

Università cattolica di Milano

MMrg seminars

# Italian Moneycracy

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# Outline

- Concept of motivation.

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# Outline

- Concept of motivation.
- Stylized facts on Italian politicians' wage.

# Outline

## Introduction

### Motivation

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### Extensions

- Concept of motivation.
- Stylized facts on Italian politicians' wage.
- Theoretical model.

# Introduction

- How do you evaluate workers?
- Productivity, i.e. output produced given input.
- Inputs are:
  - ① effort
  - ② innate ability (generally unobservable) + education/experience (observable) = type (or skills, i.e. the ability to use one's knowledge effectively and readily in execution or performance)
  - ③ **motivation**; to be motivated means to be moved to do something.

# Motivation - considerations

- Motivation is important when considering productivity.
- Low skilled jobs: motivation is a necessary *and* sufficient condition to be productive.
- High skilled jobs: motivation is important (but just necessary) in a dynamic sense.

# Motivation - definitions

- Ryan and Deci (2000) "Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions", *Contemporary Educational Psychology*.
- Many why of actions.
- Self-Determination Theory (Deci and Ryan, 1985):
  - ① **amotivation**: no intention to act (not valuing an activity, not feeling competent);
  - ② **extrinsic motivation**: an activity is done in order to attain separable outcome(s);
  - ③ **intrinsic motivation**: an activity is done for the fun or challenge.

## Extrinsic motivation

- Different extrinsic motivations according to the degree of autonomy.
  - 1 **External regulation:** satisfy an external demand or obtain an externally imposed reward (e.g. wage); external perceived locus of causality (EPLOC; deCharms, 1968).
  - 2 **Introjected regulation:** avoid guilt or anxiety or attain ego-enhancements or pride; still EPLOC. E.g.: self-esteem enhanced by working or refraining from shirking in general (social norms).
  - 3 **Identification:** activity consciously valued by the person; (somewhat) internal perceived locus of causality (IPLOC). Self-esteem related to particular kind of jobs/organizations. E.g.: workers in hospitals: contribute to a "good" goal. Or: public service motivation, "*general [...] motivation to serve the interests of a community of people, a state, a nation or humankind [...]*" Rainey and Steinbauer (1999, p. 20).
  - 4 **Integrated regulation:** identified regulations are fully assimilated to the self.



# Intrinsic motivation (IM)

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- Intrinsically motivated activities: satisfaction of innate psychological needs, namely relatedness, competence and autonomy (or IPLOC).
- IM exists within individuals but/and exists in the relation between individuals and activities: organismic propensity.
- Crowding-out problem.

## Economics Literature: motivation

- 1

- Principal-agent models.
- Crowding-out problem (Kreps, 1997, AER P&P; Benabou and Tirole, 2003, REStud): not our focus.
- Handy and Katz (1998) JCompEc: wage differentials btw nonprofits and for-profits.
- Workers differ in ability,  $h$  and  $l$ , and devotion (identification),  $d$  and  $i$ :  $X_{hd} > X_{hi} > X_l$  in a nonprofit,  $X_{hd} = X_{hi} > X_l$  in a for-profit, where  $X$  is output.
- Reservation wage:  $W_{hi} > W_{hd} > W_l$  in a nonprofit,  $W_{hd} = W_{hi} > W_l$  in a for profit.
- No microfoundation and no effect of motivation in the private sector nor on low-ability individuals (even if this is irrelevant to our results).
- They also consider  $W_{hd} = W_{hi}$  in a nonprofit but no sorting unless an ad hoc screening mechanism.

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## Economics Literature: motivation

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- Delfgaauw and Dur (2007) JEBO: introjected regulation, identification, intrinsic motivation; workers' utility  $U[w(e), e, \gamma e]$  with  $U_1 > 0$ ,  $U_2 < 0$ ,  $U_3 > 0$ .
- Reservation wage constant across types  $\gamma$ .
- Possible higher reservation wage for more motivated workers if there are rival firms offering job with intrinsic qualities.
- Stowe (2009) EconGov: **morale**, not firm-specific (no identity) but related to aspects of external regulation and Introjected regulation.
- Morale reduces effort cost for workers  $\lambda(e, m)$ ,  $\lambda(e, m) = \frac{c(e)}{m}$ .
- Reservation wage not affected by morale.

## Economics Literature: motivation

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- Delfgaauw and Dur (2008) Econ J: **public service motivation (PSM)**.
- Workers  $i = r, m, l$ : regular ( $r$ ), motivated ( $m$ ), lazy ( $l$ ).
- Workers  $m$  derive utility from output  $V$ :  
 $U_i = w + \gamma_i V(e) - \theta_i C(e)$  in the public, with  
 $\gamma_m > \gamma_r = \gamma_l = 0$  and  $\theta_l > \theta_m = \theta_r > 0$
- Microfoundation of reservation wage (private sector) but it depends only on ability.
- Francois (2000), JPubE: PSMotivated workers utility depends also on output

$$U_i = y_i - v(e_i) + \gamma(g)$$

$e$  is effort,  $g$  is the level of service provided.

- Reservation wage not affected by PSM.
- Glazer (2004), IJIO: workers utility

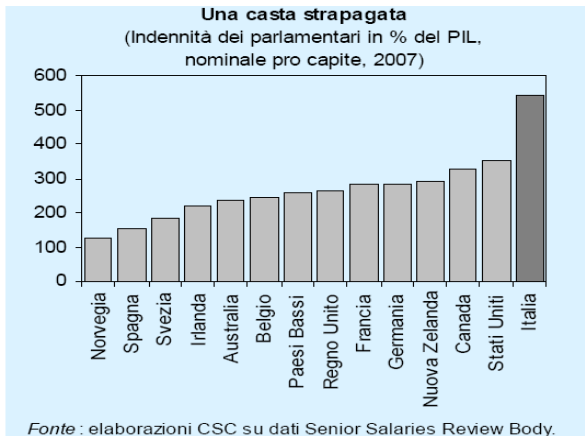
$$V \times F(K, e) + w - C(e)$$

$e$  is effort,  $F$  is output.

- Similar in Besley and Ghatak (2005), AER. 

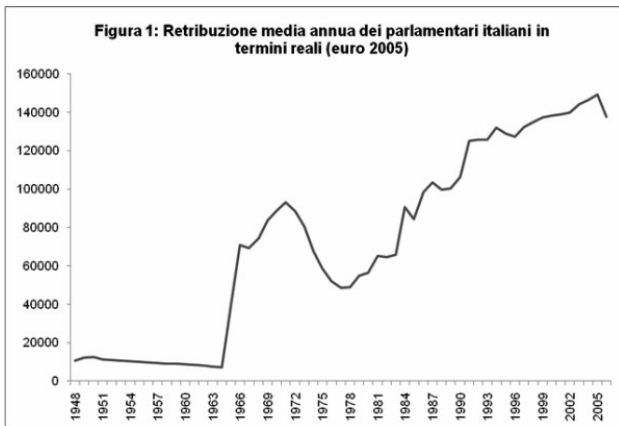
# Italian Moneycracy: evidence - 1

- How does wage affect Italian politicians productivity?
- **First piece of evidence:** Italian parliamentarians receive the highest wage compared to the other Western countries.



## Italian Moneycracy: evidence - 2

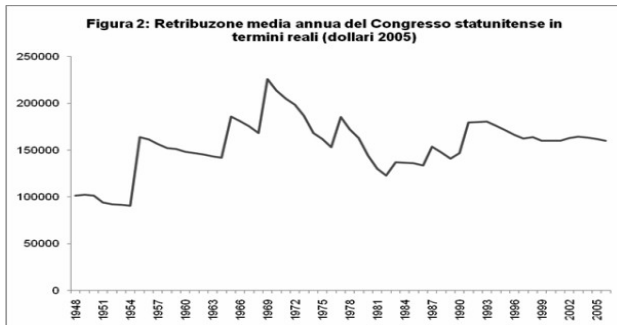
- **(1)** Italian parliamentarians' real wage grew by 10% per year on average since 1948.



- Source "Classe dirigente - L'intreccio tra business e politica"  
Tito Boeri, Antonio Merlo and Andrea Prat (Università Bocconi Editore)

## Italian Moneycracy: evidence - 3

- **(2)** During the same period US parliamentarians' real wage grew by 1.5% per year.
- In 1948 US congressmen's wage was higher than Italians' one. In 1994 the gap became zero and in 2006 was higher than 35.000 euros.



- Source "Classe dirigente - L'intreccio tra business e politica"  
Tito Boeri, Antonio Merlo and Andrea Prat (Università Bocconi Editore)

## Italian Moneycracy: evidence - 4

- (3) Parliamentarians wages across Europe.

STIPENDI ANNUI DEI PARLAMENTARI EUROPEI A CONFRONTO IN EURO\* (Compensi  
annui netti)

1	Italia	144.084,36
2	Austria	106.583,40
3	Olanda	86.125,56
4	Germania	84.108,00
5	Irlanda	82.065,96
6	Gran Bretagna	81.600,00
7	Belgio	72.017,52
8	Danimarca	69.264,00
9	Grecia	68.575,00
10	Lussemburgo	66.432,60
11	Francia	62.779,44
12	Finlandia	59.640,00
13	Svezia	57.000,00
14	Slovenia	50.400,00
15	Cipro	48.960,00
16	Portogallo	41.387,64
17	Spagna	35.051,90
18	Slovacchia	25.920,00
19	Rep. Ceca	24.180,00
20	Estonia	23.064,00
21	Malta	15.768,00
22	Lituania	14.196,00
23	Lettonia	12.900,00
24	Ungheria	9.132,00
25	Polonia	7.369,70

\*Fonte: Corriere della Sera



## Italian Moneycracy: evidence - 5

- **(4) Regional politicians wage across some European Countries.**
- Italian “consigliere regionale”:

16.000 Piemonte  
13.830 Puglia  
13.359 Abruzzo  
12.555 Lombardia  
11.053 Emilia Romagna  
11.316 Calabria  
10.976 Campania  
6.700 Umbria

# Italian Moneycracy: evidence - 6

## France

- Minimum wage per month 1.500 euros (if the region has less than one million of citizens)
- Maximum wage 2.600 euros (if the region has less than three million of citizens)

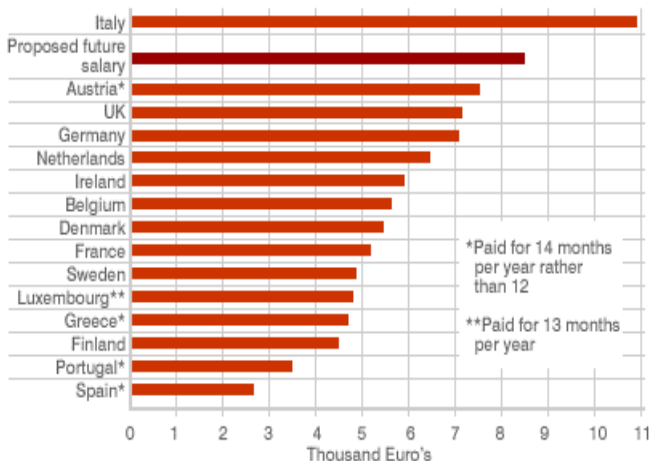
## Germany

- Minimum wage per month is 2.280 euros (Hamburg)
- Maximum is 9.500 euros (Vestfalia)
- Average wage 4.500 euros
- In **Switzerland** the wage is zero.

## Italian Moneycracy: evidence - 7

- (5) European Parliament members salaries.

### MEPs' existing salaries



SOURCE: European parliament

## Italian Moneycracy: evidence - 8

- **(6)** Number of parliamentarians across some OECD Countries.

	N° Parlamentari	Popolazione Residente	Popolazione-Parlament o
Italia	952	60.275.846	63.315
Francia	923	62.342.668	67.544
India	795	1.198.003.272	1.506.922
Giappone	727	127.156.225	174.905
Germania	682	82.166.671	120.479
Gran Bretagna*	646	62.032.247	96.025
Spagna	614	44.903.659	73.133
Brasile	594	193.733.795	326.151
Stati Uniti	535	314.658.780	588.147
Canada	413	33.573.467	81.292
Portogallo	230	10.707.130	46.553
Australia	226	21.288.754	94.198
Olanda	225	16.592.232	73.743
Belgio	221	10.646.804	48.176
Media			240.042

## Italian Moneycracy: evidence - 9

- **Second piece of evidence: Italian politicians productivity is decreasing.**
- 10<sup>o</sup> convegno europeo della Fondazione Rodolfo DeBenedetti, «Il mercato del lavoro dei politici».
- Antonio Merlo (University of Pennsylvania), Vincenzo Galasso (Bocconi), Massimiliano Landi (Singapore Management University) and Andrea Mattozzi (Caltech).
- **Education**
- 1948-53: 91.4% of Italian parliamentarians were graduated
- 2006/08: 64.6% of Italian parliamentarians were graduated
- Same period in US: from 88% to 94%

## Italian Moneycracy: evidence - 10

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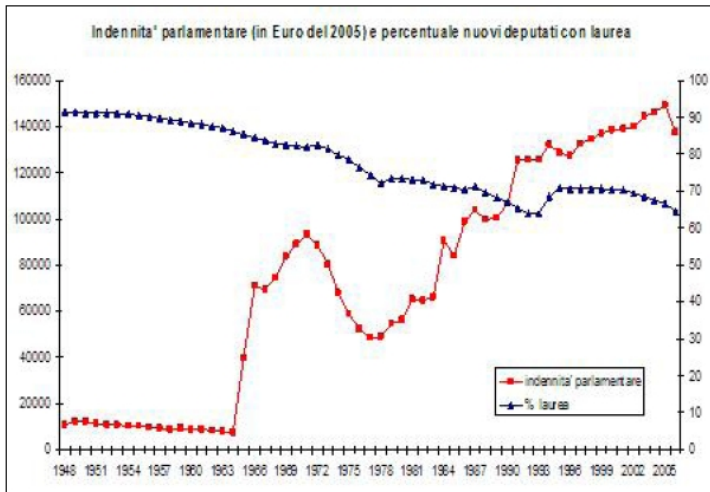
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- **Effort:** with moonlighting, trade-off between ability of elected officials and time devoted to political life (Gagliarducci et al., 2010, JPubE).

# Italian Moneycracy

- **Conclusions**
- (1) Does high Italian politicians' wage imply low productivity of elected politicians?
- (2) Is wage efficiency a proper mechanism for politicians?
- (3) We discuss how wage level affects productivity of politicians.
- Our idea: *lower* remuneration for politicians has a **virtuous selection** effect: only highly productive individuals run for the office.

## Setup - 1

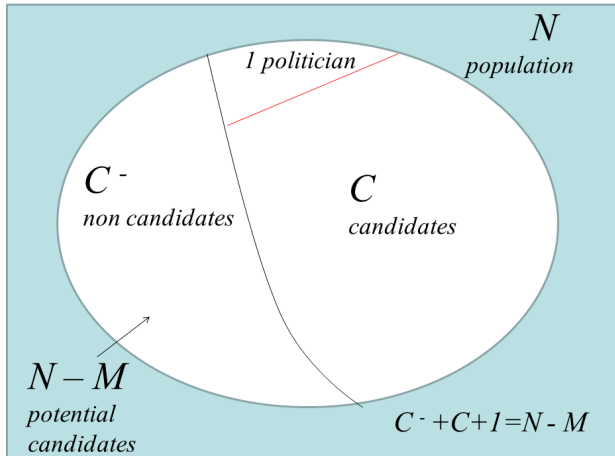
- $M$  homogeneous citizens.
- $N - M$  potential candidates: two types of pot. cand.  $i = A, I$ .
- (Verifiable) effort  $e \in [0, \infty)$  by the only elected candidate (politician) to provide public good  $G(e)$ ,  $G'(e) > 0$ .
- Effort disutility for politician:  $c(e, \gamma_A) < c(e, \gamma_I)$ ; type-A is more productive for any given  $e$ .
- Type- $i$  politician receives fixed remuneration  $w_i$ .

### Timing

- 1  $t = 0$  social planner sets  $w_i$  and  $e$ .
- 2  $t = 1$  potential candidates decide whether to run for the office.
- 3  $t = 2$  one of the actual candidates becomes politician.  
Lump-sum taxes  $\frac{w_i}{N}$ .
- 4  $t = 3$  the politician receives remuneration  $w_i$  and produces  $G(e)$ ; all the others receives outside income.



# Sets



## Setup - 2

- Type- $i$  politician utility function:

$$U_i \equiv w_i + u(G(e)) - c(e, \gamma_i) - \frac{w_i}{N},$$

- Representative citizen's utility

$$V \equiv m + u(G(e)) - \frac{w_i}{N},$$

$m$  is income.

- Type- $i$  "nonpolitician" (set  $C^- + C - 1$ ):

$$Z_{i,k} \equiv R(a) - s(a, \gamma_i) + u(G(e)) - \frac{w_k}{N},$$

$R(a)$  is outside revenue from for-profit activities;  $a \in [0, \infty)$  is "outside" effort;  $s(a, \gamma_i)$  is effort cost;  $w_k$  is the remuneration paid to a type- $k$  politician, with  $k = i, -i$ .

## Public service motivation

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- $s(a, \gamma_A) > s(a, \gamma_I)$ : a type- $A$  individual (belonging to set  $C^- + C - 1$ ) is less productive than a type- $I$  one when devoting to for-profit activities.
- "Our" public service motivation: a more (less) productive potential candidate is less (more) productive when working outside.
- $a_i \equiv \arg \max_a Z_{i,k}$ :  $Z_{A,k}(a_A) < Z_{I,k}(a_I)$ , type- $A$  has lower outside option!
- Type- $i$  reservation wage is  $w_{i,k}^{MIN}$  such that  $U_i = Z_{i,k}(a_i)$ :  
 $w_{A,k}^{MIN} < w_{I,k}^{MIN}$ .

## Asymmetric information

- $\gamma_i$  is unobservable.
- Utilitarian welfare:  $W_{i,k} \equiv U_i + M \times V + (N - M - 1) \times Z_{i,k}$  does not depend on  $w$ .
- Participation of citizens:  $w^{MAX}$  such that  $V = 0$ .
- Participation of type- $i$  "nonpoliticians":  $w_{i,k}^{MAX}$  such that  $Z_{i,k} = 0$ .
- Social planner program:

$$\max_{e, w_i} W_{i,k} \text{ s.t. } w_{i,k}^{MIN} \leq w_i \leq \min \left\{ w_{i,k}^{MAX}, w^{MAX} \right\}.$$

- $e_i \equiv \arg \max_e W_{i,k}$ :  $W_{A,k}(e_A) > W_{I,k}(e_I)$ : type-A politician produces higher optimal welfare.
- If  $w_i \in [w_{A,k}^{MIN}, w_{I,k}^{MIN})$  only type-A candidates run for the office; welfare is  $W_{Aj}(e_A)$ .
- If  $w_i \in [w_{I,k}^{MIN}, \min \{ w_{i,k}^{MAX}, w^{MAX} \})$ , both types run; ex-ante expected welfare is lower for positive probability that a type- $I$  candidate wins.
- Social planner sets  $w \in [w_{A,k}^{MIN}, w_{I,k}^{MIN})$  and selects only motivated.

# Extensions

- 1 Explicit election mechanism.
- 2 Innate ability as a second input for productivity.
- 3 Different social planner objective function (political parties, lobbies)
- 4 Different utility function concerning  $G(e)$ .
- 5 Wage chosen by candidates (signalling)?
- 6 Moonlighting?
- 7 Anything else?