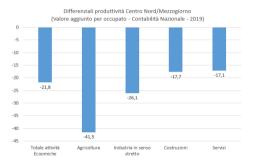
OWNERSHIP, GOVERNANCE, MANAGEMENT AND FIRM PERFORMANCE: EVIDENCE FROM ITALIAN FIRMS

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MOTIVATION

- Output per worker varies across and within countries
- ► Italy: North-South divide of 22p.p.



- ▶ External drivers: efficiency of judicial system, corruption and organized crime, efficiency of public administration (Bugamelli et al., 2018)
- Internal drivers: entrepreneurship, ownership and governance structures, managerial skills and organizational practices

THIS PAPER

- ▶ Describe differences in ownership, corporate governance and management between firms in the North and in the South of Italy:
 - individual point of view: characteristics of entrepreneurs and managers
 - firm point of view: ownership and governance structures; their relation with managerial practices' and technology adoption
- ► Data:
 - ▶ Labour Force Survey (LFS) by Istat, pooled 2015-2019 entrepreneur and manager characteristics (including education)
 - Invind 2019 survey data on firm characteristics, including managerial practices, and Infocamere 2019 register data on ownership and governance structures
- Assess how much these factors explain the North-South gap in firm performance

Preview of main results

Differences in entrepreneur and manager characteristics:

- representation entrepreneurs and especially managers in the South have significantly lower education
- "Southern" managers with a college degree less often studied economics and STEM

Differences in ownership and governance structures:

- higher incidence of family firms in the South
- implies lower degree of separation between ownership and management, corporate governance based on localism and in-family selection, and lower use of structured managerial practices and advanced technology

What can explain the North-South gap in firm performance?

- entrepreneurial and managerial human capital positively relates to business size; managers' education explains one tenth of the North-South divide in the plant size
- ► family-ownership negatively correlates with productivity; explains one tenth of the productivity gap
- crucial role of the selection of (external and professional) managers, rather than adoption of managerial practices (yet: they are "worse" in the South)

WHO ARE ENTREPRENEURS AND MANAGERS?

Using the LFS we define:

- ► Entrepreneurs: self-employed workers who run businesses with employees (1,24 mil.)
- ▶ Managers: employed as chief executives/managing directors in private firms (0,14 mil.)

| Variable and population: | Italy | Centre North | South | Δ (raw) | Δ (with controls) |
|--------------------------|-------|-----------------|-------|------------|--------------------------|
| Age (in years) | | | | | |
| Entrepreneurs | 48.4 | 49.2 | 46.4 | 2.777*** | 2.634*** |
| Managers | 49.7 | 49.9 | 48.9 | 0.965** | 0.526 |
| Total employment | 44.1 | 44.0 | 44.2 | - 0.214*** | 0.304*** |
| Female (%) | | | | | |
| Entrepreneurs | 25.0 | 26.2 | 22.1 | 4.034*** | 4.976*** |
| Managers | 17.8 | 17.9 | 17.2 | 0.703 | 8.910*** |
| Total employment | 41.9 | 43.8 | 36.6 | 7.244*** | 8.780*** |
| College (%) | | | | | |
| Entrepreneurs | 9.7 | 10.2 | 8.4 | 1.809*** | 0.657** |
| Managers | 54.7 | 56.7 | 42.3 | 14.348*** | 5.469*** |
| Total employment | 21.2 | 21.9 | 19.5 | 2.336*** | 2.131*** |

The table shows simple means of main socio-demographic characteristics for different subgroups of the population and by geographical areas. The last two columns show, respectively the unconditional and the conditional difference between the Centre North and the South, with controls including plant- and industry-fixed effects, and the statistical significance; *** p < 0.01, ** p < 0.05, * p < 0.1.

Source: LFS (waves 2015-2019).

CHARACTERISTICS OF ENTREPRENEURS AND MANAGERS

► Entrepreneurs:

- older, more often male, less educated than an average worker
- older, more often male, less educated in the South than in the Centre-North

► Managers:

- older, more often male and more educated than an average worker
- a substantial negative North-South gap in education

Education of entrepreneurs and managers

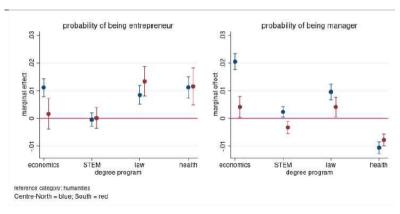
- Positive association between education and probability of being an entrepreneur or manager
- Positive selection into managerial positions three times weaker in the South

| | I | II | Ш | |
|--|-----------|------------------------------|----------|--|
| Geographical area: | Italy | Centre North | South | |
| Dependent variable: | Probabi | ity of being entrepreneur | | |
| =1 if college degree | 0.019*** | 0.017*** | 0.022*** | |
| | (0.001) | (0.001) | (0.001) | |
| | [0.030] | [0.028] | [0.037] | |
| =1 if master or doctoral program | 0.021*** | 0.021*** | 0.020*** | |
| | (0.001) | (0.001) | (0.002) | |
| | [0.015] | [0.015] | [0.014] | |
| Sample mean of the dependent variable: | 0.054 | 0.054 | 0.056 | |
| Dependent variable: | Proba | Probability of being manager | | |
| =1 if college degree | 0.016*** | 0.019*** | 0.007*** | |
| | (0.000) | (0.000) | (0.001) | |
| | [0.080] | [0.087] | [0.048] | |
| =1 if master or doctoral program | 0.017*** | 0.022*** | 0.005*** | |
| | (0.001) | (0.001) | (0.001) | |
| | [0.039] | [0.045] | [0.014] | |
| Sample mean of the dependent variable: | 0.006 | 0.007 | 0.003 | |
| Controls | YES | YES | YES | |
| # observations | 1,012,406 | 737,944 | 274,462 | |

Cross-section regression with the probability of being entrepreneur (manager) as dependent variable in the top (bottom) panel and an indicator for college degree and for master or doctoral programm as main explanatory variables. Column I includes the entire sample while columns II and III replicate the analysis for the two geographical areas. Controls include age bracket, gender, plant size and industry fixed-effects.

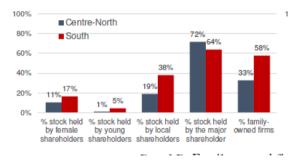
FIELD OF COLLEGE DEGREE MATTERS

- ▶ Managers (and entrepreneurs) more often hold a degree in Economics or STEM
- ► For the probability of being a managers, an economics or a STEM background plays a larger role in the Centre North



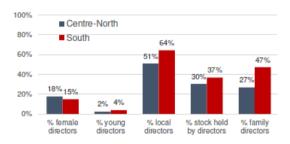
OWNERSHIP STRUCTURE

Infocamere: firm-level indicators on shareholders (tav. soci) and directors (tav. cariche)



- ▶ Higher incidence of family firms in the South
- ▶ This explains many North-South differences (e.g., higher "localism" in the South)

GOVERNANCE STRUCTURE



- More family and "local" directors in the South, partially due to higher presence of family firms
- ▶ Differences qualitatively comparable in the universe of corporations
- Firm size and sectoral composition contribute to these gaps, but do not drive them

OWNERSHIP, GOVERNANCE AND MANAGERIAL PRACTICES

- ▶ Use of structured managerial practices lower in the South:
 - ▶ holds even when controlling for firm size and sector (-13p.p.)
 - the North-South divide is only marginally affected by inclusion of ownership characteristics
 - ▶ ... except for the presence of family shareholders or directors, or "local" shareholders
- ▶ A large share of the North-South divide explained by other factors besides differences in ownership and governance

OWNERSHIP, GOVERNANCE AND ADVANCED TECHNOLOGY

- ▶ Use of advanced technology (cloud computing, big data, AI) less frequent in the South
 - holds when controlling for size and sector (-7p.p.)
 - largely unaffected by inclusion of ownership or governance variables
 - ... with a notable exception of family ownership (and, to some extent, the presence of family directors)

Geographical differences in firm performance

- ▶ Plant size can be used as a proxy for productivity
- ▶ Allows to link information on the HK of entrepreneurs and managers from LFS to firm performance

PLANT SIZE AND THE HK OF ENTREPRENEURS

| | I | П | Ш | IV | |
|----------------------------|-----------|------------|-----------|-----------|--|
| Dependent variable: | | (log of) e | employees | | |
| =1 if South | -0.312*** | -0.239*** | -0.231*** | -0.230*** | |
| | (0.042) | (0.027) | (0.027) | (0.026) | |
| College | | | | 0.258*** | |
| | | | | (0.022) | |
| Master or doctoral program | | | | 0.316*** | |
| | | | | (0.076) | |
| Industry fixed effects | NO | YES | YES | YES | |
| Individual controls | NO | NO | YES | YES | |
| # observations | 58,430 | 58,430 | 58,430 | 58,430 | |

Cross-section regression with (log) of employees as dependent variable and entrepreneurs education as main explanatory variable. Clustered standard errors at the region-industry-group size level in round brackets; *** p<0.01, **p<0.05, * p<0.1.

Source: LFS (waves 2015-2019).

 \Rightarrow Entrepreneurs' education does not explain the North-South divide

PLANT SIZE AND THE HK OF MANAGERS

| | I | II | III | IV | |
|----------------------------|-----------|--------------------|-----------|-----------|--|
| Dependent variable: | | (log of) employees | | | |
| =1 if South | -0.725*** | -0.472*** | -0.468*** | -0.422*** | |
| | (0.135) | (0.111) | (0.109) | (0.105) | |
| College | | | | 0.639*** | |
| | | | | (0.071) | |
| Master or doctoral program | | | | 0.680*** | |
| | | | | (0.124) | |
| Industry fixed effects | NO | YES | YES | YES | |
| Individual controls | NO | NO | YES | YES | |
| # observations | 5,768 | 5,768 | 5,768 | 5,768 | |

Cross-section regression with (log) of employees as dependent variable and managers education as main explanatory variable. Clustered standard errors at the region-industry-group size level in round brackets; *** p<0.01, **p<0.05, * p<0.1.

Source: LFS (waves 2015-2019).

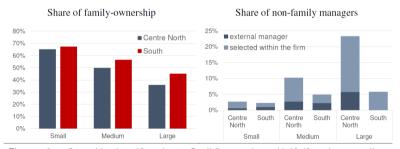
⇒ Managers' education, instead, explains around 10% of the gap

FIRM PRODUCTIVITY AND OWNERSHIP, GOVERNANCE AND ORGANIZATION

- Output per worker to measure productivity
- ▶ The North-South gap is around 16-17p.p., controlling for firm size and sector
- Point estimates stable when ownership or governance characteristics are included
- ... except for **family-ownership and family governance** that explain around 10% of the gap

CONCLUDING REMARKS

- Ownership, governance and management have different characteristics in the North and South
- ▶ Among all the factors, the prevalence of family firms in the South seems to be the most relevant determinant of differences in firm performance
- ▶ Their management in the South is more often selected within-family, even for medium-size and large companies



Figures refer to firms with at least 10 employees. Small firms are those with 10-49 employees, mediumsized firms are those with 50-249 employees while large firms are those with 250 employees or more. Source: Istat, permanent census of enterprises, 2018.

Concluding Remarks

- ▶ Although our analysis is purely descriptive, we document systematic evidence that certain factors explain a non-negligible share of the productivity gradient:
 - ▶ family firms $\approx 10\%$ of productivity gap
 - ▶ HK of managers $\approx 10\%$ of differences in plant size
- ▶ Plausibly, institutional factors play an important role

Thank you!

Additional Material

STRUCTURED MANAGEMENT PRACTICES

▶ We closely follow the scoring mechanism of Bloom et al. (2019)

Table A1: Scoring scheme for management module of INVIND 2020

| PM1 | Quando si è presentato un problema nella produzione dei Vostri beni e/o servizi, che cosa è avvenuto? | |
|-----|---|-----|
| 1 | È stato risolto ma non sono stati presi ulteriori provvedimenti | 1/3 |
| 2 | È stato risolto e sono stati presi ulteriori proveddimenti affinché non accadesse di nuovo | 2/3 |
| 3 | È stato risolto, sono stati presi ulteriori proveddimenti affinché non accadesse di nuovo ed è stato intrapreso un continuo processo di miglioramento per prevenire problemi di questo tipo | 1 |
| 4 | Non è stato preso alcun provvedimento | 0 |
| 5 | Non si è mai presentato un problema nella produzione | 0 |

- we take firms who have responded to at least 5 of the 8 questions
- ▶ low scores indicating lower use of structured management practices
- ▶ overall MOPS score computed as the unweighted average of all questions
- normalized to have mean zero and standard deviation 1

OWNERSHIP AND GOVERNANCE OF FIRMS

Figure 3. North-South differences in ownership and governance structure unconditional difference conditional difference unconditional difference

Notes: The coefficient indicating the conditional difference is estimated in a regression that holds constant firm size and sector of main economic activity.