

# Four Reproducible Contributions in Development Economics

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# Grandfathers and Grandsons

## Effects of a Male-Only Change in Pensions

Four  
Reproducible  
Contribu-  
tions in  
Development  
Economics

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Grandfathers  
and  
Grandsons

Making the  
Next Billion  
Demand  
Access

Global Value  
Chains in  
LICs

### Motivation

- Income recipient and growth
- Growth and future income
- Grandmothers and Granddaughters:
  - South African pension, including black population
  - eligibility-age differential: women 65, men 60
  - life expectancy significantly lower: large selection bias

### Identification Strategy

- Pension change (2010): men 65  $\rightarrow$  60, to a par
  - still selection bias based on life expectancy
- NIDS: 2008 (pre) & 2011 (post)

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**Table:** Food and Non-Food Expenditure

	Food	(P >  t )	Non-Food	(P >  t )
event * Man 60-65	<b>103.82</b>	(0.03)	-0.05	(0.22)
event * Man 65+	0.09	(1.00)	-0.02	(0.35)
event * Woman 60-65	4.69	(0.90)	0.02	(0.36)
event * Woman 65+	<b>104.24</b>	(0.00)	0.01	(0.51)
Man 60-65	55.61	(0.20)	206.16	(0.57)
Man 65+	<b>112.18</b>	(0.00)	377.43	(0.57)
Woman 60-65	46.88	(0.13)	-356.02	(0.16)
Woman 65+	<b>-0.68</b>	(0.00)	-181.57	(0.38)
event	35.23	(0.00)	131.32	(0.08)
Household Income	<b>0.03</b>	(0.00)	<b>0.09</b>	(0.00)
Girl	-12.49	(0.22)		
Intercept	<b>810.81</b>	(0.00)		
Observations	15938		15938	

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Table: Weight for Age

	General	(P >  t )	Boys	(P >  t )
event * Man 60-65	<b>0.33</b>	(0.02)	<b>0.44</b>	(0.03)
event * Man 65+	-0.03	(0.74)	0.15	(0.31)
event * Woman 60-65	0.15	(0.18)	0.18	(0.23)
event * Woman 65+	0.04	(0.58)	0.29	(0.79)
Man 60-65	<b>-0.27</b>	(0.03)	<b>-0.35</b>	(0.06)
Man 65+	-0.06	(0.47)	<b>-0.35</b>	(0.01)
Woman 60-65	<b>-0.17</b>	(0.06)	-0.14	(0.27)
Woman 65+	0.03	(0.69)	0.09	(0.32)
event	<b>0.00</b>	(0.00)	0.01	(0.85)
Household Income	<b>0.00</b>	(0.00)	<b>0.00</b>	(0.00)
Girl	<b>0.09</b>	(0.00)		
Intercept	<b>-0.31</b>	(0.00)	<b>-0.33</b>	(0.00)

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## Effects of a Male-Only Change in Pensions

Table: Height for Age

	General	( $P >  t $ )	Boys	( $P >  t $ )
event * Man 60-65	<b>-0.52</b>	(0.09)	<b>-0.94</b>	(0.04)
event * Man 65+	-0.23	(0.31)	-0.03	(0.92)
event * Woman 60-65	0.27	(0.24)	0.55	(0.08)
event * Woman 65+	-0.00	(0.98)	-0.16	(0.49)
Man 60-65	0.11	(0.66)	0.35	0.37
Man 65+	0.19	(0.29)	-0.07	(0.79)
Woman 60-65	<b>-0.32</b>	(0.08)	-0.26	(0.32)
Woman 65+	0.04	(0.74)	0.12	(0.50)
event	-0.01	(0.867)	0.01	(0.92)
Household Income	<b>0.00</b>	(0.00)	0.00	(0.00)
Girl	<b>0.22</b>	(0.00)		
Intercept	<b>-1.30</b>	(0.00)	<b>-1.30</b>	(0.00)

# Grandfathers and Grandsons

## Effects of a Male-Only Change in Pensions

WfA households with and without a newly eligible member

Figure: Weight for Age



# Making the Next Billion Demand Access

## The Local-Content Effect of google.co.za in Setswana

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### Motivation

- Two-Sided Market / Cross-side network effects
- WWW content is hard
- Social media content is easier: Facebook vendor lock-in

**Table:** Protocol Stack and Network Effects (NE)

Soc. Media Website (simple NE, propr.)	Spam (negative NE)
Websites (cross-side NE)	Email (simple NE)
TCP/IP (simple NE)	

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### Quantifying Content

- using visit counts instead of page counts

### Endogeneity

- Maybe Google introduced the interface following increased usage among Setswana speakers?
- Botswana speaks Setswana
- google.co.bw was translated in Setswana
- introduction on google.co.za was a spillover, exogenous
- google.co.za also introduced Xhosa, but not exogenous



Implement trade decomposition procedures in R

- Leontief
- Wang Wei Zhu (2013)

Motivation:

- simplify for end users
- consistent and transparent approach

Additional work:

- gvc package: implement indicators
- Interactive demo: <http://shiny.qua.st/decomp>
- RStudio Add-in: Graphical User Interface (soon)

## Confirming Existing Understanding 1995-2011

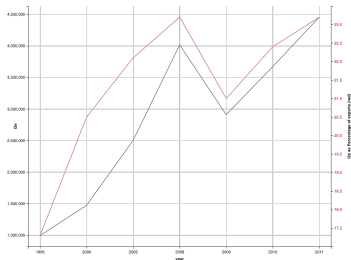


Figure: GVC integration

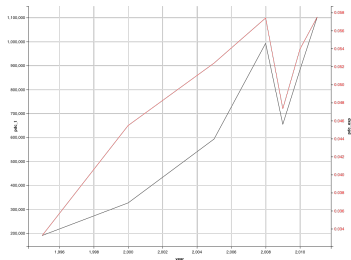


Figure: double counted trade

- increase in backward linkage: importing 2 export (i2e)
  - i2e grew ~350%
  - i2e share of total exports 17% -> 23%
- Wang Wei Zhu (2013)
  - pdc (proxy length) share of total exports rose around 73%

# Global Value Chains in Low Income Countries

TiVa Analysis

## Developing Country trends: New evidence

**Table:** GVC integration by income

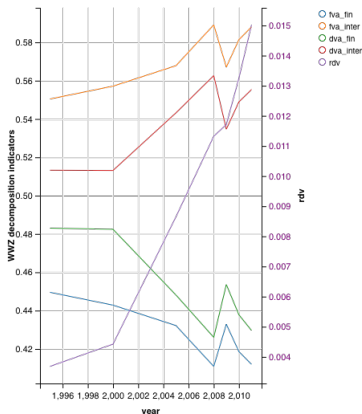
Country group	<i>i2e</i>		<i>e2r</i>	
	Average	$\Delta$ 95-11	Average	$\Delta$ 95-11
Low/Lower middle	23.46%	48.22%	20.35%	38.58%
High	22.64%	41.84%	21.85%	29.50%

**Table:** WWZ decomposition results by income

group	<i>fva_fin</i>	<i>fva_inter</i>	<i>dva_fin</i>	<i>dva_inter</i>	<i>rdv</i>
L(M)IC	42.07%	57.93%	44.09%	54.73%	1.18%
High	39.38%	60.62%	40.73%	56.85%	2.42%

## Developing Country Trends: New evidence

**Figure:** WWZ decomposition indicators



## South East Asia:

- primarily backward linkages
- Latin America
- low backward and forward linkages

## Africa

- Tusinia
  - mainly backward linkages
  - moving up in value chain
- South Africa
  - low levels of integration
  - benefits from commodities boom

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Comments

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Early indicates

- strictly comparable indicators
- relate to outcome variables