

Entrepreneurship gender gaps in Chile

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Introduction

- ▶ Gender inequality is a pervasive feature in many countries
- ▶ These gaps are present in several dimensions:
 - education, earnings, occupation, access to productive inputs, political representation, or bargaining power inside the household

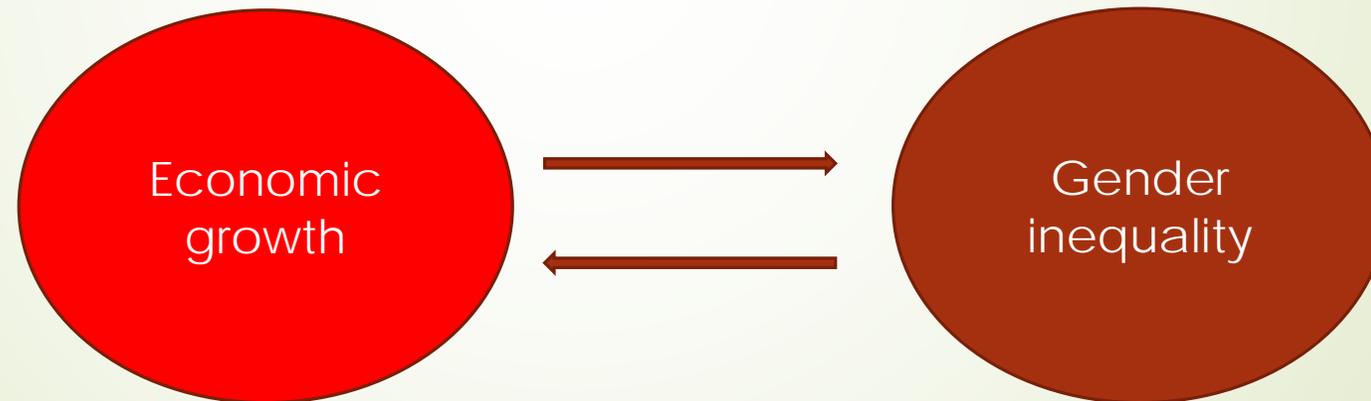
Introduction

- Gender gaps in entrepreneurship are important and have been understudied:

	Female to male ratio	
	Employers	Self-employed
Central Asia	0.3	0.81
East Asia and Pacific	0.35	0.45
Europe	0.36	0.55
Latin America and Caribbean	0.33	0.6
Middle East and Northern Africa	0.11	0.25
South Asia	0.28	0.59
Sub-Saharan Africa	0.41	0.92

Introduction

- ▶ We now know that, as countries get richer, many of their gender gaps get smaller
- ▶ But recent studies show clear evidence that also, a reduction in gender gaps makes countries richer

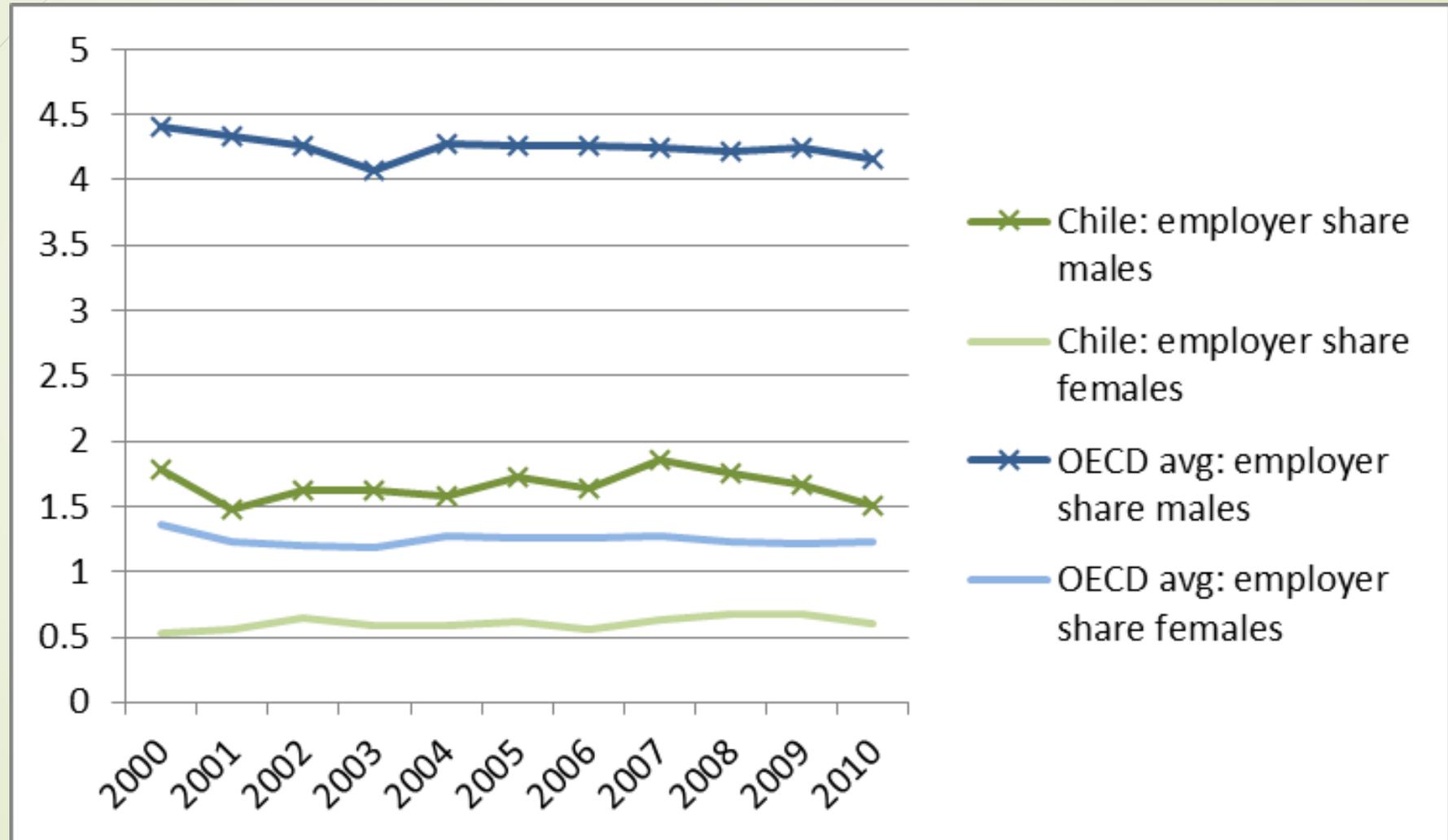




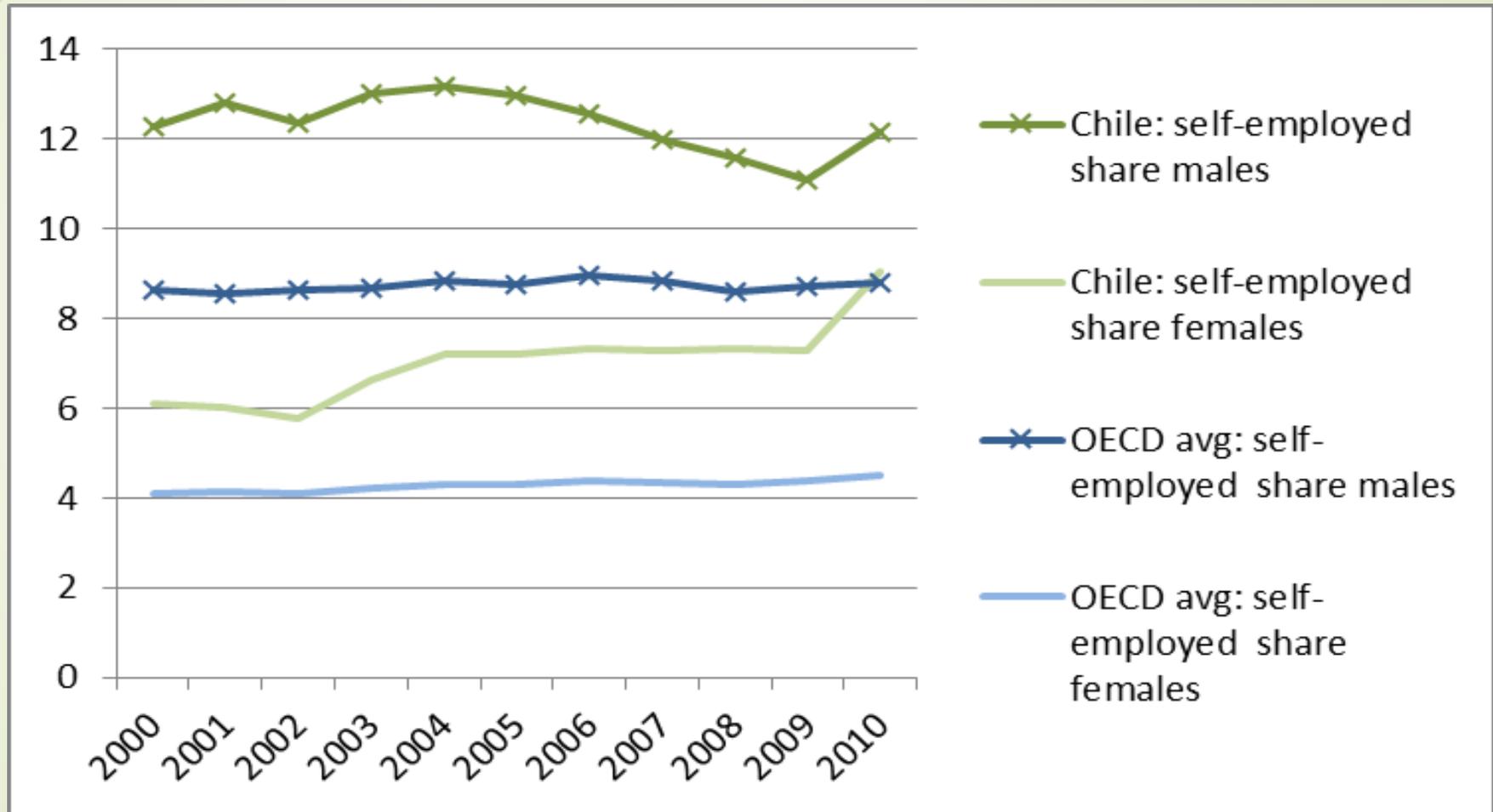
This paper

- In this paper we document gender gaps in entrepreneurship in Chile and quantify the loss of efficiency associated with them
- We use data from the first wave of the Encuestas Longitudinales de Empresas (2007)
 - Detailed data on firms characteristics by gender
 - Data available for other years: ... (*in progress*)

Employers gender gaps over time



Self-employed gender gaps over time



Employers gender gaps by education

	Ratio women/men	Gender gaps (%)
No formal education	0.81	19
Basic education	1.03	3
Average education in humanities	1.33	33
Average technical education	1.01	1
Technical education	1.23	23
Professional high school education	1.24	24
College education	0.6	40
Postgraduate college education	0.39	61

Gender gaps in firms' size

- ▶ The data clearly shows that women run smaller firms than men

	Men (%)	Women (%)
Micro 1	61.5	76.8
Micro 2	16.2	14.2
Small 1	8.2	4.6
Small 2	9.7	3.6
Medium	2.8	0.6
Large	1.5	0.1

Gender gaps in firms' size

	(1)	(2)	(3)	(4)	(5)
Sex	0.43*** (0.02)	0.37*** (0.03)	0.31*** (0.03)	0.27*** (0.02)	0.27*** (0.02)
Education		0.14*** (0.008)	0.15*** (0.008)	0.17*** (0.008)	0.16*** (0.008)
Age			-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Experience			0.009*** (0.001)	0.007*** (0.001)	0.007*** (0.001)
Sector				-0.06*** (0.005)	-0.06*** (0.005)
Private national					-0.29 (0.64)
Private foreign					1.58*** (0.56)
Public					-0.03 (0.51)
Constant	1.37*** (0.02)	0.81*** (0.03)	0.72*** (0.007)	1.09*** (0.07)	1.39** (0.63)
Observations	9554	9554	9544	9544	9544
R ²	0.03	0.1	0.1	0.13	0.14

Gender gaps in firms' productivity

Sales per worker	(1)	(2)	(3)	(4)	(5)
Sex	0.41*** (0.13)	0.42*** (0.14)	0.35*** (0.15)	0.34** (0.15)	0.33** (0.14)
Education		0.14** (0.03)	0.15*** (0.03)	0.15*** (0.03)	0.14*** (0.03)
Age			-0.006 (0.006)	-0.007 (0.006)	-0.006 (0.006)
Experience			0.01* (0.007)	0.01* (0.007)	0.01* (0.007)
Sector				-0.02 (0.03)	-0.02 (0.03)
Private national					0.43 (1.2)
Private foreign					1.73*** (0.37)
Public					2.03*** (0.63)
Constant	9.26*** (0.11)	8.56*** (0.16)	8.61*** (0.32)	8.76*** (0.37)	8.35*** (1.18)
Observations	4715	4715	4711	4711	4711
R ²	0.001	0.03	0.07	0.04	0.05



Gender gaps in innovation

	Men (%)	Women (%)
Products	10.7	14.9
Services	11.1	9.6
Management	5.6	3.8
Processes	8.5	5.5
Marketing	5	5.1



A model to calculate the costs of (some) of these gaps

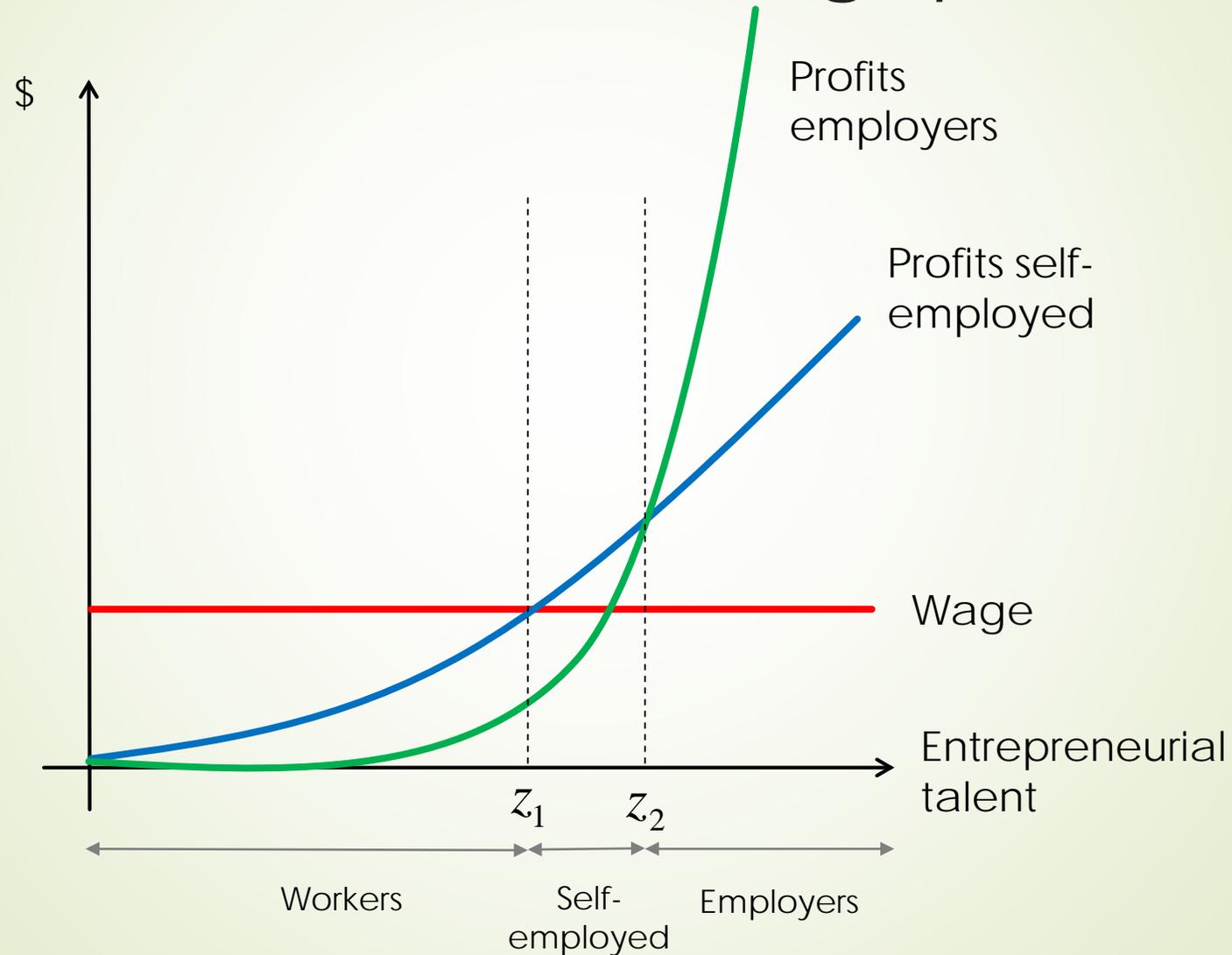
- ▶ Imagine an economy where there are men and women
- ▶ They have:
 - ❑ Some capital: machines that they can rent out to firms
 - ❑ Some time: they can use it to work
 - ❑ Some **talent** to run a firm



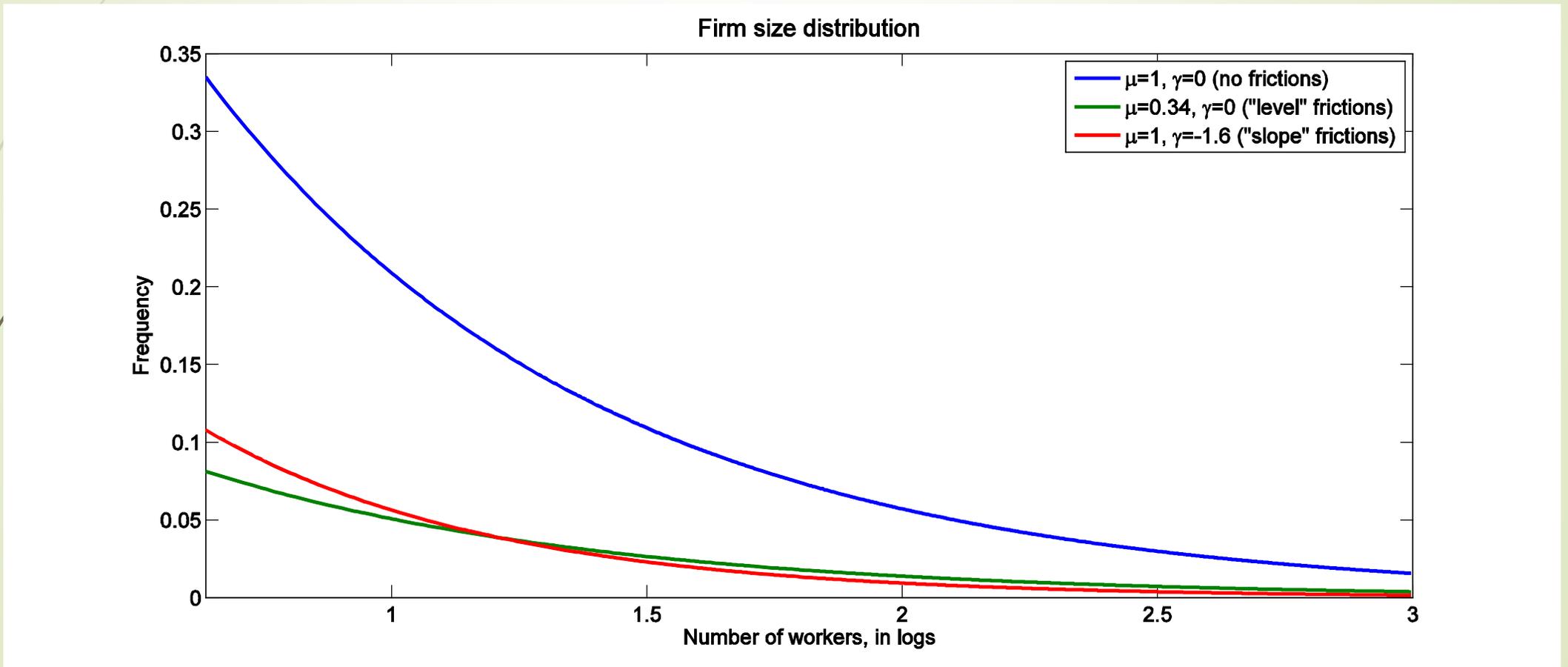
A model to calculate the costs of (some) of these gaps

- ▶ This managerial talent is random: some people are born with more talent than others
- ▶ Technology is such that the most talented individuals run larger and more profitable firms
- ▶ This model then predicts that, if a random fraction of women face barriers to entrepreneurship, less able men will run large firms and aggregate production will be reduced

A model to calculate the costs of (some) of these gaps



A model to calculate the costs of (some) of these gaps





A model to calculate the costs of (some) of these gaps

	Random exclusion	Exclusion increasing with talent
z_1	1.59	1.57
z_2	1.75	1.72
Employers earnings gap	0%	61%
Output loss	5.21%	7.53%



Conclusions

- Using data from Chilean firms in 2007 we find evidence of:
 - Large gender gaps in the number of employers, especially so for the most educated population
 - Large gender gaps in firm's size and productivity
 - Some gender gaps in innovation
- When we quantify the costs associated with entrepreneurship gender gaps in Chile we find large losses in productivity