

# Informality in the Process of Development and Growth

Norman V. Loayza  
Macroeconomics and Growth Team

<http://www.worldbank.org/en/research/brief/policy-research-talks>



DEVELOPMENT  
**RESEARCH**

About 30 years ago:

*The Other Path*  
by Hernando de Soto

(and 20 years ago, my Ph.D. dissertation on informality and growth was published)

THE INVISIBLE REVOLUTION  
IN THE THIRD WORLD

# THE OTHER PATH



**HERNANDO DE SOJO**  
FOREWORD BY  
MARIO VARGAS LLOSA

I.B. TAURIS & Co Ltd

# An alternative to the “Shining Path” to the communist revolution



# Fundamentals

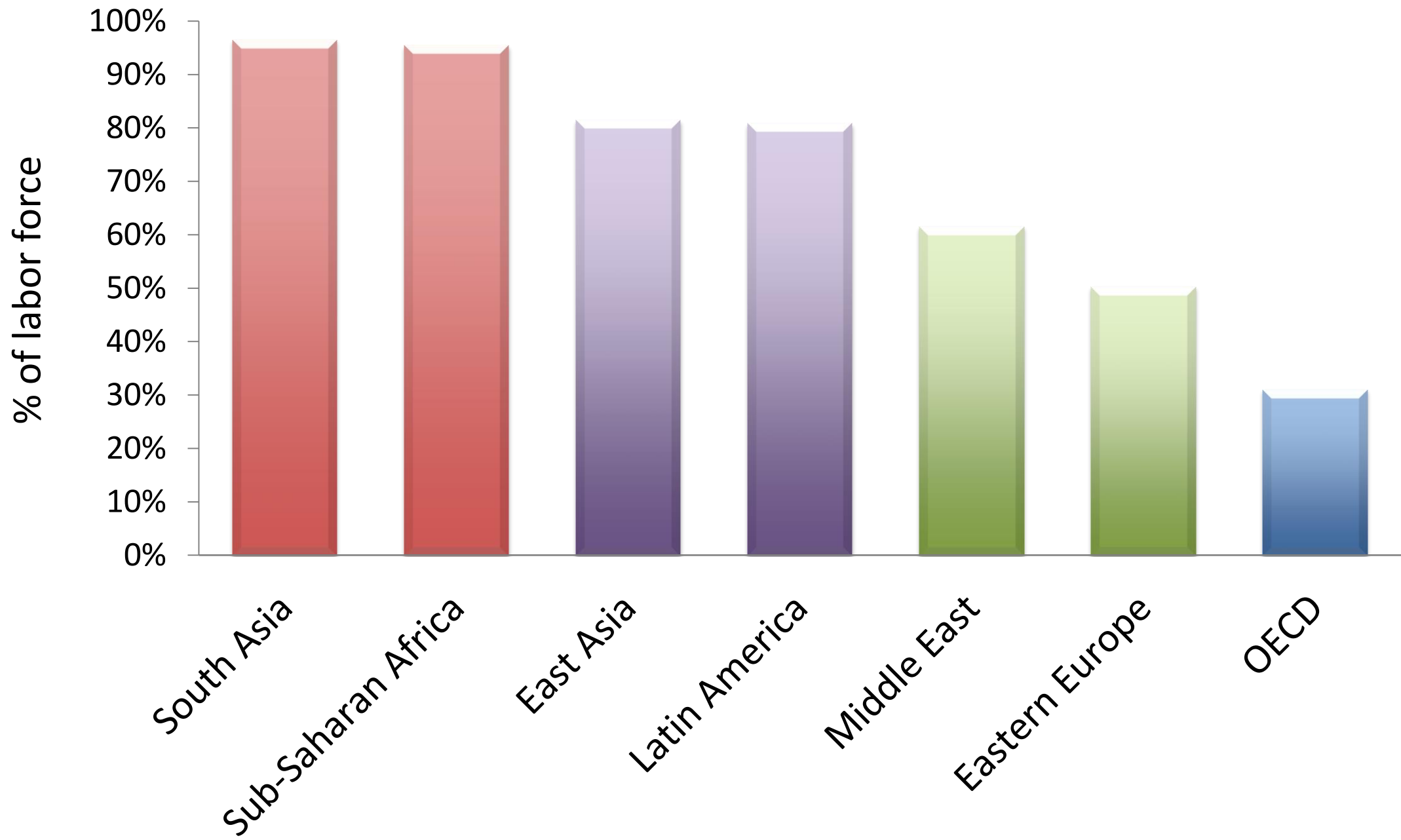
## A definition of informality

“Informality” is a term used to describe the collection of firms, workers, and activities that operate outside the legal and regulatory frameworks or outside the modern economy

# Informality is rampant in the developing world

- In a typical developing country, the informal sector,
  - produces about 35 percent of GDP
  - employs around 70 percent of the labor force
- ... however, with considerable heterogeneity across regions and countries

# Informal Labor





# Informality is an essential issue...

It implies that a large number of people and economic activities do not benefit from,

- appropriate technologies
- access to public services
- social protection

# The positive side: flexibility and creativity

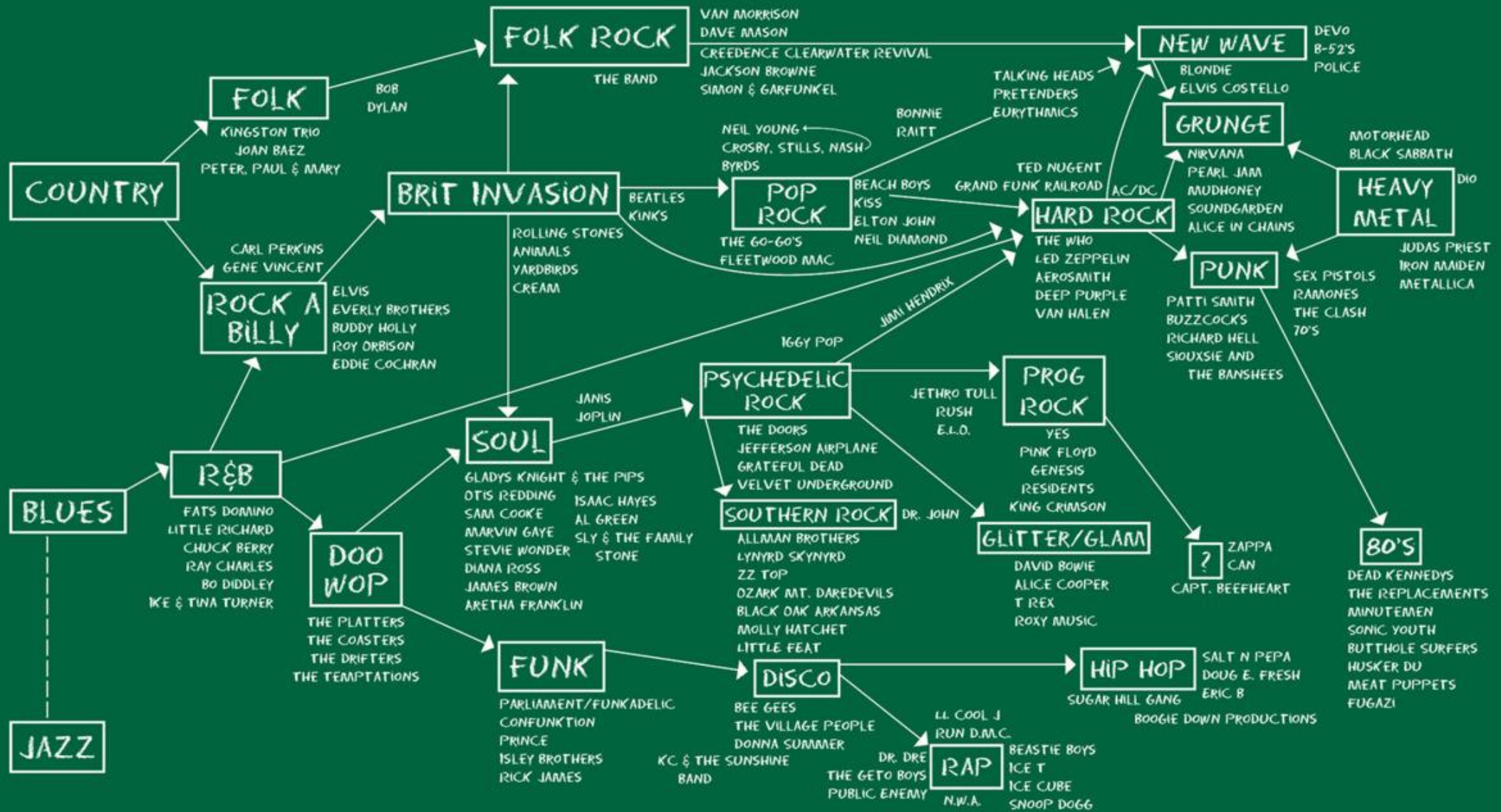


## The negative side: inefficiency and risk



# A History of Thought

# HISTORY OF ROCK



# Informality Schools of Thought

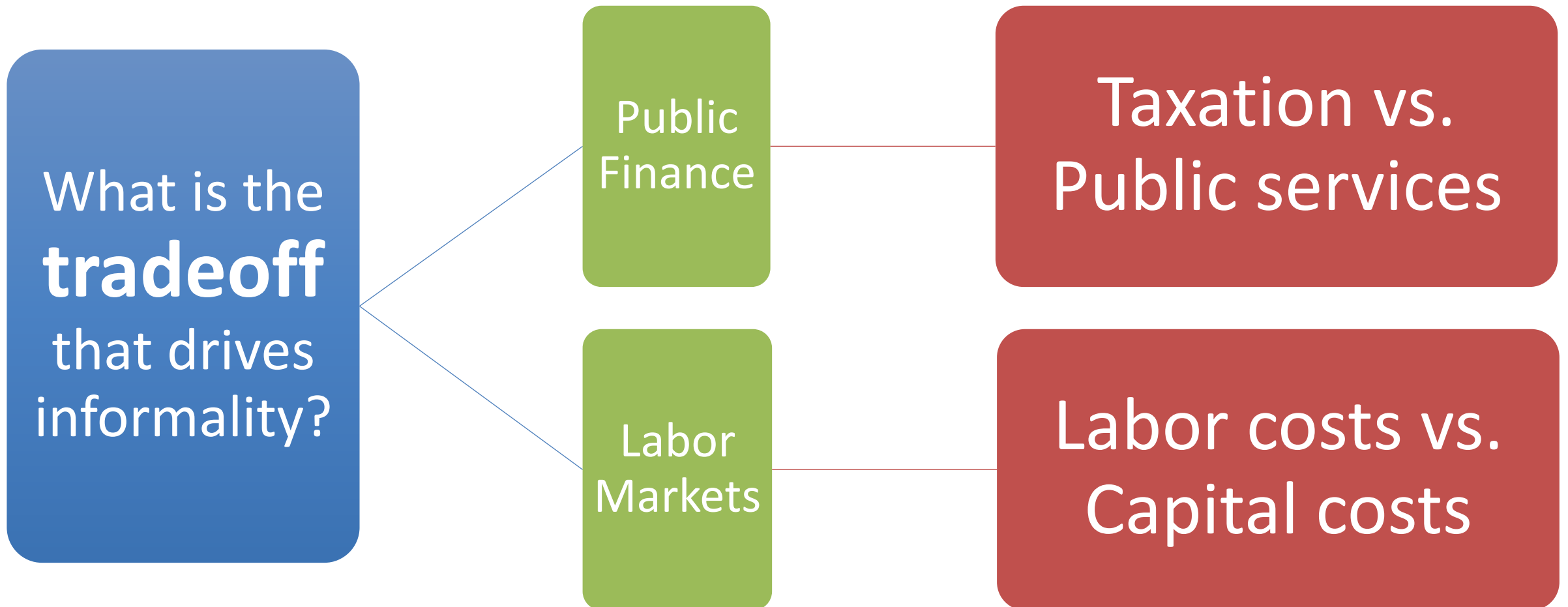
Lack of  
development

- *ILO*
- Worker's rights

Bad  
governance

- *Hernando de Soto*
- Doing business

# A new synthesis on the study of informality



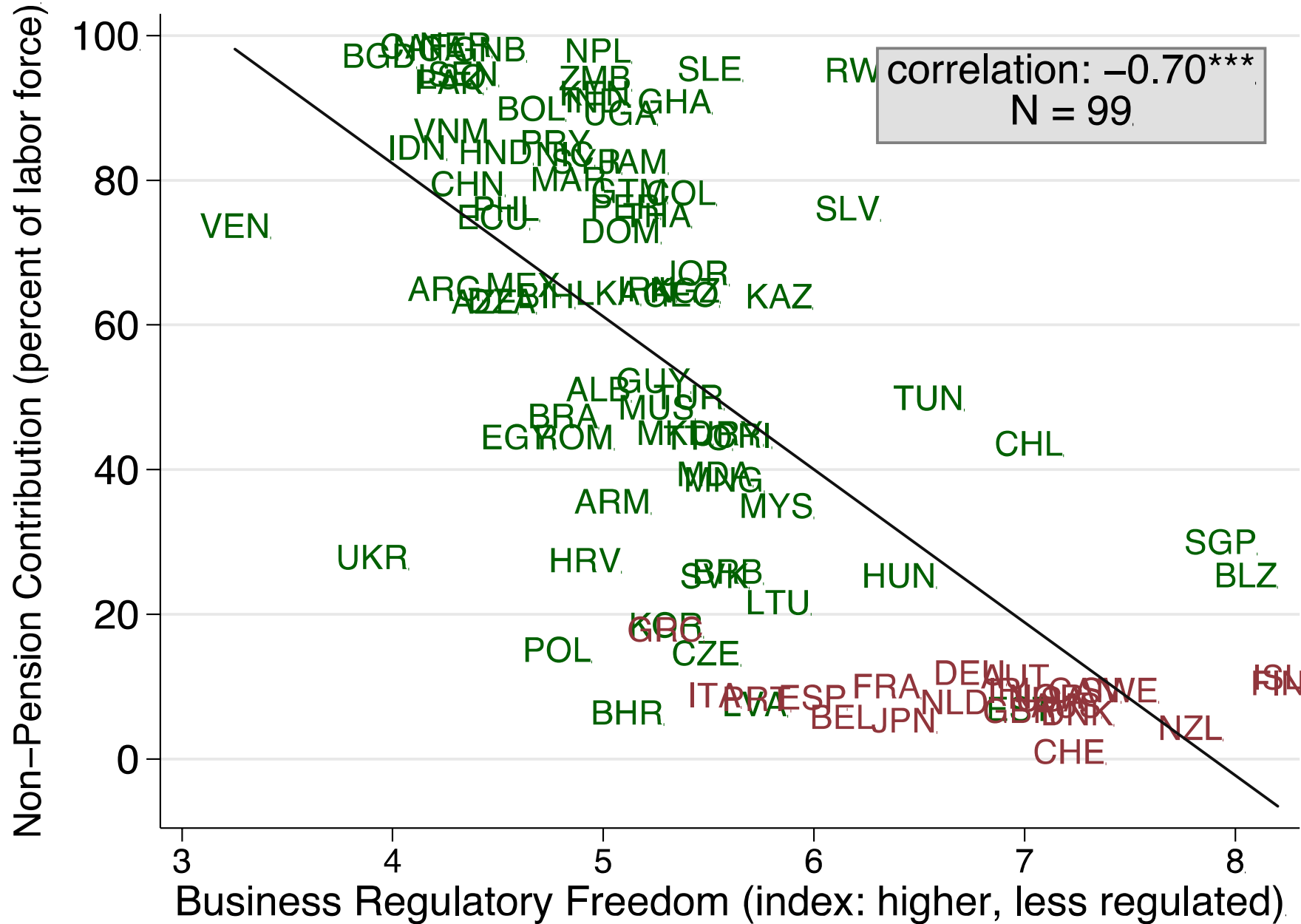
# An Empirical Approach



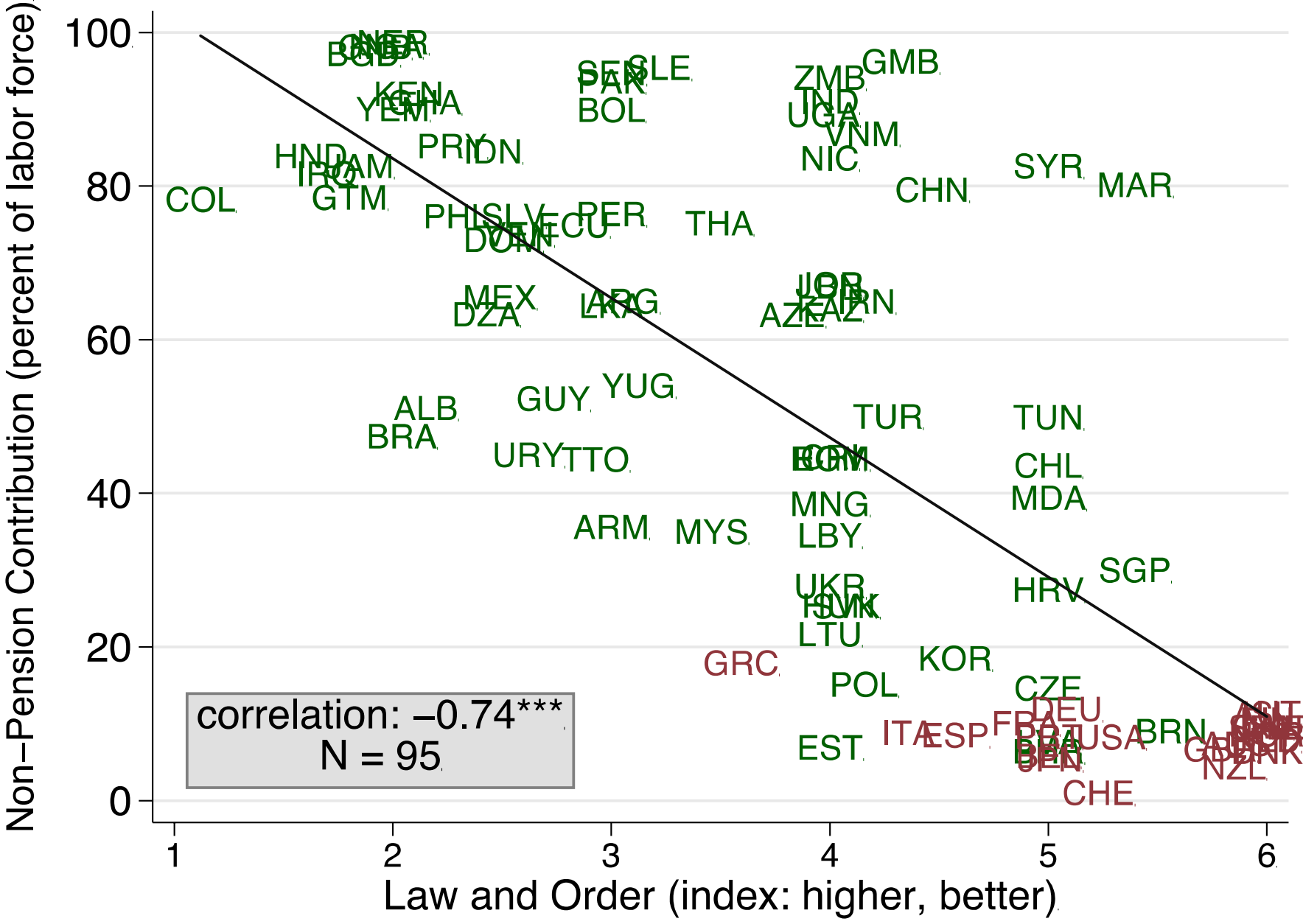
# Informality is a symptom of...

- **Bad governance**
  - Excessive regulations
  - Deficient provision of public services
- **Lack of Development**
  - Low productivity
    - lack of capital
    - low levels of education
    - other socio-demographic factors (youth, rural...)

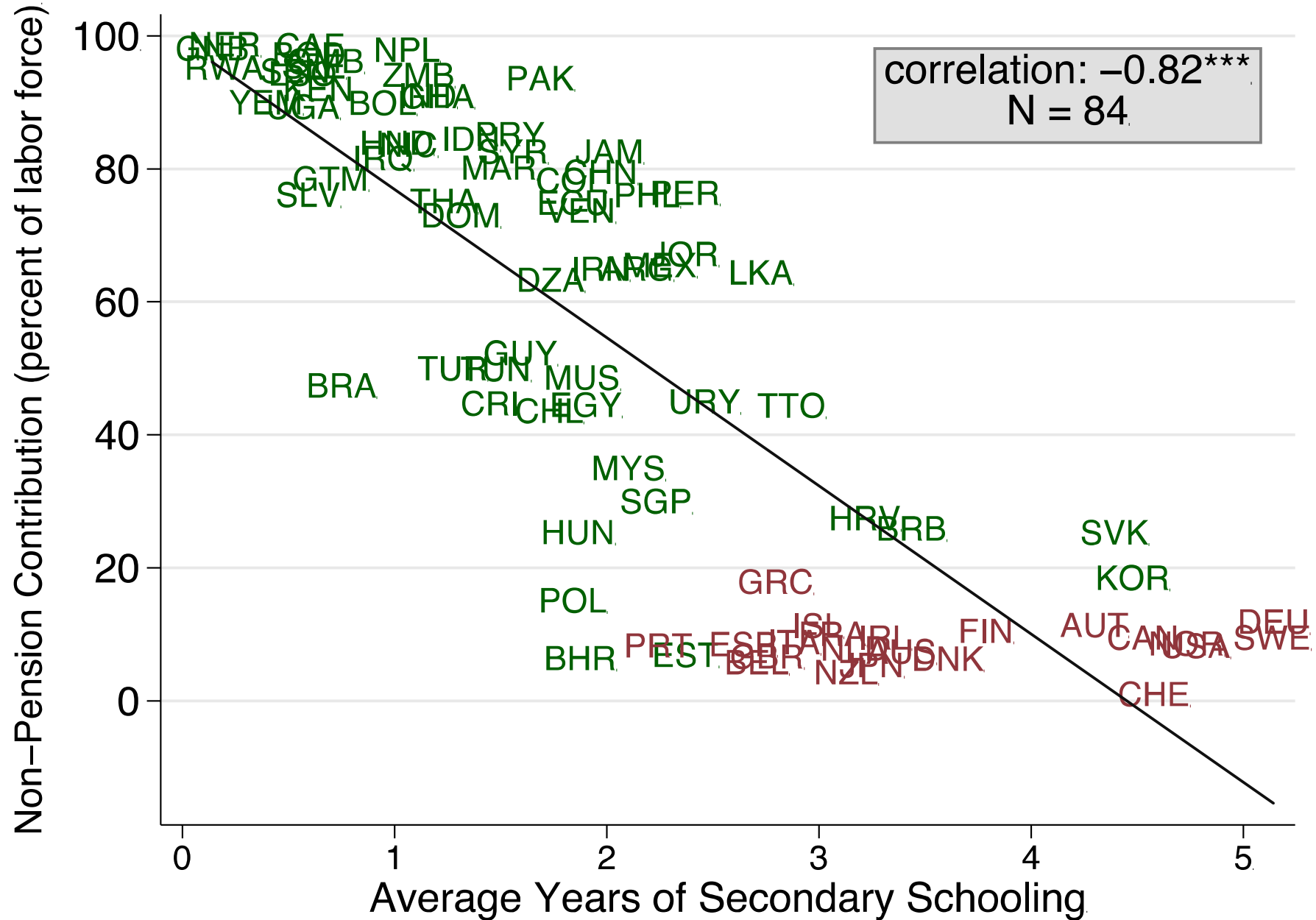
# Informality and regulations



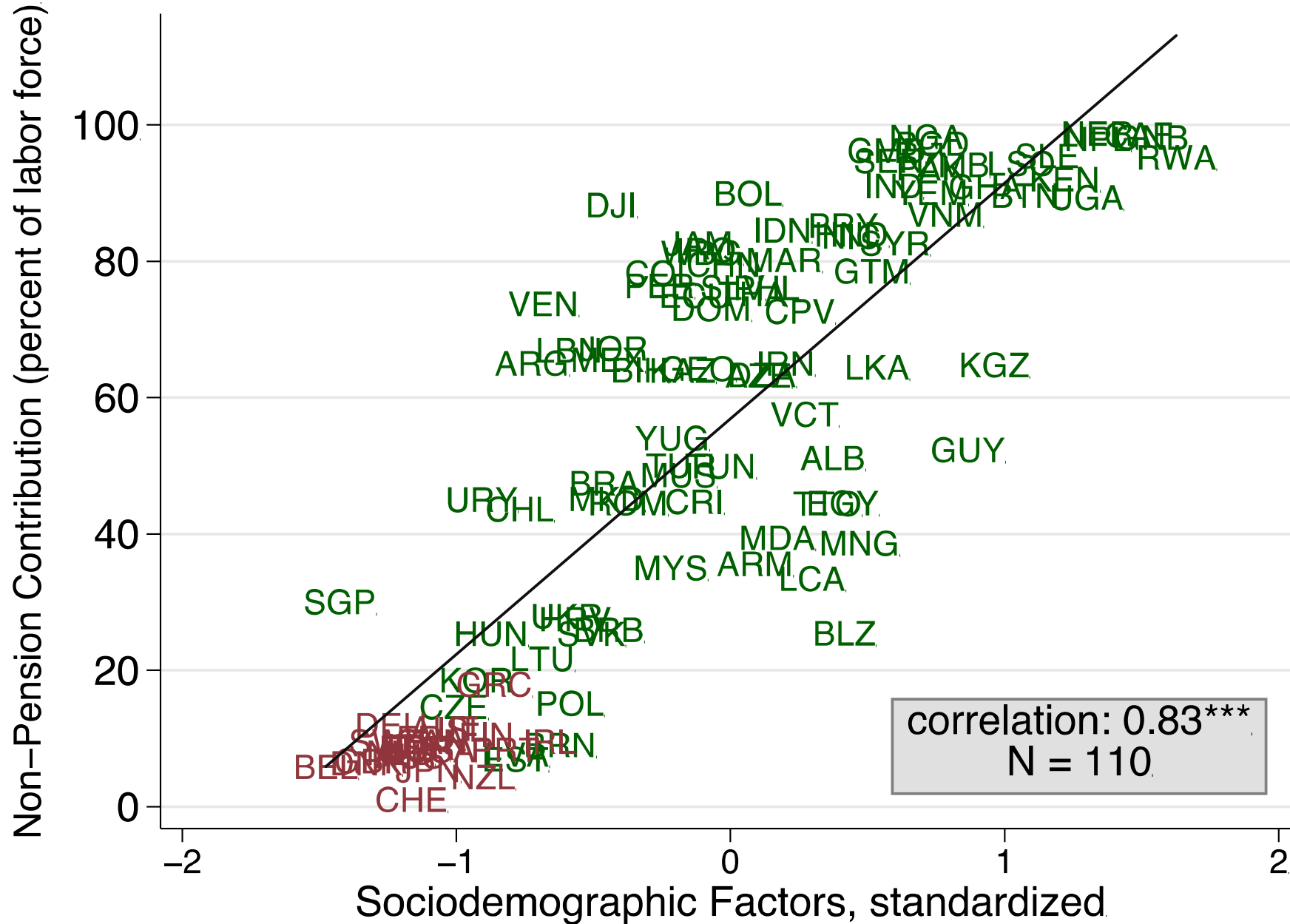
# Informality and public services



# Informality and education



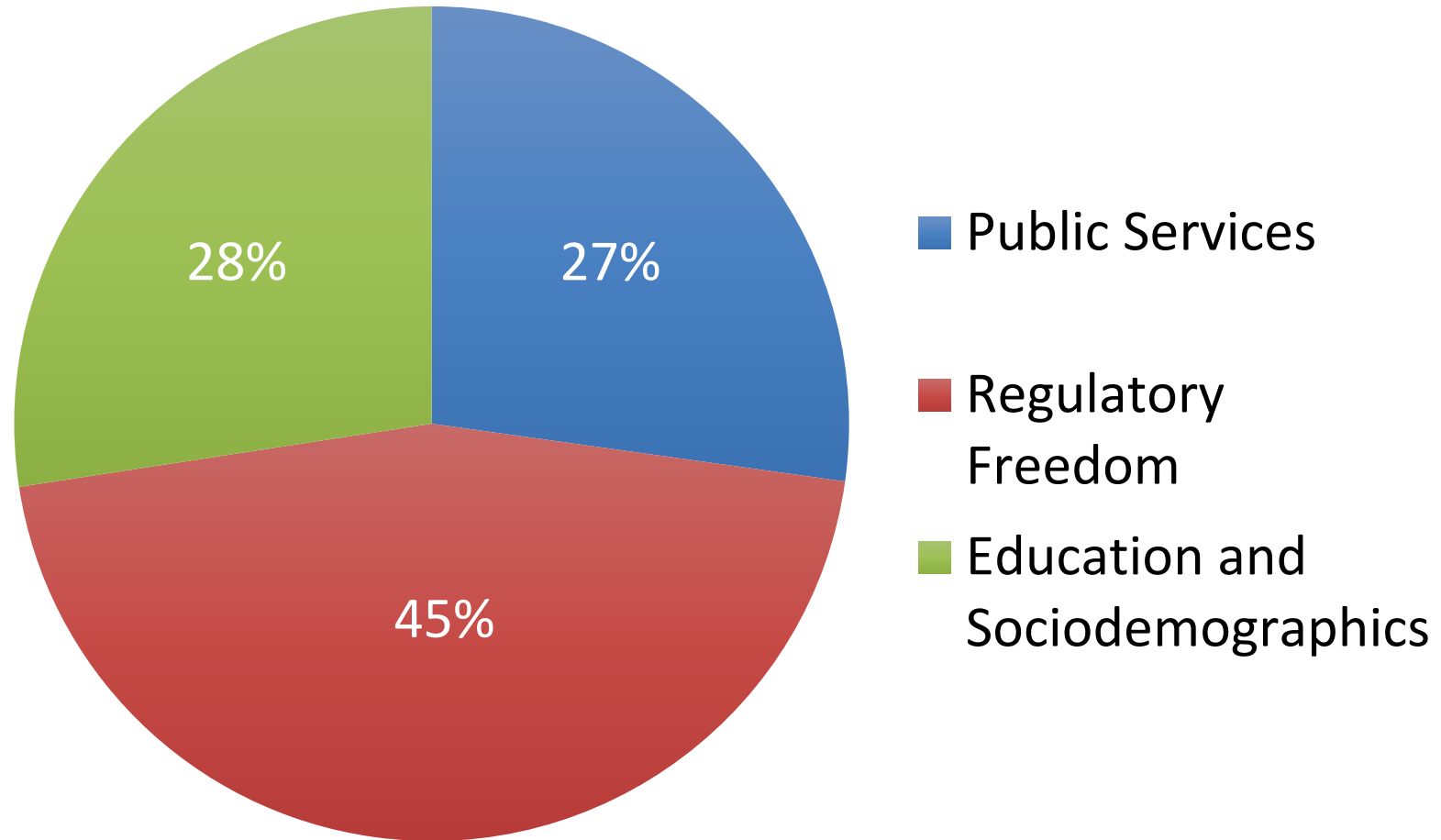
# Informality and sociodemographics



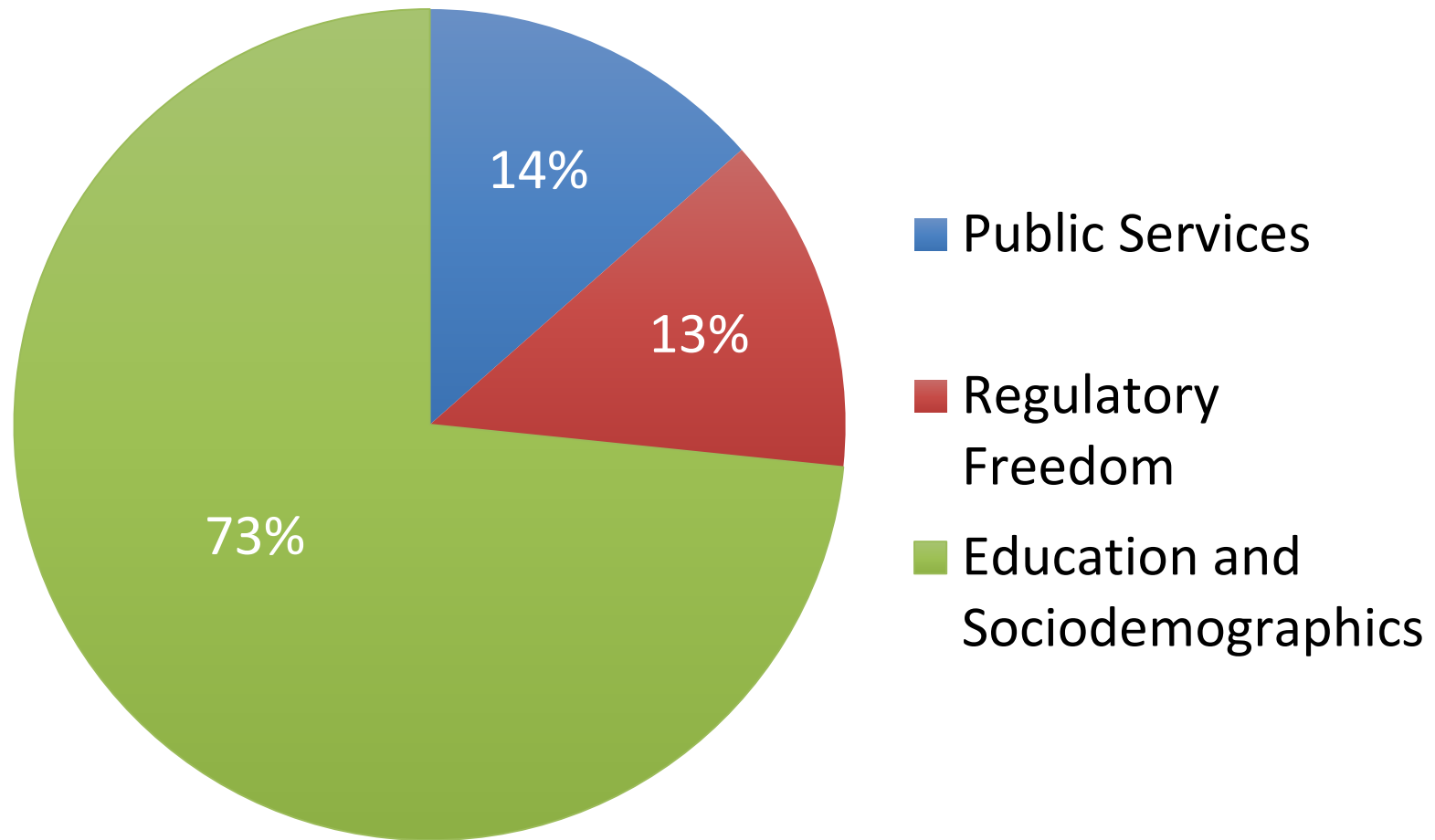
# Informality determinants

	Informality measures	
	Non-contributor to Pension Scheme (% of labor force, average of 2000-2007)	Self Employment (% of total employment, average of 1999-2007)
<i>Explanatory variables:</i> <i>Average of 2000-2007 by country</i>	[1]	[2]
Law and Order (ICRG, index ranging 0-6: higher, better)	-3.5079* -1.67	-1.6825* -1.97
Business Regulatory Freedom (The Fraser Institute, index ranging 0-10: higher, less regulated)	-6.1035** -2.34	-2.6978** -2.37
Average Years of Secondary Schooling (Barro and Lee 2001)	-5.4929** -2.62	-1.9791** -2.06
Sociodemographic Factors (average of share of youth population, share of rural population, and share of agriculture in GDP)	20.7618*** 5.57	6.1571*** 4.85
Constant	115.0565*** 10.78	55.5873*** 13.54
No. of observations	74	62
Adjusted R-squared	0.84	0.80

# Explaining differences in informal labor: Peru vs. Chile



# Explaining differences in informal labor: **Indonesia vs. S. Korea**





# Lessons from the empirical approach

- Informality is not explained by a single source
  - It is a complex phenomenon that arises from the combination of various forces
- As with all other complex issues, informality is both a cause and a symptom:
  - Informality lowers GDP growth
  - But it's better than unemployment!
- We need more theory to understand informality relationships...

# A Model

# Agents

- **Workers:**

- Provide labor
- Similar, basic skills

- **Capitalists:**

- Provide capital through savings
- May include both physical and human capital

- **Government:**

- Benevolent but myopic
- Determines a minimum wage

# Two coexisting economies

- **Modern economy**

- Technology that uses both capital and labor
- Organized in firms

- **Rudimentary economy**

- Technology that uses only labor
- Represented mostly by the self employed

# Informal and formal sectors

- **Formal sector:**

- Part of the modern economy
- High labor costs – government mandated

- **Modern Informal sector:**

- Part of the modern economy
- Low labor costs but high capital costs and lower total factor productivity

- **Rudimentary Informal sector:**

- Subsistence for some
- Reservation for others

# Solution

- **Static:**

- Total capital and total labor are fixed
- TFP is also given
- Capital and labor are allocated to different sectors of the economy

- **Dynamic:**

- Capital is accumulated through optimal endogenous savings
- Labor grows according to exogenous population growth and participation rates
- TFP grows exogenously

# Comparative statics

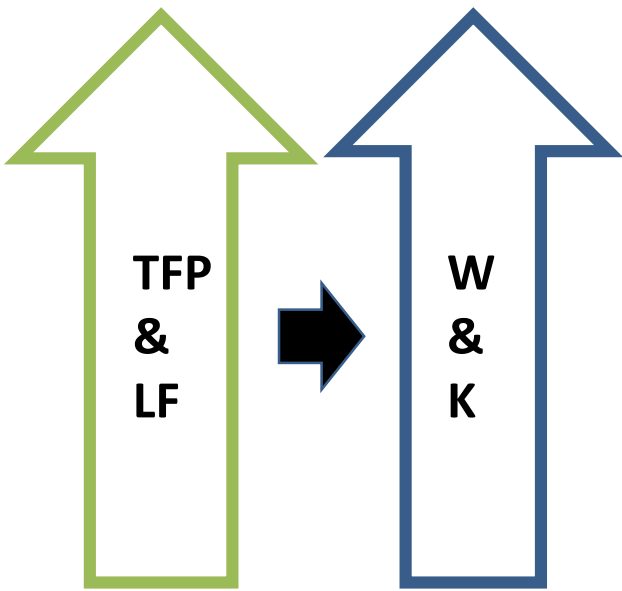
<i>Variable of Interest</i>	Mandated Formal Wage	Total Factor Productivity	Informal capital cost
<b>Modern informal sector wage</b>			
<b>Modern informal sector size</b>			
<b>Formal sector size</b>			
<i>Capital rental rate</i>			

# Comparative statics

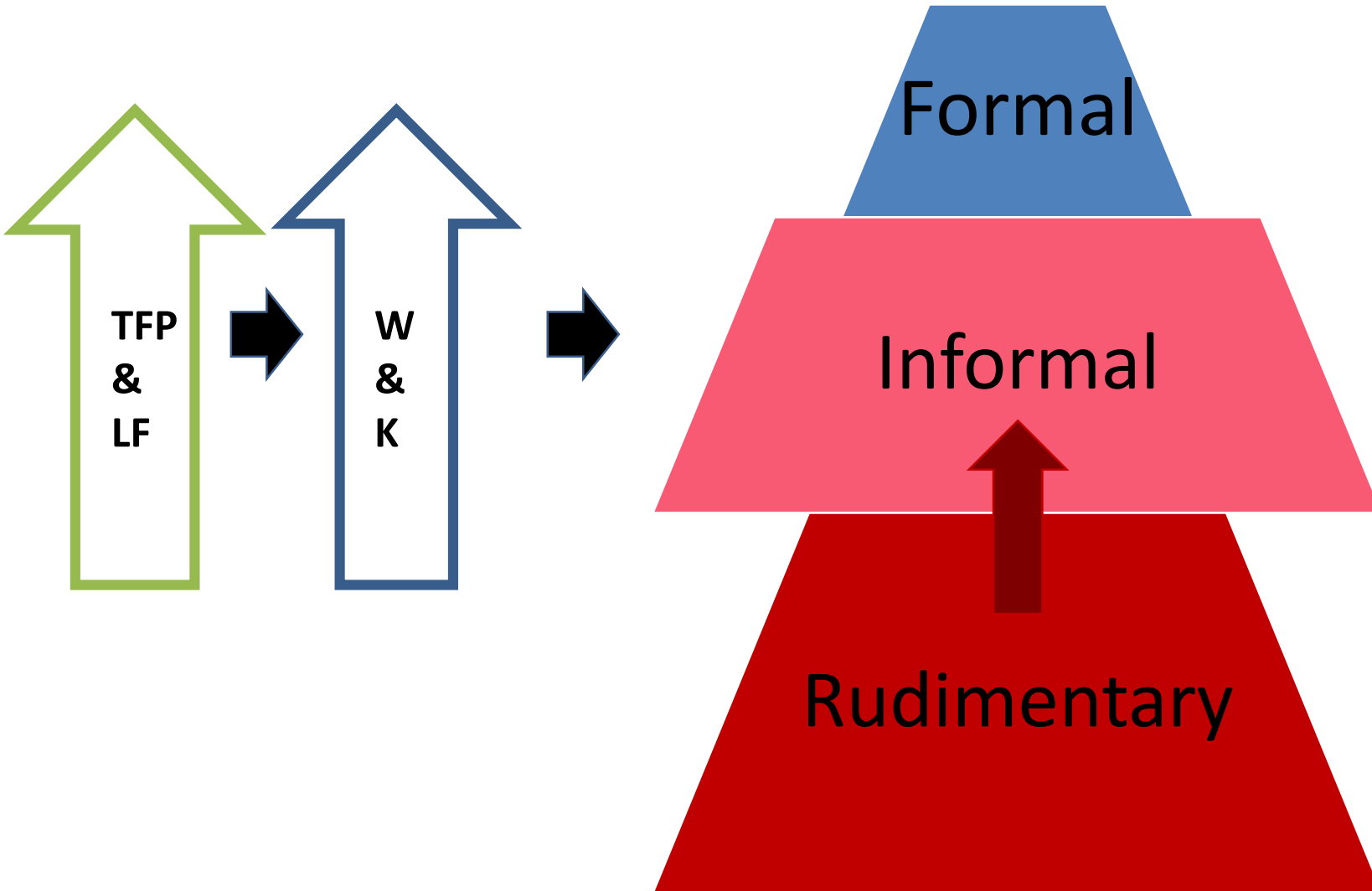
<i>Variable of Interest</i>	Mandated Formal Wage	Total Factor Productivity	Informal capital cost
<b>Modern informal sector wage</b>	+	no effect	-
<b>Modern informal sector size</b>	+	-	-
<b>Formal sector size</b>	-	+	+
<b><i>Capital rental rate</i></b>	-	+	no effect



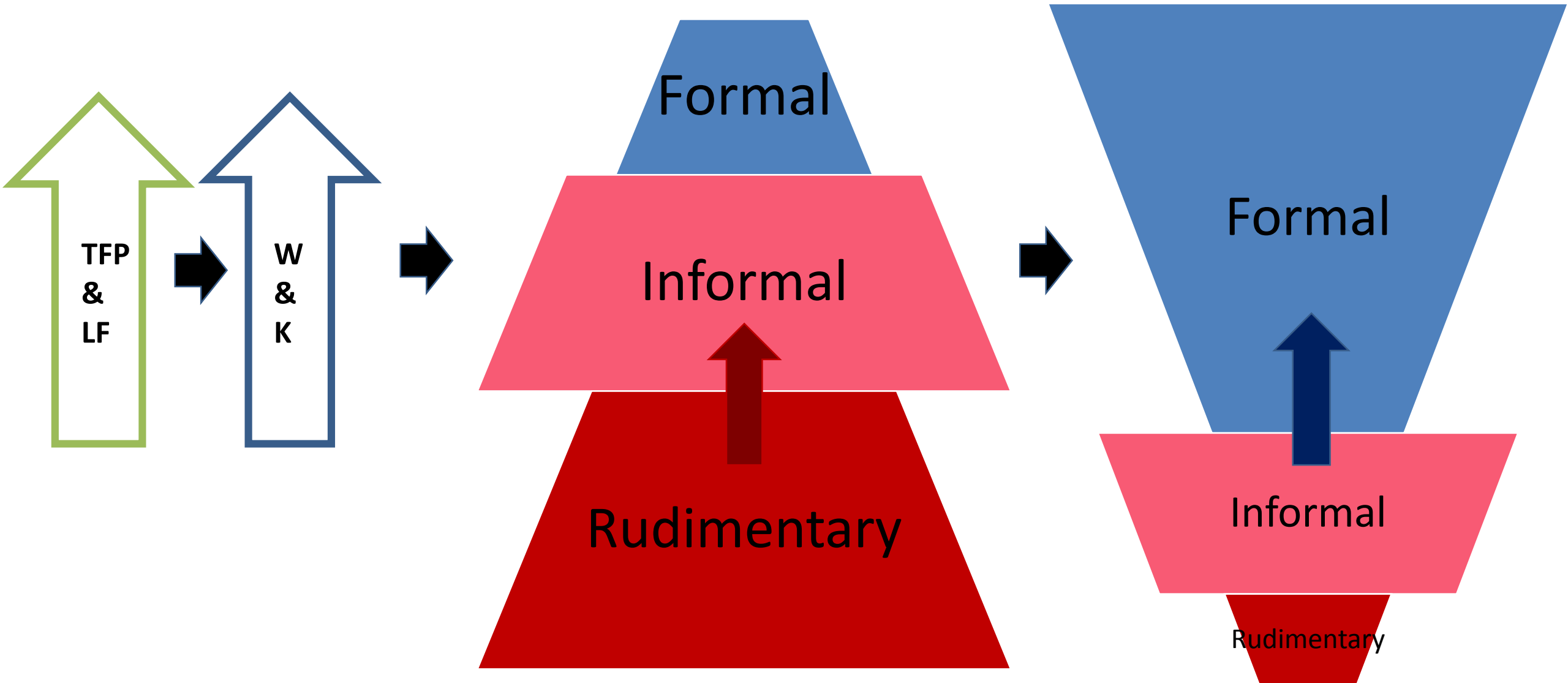
# Dynamics



# Dynamics



# Dynamics



# Empirical application

- **Objective:**

- Calibrate the model
- Use it for projections

- **Data:**

- Own calculations,
  - Labor data (based on ILO, WB)
  - Capital (based on WB, PWT)
  - TFP (based on WB, PWT, ILO)
- Proxies:
  - Modern formal: contributors to pension
  - Rudimentary informal: vulnerable self employed

# Scenarios

## 1. Reasonable

- Mandated wages grow as fast as labor productivity

## 2. Reformist

- Mandated wages grow less than labor productivity (by 1 pp)

- In all scenarios,

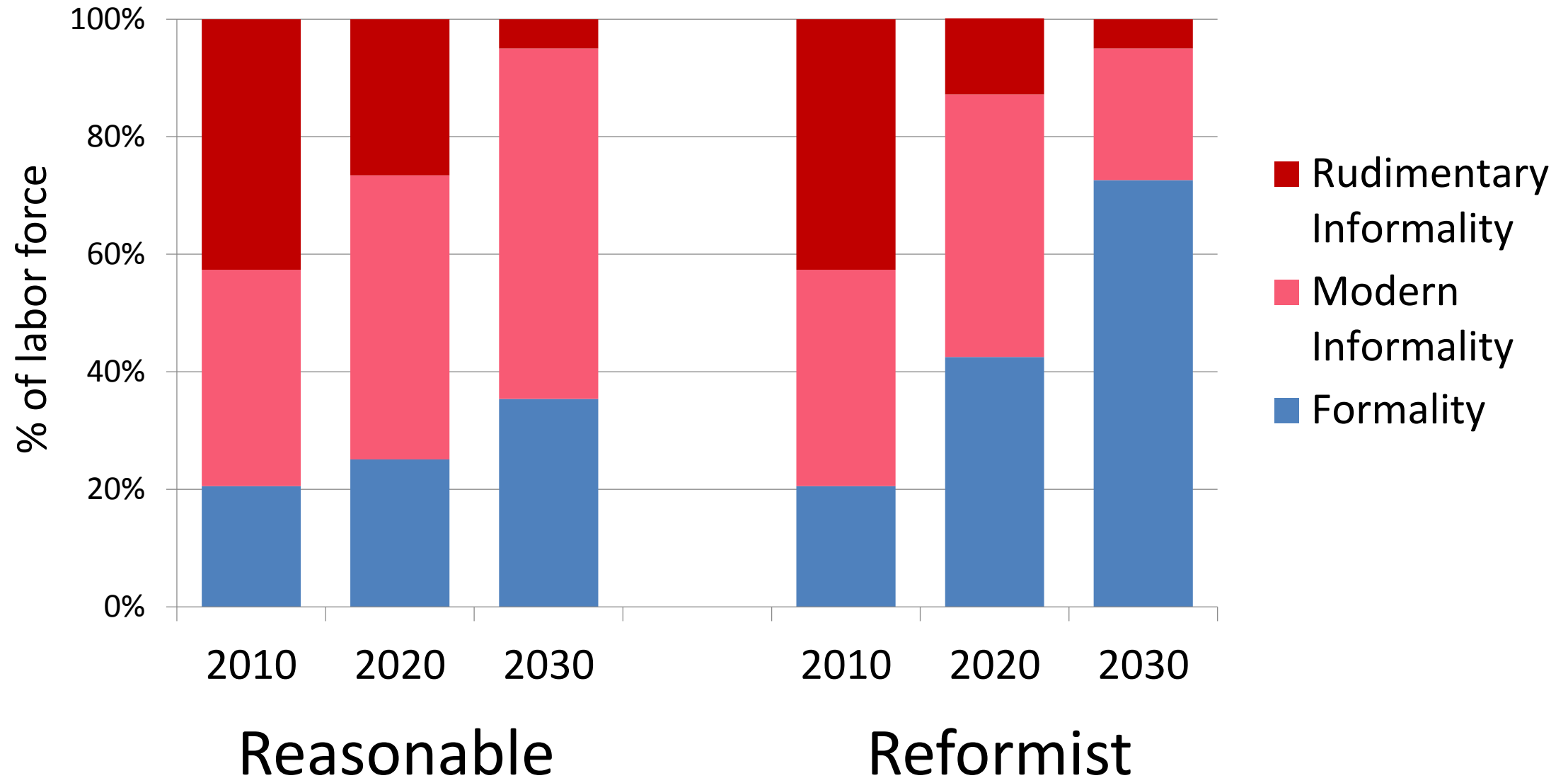
- The time horizon extends from 2010 to 2020 and 2030
- TFP in the next two decades is assumed to grow at the same rate as in the previous decade

# A tool -- for informality projections

- Excel-based tool, containing,
  - Underlying data
  - Parameter assumptions
  - Initial conditions
  - Scenarios
- Flexible and modifiable
  - Useful for other researchers and policy makers
- Large sample of countries: **76** developing, **20** developed
- ***Developed in collaboration with Claudia Meza-Cuadra***

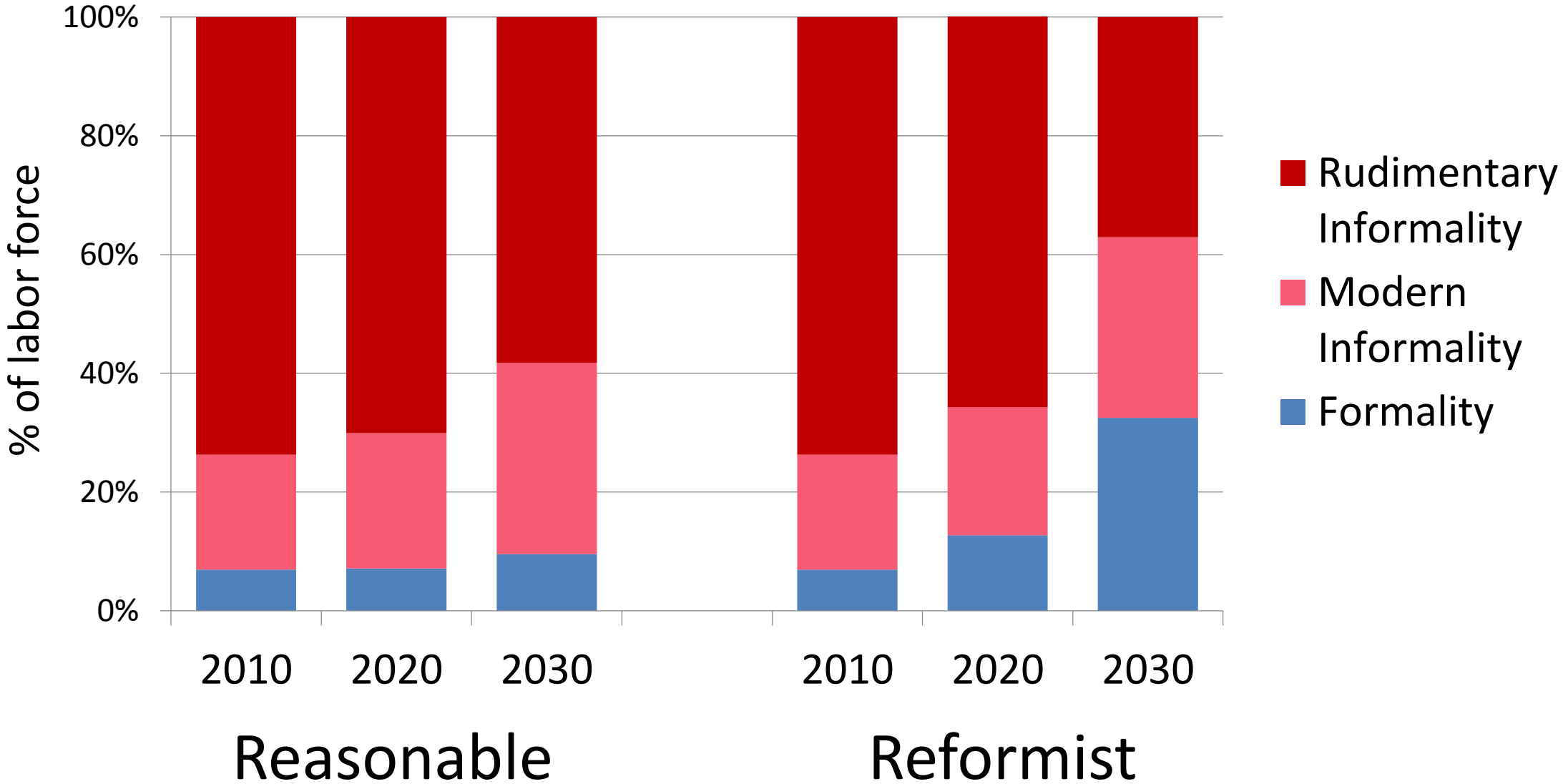
A few examples

# Colombia -- Formal and Informal Labor Over Time

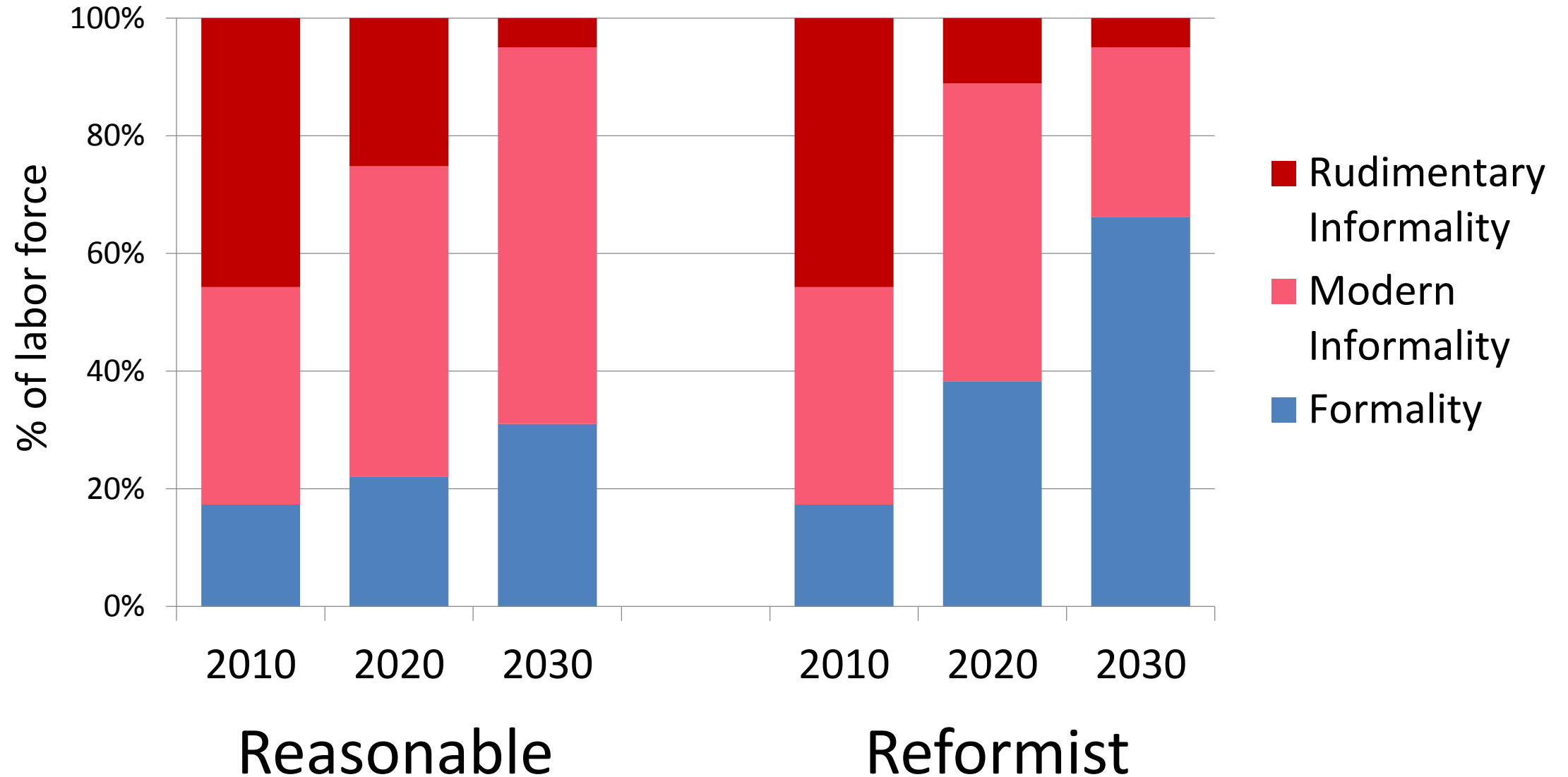




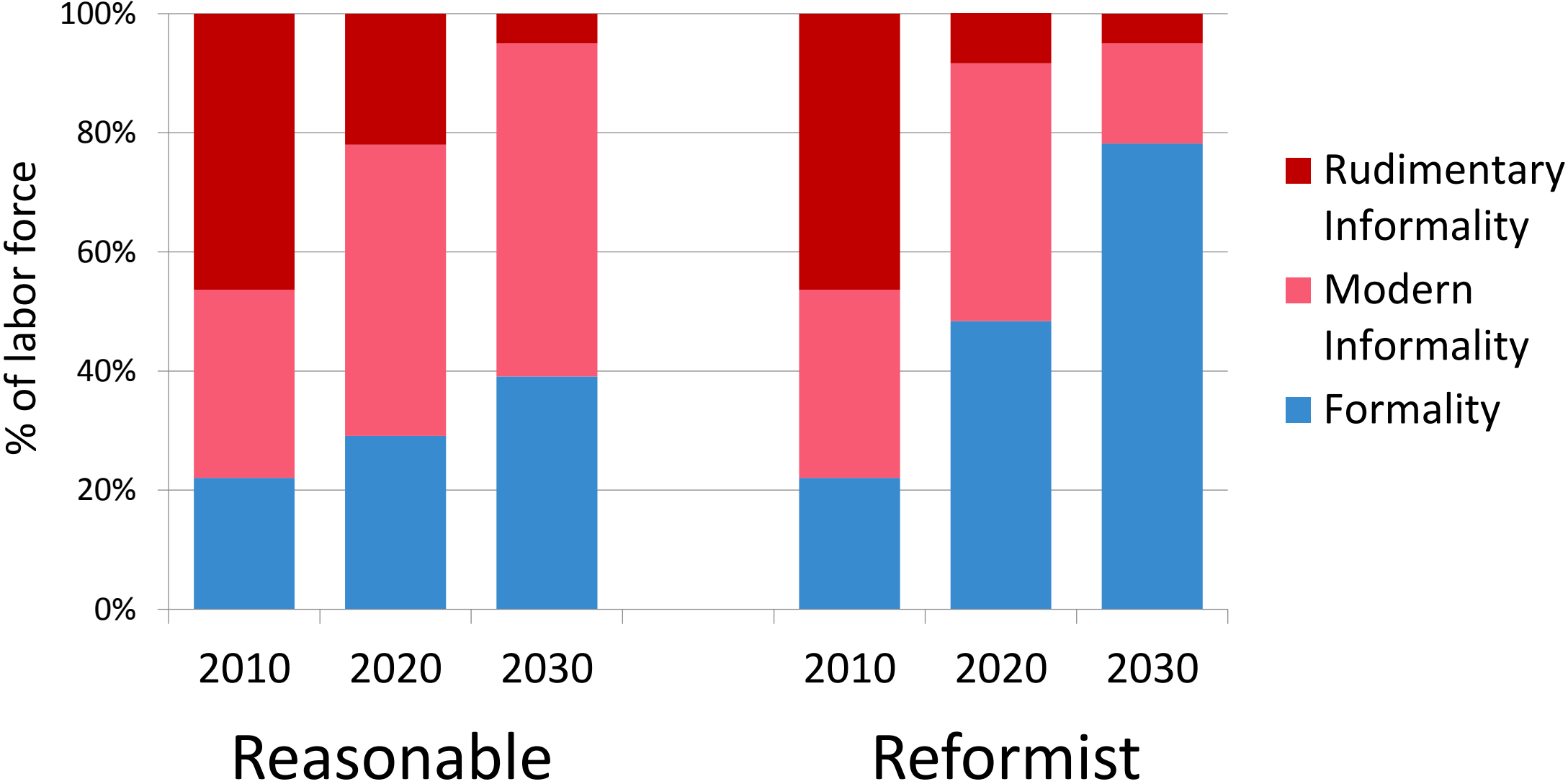
# Ghana -- Formal and Informal Labor Over Time



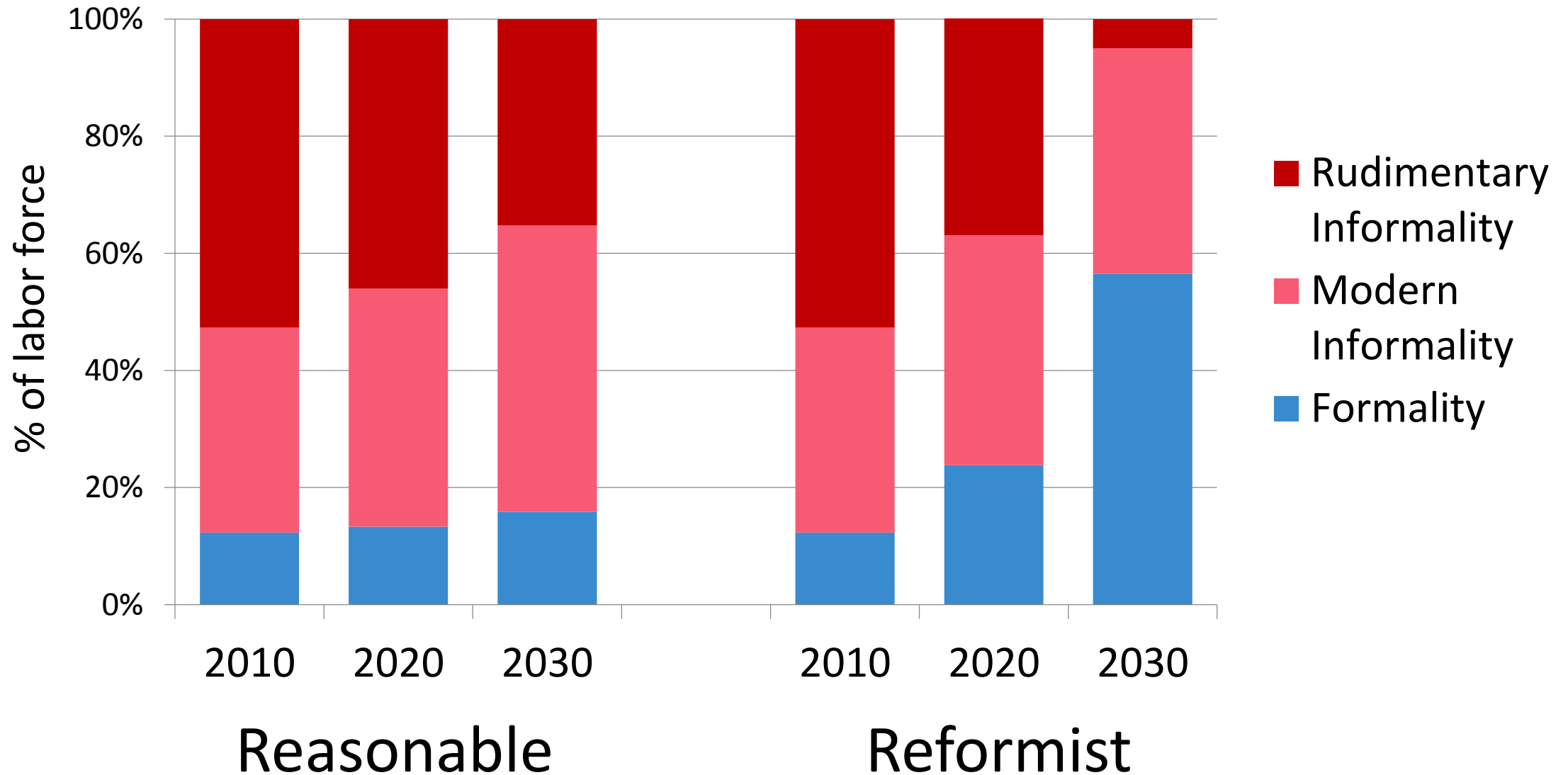
# Peru -- Formal and Informal Labor Over Time



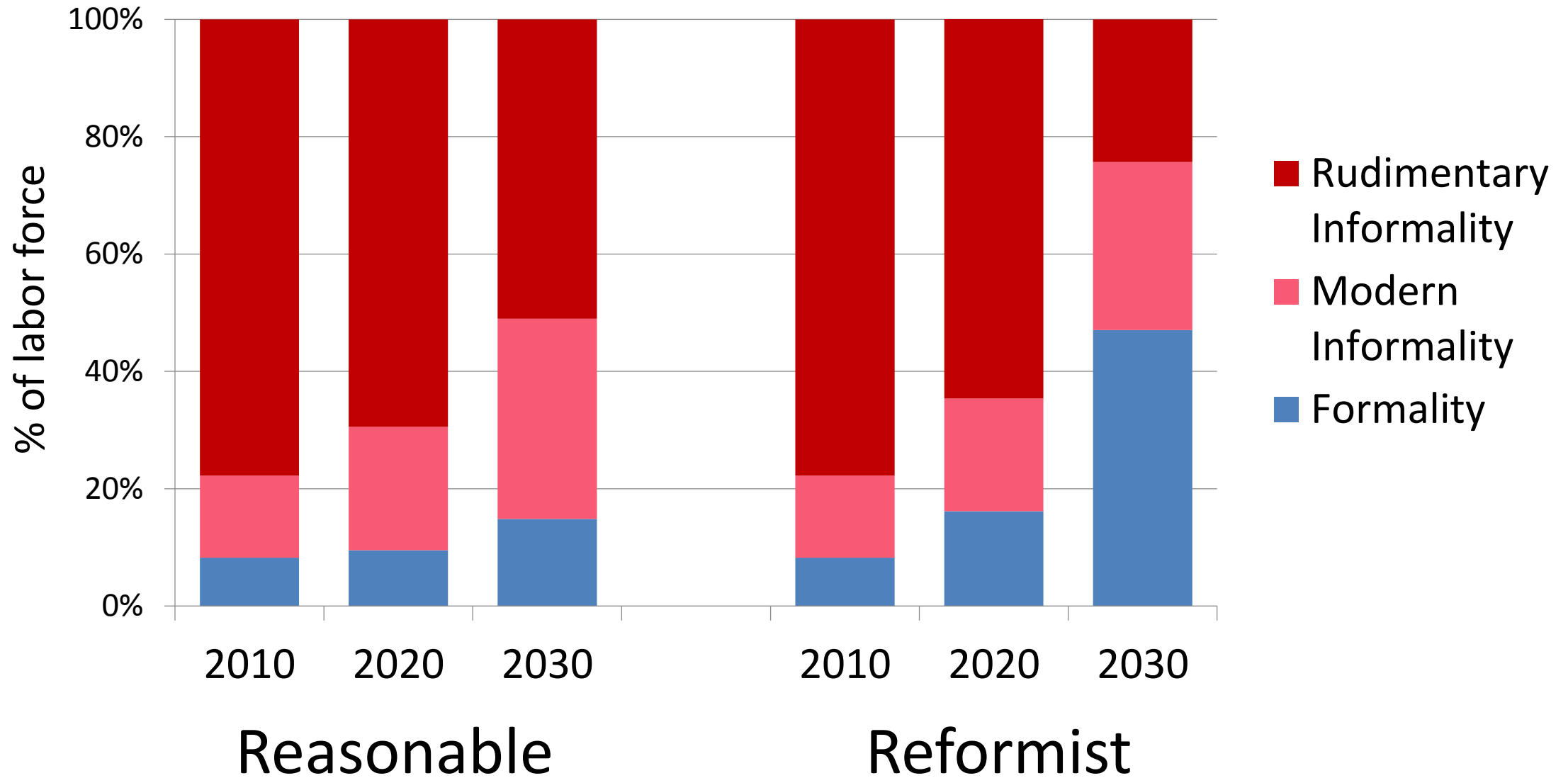
# Morocco -- Formal and Informal Labor Over Time



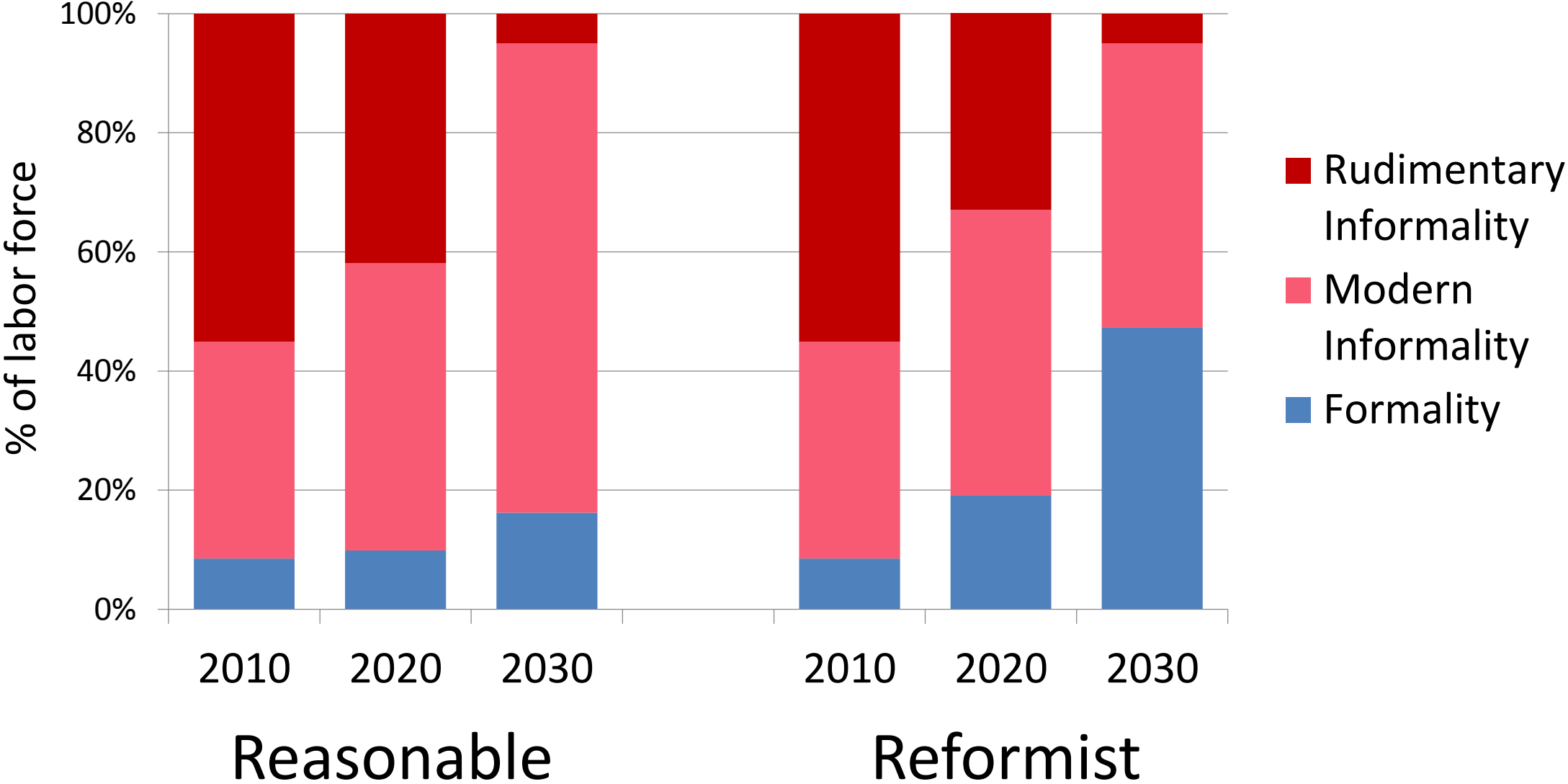
# Kenya -- Formal and Informal Labor Over Time



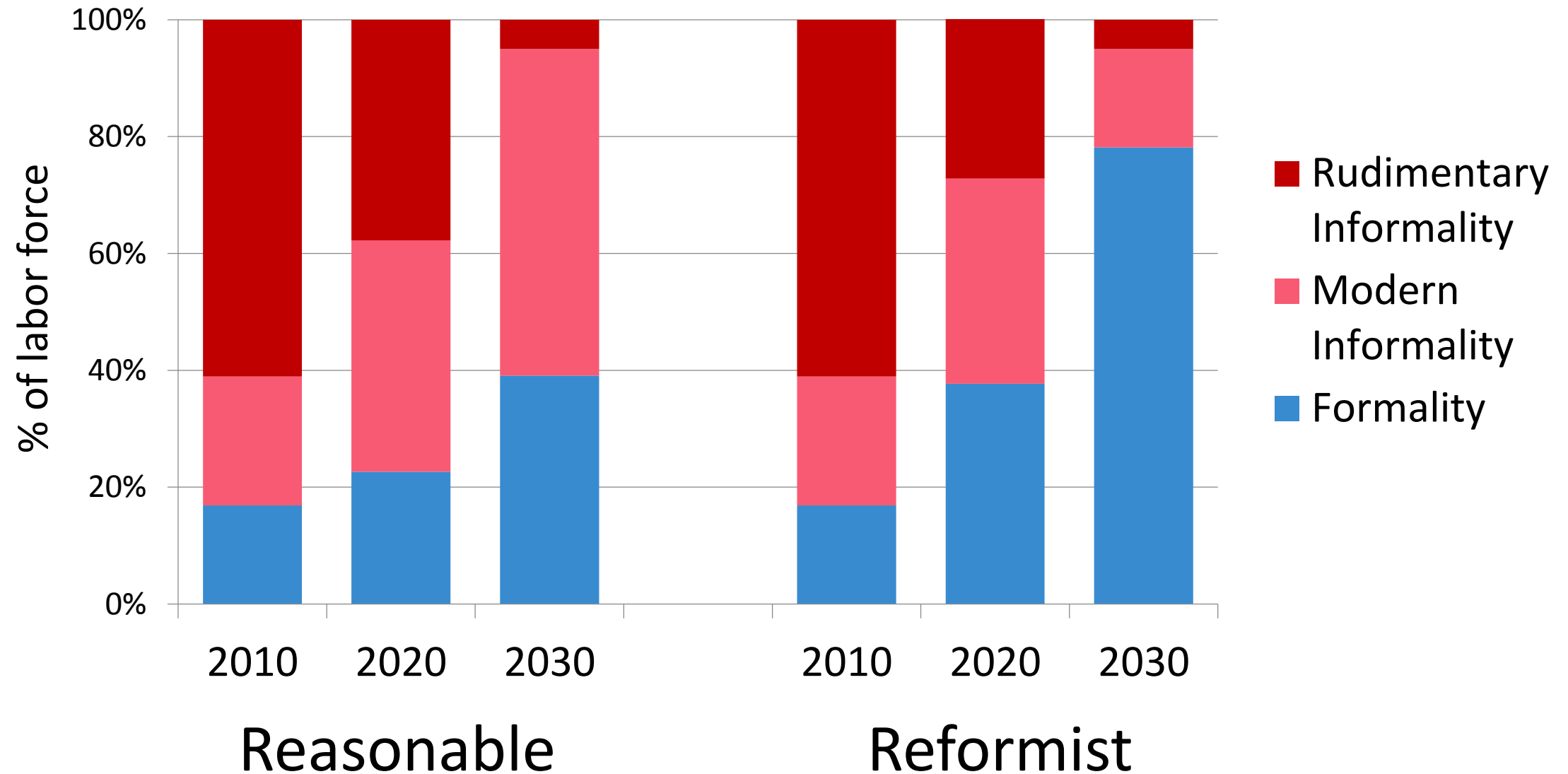
# India -- Formal and Informal Labor Over Time



# Indonesia -- Formal and Informal Labor Over Time



# Vietnam -- Formal and Informal Labor Over Time



A Final Reflection:  
Compassion or Admiration?



# The informal sector: Prometheus Unbound!

