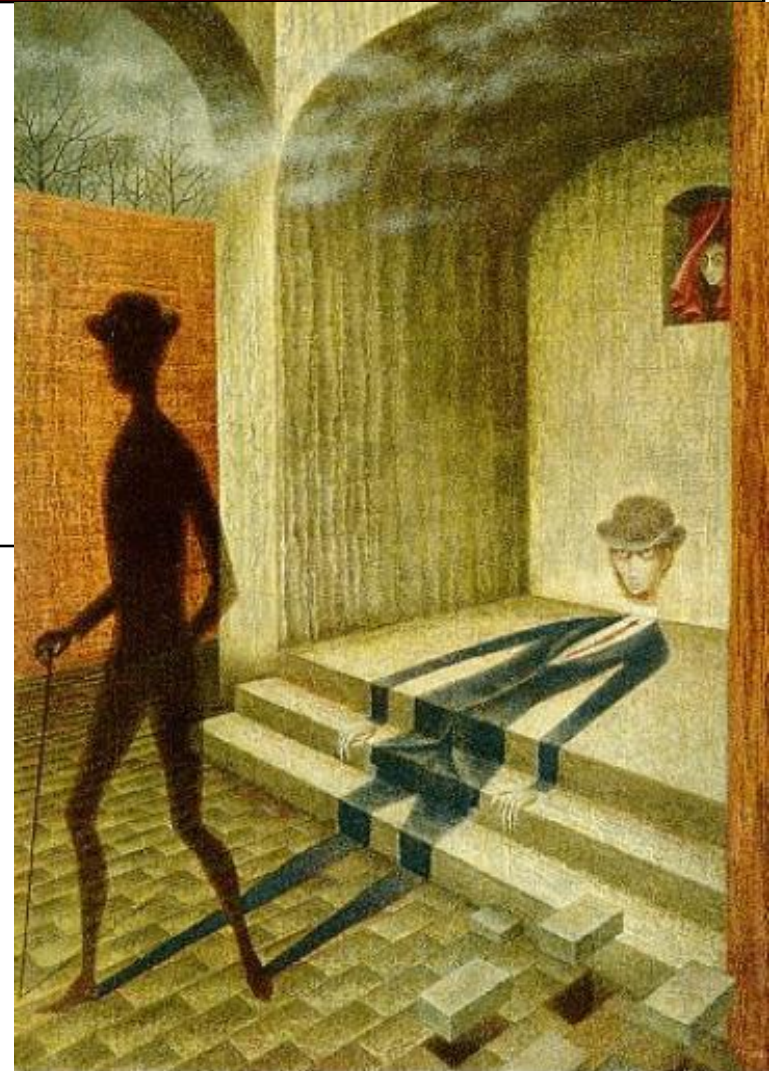


Labor Informality

Lusaka, Zambia

Bill Maloney
World Bank

www.worldbank.org/laceconomist
www.worldbank.org/wmaloney



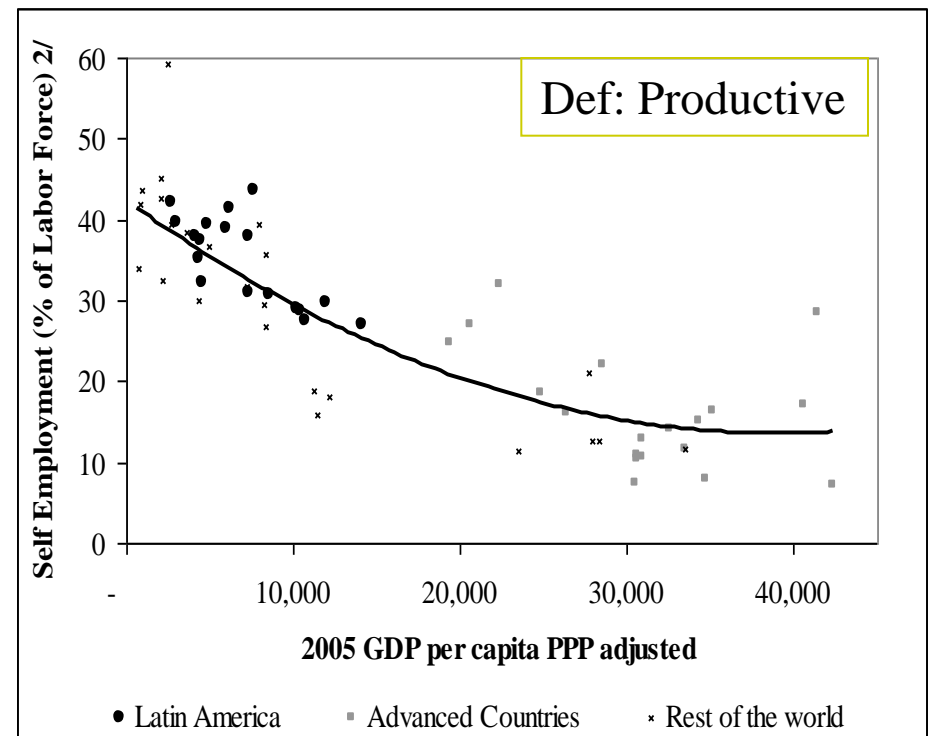
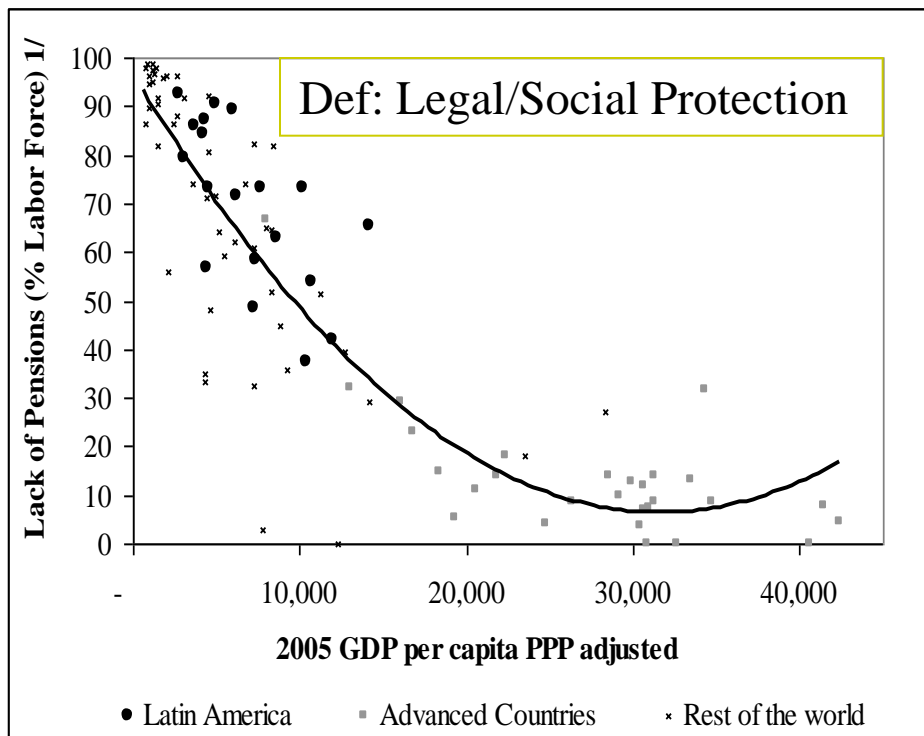
Two useful web sites

- www.worldbank.org/laceconomist
 - Background work for this presentation:
Informality: Exit and Exclusion
 - On Natural Resources and Growth:
 - *From Natural Resources to the Knowledge Economy*
 - *Natural Resources: Beyond Booms and Busts*

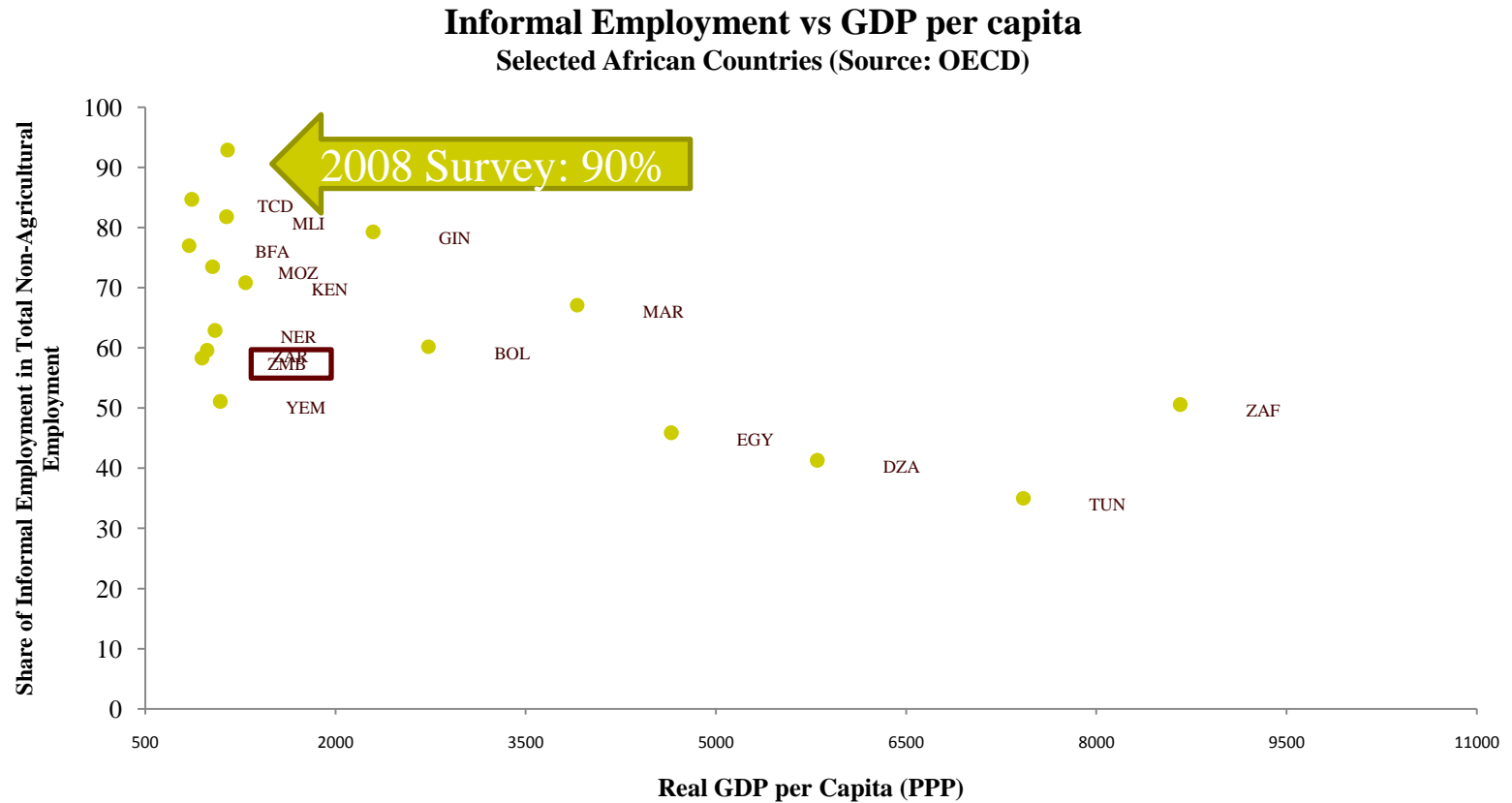
- www.worldbank.org/wmaloney
 - Numerous papers on labor markets including
Informality Revisited
 - On Natural Resources:
 - *Missed Opportunities: Innovation and Natural Resources in Latin America*
 - *In Search of the Elusive Resource Curse*

Informality is related to income, no matter how it is measured.

2 Measures of Informality vs Income per Capita



Africa:



Source: Fox and Rijkers 2009, OECD



Why do we care?

- ❑ Unprotected workers: issue of welfare, equity and efficiency
- ❑ Productivity: firms too small? Barriers to growth?
- ❑ Indicator of regulatory distortions
- ❑ Low and distorted tax collections and poor provision of public services
- ❑ Weak rule of law and Governance: A problem in our social contract?

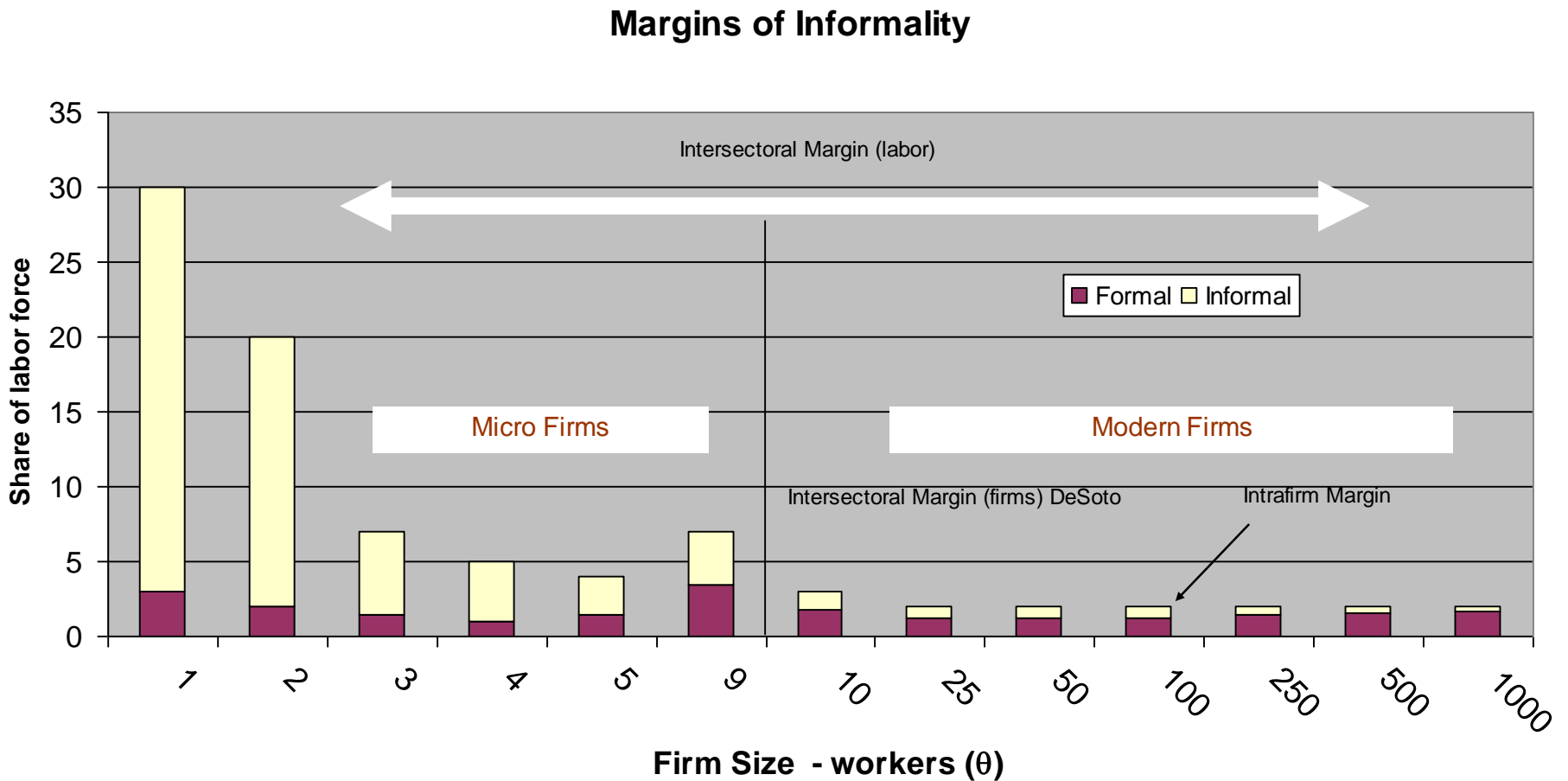
Exit and Exclusion

- Traditional exclusion view of informality
 - Labor: inferior jobs in a segmented market
 - Firms: denied access to services by high entry costs (de Soto)
- Exit view: agents analyze costs vs. benefits of becoming formal
 - Labor: informality offers flexibility, avoidance of poorly designed benefits programs (Maloney1998)
 - Firms: don't need/want State programs, don't pay for them
 - Larger firms and individuals: Why pay taxes if can avoid?
- Both exist to varying degrees across countries but have different implications for policy

The Informal Worker

Comparative Advantage and Constraints

3 margins of informality



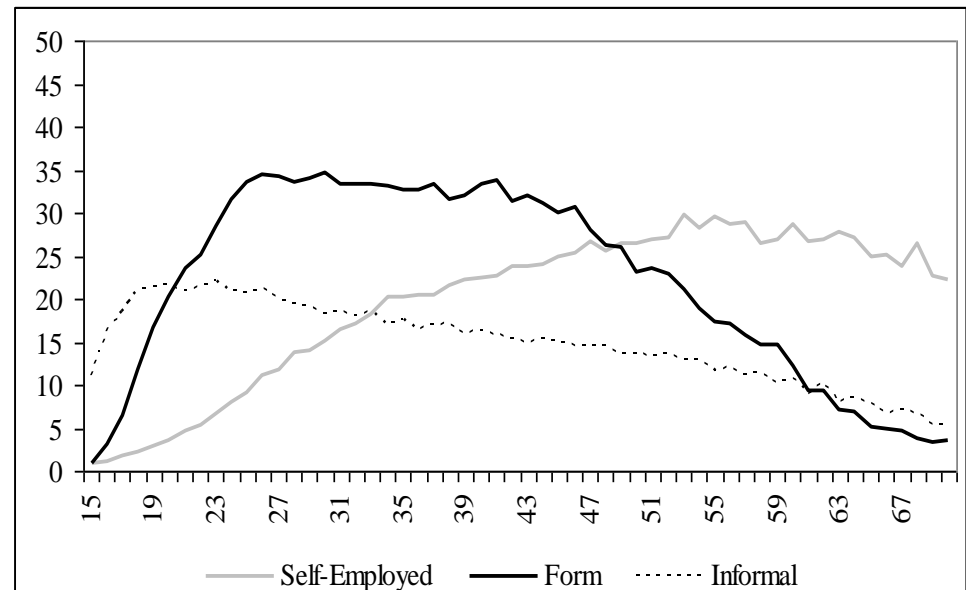
Intersectoral (worker) margin: Competing theories

- Disadvantaged group of a segmented labor market
 - Formal: Protected sector/High productivity/Good jobs
 - Informal : Disguised Unemployment/Low productivity
 - Queuing to get job in the formal sector, worse in downturns.
- Alternate view here: workers choose among differing job characteristics
 - Unregulated largely voluntarily microfirm sector.
 - Entrepreneurs weigh pros and cons of formality
 - Firms may have little potential for growth
 - Similar to job-job transitions in US

Two Distinct Types of Informal Workers

- Informal Salaried
 - port of entry for youth
 - accumulate experience for Formal Salaried or independent work
 - Most in micro firms
- Self Employment
 - prevalent among prime or older
 - have capital and skills to open a business

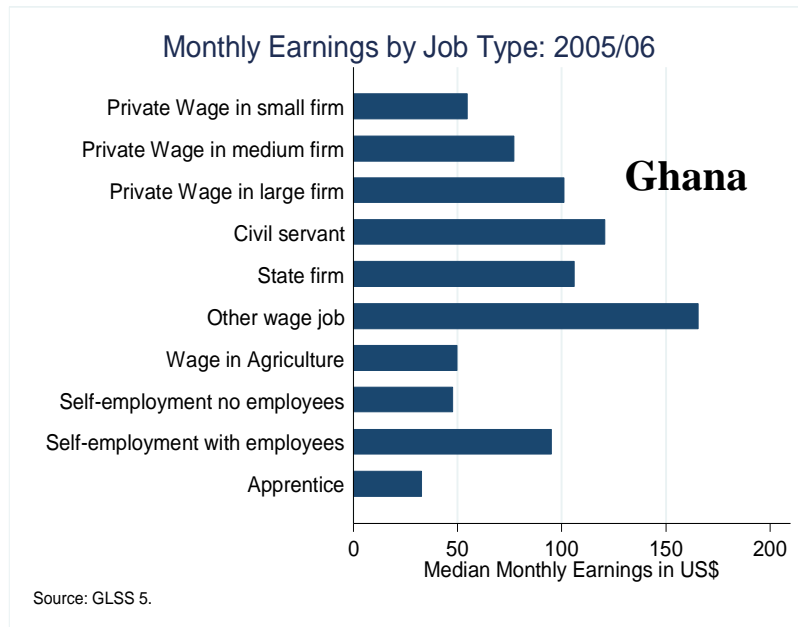
Mexico: Employment as share of age cohort



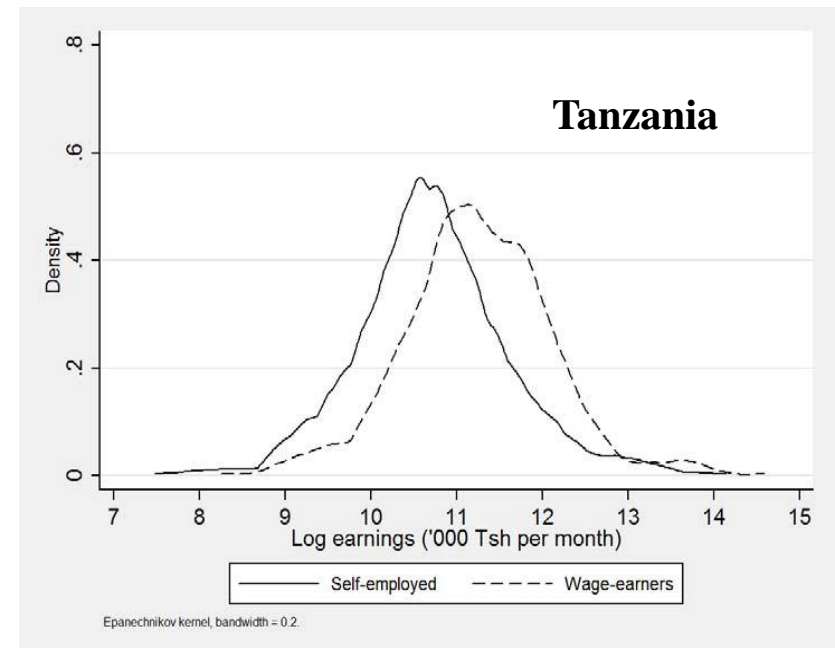
Cunningham (2007)

Conditional Earnings- often higher in formal sector but faux amis....

Earnings vary significantly across sectors



Yet, there is substantial overlap in the sectoral earnings distributions



Source: Fox and Rijkers 2009



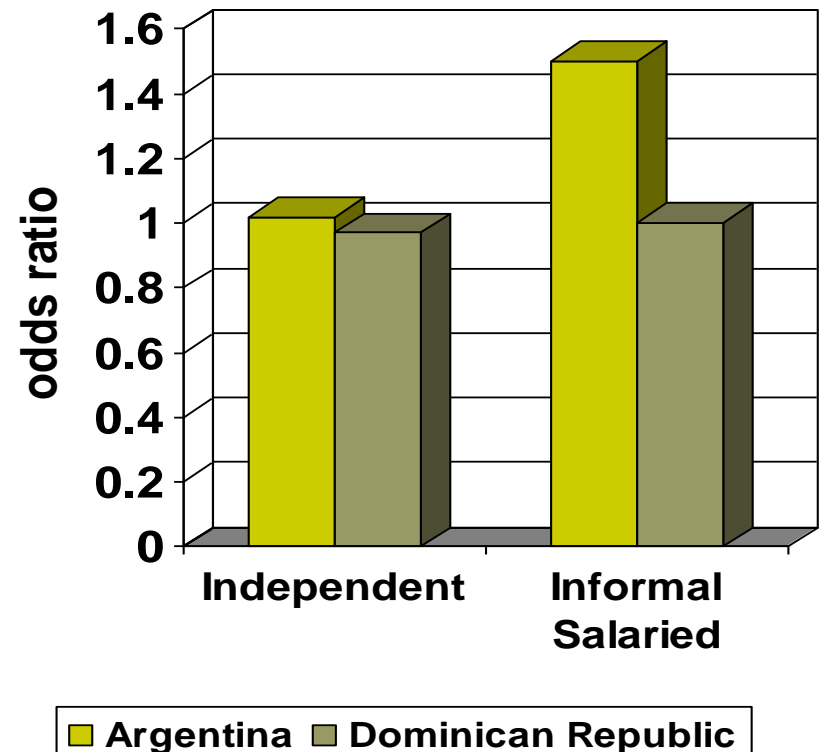
Don't control for job characteristics

- ❑ Value of benefits foregone
- ❑ Value of lifestyle
- ❑ Risk premia
- ❑ Capital costs
- ❑ Payments in kind
- ❑ Training costs

Alternatives: What workers tell us

- In LA, most (~2/3) of independent workers are voluntary
 - not queuing for formal jobs
 - value flexibility, esp. women
 - opting out of Social Protection
- Most Informal Salaried are involuntary
 - would prefer to be FS or SE
 - Exceptions Dominican Republic, Mexico
 - youth: difficulty entering workforce

Self-rated Poverty Relative to Formal Workers



Source: (Arias 2007)

Ghana: Self Reported Job Satisfaction

Pooled Ordered Logit

	Job Satisfaction – Ordered Logit									
	1		2		3		4		5	
	coef	se	coef	se	coef	se	coef	se	coef	se
Self - with employees	0.428***	0.134	0.434***	0.134	0.462***	0.139	0.490***	0.142	0.428***	0.144
Self - no employees	-0.136	0.093	0.033	0.094	0.119	0.100	-0.066	0.103	0.060	0.107
Informal Salaried	-0.268**	0.113	-0.057	0.115	-0.015	0.116	-0.232**	0.114	-0.043	0.117
Civil	0.266	0.165	0.139	0.165	0.148	0.167	0.193	0.169	0.107	0.169
Earnings (log)			0.381***	0.039	0.364***	0.041			0.392***	0.043
Hours (log)			0.677	0.512	0.593	0.498			0.500	0.502
Hours (log) ²			-0.098	0.079	-0.085	0.077			-0.069	0.078
Tenure (log)					-0.045	0.039			0.023	0.047
Apprentice					0.296*	0.175			0.198	0.184
Household Assets (log)					0.187***	0.025			0.183***	0.027
Male							0.013	0.081	-0.167**	0.082
Age							-0.023	0.023	-0.057**	0.024
Age ² /100							0.027	0.029	0.065**	0.030
Education							-0.025	0.026	-0.002	0.025
Education ² /100							0.350*	0.179	0.038	0.174
Height (Z-score)							0.059*	0.035	0.034	0.036
Married							0.115	0.080	0.014	0.080
Household head							-0.146*	0.079	-0.084	0.083
Year and City Dummies	Yes		Yes		Yes		Yes		Yes	
Ethnicity Dummies	No		Yes		Yes		Yes		Yes	
Number of observations	3,073		3,073		3,073		3,073		3,073	
Pseudo R2	0.027		0.042		0.048		0.030		0.051	

note: *** p<0.01, ** p<0.05, * p<0.1

Labor Dynamics- The New Frontier

Data: Rotating Panels

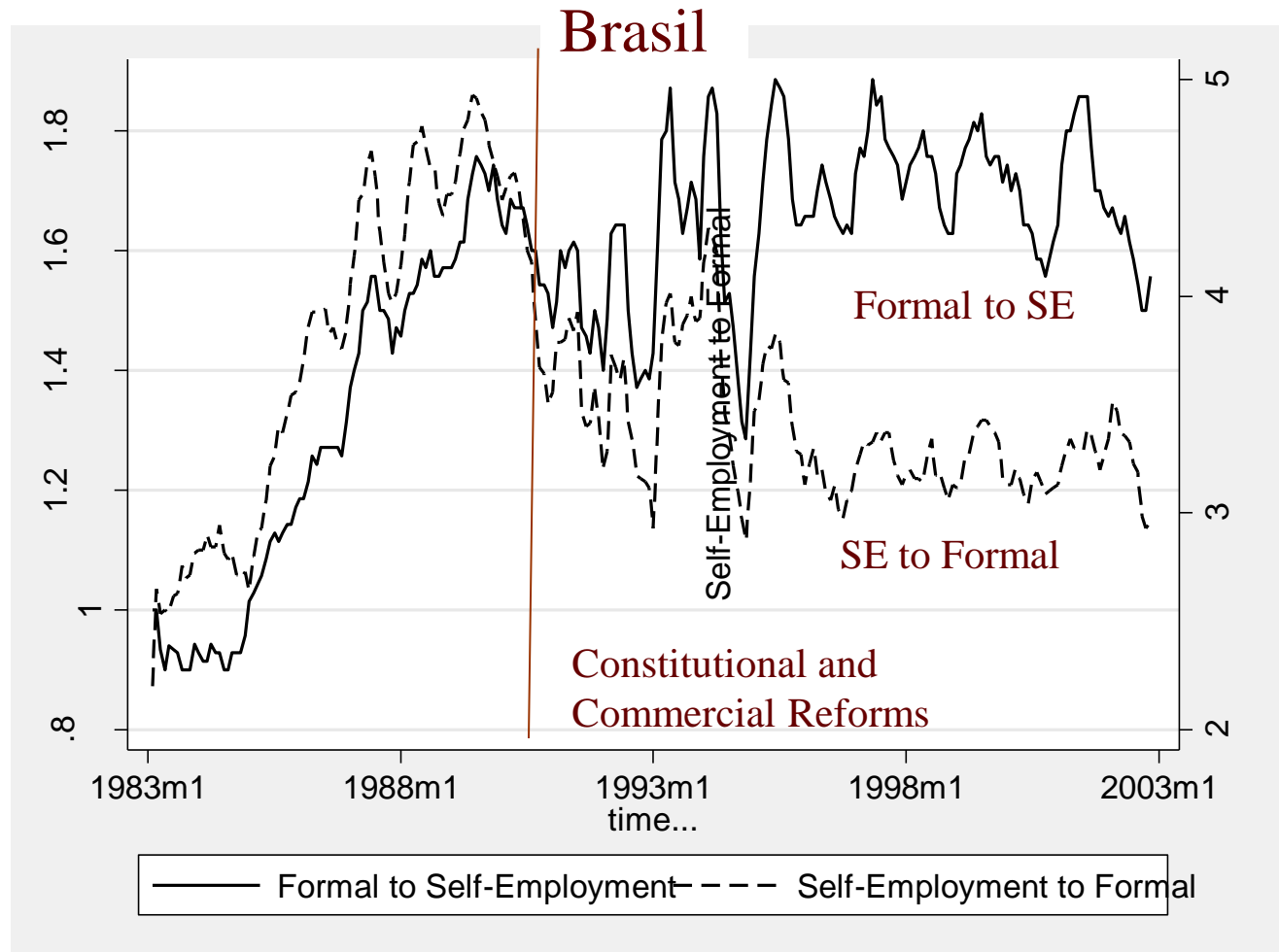
- Mexico 1987-2002, ENEU (Urban Employment Survey)
 - 16 major cities in Mexico
- Brazil: 1980-2002, PME (Monthly Employment survey)
 - 5 large metropolitan areas
- Permit following workers across:
 - Formal, Salaried, Informal Salaried and Informal Self employed sectors
 - Unemployment and inactivity
- Following Geweke (1986) map discrete transitions probabilities to continuous time model.

Worker transitions often suggest voluntary entry



Source: Bosch and Maloney (2008)

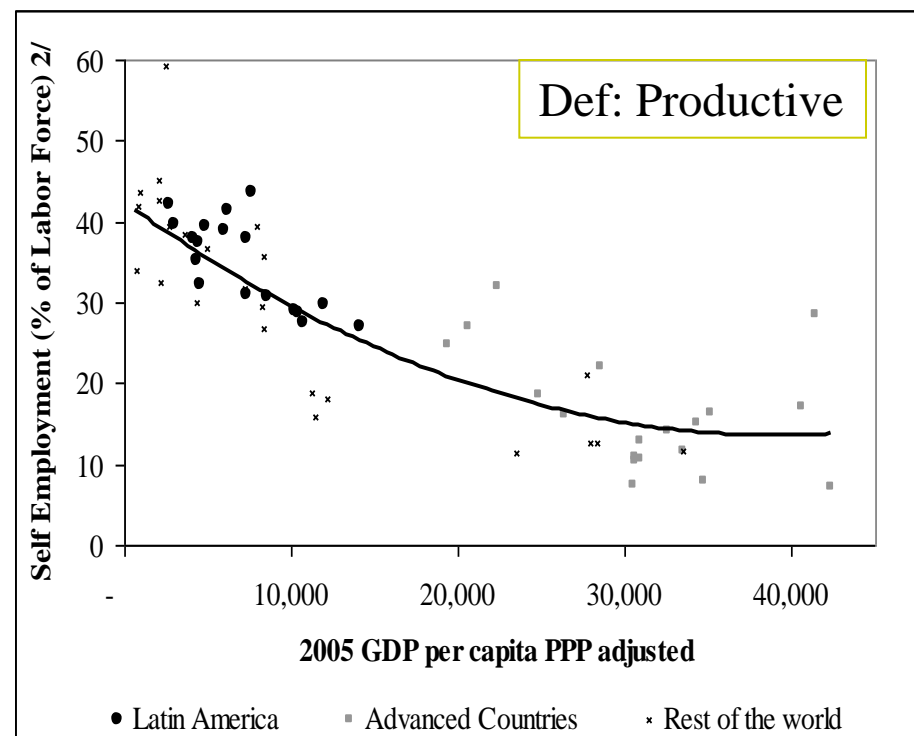
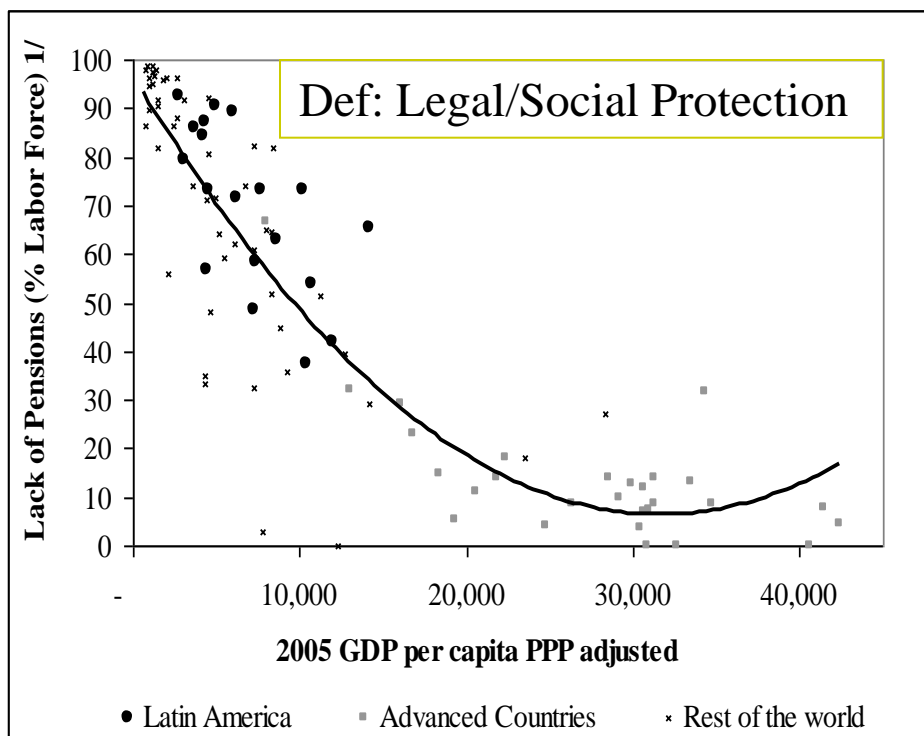
And perhaps exclusion after reforms in Brazil



What drives longer term
behavior?

Why does it decrease with development?

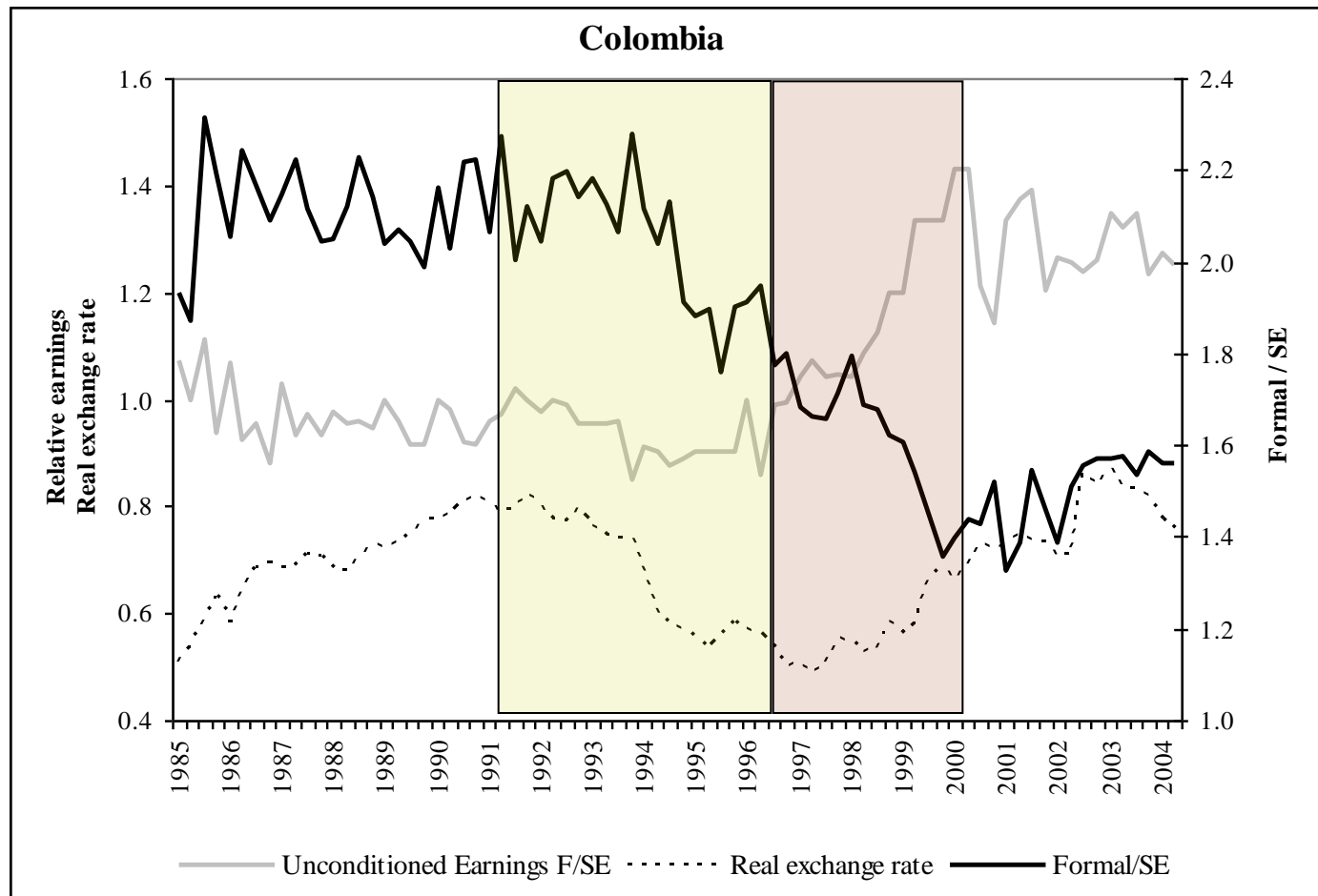
2 Measures of Informality vs Income per Capita



But nature of regulation matters too

- Bad quality services and protections- why bother being formal
- But regulation matters too
 - Loayza et al (2006) poor gov't and heavy regulation increase size
 - Small firm regulations?
 - Labor market regulations? 2 examples:
 - Colombia and Brazil

1. Colombia: Minimum wage drives increase in informality

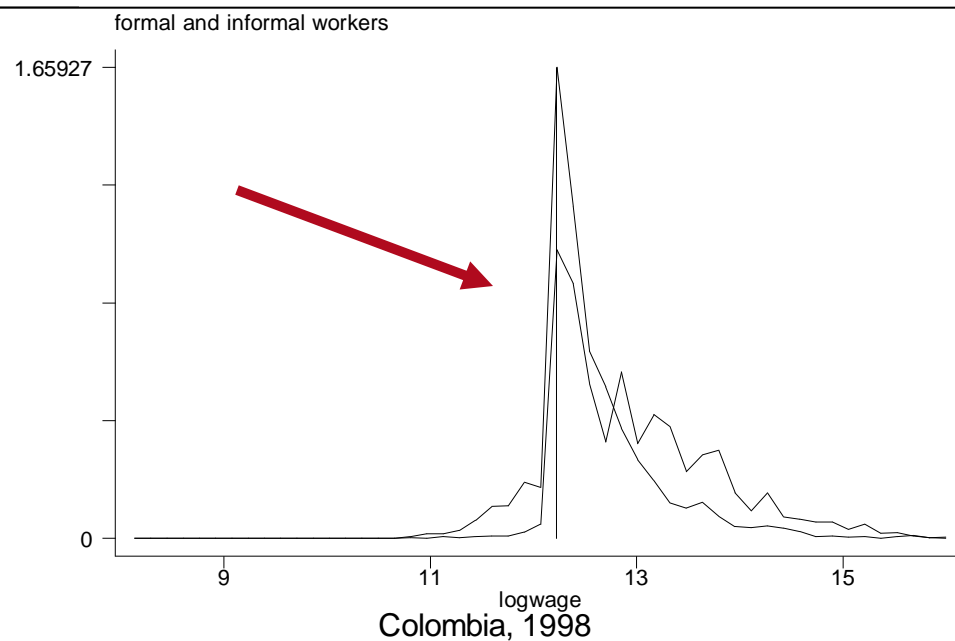
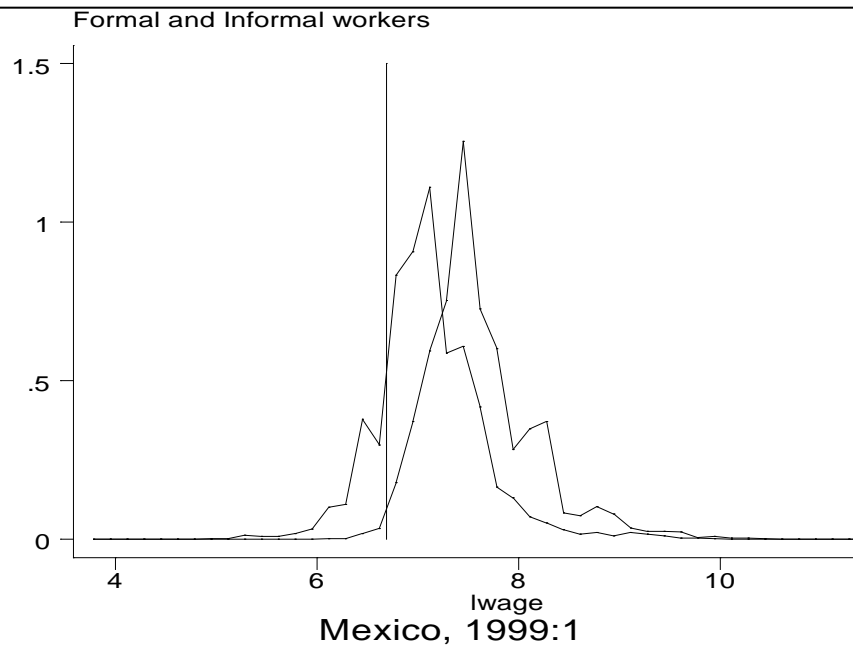


Procyclical/Integrated

Countercyclical/Segmented

Colombian minimum wage super binding

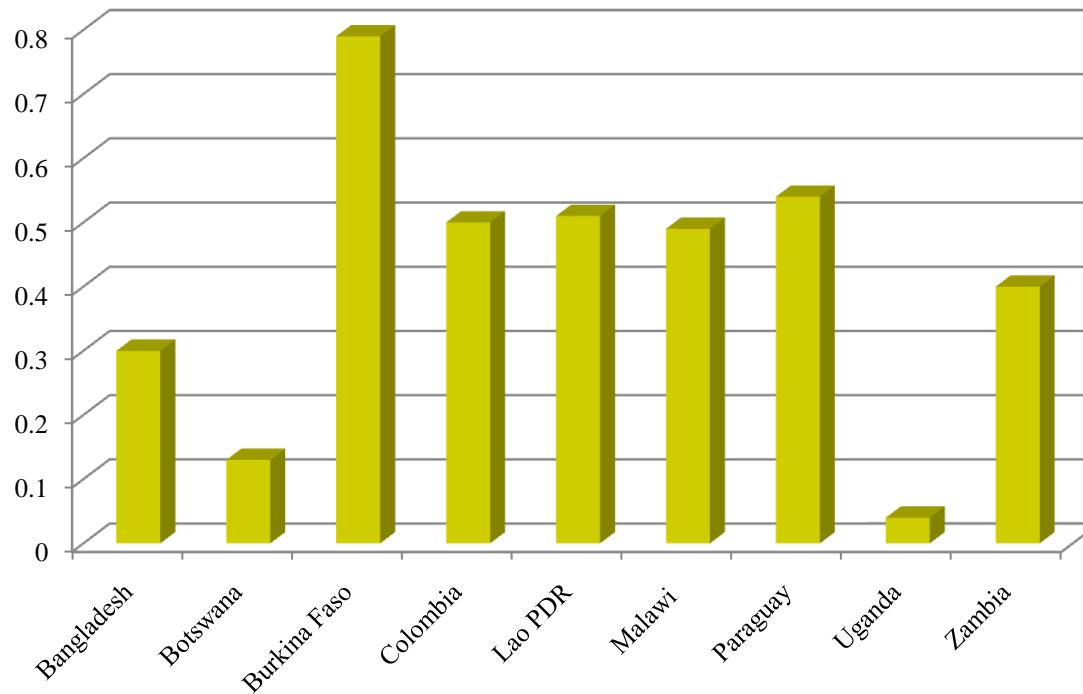
Distribution of formal/informal salaries



Maloney and Nunez (2005)

Zambian minimum wage also quite high

Minimum Wage as a share of Value Added/Worker



Source: Chester, Dang, Edgell, Harber, Mahanay, Messer and Ramos 2011, Author

2. Brazil's increase? Constitutional change or trade reforms?

$$Y_{jt} = \alpha_j + \alpha_t + \overline{TRADE}_{jt} \beta_{TRADE} + \overline{D^*CC}_j \beta_{D.CC} + u_{jt}$$

Dynamic Panel: 18 Industries, Yearly 1983-2002

Trade Liberalization:

- Import Penetration: Muendler (2002)
- Real effective trade protection rates: Kume et al. (2003)

Constitutional Changes:

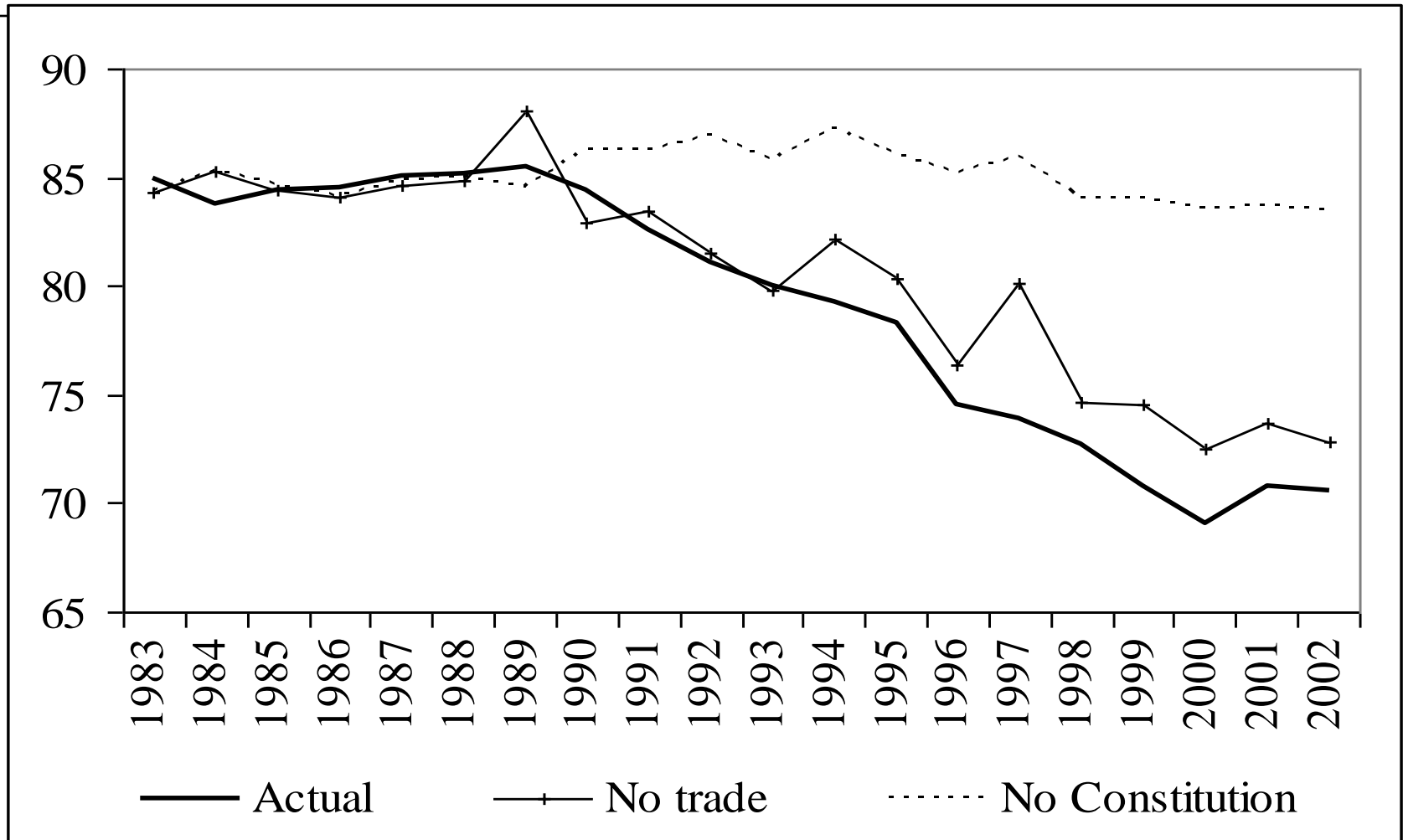
- *Firing Costs*: average tenure (in years) of workers fired (average 1983-1987, source: PME)
- *Overtime*: proportion of workers working more than 44 hours (average 1983-1987, source: PME)
- *Union density*: % of unionized workers (average 1986 and 1988, source: PNAD)

Constitutional change or trade reforms?

Regression analysis

Variable	Sector Size	Industry Differentials	Creation	Destruction
Dependent (-1)	0.64 *** 0.06	0.46 *** 0.05	0.07 0.07	0.071 0.054
Dependent (-2)	0.17 *** 0.04	0.18 *** 0.05	0.29 *** 0.06	0.053 0.050
Effective Tariff	-1.08 2.02	0.03 0.09	0.28 * 0.16	-0.003 0.004
Import Penetration	-8.17 ** 3.19	-0.31 *** 0.10	-0.43 *** 0.15	-0.005 0.005
Tenure	0.44 *** 0.12	0.02 * 0.01	0.24 *** 0.04	0.000 0.001
Tenure (-1)	-0.24 0.16	-0.05 *** 0.01	-0.32 *** 0.02	0.000 0.000
Overtime	3.21 *** 0.99	0.23 *** 0.04	-0.78 *** 0.04	0.001 0.003
Overtime (-1)	-5.56 *** 1.38	-0.29 *** 0.06	0.65 *** 0.06	-0.006 *** 0.002
Union	0.21 1.24	0.11 0.10	-0.56 *** 0.16	0.018 *** 0.003
Union (-1)	3.07 ** 1.52	-0.14 * 0.07	0.51 *** 0.08	-0.016 *** 0.002
C	14.80 *** 3.91	1.53 *** 0.26	0.49 *** 0.07	0.012 *** 0.003
R2 (Weighted)	0.997	0.998	0.765	0.810
R2 (Unweighted)	0.986	0.964	0.736	0.378
Durbin Watson	2.08	2.06	2.10	2.03
Included observations	18	18	18	18
Cross-section included	18	18	18	18
Total pool observations	324	324	324	324

Actual and predicted size of the formal sector in Brazil



Relevant for Zambia?

Table 13: Redundancy Cost (in Salary Weeks)

Country	Notice period (weeks)	Severance pay (9 months of tenure,)	Severance pay (1 year of tenure	Severance pay (5 years of tenure)	Severance pay (10 years of tenure)	Severance pay (20 years of tenure)
Bangladesh	4.3	0.0	5.0	25.0	50.0	100.0
Botswana	4.9	1.8	2.4	12.0	36.0	84.0
Burkina Faso	4.3	0.0	1.1	5.4	11.9	29.3
Lao PDR	6.4	3.9	5.2	39.0	78.0	156.0
Malawi	4.3	0.0	2.0	10.0	30.0	80.0
Paraguay	7.5	2.1	2.1	10.7	42.9	85.7
Uganda	8.7	0.0	0.0	0.0	0.0	0.0
Zambia	4.3	6.5	8.7	43.3	86.7	173.3
Zimbabwe	13.0	0.0	13.0	65.0	130.0	433.3

Source: Chester, Dang, Edgell, Harber, Mahanay, Messser and Ramos 2011

Policies to Reduce Informality

- Reduce opportunity cost of informality: raise productivity in the formal sector
 - improved Investment Climate
 - higher human capital accumulation
- Remove segmenting distortions in labor markets where applicable
- Tilt the benefit/cost ratio of firms and workers to opt for formality:
 - removing distortionary incentives in Social Protection Systems,
 - reducing cost of doing business for all firms
 - improving services associated with formality especially for SME's,
- Improve quality and fairness of institutions and policies and even handed enforcement: move social norms towards a culture of compliance. A potential virtuous circle