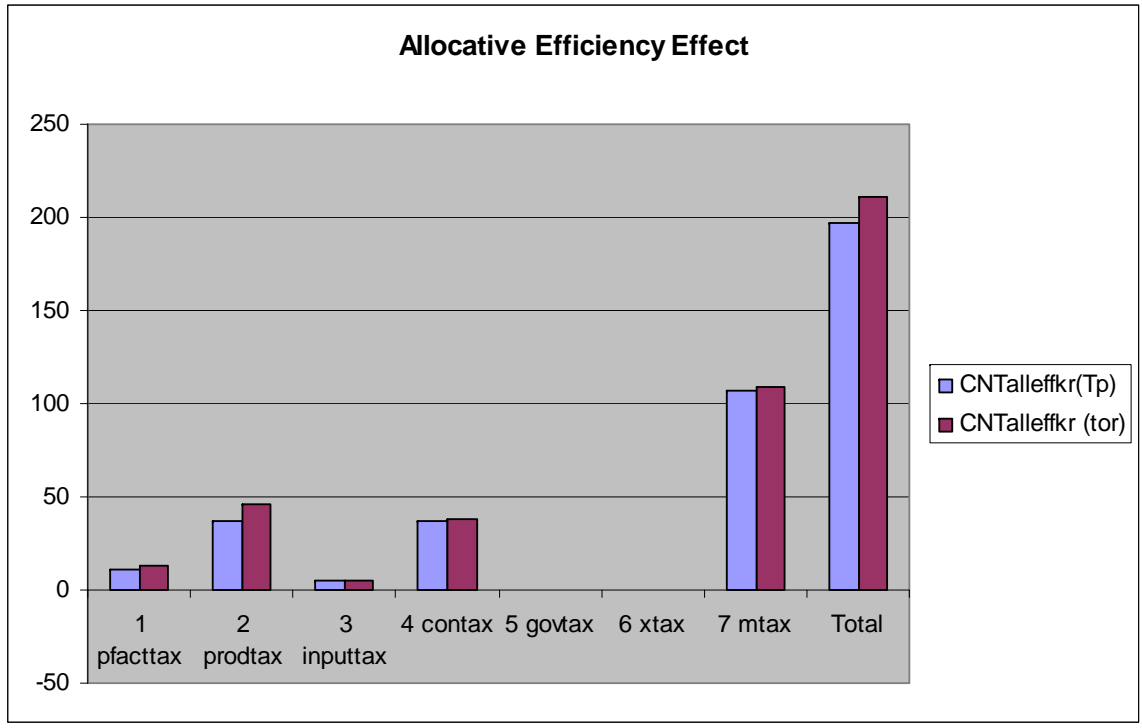
Where:-
Tp: shift in tax on private consumption,
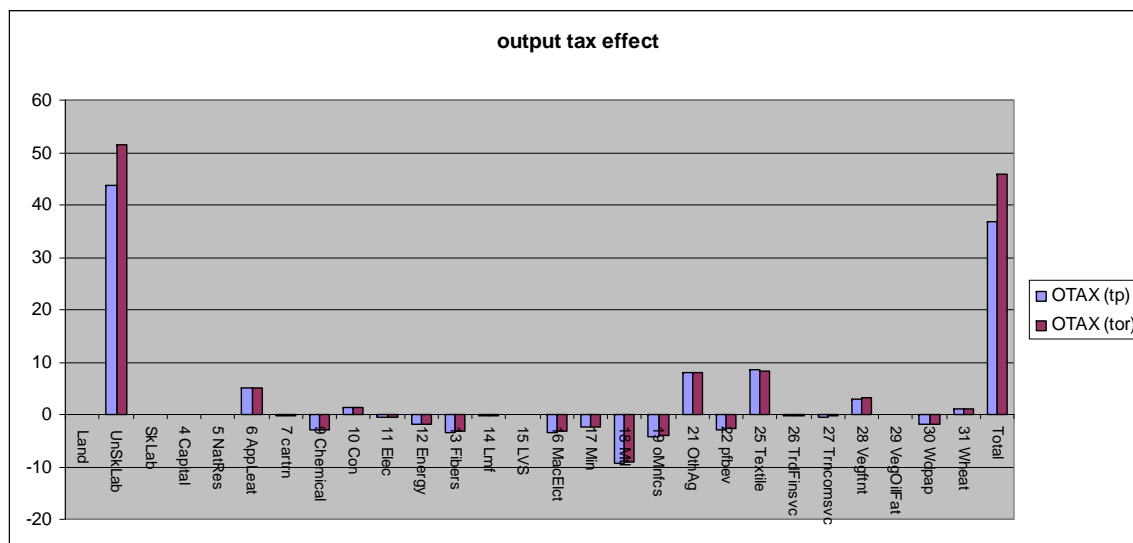
Tor: shift in tax on endowment(reg generic)

The variable tp(r) or tor(r) is swapped with del_ttaxr(r) in order to generate a tax replacement scenario, whereby taxes remain a constant share of national income.

welfare differences in LDC
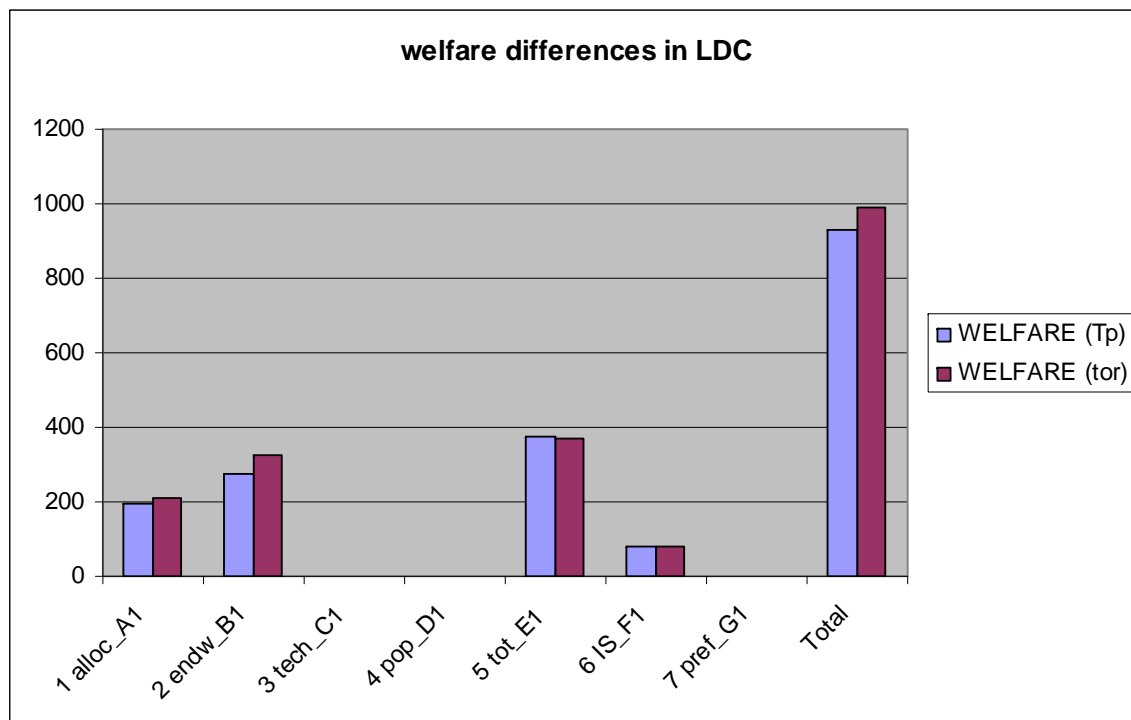
- Tax on endowment (tor) is assumed to be a less distortionary tax than tax on private consumption(tp)

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

Allocative Efficiency Effect

- Change in allocative efficiency due to change in volume

output tax effect

- Biggest effect due to unskilled labor

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April

Differences in Endowment tax effect in LDC's

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April
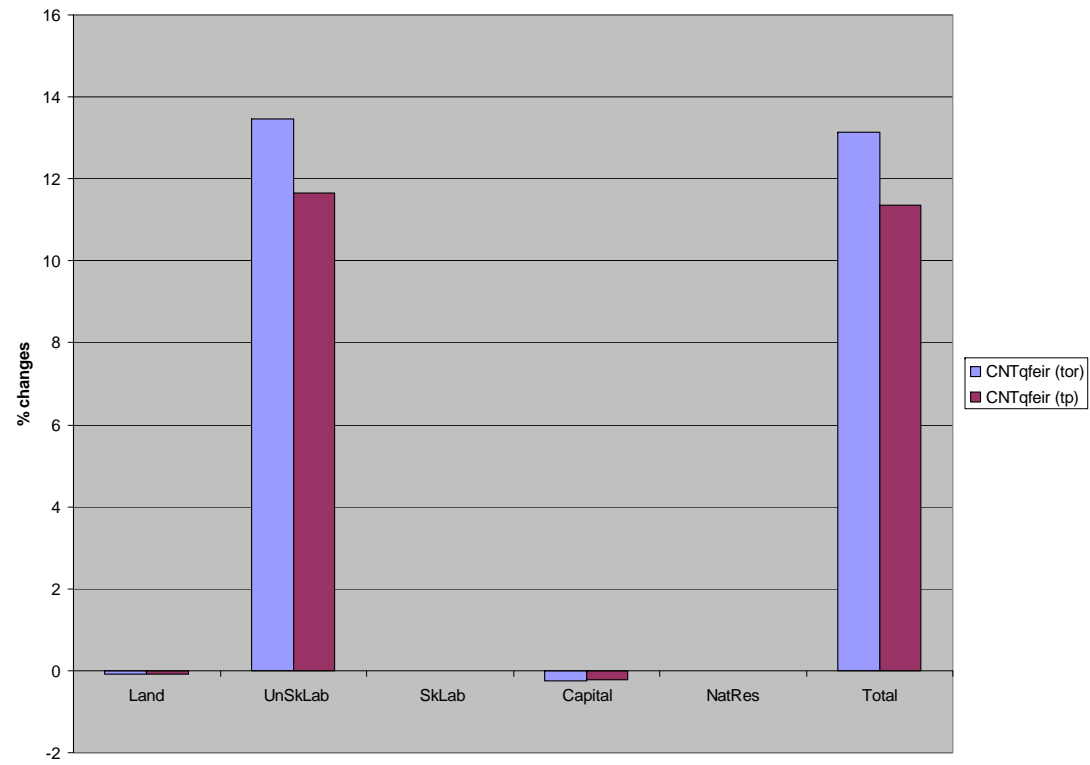
Terms of trade across different closures

2011 African Short Course in Global Trade Analysis, Addis Ababa, 10-16 April
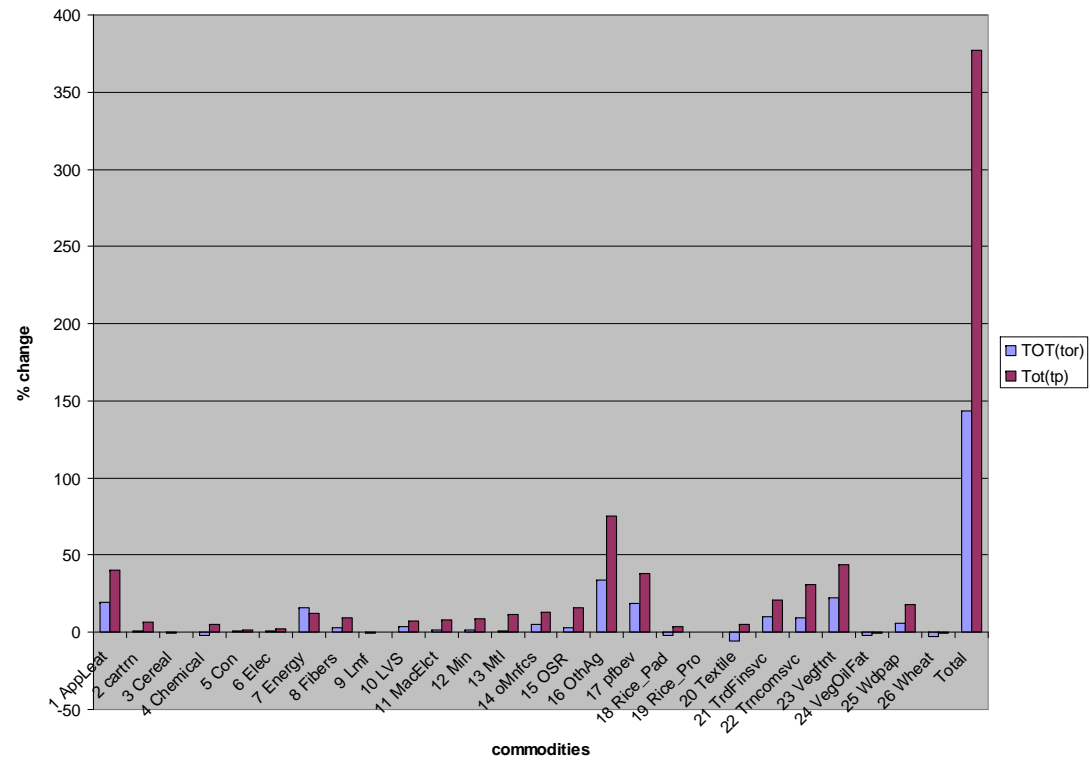
CONCLUSION

• **EPA Simulation**

    – Increase in overall welfare in both LDC and EU

    – Positive impacts on both ToT and Total Output

    – Increase in unemployment in unskilled labour in LDCs

    – More gains for non-agric sub-sector in LDC

CONCLUSION

- **EBA Simulation**

  – Contrary to expectation, there are significant welfare gains under the EU EBA scenario for LDC through the following mechanisms:

    • Price effect: As other developing countries benefit from "0" tariffs on their exports to the EU, world prices go down and LDCs can import cheaper goods.

    • Factor effect: Increased factor demand in LDCs has a positive welfare impact

    • Allocative efficiency is higher for income or factor tax closure than for the consumption tax closure

POLICY RECOMMENDATIONS

• Both EBA and EPAs scenarios point to significant welfare gains.

• If LDCs choose the EBA alternative, further research on alternative tax closures will be needed to maximize welfare gains

• If LDCs choose to negotiate and EPA with the EU, they should take into account the potential revenue impacts and possible unemployment in unskilled labour