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Conceptualizing the informal Sector: Analysis and Application to Francophone Africa

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INTRODUCTION

- Informality is predominant in Africa but means different things to different people.
- The only consensus that we as economists have reached on informality is a lack of consensus. As Fields (2011, p.1)
- This lack of consensus on the definition of informality is not without consequences (Gasparini and Tornarolli 2007):
 - ❖ very little data on the informal sector is comparable over time and location;
 - ❖ very few conclusions obtained from analyses of the informal sector can be generalised.

Accounting for Heterogeneity and idiosyncrasies in defining Informality

- The heterogeneous nature of informality justifies the importance of using multiple criteria to define it;
- Heintz (2012) and Benjamin and Mbaye (2012, 2014) have identified the most common criteria: size; registration; employer/enterprise social-security contributions; organizational structure of the firm and existence of a reliable accounting.

Our approach to defining informality

- We challenge the binary formal/informal definition based on the use of a single criterion,
- We combine the following criteria to come up with a definition based on a continuum of firm characteristics: size, registration, taxation, reliable accounting, mobility of the work place, access to bank loans, and social security coverage of employees.
- Combining this set of criteria will lead to 8 levels of informality based on the number of criteria firms meet

Our approach to defining informality

We propose seven criteria to define informality:

- **size:** less than five employee;
- **registration:** not registered with any public authority;
- **tax regime:** is not taxed on an actual-revenue basis;
- **accounting:** does not maintain regular, accurate accounts;

Our approach to defining informality

- **workplace:** does not operate from fixed place;
- **bank credit:** has not received a bank or microfinance;
- **social security:** employees have not social security.

Our approach to defining informality

The seven countries we have covered

- The survey takes place in seven countries with the target population of formal and informal enterprises:
 - ❖ West Africa 300 units in each cities : Niamey and Diffa (Niger); Bamako and Mopti (Mali);
 - ❖ Central Africa: Douala: 200 units; Younde: 300 units (Cameroon); Libreville: 300 units (Gabon).
- The survey also includes other cities: Dakar (Senegal), Cotonou (Benin) and Ouagadougou (Burkina Faso).

Our approach to defining informality

Our sampling strategy

- **Formal enterprises:** regular business income tax regime;
- **Large informal enterprises:** estimated sales in excess of 90.000 USD yet pay the presumptive lump-sum tax;
- **Small informal enterprises:** all the enterprises that do not fall into the two previous categories.

Our approach to defining informality

Our sampling strategy (c'ed)

- The size of the sample is organized to include 40% of formal, 30% of large informal and 30% of small informal;
- Each group is defined within activity sectors such as **industry, trade and other services** with the share of the GDP accounted for each sub-sector.

Our approach to defining informality

Showcasing large informal businesses

- In much of the subsequent analysis in this presentation, we aggregate firms into three major groups: formal, large informal and small informal firms.
- The coexistence of small and large informal enterprises is one of the defining characteristics of the West African and Central African informal sector.
- Large informal enterprises are comparable in size to those of the modern sector, but they behave informally in other respects. They meet most of the criteria for formality except that their accounts are inaccurate and deliberately misleading.
- Additionally, their organisational structure is more akin to a small informal firm than a formal firm.

The Heterogeneity of the Informal Sector: Evidence from Our Survey Data

City	Less than Five Employees	Not Registered	Lump-Sum Taxation	Lack of Regular Accounts	Lack of Fixed Workplace	Lack of Access to Bank Credit	Lack of Social Security Coverage
Dakar	68.5	11.7	76.0	33.8	66.5	81.8	66.9
Cotonou	47.1	43.0	77.3	35.6	72.9	71.9	56.9
Ouagadougou	69.7	11.3	86.7	27.7	58.0	76.0	70.7
Douala	57.6	28.4	66.8	32.5	29.5	74.9	59.0
Yaoundé	61.6	25.6	72.6	53.0	20.7	78.7	59.8
Libreville	68.9	22.8	79.2	53.1	15.3	90.0	68.5

The Heterogeneity of the Informal Sector: Evidence from Our Survey Data

Level of informality according to ownership type, cities aggregated (percent)

Informality	Individual	Corporation	Self	Total
Level 1	43.9	34.5	21.6	100
Level 2	52.1	16	31.9	100
Level 3	47.3	15.3	37.4	100
Level 4	51.4	4.6	44	100
Level 5	36	3.5	60.4	100
Level 6	30.8	2.2	67	100
Level 7	19.8	2.6	77.6	100

Implication for firms' and managers' characteristics:

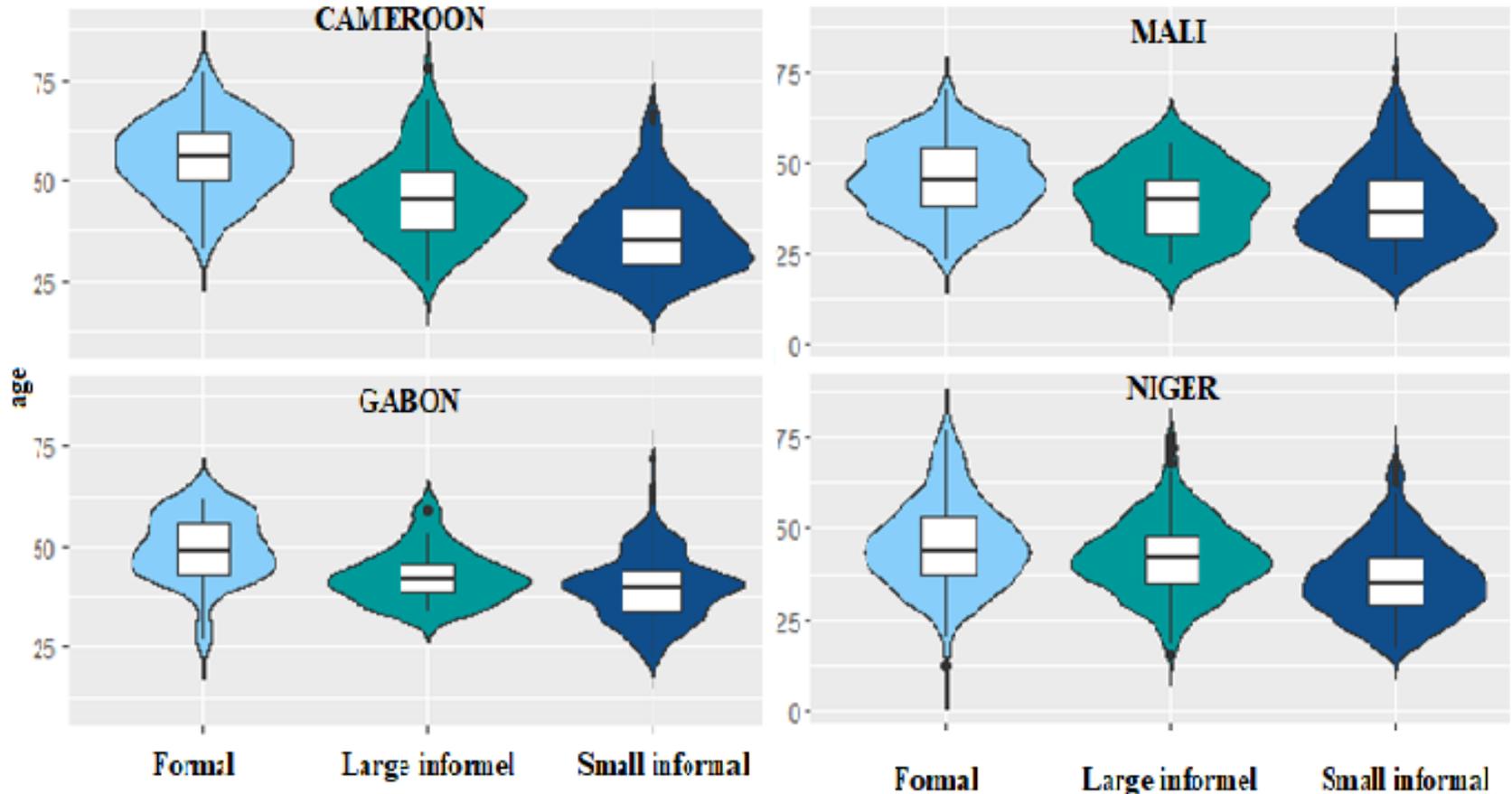
Manager's gender (%)

		Formal	Large Informal	Small informal
Cameroon	Man	32.7	30.8	36.5
	Woman	3.4	28.2	68.4
Gabon	Man	22.1	7.7	70.2
	Woman	12.1	9.1	78.8
Mali	Man	50.1	7.0	42.9
	Woman	18.4	3.3	78.3
Niger	Man	21.4	40.7	37.9
	Woman	17.0	29.2	53.8

Source: Our survey/author calculation

Implication for firms' and managers' characteristics

Manager's age



Implication for firms' and managers' characteristics

Manager's level of education

		None	Primary	Secondary	High	Koranic
Cameroon	Formal	1.0	1.0	21.0	76.0	1.0
	Large informal	1.0	5.0	52.0	41.0	1.0
	Small informal	1.0	22.0	63.0	14.0	NA
Gabon	Formal	NA	6.0	1.0	74.0	1.0
	Large informal	5.0	NA	26.0	47.0	21.0
	Small informal	1.0	13.0	51.0	22.0	14
Mali	Formal	8.0	8.0	11.0	55.0	18.0
	Large informal	16.0	16.0	35.0	14.0	19.0
	Small informal	31.0	18.0	13.0	15.0	24.0
Niger	Formal	9.0	17.0	27.0	29.0	19.0
	Large informal	13.0	25.0	26.0	12.0	24.0
	Small informal	24.0	25.0	20.0	3.0	28.0

Implication for firms' and managers' characteristics

The business environment (1/4)

- In Douala and Yaounde (Cameroon):
 - ❖ **Formal:** water(94%), electricity(97%), telephone(97%), generator(73%), e-mail(83%), website(58%);
 - ❖ **Large Informal:** water(53%), electricity(92%), telephone(64%), generator(18%), e-mail(34%), website(14%);
 - ❖ **Small Informal:** water(10%), electricity(52%), telephone(34%), generator(3%), e-mail(3%), website(1%);

Implication for firms' and managers' characteristics

The business environment (2/4)

- In Libreville (Gabon):
 - ❖ **Formal:** water(88%), electricity(90%), telephone(80%), generator(50%), e-mail(84%), website(48%);
 - ❖ **Large Informal:** water(68%), electricity(84%), telephone(47%), generator(16%), e-mail(26%), website(16%);
 - ❖ **Small Informal:** water(55%), electricity(83%), telephone(26%), generator(4%), e-mail(9%), website(4%);

Implication for firms' and managers' characteristics

The business environment (3/4)

- In Bamako and Mopti (Mali):
 - ❖ **Formal:** water(71%), electricity(91%), telephone(80%), generator(43%), e-mail(63%), website(29%);
 - ❖ **Large Informal:** water(15%), electricity(68%), telephone(64%), generator(12%), e-mail(12%), website(5%);
 - ❖ **Small Informal:** water(6%), electricity(40%), telephone(33%), generator(3%), e-mail(2%), website(1%);

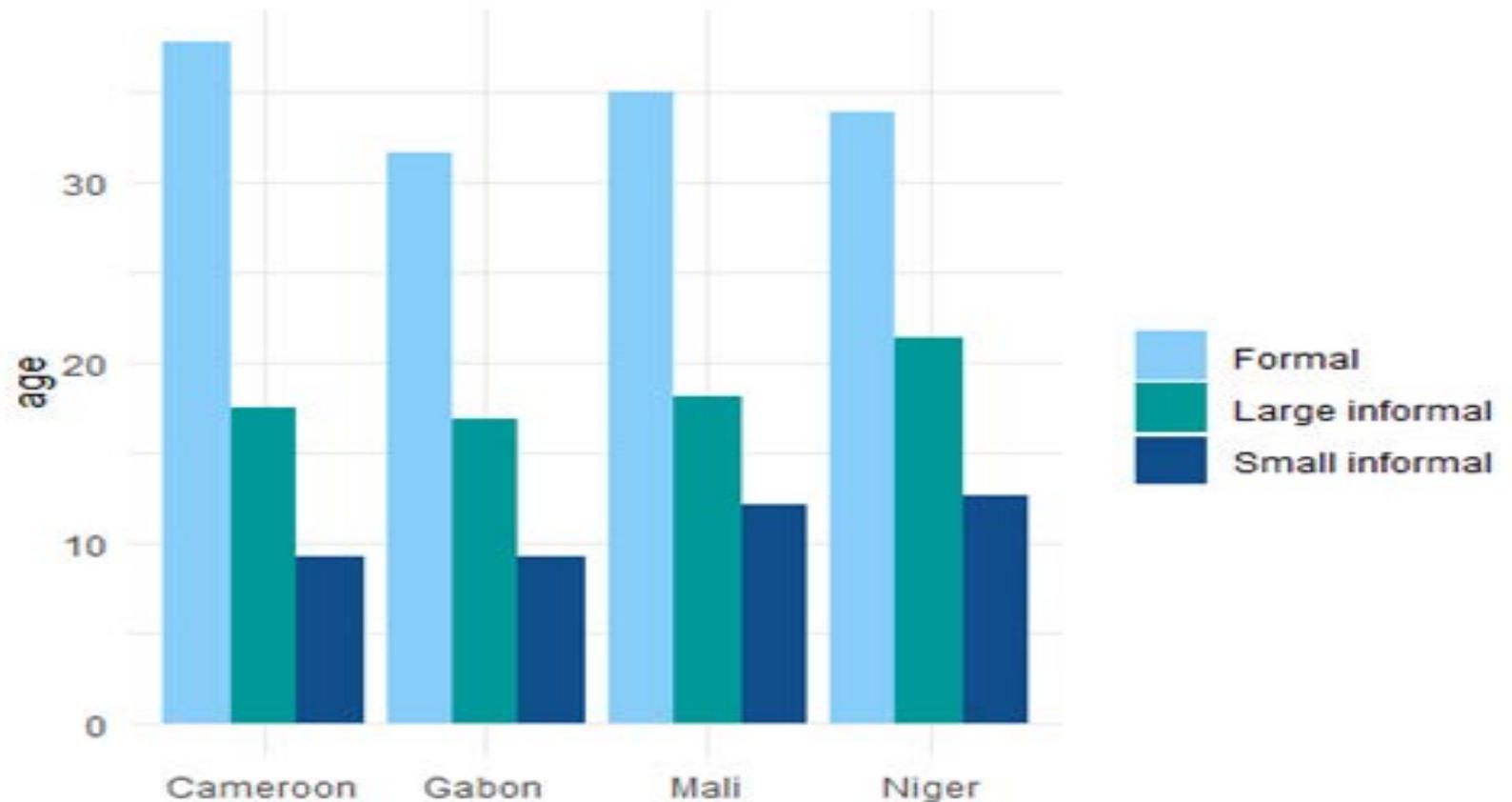
Implication for firms' and managers' characteristics

The business environment (4/4)

- In Niamey and Diffa (Niger):
 - ❖ **Formal:** water(42%), electricity(73%), telephone(41%), generator(28%), e-mail(28%), website(9%);
 - ❖ **Large Informal:** water(19%), electricity(60%), telephone(32%), generator(13%), e-mail(10%), website(5%);
 - ❖ **Small Informal:** water(8%), electricity(31%), telephone(13%), generator(2%), e-mail(2%), website(1%);

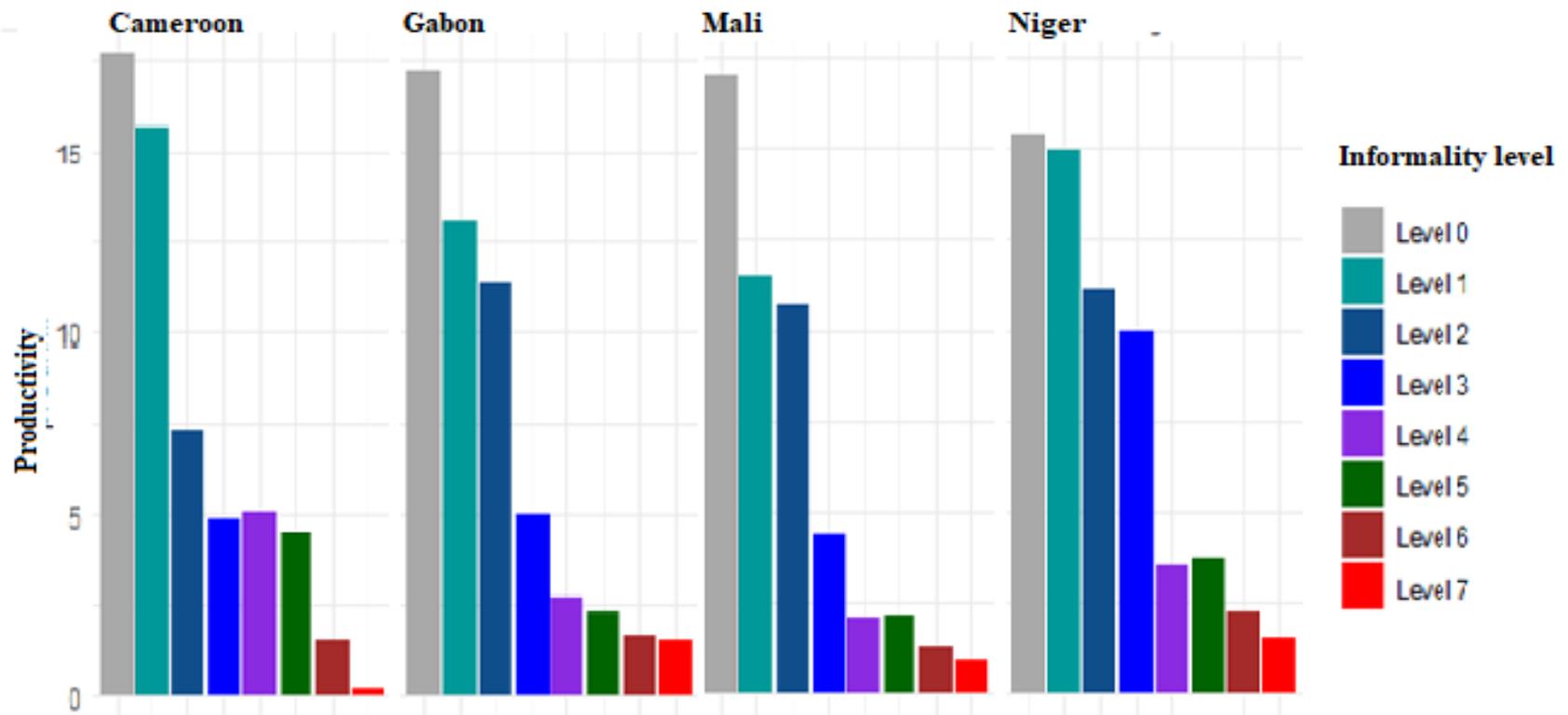
Implication for firms' and managers' characteristics

Enterprise's age



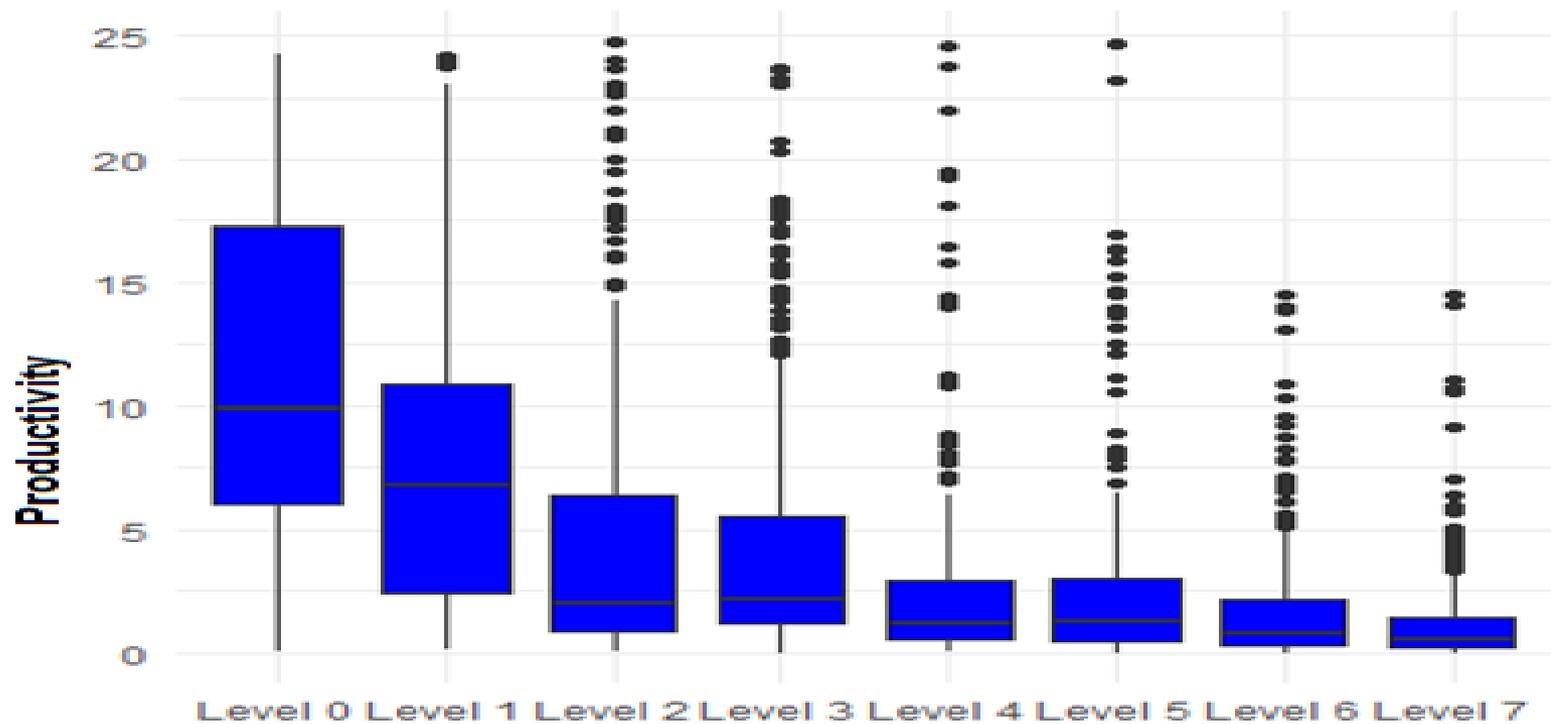
Implication for informal productivity gap

Productivity gap by informality level



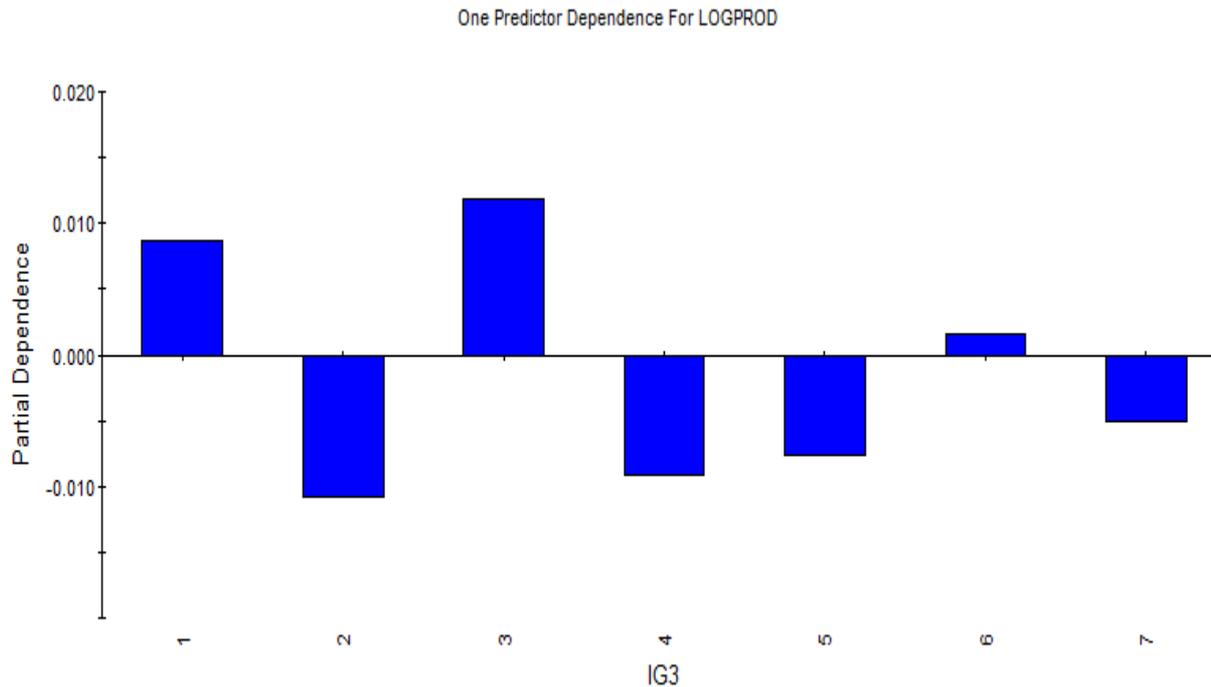
Implication for informal productivity gap

Boxplot of productivity by informality levels for all countries



Implication for informal productivity gap

Productivity by sector

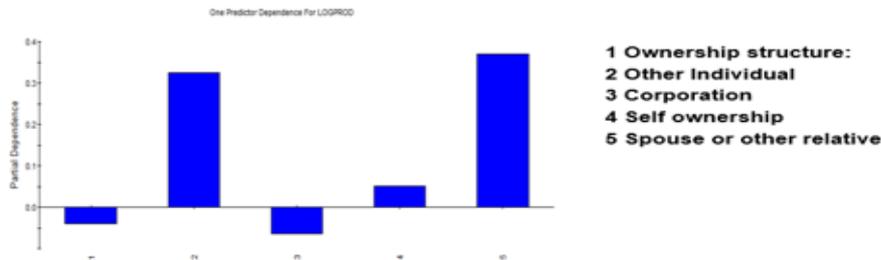


1. Public works and construction
2. Other industry
3. Trade
4. Transports
5. Restauration
6. Other services
7. Other

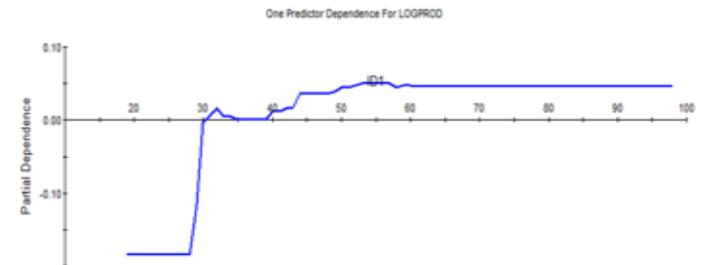
Implication for informal productivity gap

Ownership, age and gender analysis

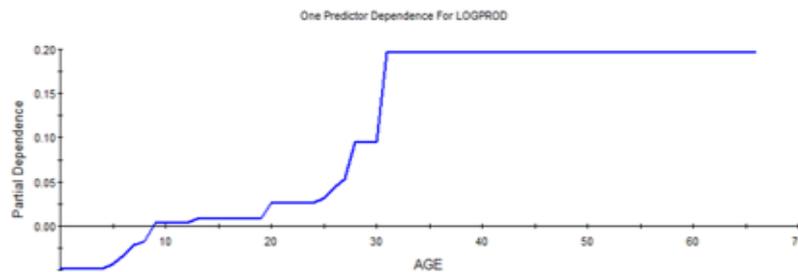
Ownership status



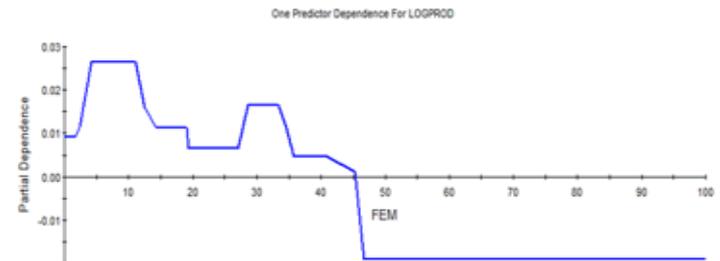
Head of enterprise's age



Age of firm



Proportion of females in the firm



Implication for informal productivity gap

Productivity analysis over informality level with ANOVA model

	F	Pr(> F)
Informality level	49.92	2.85e-66
Countries	3.505	0.01482

Implication for informal productivity gap

Productivity order within informality levels

Turkey Honestly Significant Difference test (Tukey-HSD test) to compare productivity within informality level (5% level of significance):

- ❖ Enterprises from level 0 to 3 have a productivity greater than those of enterprises with great informality level;
- ❖ Productivity of enterprises of level 4 is only greater than those of enterprises of level 7, but not greater than productivity of level 5 and level 6;
- ❖ Enterprises of level 5 have not a productivity greater than those of level 6 and level 7, and enterprises of level 6 have not a greater productivity than those of level 7.

Conclusion

- informal enterprises are younger, managed by younger people with lower levels of education;
- women are much present in small informal segment of the business lanscape;
- The more informal the firms the lower its productivity;
- small informal enterprises suffer from various forms of social exclusion and an adverse business environment to a greater extent than formal enterprises and even large informal enterprises.
- few informal enterprises own a generator, e-mail and website and they don't export their production;
- A critical debate is about policies likely to work due to



THANKS!