Labour market segmentation: The economic condition of self-employed professionals in Italy and Argentina

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Abstract

This article focuses on the conditions of professional self-employed in the European and Latin American labour markets, whose increase is linked to the expansion of the on-demand service economy. Moving from a critique to the traditional segmentation theory, this group of highly skilled self-employed—an expression of the upper-middle class and post-industrial work—can be considered halfway between market and hierarchy, HR internalization and outsourcing. Dealing with social inequalities, the research questions are whether the conditions of these independent professionals who are characterized, on average, by higher levels of education and who work in the advanced service sectors) are comparable to employees and whether there are similar trends in the two contexts (specifically Italy and Argentina). The article presents empirical evidence on occupational income (as a dependent variable) to measure how working condition changes when controlling for socio-demographic characteristics (as independent variables) and occupation (self-employed or employee). Income levels were compared using two datasets: EPH-INDEC (Permanent Household Survey) for Argentina and ITA-SILC for Italy. Despite the limitations due to problems of comparison in the classification of occupations, the analysis highlights differences between the two countries linked to a dissimilar expansion of the service economy, professional services and outsourcing of high-skilled competences. Moreover, within a frame of high income inequalities in self-employment, graduate independent professionals in Argentina seem to retain a stronger economic performance, while in Italy they show lower earnings than other occupations, thus suggesting an unequal labour market impact of higher education in the two countries.

Keywords: labour market; occupational segmentation; self-employed; Italy; Argentina

Resumen. *La segmentación del mercado de trabajo: la condición económica de los profesionales autónomos en Italia y Argentina*

El artículo se centra en las condiciones de los trabajadores autónomos profesionales en los mercados laborales europeos y latinoamericanos, cuyo aumento está vinculado al desarrollo de la economía de servicios. Realizando una crítica a la tradicional teoría de segmentación, este grupo de trabajadores independientes altamente cualificados, expresión de la clase media alta y del trabajo postindustrial, se puede considerar a medio camino entre el mercado y la jerarquía, entre la internalización de recursos humanos y la subcontratación. Considerando las desigualdades sociales, la pregunta es si las condiciones de estos profesionales independientes, caracterizados por niveles de educación más altos y que trabajan en los sectores de servicios avanzados, son comparables a las de los empleados (específicamente en Italia y Argentina). El artículo investiga el ingreso laboral (como variable dependiente) para evaluar cómo ello cambia considerando la ocupación (autónomo o empleado) y las características sociodemográficas (como variables independientes). La comparación de los ingresos se realizó utilizando dos conjuntos de datos: EPH-INDEC (Encuesta Permanente de Hogares) para Argentina e ITA-SILC para Italia. A pesar de los problemas de comparación en la clasificación de ocupaciones, el análisis destaca las diferencias entre los dos países, vinculadas a una expansión disímil de la economía de servicios, los servicios profesionales y la subcontratación de competencias altamente cualificadas. Además, en un marco de grandes desigualdades de ingresos en el autoempleo, los profesionales graduados independientes en Argentina parecen mantener un mejor desempeño económico, mientras que en Italia muestran menores ingresos en relación con otras ocupaciones. Esto sugiere un impacto desigual en el mercado laboral de la educación superior en ambos países.

Palabras clave: mercado de trabajo; segmentación ocupacional; profesionales autónomos; Italia; Argentina

Summary

Introduction

This article examines the working conditions of professional self-employed in Europe and Latin America, particularly in Italy and Argentina.[1] It is argued that their position varies according to the dominant economic model: a post-industrial model and a premature deindustrialization model (Rodrick, 2016).

The reasons that support the comparison between the two countries stem from three considerations. In terms of the structure of the social classes, both Italy and Argentina (which distinguishes itself from other Latin American countries) are characterized by a broad middle class, of which independent professionals are an expression. Secondly, both countries have a similar and strong culture of self-employment attributable to the great flow of Italian immigration in Argentina and the fact that the self-employment rate for the two countries ranges from 16–18%. A further reason is the analogy with the labour market segmentation model. In fact, Argentina and Italy present a very similar structure in the upper primary segment (stable and safe jobs, insiders with good jobs and high incomes in the service sector), the lower primary segment (stable, middle-income, in industrial and construction sectors) and the lower secondary segment (precarious jobs, unskilled and low-income workers). Finally, both countries suffer from problems related to the social security system and the tax treatment of self-employed workers. Moreover, although the countries share important elements that justify the comparison, as we shall see, the article highlights the differences between them, which depend mostly on the different degree of economic development.

The rise of post-industrial society in Italy and Argentina took place in different forms and phases, even if recent economic trends show some similarities in the two countries. Italy reached its peak of industrialized employment in the 1970s and then declined, maintaining a strong manufacturing sector whose dynamics explain much of the demand for new services for enterprises (including those offered by independent professionals in the high-tech sectors). Argentina achieved its peak of industrialized employment in the 1950s and then suffered a premature deindustrialization, with a limited growth of modern service sectors and the huge development of pre-modern services in low-tech sectors. In the last twenty years, both countries have suffered a prolonged recession (in Argentina during the first decade of the 21st century, in Italy in the second decade), followed by low productivity trends in the economic cycle. Unemployment, wealth and GDP trends show stable low-equilibrium models in both countries. Labour market fragmentation, instability and precariousness are the rule in both countries, although differences in the entrepreneurial economic structure and dimensions of informal economy vary between them.

The article builds on the idea that as a universal trend, labour segmentation depends mostly on the economic system, namely the division among activity sectors, and impacts on the employment characteristics and the labour market structure. Usually, each occupation represents the frame of relative socio-economic, cultural and welfare resources, such as income, educational attainment and social protection.

In Latin America this relationship has been highlighted by the 'structural heterogeneity' theory proposed by Pinto (1976) and continued by Salvia and Chavez-Molina (2013), which is defined as structural differences in labour productivity and between economic sectors. This thesis, which incorporates a number of aspects of the underdevelopment economy, implies the coexistence

of sectors, branches or activities whose labour productivity is high and similar to that of developed countries given the composition of invested capital with others whose productivity is very low or zero due to their backward technological level.

Nevertheless, the heterodox theories on labour market segmentation (Doeringer and Piore, 1971; Edwards et al., 1973; Rubery, 1978; Wilkinson, 2013) include other complementary aspects. First, labour institutions and public policies can compensate inequalities but also perpetuate them and reinforce the employment divisions. Second, from the demand side, they consider economic and commercial strategies, business ideologies and practices, particularly labour flexibility and outsourcing. Third, labour force characteristics linked to different conditions within the labour market are taken into account (i.e. education, qualification, age, gender and national origin). These theories assume in fact that there is not a unique labour market but rather different segments that structure hierarchical positions corresponding to specific occupational profiles among workers.

Within these theoretical approaches, we presume that there is a growth in professional self-employed (especially in non-regulated professions) in most European countries due to the transition to a service economy and the innovative power of new technologies compared to all other contractual conditions (both employees and traditional self-employment, which show a stable or deceasing trend; see Appendix A1). Since the 1990s, the self-employed have played a key role in satisfying the growing demand for flexible, skilled-based and hyper-specialized competences. In Latin America, this trend is less evident due to the dominance of low-skilled and pre-technological service sectors, where self-employment consists mainly of occupations in the craft and retail sectors (OECD, 2012, 2016).

Based on this assumption, our hypothesis is that while a process of socio-economic impoverishment of professional self-employment is taking place in Italy,[2] this occupational category tends to preserve the prerogatives of liberal professions in Argentina. In the first case, we hypothesize a status inconsistency: many highly educated and skilled professional self-employed are moving from a standard middle-class position to low incomes and social precariousness. The same does not happen in Argentina, where the professional self-employed represent a less vulnerable group because it has higher income and often simultaneously combines salaried work activities, even if there is evidence of job precariousness in the service sectors due to the outsourcing process.

2. Independent professionals in Europe

In Western economies, the transition to a service economy, supported by the use of information technologies and digital platforms, has modified traditional

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2. This includes the growing instability of professional careers (Bologna, 2007; Ranci, 2012), limited inclusion in the welfare system compared to employees (Semenza et al., 2017; Borghi et al., 2018) and low income for a significant number of professional self-employed workers (Di Nunzio and Toscano, 2015).

independent professions and created new ones. These changes have fostered the proliferation of highly qualified and specialized self-employed in many areas of the tertiary activity sector. The cross-country analysis of this phenomenon in Europe (Borghi et al., 2018) has highlighted three critical aspects: uncertain legal status, weak social protection and the large fragmentation of collective representation in environments of strong individualization of employment relationships. In the European research (I-WIRE, 2016), there are some signs of a better awareness of the challenges arising in these new labour markets. In the UK, the institutional framework is strongly favourable to independent professional work, encouraged by an agile regulation and active labour market policies. In Italy, where the debate has long been trapped (as in Germany) in the dispute on false or bogus self-employment,[3] a new statute on self-employment was approved in 2017. New regulations are needed regarding working conditions: the entry port into professions and mobility, training incentives, taxation systems, payment times and fair (minimum) fees. The repercussions of the financial crisis stimulated the demand for greater protection and collective representation across Europe.

3. Independent professionals in Latin America

In the mid-2000s, new dynamics were structuring the labour market (Saìnz, 2005). On the one hand, formal sector jobs were created through the development of wage employment and job opportunities increased as a result of workers' own initiatives (the notion of employability). On the other hand, excluding tendencies occurred through the expulsion of labour surplus and the increase in poor self-employment corresponding to an economy of poverty.

The region continues to have extremely high levels of labour precariousness and inequality (ECLAC, 2010). Labour informality,[4] both productive and legal, is one of the categories of analysis that most contributes to the characterization of labour conditions in Latin America (Maurizio, 2013). With remarkable variations between countries, five core features distinguish the labour market in Latin America from most other regions: high labour market regulation,[5] high turnover,[6] weak unions, high informality and low skills levels (Schneider and Karcher, 2010).

3. This refers to those considered to be 'economically dependent' whose income derives mainly from a single employer or client. However, we know that the so-called 'false VAT holders' account for no more than 10% of all independent professionals in Italy.
4. Conventionally, we consider employees to be 'informal' when their employment contract is not subject to labour law, tax or social security (17th Conference of Labour Statistics, 2003). In the case of self-employed (entrepreneurs, self-employed and cooperatives) there is informality when they work in the informal sector of the economy.
5. Indices of regulation in the Latin American labour markets are very high from a comparative perspective. Particularly, they have a strong reliance on severance pay as a means of employment protection.
6. A median tenure rate of only 3 years compared to 6.6 years in the US and 10 years in Germany.

Despite the significant employment expansion during the 2000s, which enabled a growing share of women to enter the job market, and the reduction in earnings inequality due to changes in the labour force composition and returns on education,[7] the region is still unable to create high-level, skilled jobs (World Bank, 2012). In this regard, firms identify an inadequately educated workforce as a major constraint (Melguizo and Perea, 2016). More than 70% of youth are not sufficiently skilled to access good quality jobs and only 16%, on average, has completed tertiary education (OECD, 2017). In countries specialized in natural resources such as Latin America, the critical issue is the low technological content of its production[8] and export activities (ECLAC, 2016). There are important differences across countries. However, the development of the service sector shows that contributions to value-added growth in Latin America have not been circumscribed to low-skilled activities or construction; on the contrary, it is in the high-skilled services where the contribution to growth has been the most significant in the past decade, in line with the Asian economies (Yeyati and Pienknagura, 2014b). The skill composition by sectors indicates that services employ the highest proportion of the educated workforce: more than 50% of the labour force has at least one secondary school degree and 20% have a tertiary degree.

The topic of professional self-employment has been less studied in Latin America than in Europe. The empirical literature has mainly focused on outsourcing in specific tertiary sectors, such as advertising, cinema, computer technology, bio-informatics, the steel industry and the public administration, showing the effects on the increase in new forms of labour sub-contracting and working conditions (Poblete and Del Bono, 2013).

The introduction of simplified tax schemes (*monotributo*)[9] for small taxpayers in the majority of Latin American countries was a step towards the transition to universal coverage patterns (Cetrangolo et al., 2014).

4. Definitions, samples and research method

As regards the methodological approach, the first problem in the transnational comparison concerns the definition of the population under consideration. For the European context, we use the definition of independent professionals (I-Pros) proposed by Rapelli (2012:4): 1) self-employed workers without employees; 2) engaged in an activity not belonging to the farming, craft or

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7. "Unlike most of the developed world, Latin America has seen a notable decline in income inequality in the last decade. Labour earnings were the main driver behind this equalisation and more than half of the reduction in income inequality can be attributed to a compression of the 'education premium'" (Yeyati and Pienknagura, 2014a: 1).

8. Numerous studies have shown that one of the major differences between the success stories of East Asia and the experiences of Latin America is that East Asia has made the transition to the knowledge generation, while Latin America is still lagging behind in this respect (Ocampo, 2014).

9. The *monotributo* tax scheme was introduced in Argentina in 1998 under Law No. 24.977.

retail sectors; 3) and engage in activities of an intellectual nature and/or which come under service sectors.[10]

For the Argentinian context, we adopt the definition of independent professional (*cuenta propias profesionales* in Spanish) proposed by Lépore and Schleser (2006), which includes workers who are self-employed in highly qualified occupational positions. According to the last report of the Ministry of Labour, Employment and Social Security of Argentina (2017) these *cuenta-propistas professionales* are self-employed with a professional qualification, have high rates of educational attainment and a comparatively higher seniority, and more than half are concentrated in the Greater Buenos Aires area. They are professionals predominantly inserted in formal economic activities and include, among others, doctors, lawyers, engineers, accountants, architects, psychologists, dentists, musicians and artists, all of whom are in the self-employment occupational category.

Income levels are compared using the EPH-INDEC (Permanent Household Survey) for Argentina and EU-SILC for Italy (ITA-SILC). The results of the analysis of the relation between incomes and occupational positions for Italy led us to consider a second Italian dataset (the Labour Force Survey), which provides information on job satisfaction. This variable allows us to better articulate our findings on the worsening position of I-Pros in the Italian labour market structure. The year of reference is 2014 for all surveys.

Based on the definition of I-Pros we have adopted, we produced descriptive statistics. We decided to create a typology of occupations based on two main dimensions: the economic activity sector (advanced tertiary sector vs. other sectors) and the type of job position (employees, self-employed with employees and self-employed without employees). The I-Pros category is a combination of the 'advanced tertiary sector' and 'self-employed without employees' (Table 1).

According to the sources, there are about half a million I-Pros in Argentina, which make up almost 5% of the labour force.[11] In Italy, there are a little less than one and a half million I-Pros, which account for 6.2% of the labour force.

The socio-demographic profile is quite similar in the two countries. I-Pros have, on average, a much higher level of education than other occupational groups: the percentage of graduates is the highest (42% in Italy, 57% in Argentina); an aspect that will be taken into account in the multivariate analysis. Moreover, the I-Pros work for the most part in the private sector and for more than one employer or client (75% in Italy, while the same information is not available in the Argentinian dataset).

10. NACE CATEGORIES: Information and communication (J); Financial and insurance activity (K); Real estate activities (L); Professional, scientific and technical activities (M); Administrative and support services (N); Education (P); Human health and social work (Q); Arts, entertainment and recreation (R); Other service activities (S).
11. According to the Argentina Social Debt Survey (EDSA, 2014), the percentage of I-Pros is 4.6%.

Table 1. Dimensioning I-Pros in *ad hoc* occupational classification

| | Italy | | Argentina | |
| | ITA-SILC 2014 | | EPH-INDEC 2014 | |
	%	Estimated population (k)	%	Estimated population (k)
Employees, other sectors	38.3	8,293	42.1	4,393
Self without, other sectors	8.2	1,781	15.3	1,597
Employees adv. services	41.6	8,999	34.3	3,579
I-Pros	6.2	1,350	4.9	507
Self with	5.7	1,227	3.4	359
Total	*100.0*		*100.0*	
Sample size	*23528*		*23380*	

Source: Own elaboration based on ITA-SILC and EPH-INDEC data.

Considering these data sources, we have applied different multivariate regression models to test our hypotheses concerning the associations between the I-Pros condition and occupational income. In these models, we have controlled for possible confounders, particularly gender, age and educational level. According to segmentation theories, these independent variables are associated with the job position. Since the I-Pros are more educated—and only for this reason—they could earn more on average than other occupational groups. Thus, these confounders (age, gender and education) may mask the net effect of the I-Pros working conditions.

As regards the descriptive statistics, Table 2 shows the raw average incomes. In both Italy and Argentina, I-Pros have a higher average income with respect to workers who are not in advanced tertiary sectors, while self-employed with employees have the highest average incomes. Considering the employees in the same advanced tertiary sectors, the I-Pros have a higher average income in Italy and a lower income in Argentina. It should also be noted that median incomes paint a more negative picture of I-Pros, which seem to be at a slight disadvantage in both countries.

Thus, considering the descriptive statistics, on the surface I-Pros in Argentina and Italy appear to have similar socio-economic conditions. Indeed, it can be observed that the average incomes of I-Pros are not very high in either country. Evidently, the heterogeneity in income distributions could influence these statistics. In fact, Figure 1 shows the distribution of income quintiles per occupational group. It is clear that the I-Pros categories are very heterogeneous, and we can observe larger groups of richest and poorest in both I-Pros bars (darker and lighter segments). This is confirmed by the international evidence showing higher degrees of dispersion in occupational incomes in self-employment (Perry et al., 2007).

This indicates a strong polarization of the I-Pros considering the high percentage of individuals in the first and poorest quintiles (20% in Italy and 26% in Argentina) and in the fifth and richest quintiles (28% in Italy and

Table 2. Average occupational income (euros per month*)

	Italy			Argentina		
	Mean	**SD**	**Median**	**Mean**	**SD**	**Median**
Employees, other sectors	1613.8	1025.4	1502.7	518.3	385.7	439.4
Self without, other sectors	1328.5	1075.5	1146.7	382.3	326.6	292.9
Employees adv. services	1642.2	1064.8	1516.7	754.5	519.9	654.2
I-Pros	1710.1	1553.1	1293.8	624.1	640.8	488.2
Self with employees	2283.7	2367.6	1748.9	856.1	816.1	683.5

* Amounts in euros calculated according to the official conversion rate of 2014 (0.09764 Argentinian pesos = 1 euro).

Source: Own elaboration based on ITA-SILC and EPH-INDEC data.

Figure 1. Quintiles of job income per occupational position
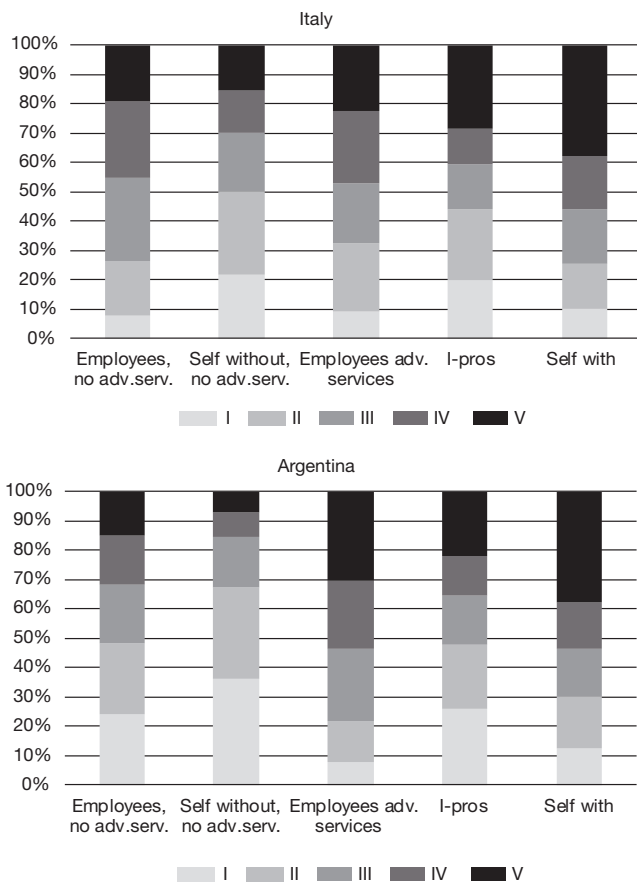
Source: Own elaboration based on ITA-SILC and EPH-INDEC data.

22% in Argentina). A comparison with employees in the same economic sectors is clear. In this occupational category, the distributions are quite similar, and the lowest quintiles show very low percentages for both countries (9% in Italy and 8% in Argentina). This suggests that I-Pros are at a higher risk of earning low occupational incomes than employees in the advanced economic sectors. Moreover, the likelihood of being in the highest quintiles is slightly higher for the Italian I-Pros and lower for the Argentinian I-Pros (with respect to employees).

As an additional note, Figure 1 shows higher inequalities in Argentina, as highlighted by the greater probability of being in the lowest quintiles for employees and self-employed without employees in the traditional economic sectors. These data are substantially consistent with the official occupational income trend presented by the Ministry of Labour, Employment and Social Security (2017).

In the next part of the article, these first descriptive findings will be controlled by applying multivariate models.

5. Results of the multivariate analysis

Multivariate models were performed to estimate the association between the condition of I-Pros and occupational income, controlling for some potential confounders.

Job quality is, in fact, influenced by some structural variables which are not strictly related to the occupational position. For example, the gender pay gap and gender segregation in the labour market are very well known phenomena, which demonstrate that women are economically penalized (Stier and Yaish, 2014), or the different returns on education investment, where formal credentials allow starting a career with a better cost-benefit balance. According to this point of view, income differentials could be due more to different levels of education or other factors rather than different job positions.

The linear regression coefficients in Table 3 show the income differentials compared to the most disadvantaged reference category (i.e. employees in traditional sectors). The results show that

I-Pros in Italy earn, on average, 204 euros less than other categories and around 130 euros less than employees in the same sector of activity. In Argentina, the association is quite similar (-181 euros on average). However, considering the high presence of graduates among I-Pros, we included an interaction effect between I-Pros and tertiary education in the model. As Table 3 shows, the interaction effect is positive for both countries (+92 in Italy and +123 in Argentina), but considering the higher heterogeneity and the uncertainty in the estimates, the effect is not significant for Italy. This indicates that we are not reasonably sure that graduate I-Pros in Italy have an economic advantage over the reference category. Conversely, the interaction effect in the Argentinian sample is stronger and significant. If we consider the logarithmic transformation of occupational income, the point estimates confirm this result:

Table 3. Estimates of occupational income in euros (OLS regression coefficients)

	Italy		Argentina	
	Beta	**Std. Error**	**Beta**	**Std. Error**
(Constant)	1213***	29.820	383***	8.249
Occupational condition				
Employees, other sectors	0ª		0ª	
Self without, other sectors	-343***	38.034	-183***	8.676
Employees adv. services	-70***	24.185	102***	7.227
I-Pros	-204***	51.330	-181***	22.134
Self with	596***	41.364	161***	15.545
Interaction I-Pros*Tertiary	92	79.821	123***	29.619
Sex				
Female	0ª		0ª	
Male	566***	21.029	222***	5.890
Educational level				
Primary	0ª		0ª	
Secondary	460***	23.372	161***	6.689
Tertiary	1148***	32.240	416***	8.934
Age Class				
50+	0ª		0ª	
40-49	-210***	23.613	-19**	8.253
30-39	-552***	27.138	-68***	7.885
14-29	-931***	37.670	-209***	8.286

ª Reference category

Source: Own elaboration based on ITA-SILC and EPH-INDEC data.

the interaction effect between I-Pros and tertiary education is 0.123 for Italy and -0.457 for Argentina.[12] The coefficients of the control variables are consistent with the empirical evidence: being more educated, male and having work experience predicts a higher level of occupational income.

Table 4 shows a robustness check, estimating the probability of being in the fourth or fifth quintile of occupational income. Given the symmetry of the dependent variable, we applied an OLS regression, which allows us to directly interpret the coefficients as probabilities (Wooldridge, 2015). However, a logistic regression is presented in Appendix (see Table A3). The results are similar to those of the previous model combining the I-Pros condition and occupational income. The probability of being over 60% of the income distribution for graduate Italian I-Pros is the same (-0.012, non-significant) as for employees that are not in the advanced tertiary sectors. Instead, for graduate Argentinian I-Pros the probability of being over 60% of the income distribution is 0.134 (significant at the 0.01 level).

12. We tested a further model using the natural logarithm of occupational income as the dependent variable in order to normalize the income distributions. See Appendix A2.

Table 4. Probability of being in the fourth or fifth quintile of occupational income (OLS regression coefficients)

	Italy		Argentina	
	Beta	Std. Error	Beta	Std. Error
(Constant)	0.265***	0.011	0.173***	0.008
Occupational condition				
Employees, other sectors	0[a]		0[a]	
Self without, other sectors	-0.178***	0.014	-0.203***	0.009
Employees adv. services	0.000	0.009	0.099***	0.007
I-Pros	-0.151***	0.018	-0.229***	0.022
Self with	-0.003	0.015	0.057***	0.016
Interaction I-Pros*Tertiary	-0.012	0.029	0.134***	0.030
Sex				
Female	0[a]		0[a]	
Male	0.251***	0.008	0.205***	0.006
Educational level				
Primary	0[a]		0[a]	
Secondary	0.203***	0.009	0.172***	0.007
Tertiary	0.425***	0.012	0.371***	0.009
Age Class				
50+	0[a]		0[a]	
40–49	-0.055***	0.008	-0.002	0.008
30–39	-0.213***	0.010	-0.041***	0.008
14–29	-0.435***	0.014	-0.191***	0.008

[a] Reference category

Source: Own elaboration based on ITA-SILC and EPH-INDEC data.

Together, these first findings suggest that if we control for educational level and other demographic factors, the I-Pros condition does not imply advantageous working conditions by itself. More specifically, the capitalization of the job position is negative in both countries (around -181 euros in Argentina and -204 euros in Italy). However, taking into account the interaction effect between the I-Pros condition and tertiary education, we observe that graduate Argentinian I-Pros have a better economic status compared to the Italian professionals. Specifically, Argentinian professionals with a tertiary education in advanced service sectors show a significant positive effect (+123 euros), while the Italians show a weaker and non-significant effect.

This evidence seems to suggest that educational credentials produce greater segmentation effects in and a higher return of (tertiary) education investments in Argentina compared to the dynamics that characterize the Italian labour market. As expected, inequality in the social division of labour reproduces the inequality of education and the differentials in access to the highest educational attainment play a fundamental role.

Table 5. Satisfaction rate for employment status and sector of activity

	Italy %
Employees, other sectors	87.5
Self-employed without employees, other sectors	81.1
Employees adv. services	90.4
I-Pros	88.3
Self-employed with employees	87.8
Valid cases	54,918

Source: Own elaboration based on Italian LFS-2014 data.

As for I-Pros conditions, our first findings are coherent with the initial hypothesis regarding their progressive socio-economic marginalization in Italy compared to the more advantageous conditions in the Argentine economy. In fact, professionals without employees in the advanced tertiary sectors of this Latin American country maintain a comparatively better socio-economic status.

Despite the important difference between Italy and Argentina, especially considering the result of the multivariate analysis that the graduate Italian I-Pros show a non-significant effect on income, we explored a possible explanation for this counter-intuitive result.

A plausible answer can be found in the information collected by the Italian Institute of Statistics in the Labour Force Survey (LFS) of 2014 (ISTAT, 2014). Applying the same definition as above, we find that I-Pros account for 6.6% of the total labour force (about 1.5 million workers) according to our previous estimate based on the ITA-SILC database. LFS collects information about the perceived quality of working conditions and the questions on job satisfaction allowed us to investigate the individual psychological attitude of interviewees. Descriptive statistics do not show interesting information. In Italy, only the self-employed without employees in traditional sectors state that they are substantially less satisfied with their jobs than other categories (Table 5).

As for income, some structural variables could influence the relationship between occupation and job satisfaction. To verify this, we performed a multivariate analysis.

A preliminary analysis of the Italian case, presented in the first column of Table 6, shows that most I-Pros are satisfied with their current job.[13] As can be seen, this result is not particularly interesting: the estimate for I-Pros is close to one and is not statistically significant (0.930). The interaction effect is not

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13. The survey measures job satisfaction on a scale of 0 to 10. We use a dichotomization where 0-*unsatisfied* is for values equal to or less than 5 and 1-*satisfied* is for values greater than 5. However, we also tested OLS regression models using job satisfaction as a metric variable. The results are similar (see Appendix A4).

Table 6. Odds ratio of job satisfaction (binomial logistic regression coefficients)

	Italy	
	OR	OR
Occupational condition		
Employees, other sectors	1[a]	1[a]
Self without, other sectors	0.642***	1.398***
Employees adv. services	1.255***	1.479***
I-Pros	0.930	1.765***
Self with	1.026	1.953***
Interaction I-Pros*Tertiary	1.019	1.056
Sex		
Female	1[a]	1[a]
Male	1.055*	0.945*
Educational level		
Primary	1[a]	1[a]
Secondary	1.268***	1.058
Tertiary	1.564***	1.138**
Class of age		
50+	1[a]	1[a]
40-49	1.127***	1.038
30-39	1.120***	1.007
14-29	1.085*	1.082
Occupational income satisfaction (0–10)		0.543***

[a] Reference category

Source: Own elaboration based on Italian LFS-2014 data.

significant either. This indicates that the control variables do not produce effects and that I-Pros have the same degree of job satisfaction as the reference category (employees in traditional sectors).

However, when we tested a second model controlling for the variable 'income satisfaction' (available in the LFS questionnaire), we found that I-Pros, together with entrepreneurs, are the most satisfied (second column in Table 6). The odds ratio, which was previously close to 1, is 1.77 (C.I. 1.49/2.09) in the new model with respect to the category of reference and is higher than that of employees in the same sectors, whose odds ratio is 1.48 (C.I. 1.37/1.60). In other words, when specific income satisfaction is controlled for, the overall level of job satisfaction increases. This result suggests that, in Italy, the economic dimension can probably represent the weakness of the I-Pros category.

Summarizing, professional self-employed are, on average, more educated, generally more satisfied with their job and a proportion of them has a medium-high work income . However, a significant proportion of I-Pros have a low occupational income and this causes dissatisfaction.

Summary table

Theoretical background	Labour market segmentation theories	
	Structural heterogeneity theory	
Object of analysis	Economic conditions of independent professionals (I-PROS)	
Definition of I-PROS	Self-employed without employees	
	In sectors not belonging to farming, craft or retail	
	In intellectual activities, within the service sectors	
Unit of analysis: countries	Europe - Italy	Latin America - Argentina
Ideal type of economic system	Post-industrial market economy	Premature deindustrialization
		Limited market economy (informal economy)
Indicator	Occupational income	
	Comparison between independent professionals and employees in the same activity sectors	
Hypothesis	Lower earnings on average, combined with job dissatisfaction (loss of standard conditions of the middle class)	The earning power remains higher than that of employees (preservation of liberal profession prerogatives)
Findings	Within the traditional labour market segmentation, independent professionals in Italy seem to have comparatively worse socio-economic conditions and a declining return on tertiary education and specialized skills	Independent professionals in Argentina maintain a higher earnings power and the effect of tertiary-level educational attainment on income still seems to be positive (skill premium)

Conclusions

The results show that, on a descriptive level, the incomes of independent professionals are higher than those of employees. However, this is not the case in advanced tertiary sectors, where the entrepreneurs have the maximum income, as expected. When considering the advanced service sectors alone, the average income of self-employed in Italy is slightly higher than that of employees, unlike Argentina, where it is lower. The descriptive data would therefore seem to contradict our initial hypotheses. Overall, professional self-employed do not have particularly favourable economic conditions, although there is large heterogeneity in the income distribution.

However, when checking the possible confounding effects of their sociodemographic characteristics— such as level of education, which is higher than the average— we observe that, net of these factors, the professionals earn less than other occupations on average. More specifically, graduate Italian I-Pros seem particularly disadvantaged because their returns on income are not similar to their Argentine counterparts. In other words, qualifications in Argentina seem to play a role in increasing social stratification as there is still

a better return on tertiary education than in Italy. It should be noted that this result is in line with a recent study about health inequalities between Italy and Argentina, which found that the stratification weight of education on health seems higher in this Latin America country (Sarti and Espinola Rodriguez, 2018). Moreover, data on the Italian context concerning work satisfaction seem to suggest that the main problem for the I-Pros stems from the low level of income.

However, the limitations of the data and models do not allow us to obtain robust results and our findings suggest the need to investigate these new types of labour market segmentation in greater depth.

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Appendix

Figure A1. Increase in independent professionals in Europe (100 in 2008)
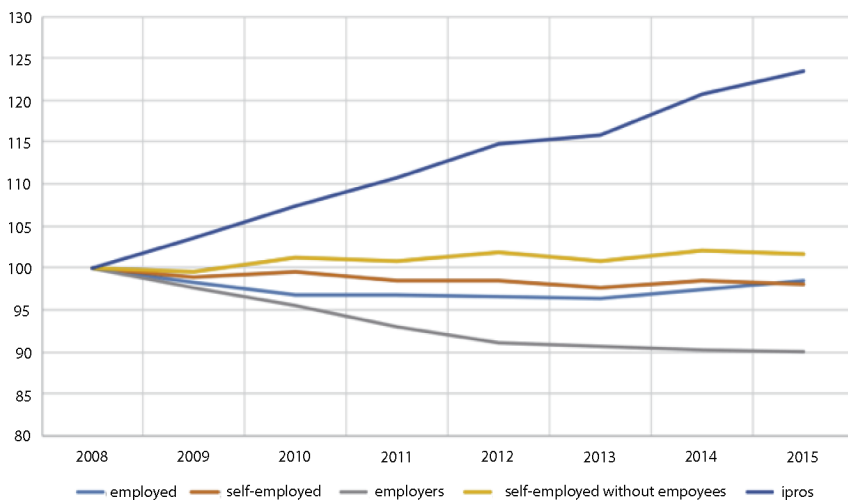
Source: Own elaboration based on EUROSTAT-LFS data.

Table A2. Estimates of the LN of job income (OLS regression coefficients)

	Italy		Argentina	
	Beta	Std. Error	Beta	Std. Error
(Constant)	6.965***	0.016	5.625***	0.013
Occupational status				
Employees, other sectors	0[a]		0[a]	
Self without, other sectors	-0.394***	0.020	-0.419***	0.014
Employees adv. services	-0.054***	0.013	0.258***	0.012
I-Pros	-0.349***	0.022	-0.564***	0.036
Self with	0.038*	0.022	0.145***	0.025
Interaction I-Pros*Tertiary	0.123***	0.042	0.457***	0.048
Sex				
Female	0[a]		0[a]	
Male	0.338***	0.011	0.481***	0.010
Educational level				
Primary	0[a]		0[a]	
Secondary	0.305***	0.012	0.333***	0.011
Tertiary	0.600***	0.017	0.685***	0.015
Age				
50+	0[a]		0[a]	
40–49	-0.080***	0.012	-0.007	0.013
30–39	-0.275***	0.014	-0.062***	0.013
14-29	-0.682***	0.020	-0.353***	0.014

[a] Reference category

Table A3. Odd ratios of being in fourth or fifth quintile of job income (logistic regression)

	Italy		Argentina	
	O.R.	Sig.	O.R.	Sig.
Occupational status				
Employees, other sectors	1[a]		1[a]	
Self without, other sectors	0.42	***	0.29	***
Employees adv. services	1.01		1.58	***
I-Pros	0.47		0.24	***
Self with	0.98		1.25	***
Interaction I-Pros*Tertiary	0.94		2.57	***
Sex				
Female	1[a]		1[a]	
Male	3.38	***	2.97	***
Educational level				
Primary	1[a]		1[a]	
Secondary	2.63	***	2.50	***
Tertiary	7.8	***	6.18	***
Age				
50+	1[a]		1[a]	
40–49	0.77	***	0.98	
30–39	0.36	***	0.80	***
14–29	0.10	***	0.36	***

1[a] Reference category

Table A4. Linear regression coefficients for higher job satisfaction (OLS)

	Italy			
	Model 1		Model 2	
	Beta	Sig.	Beta	Sig.
(Intercept)	7.200	***		***
Occupational status				
Employees, other sectors	0ᵃ		0ᵃ	
Self without, other sectors	-0.282	***	0.344	***
Employees adv. services	0.166	***	0.240	***
I-Pros	0.128	***	0.565	***
Self with	0.190	***	0.553	***
Interaction I-Pros*Tertiary	-0.028		-0.036	
Sex				
Female	0ᵃ		0ᵃ	
Male	0.008		-0.058	***
Educational level				
Primary	0ᵃ		0ᵃ	
Secondary	0.144	***	-0.029	*
Tertiary	0.265	***	-0.004	
Age				
50+	0ᵃ		0ᵃ	
40–49	0.065	***	0.011	
30–39	0.047	**	-0.004	
14–29	-0.013		-0.009	
Satisfaction with income (0–10)			0.515	***

ᵃ Reference category