

A stylized world map in shades of blue and white, serving as a background for the top section of the slide.

ECONOMIC ANALYSIS

THAT MAKES A

DIFFERENCE

***My*GTAP**

**A Global Model with Single Country
Flexibilities**

***Impact*ECON**

Two Applications

- A household Level Analysis of African Trade Liberalization: The Case of Mozambique by Pete Minor and Brian Mureverwi
- Impacts of Removing Refined Oil Import Subsidies in Nigeria on Poverty by Siddig, Khalid, Angel Aquiar, Harald Grethe, Pete Minor and Terrie Walmsley

African Tripartite Free trade area (TFTA) and Customs Union (ACCU): Mozambique

- Two trade agreements best modeled with global linkages
- Mozambique modeled with split endowments and multiple households (ten households)
- TFTA provides market access in agriculture to Mozambique vis a vie Kenya
- ACCU erodes preferences acquired under TFTA
- Closure: unemployment of low skilled labor, fixed balance of trade relative to GDP.

Impacts on Real Output (selected) (US\$ Millions 2007)

	TFTA	ACCU
Sugar	48.2	-114.8
Rice	102.5	-68.8
Transport and Margins	-3.0	26.0
Manufactures	31.3	-50.8

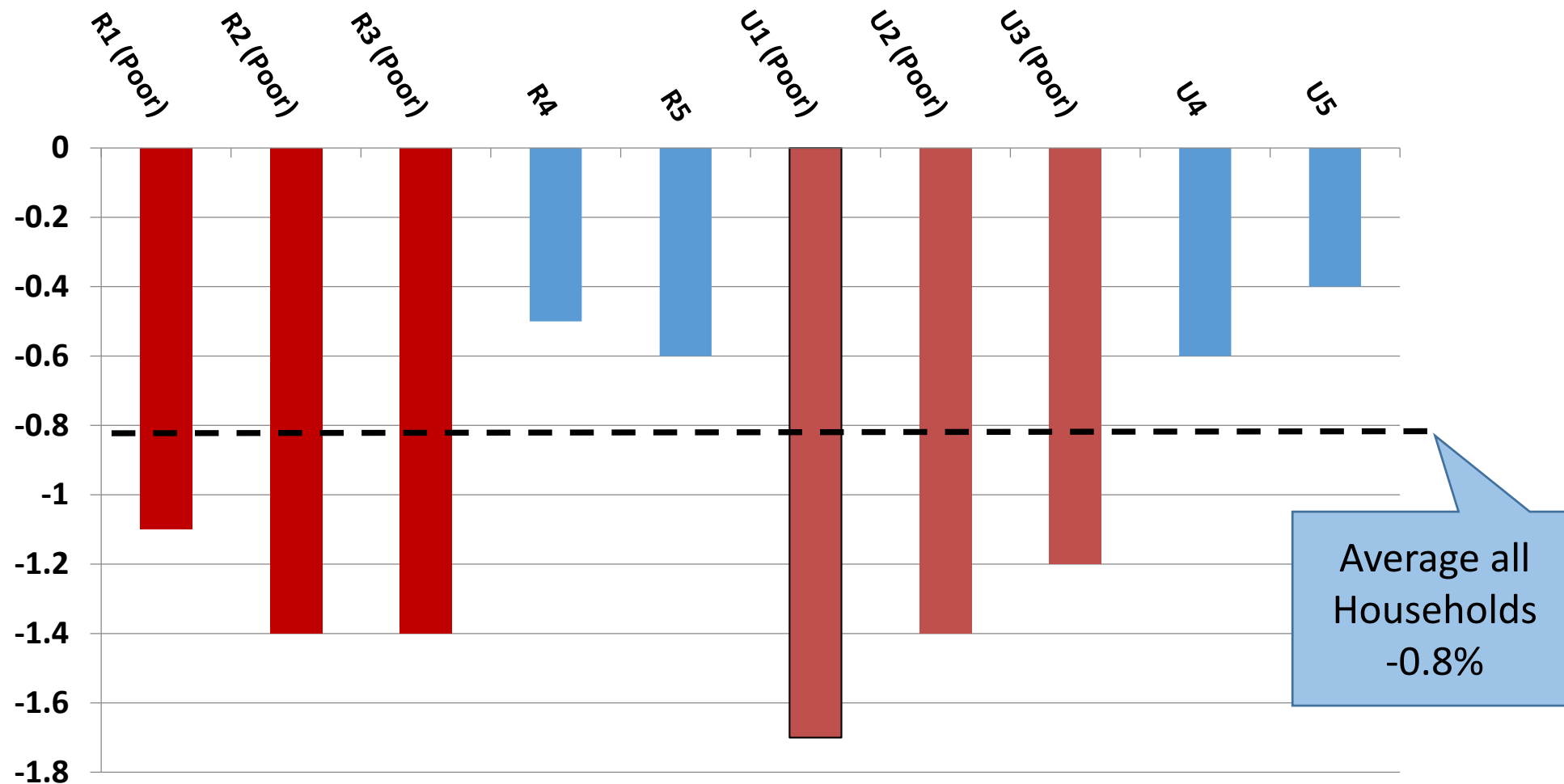
Employment and Real Wages (Percent Change)

	TFTA			ACCU	
	Empl.	Real Wage		Empl.	Real Wage
Land	--	2.5		--	-2.8
Natural resources	--	-1.3		--	11.7
Labor—no education	0.3	--		-0.5	--
Labor—some primary	1.0	--		-2.3	--
Labor—some second	-0.8	--		-0.2	--
Labor—tertiary	--	0.0		--	-0.3
Capital—agriculture	--	4.4		--	-3.9
Capital—other	--	-0.3		--	-0.4

Changes in Real Household Income Mozambique— TFTA vs. ACCU

Household Quintile	TFTA		ACCU	
	Change in Real Income		Change in Real Income	
	Percent	US\$ Million	Percent	US\$ Million
Rural — 1 (poor)	0.1	0.2	-1.1	-2.3
Rural — 2 (poor)	0.3	1.1	-1.4	-5.3
Rural — 3 (poor)	0.5	2.6	-1.4	-7.4
Rural — 4	0.6	4.4	-0.5	-3.8
Rural — 5	0.7	9.4	-0.6	-8.2
Urban — 1 (poor)	0.0	0.0	-1.7	-2.8
Urban — 2 (poor)	-0.1	-0.2	-1.4	-3.3
Urban — 3 (poor)	-0.1	-0.3	-1.2	-4.1
Urban — 4	0.4	1.9	-0.6	-2.9
Urban — 5	0.6	8.3	-0.4	-5.6
Total-HHDL	0.5	27.4	-0.8	-45.7
Government	0.6	9.1	-2.2	-33.7
Change in Total Real Income	0.5	36.5	-1.4	-79.4

Real Household Income ACCU



Two Applications

- A household Level Analysis of African Trade Liberalization: The Case of Mozambique by Minor, Peter and Brian Mureverwi
- Impacts of Removing Refined Oil Import Subsidies in Nigeria on Poverty by Siddig, Khalid, Angel Aquiar, Harald Grethe, Peter Minor and Terrie Walmsley

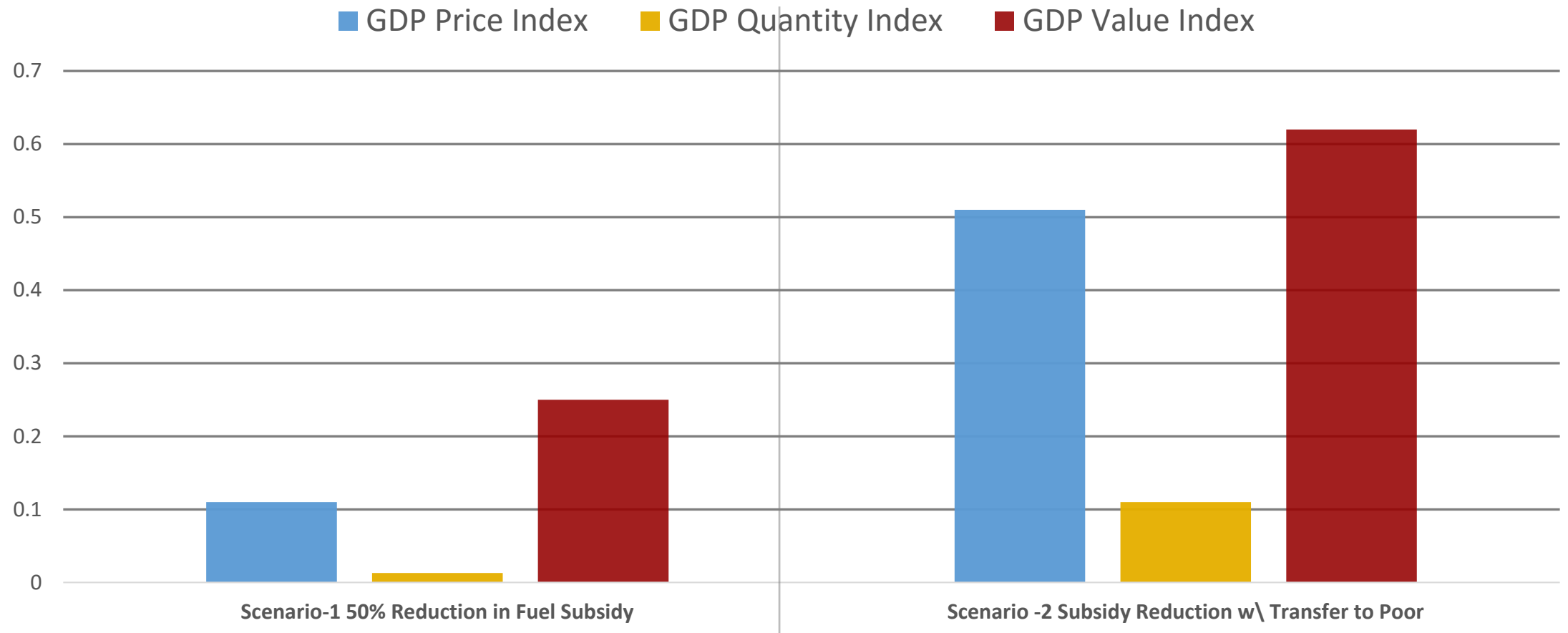
Nigeria reduction in imported fuel subsidy

Scenario	Description	Subsidy on refined oil (fuel) consumption		Government transfers to poor households
		Imported	Domestic production	
Base	Base	33.0%	--	--
Scenario 1	50% removal	16.5% (US\$ 720 Million)	--	--
Scenario 2	50% removal with funds transferred to households	16.5%	--	Transfer to poor households (US\$ 720 Million)

Closure and Results (Nigeria)

- Closure: Full employment and extra government income is spent
- Results as expected:
 - Price of refined oil rises (except domestic Scenario 3 where production subsidized)
 - Import Demand falls as demand switches to domestic
 - GDP rises and Households lose (except those that get subsidy in scenario 4)
- Prices rise considerably more when subsidy is given to the poor households rather than spent by government
 - Poor households demand domestic goods, while government imports
 - In scenario 4, Nominal returns to land and labor rise, but real wages do not.

Nigeria GDP (Percent Change)



Other Applications

- Evaluating Policy Options for Strengthening the Resilience of the Zimbabwean Economy to Higher Food and Fuel Prices by Mahofa, Godfrey and Anna Strutt
- External Shocks and Adjustment Policy in Kenya, Onyango, Christopher Hugh
- Improving the US representation in the GTAP framework with labor disaggregation and multiple households, Angel Aguiar, Terrie Walmsley, and Caitlyn Carrico.
- Impact of Sequestration Incentives on Poverty in Mozambique and Ethiopia, Zekarias Hussein, Peter Minor and Terrie Walmsley

Review of benefits

- Global linkages with single country detail
- Multiple Private households (e.g., rural and urban)
- Link government income and expenditure to tax revenue
- Transfers between households and Government
- Foreign aid and remittances
- Flexible Factors categories (e.g., rural and urban labor)

Future Directions

- Poverty Measures
- Enterprise account to allow government to collect income from factors of production
- Replace the whole IO table for MY Country, except trade data
- For multiple “MY” countries please contact us

Thank you!

For more information email:
contact@impactecon.com

ImpactECON