

labor market model

Overview

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Does labor market operate as a free market?

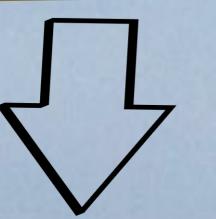
According to Piore, labor market is primarily a social institution, and as such, it works based on specific regulations.

Casares investigates two usual regulations:

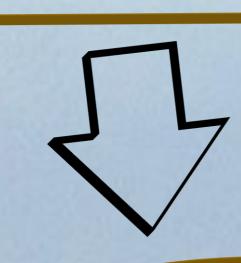
Companies: cannot lower salaries; moreover, they are usually forced to raise them over time.

Employees: cannot give up working for long periods of time (except married, elder and kids)









Unless productivity grows accordingly, companies go to bankruptcy

When fired, their 'way of life' (and thus, their reservation wage) deteriorates

Model Parameters

Companies

Dismissals rate

Minimum profit

Employees

Reservation wage decay

Time to discouragement The Casares Town Multiagent Model

> Unemployed persons

Inactive persons

Companies

Basic rules

Companies can fire employees every end of the year, based on the annual balance.

Employees look for a job until they get one get discouraged (if their spouse has a job; otherwise they keep looking anyway).

- Companies and employees have a matching tag to resolve interviews (a five color tag)

American Heritage Dictionary

market economy

n. An economy that operates by voluntary exchange in a free market and is not planned or controlled by a central authority; a capitalistic economy.

Emergent property

These two constraints work along with another emergent property observed in field measurement: after unemployment, the reentry salary is most of the times lower than the exit salary.

So, under these conditions, how do salaries depend on this feature?

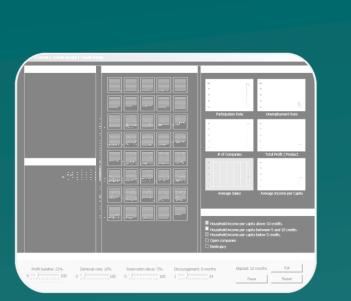
FAQs

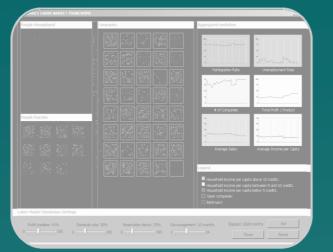
1) Does the Casares town really exist?

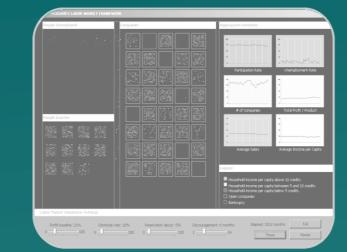
No, Casares is an imaginary town created to reproduce specific features of labor market dynamics.

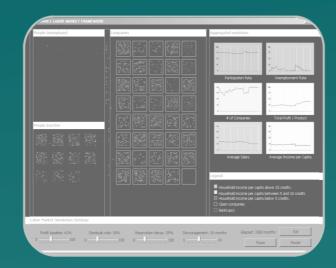
2) Why are dismissals made every end of the year?

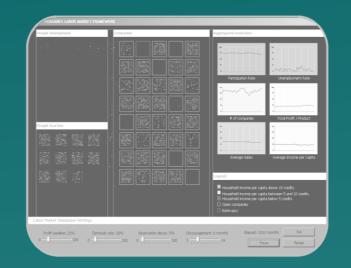
At the beginning of times it was just another obscure Casares tradition; nowadays, it is a fact that companies do their balances only once in a year, and then is when they decide staff changes.

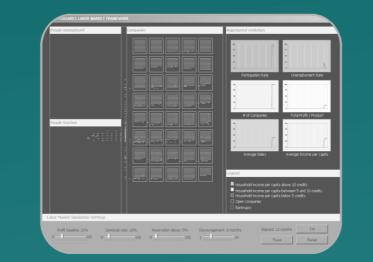
















What's the place for labor turnover?

A multiagent simulation for unemployment processes

Results

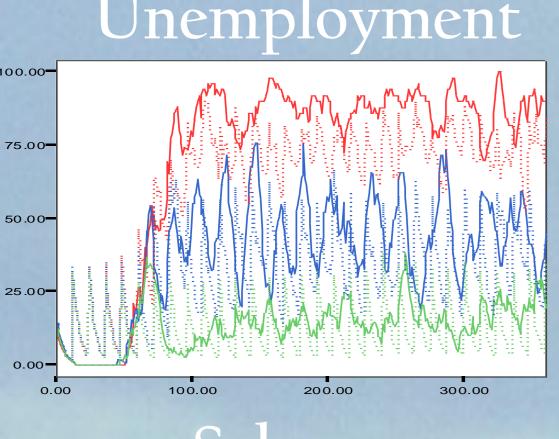
labor market model

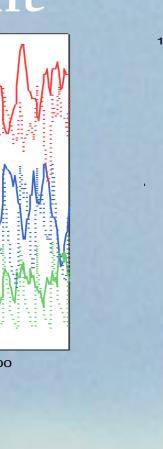
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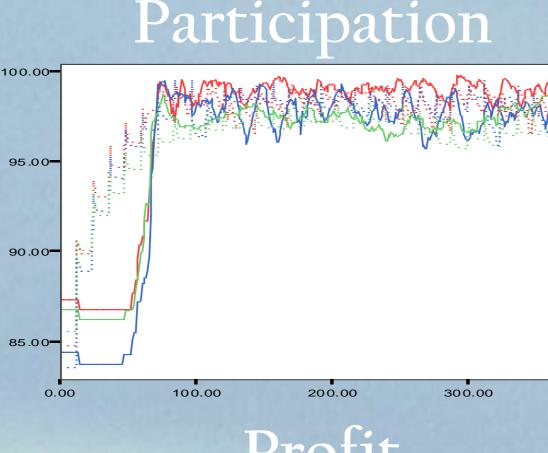
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The following charts show output values for 360 months runs. Six scenarios are evaluated, based on two possible strategies for the companies and three possible strategies for the employees.



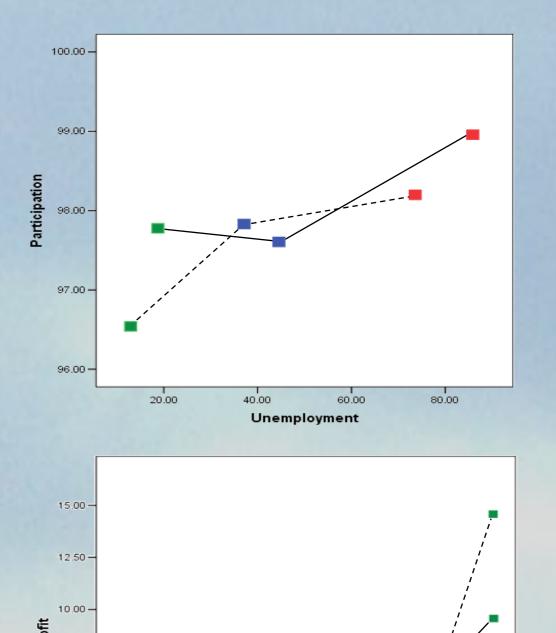


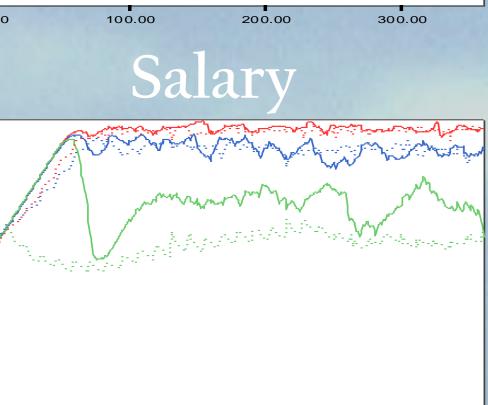


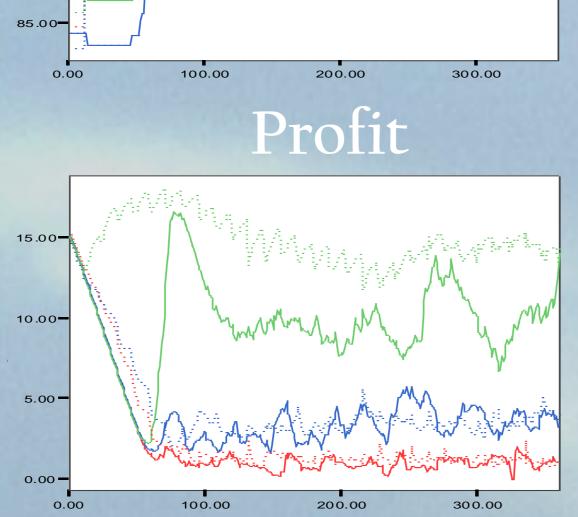


6 Strategy space

Placing the average values (last 60 months) at each scenario, maps of the strategies output can be created.







Profit Threshold Low dismissal

Expectations Decay

High Expectations

Low expectations

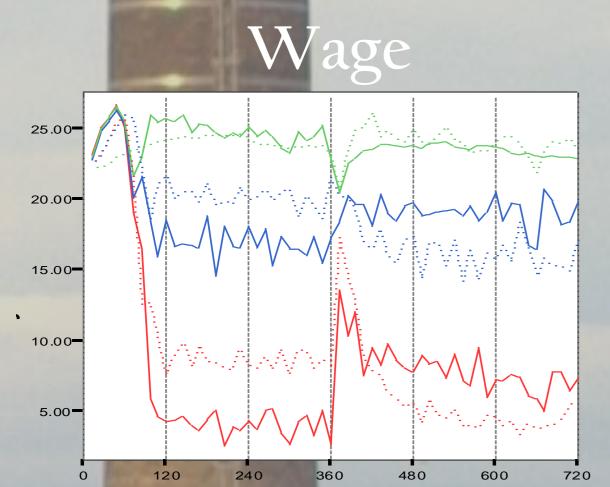
■ Moderate Expectations

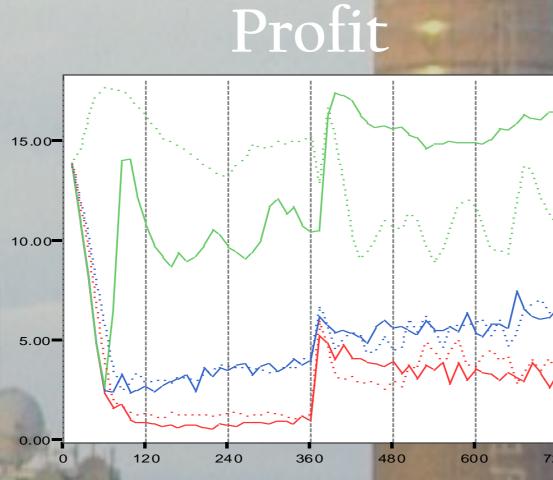
Low dismissal rate

High dismissal rate



The visual simulator aims at exploring how the system moves from one position at the strategy space to another. The following figures, averaged by year, show evolutions where companies switch strategy at month 360.









Many of the transitions create equal 'crisis' on both switches (e.g. leaving low dismissal rates and going into a low dismissal rates policy). This behavior brings special meaning to strategy changes (moves) based on change payoffs

8 Conclusions

- Turnover and reservation wage decay can impact participation rates and salaries.
- A multiagent model can be useful to explore the relation between actors' strategies.
- Based on the system transition paths,
 'players' can move out from their strategies for short period of times looking for benefits derived from specific transition effects.

I Interactive Simulator is a multiplatform implementation of the v2 of Casares Model (python version)

Acknowledgments

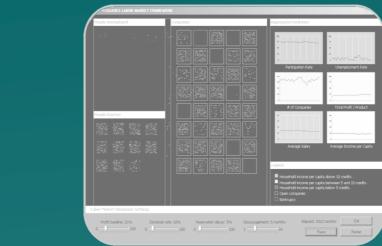
Our gratitude to the institutions that supported this work:

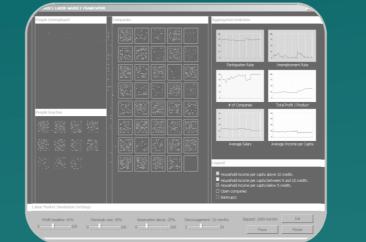
- CONICET, Universidad Nacional de Quilmes and Universidad Católica, in Argentina.

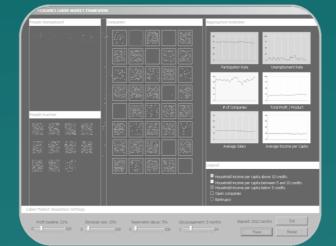
-21st Century COE Program and the Student Demonstrations Committee of the WCSS'06 in Japan.

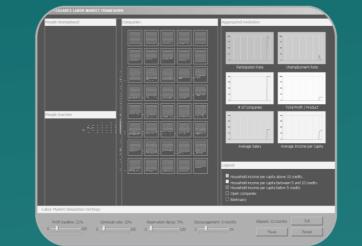


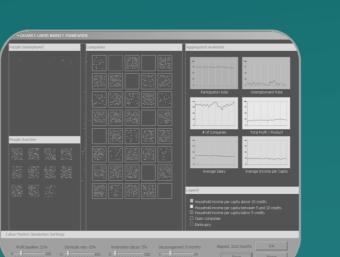












amework, using Microsoft Runtime or Mono 1.1 runtime. Previous and current sources of Casares can be found

