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Informality and employment quality in Argentina: Country case study on labour market segmentation

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Abstract

This article examines employment quality and labour market segmentation in Argentina. The labour market in the country is marked by heterogeneity; the rate of informal employment is high, though it diminished significantly during the 2003-2011 period. This document analyzes the major changes that have occurred in terms of employment quality over the course of the last two decades, as well as how those changes are linked to economic policy and labour market regulation. Different types of precarious employment are described and quantified: informal salaried employment; unskilled (or "subsistence") self-employment; and atypical registered salaried employment. The phenomenon of segmentation is then analyzed taking into account factors like employment mobility and exploring possible sub-segments that may exist within formal salaried employment, informal salaried employment, and self-employment. Finally, on the basis of the gaps between wages in different employment segments and sub-segments, hypotheses that account for segmentation are assessed. The evidence indicates that the most far-reaching factor affecting job quality is informal employment which is, in turn, associated with an array of factors both structural and regulatory in nature. The estimations regarding wage gaps demonstrate that segmentation is, in fact, linked to informality; there does not appear to be support for the hypothesis that employment segmentation is linked to contract type within formal salaried employment or within informal salaried employment.

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1. Introduction

Studies of labour market segmentation in Latin America in general, and in Argentina in particular, have largely revolved around the issue of informal employment due to its persistent high rate in the country. For decades, the complex and heterogeneous phenomenon of informal employment has constituted a major challenge for public policies.

The last two decades have witnessed major modifications in the characteristics of the labour market in Argentina partly due to changes in economic context and employment institutions. In terms of the former, the macroeconomic schemes in place in the nineties differ starkly from those in place in the 2000s. In terms of the latter, changes and developments in a number of employment institutions and in policies have taken place; in the nineties, policies were largely geared to reducing non-salary employment costs and to greater labour market flexibility, policies that were reversed in the 2000s.

The overriding aim of this document is to examine labour market segmentation in Argentina and its link to the changes that took place from 1990 to 2011, focusing specifically on the relationship between segmentation and economic policy in general, on the one hand, and on employment policy relevant to labour market regulations, on the other. The more specific aims of this text include quantifying and describing different types of precarious employment (informal salaried employment, unskilled (subsistence) self-employment, and atypical registered employment). It is our hope to understand the scope of precarious employment and to assess which segments of the population are most affected. Another aim is to analyze segmentation in relation to employment mobility, and to explore sub-segments that may exist within formal salaried employment, informal salaried employment, and self-employment. Lastly, the document attempts to trace possible relationships between changes in economic and employment policies (with emphasis on employment protection policies) and the employment dynamic.

The text is divided into sections. The next section describes the conceptual framework pertinent to assessing employment informality, precarity (job quality), and segmentation. The following section contains an analysis of the economic and institutional context, paying particular attention to the primary traits of the Argentine labour market from 1990 to 2011. That section is followed by an exploration of mobility patterns and labour segmentation. The last section summarizes some relevant topics for discussion.

2. Informal and precarious employment, and labour segmentation

The notion of labour market segmentation has been studied for many years and there is extensive literature on the topic (Reich, 2009). It was first formulated in seminal works by Lewis (1954) and by Harris and Todaro (1970). The dual structure of the labour market is associated with two major sectors, the primary and the secondary sector. There are structural differences between the two: “good” jobs (that is, well paid and steady jobs that offer opportunities for promotion, training, etc.) are largely clustered in a primary sector, whereas “bad” jobs (poorly paid and unstable jobs, lacking in opportunities for promotion and so forth) are found largely

in a secondary sector. In Latin American countries, the segmented structure of the labour market has traditionally been associated with informal employment.

The term "informal sector" was coined by Hart in the early seventies to refer to productive units with a low rate of productivity. A 1972 ILO report on Kenya influenced by Hart's article used the concept of "informal sector" to assert that in relatively less developed economies the problem of employment is not centred on unemployment, but rather on workers who, though employed, have low incomes due to low levels of employment productivity (Tokman, 2001). In the early nineties, the ILO developed the concept of the "informal economy." Due to the inability of that concept to describe new labour market realities, the concept of "informal employment" was developed in the 2000s. It is used to refer to informal employment in both the formal and informal sectors (Hussmann, 2004).[1] Informality, then, is understood to be a complex and heterogeneous phenomenon. In Latin America, it is a structural component of the economy that has remained widespread despite the economic growth that has taken place since the beginning of the century.

While the problem of informal employment is not typical of developed economies, since the eighties it has been a growing concern in Western European countries due to the emergence of "atypical" forms of employment that lead to greater precarity. Employment precarity can imply a range of factors, such as uncertainty about employment continuity (short-term jobs); ability to exercise control over aspects of employment (setting salaries, working conditions); legal protection (unfair dismissals, deviant labour practices, social security coverage); and, lastly, income from employment (poorly paid jobs). Precarity, then, is a multidimensional concept that encompasses factors with a degree of interrelationship such as instability, absence or inadequate social protection, lack of job security, and economic vulnerability (Rodgers, 1989). In Latin America, certain types of atypical employment developed pursuant to labour reforms that took place in the late eighties and early nineties, reforms based on the notion that increased labour market flexibility would improve competitiveness (Heckman and Pagés, 2005).

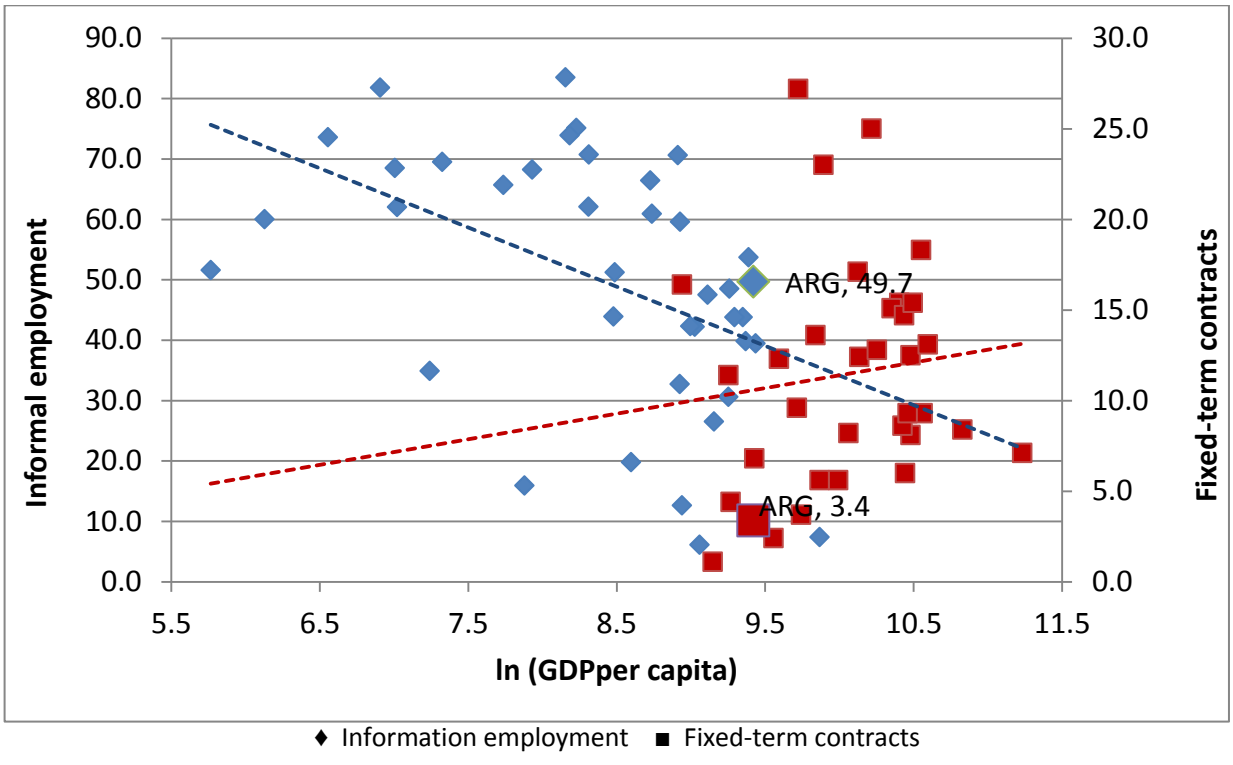
The "level of precarity" of different types of employment is, like employment informality, not easy to assess. Classic forms of atypical work may include fixed-term contracts, some sorts of part-time work (involuntary part-time work, for instance), and temporary agency workers, which is why these categories are the ones most widely used to assess the extent of precarious jobs in empirical studies (Rodgers, 1989; ILO, 2012). At the same time, in attempts to grasp the magnitude of informal employment, empirical studies have generally opted for either a productive approach (which includes unskilled self-employed workers, workers in small enterprises, and workers who do not receive wages) or a legalist approach (based on compliance with social security regulations). In some cases, a combination of the two approaches is used (Gasparini and Tornarolli, 2007; Galli and Kucera, 2004).

[1] Hypotheses on employment informality have been developed by a number of authors, among them Perry *et al.* (2007), Jiménez (2011), Jütting and de Laiglesia (2009), Kucera and Roncolato (2008).

Informal employment, atypical jobs, and typical formal employment thus constitute distinct but interlinked segments of the labour market (Fields, 2009; Rodgers, 1989). This means that employment informality can be envisioned from a double perspective. First, according to a logic of survival, where the informal sector is the result of the pressure exercised by a surplus in labour supply. The second perspective focuses on the issue of productive decentralization; informality is seen to arise due to adaptive strategies deployed by enterprises in response to less stable demand. Such strategies can include the use of different types of contracts that afford greater possibility for non-compliance with labour regulations and obligations (Tokman, 2001). Not all activity generated by the need for survival, however, is marginal or disconnected from the rest of the system. This is evident in the case of those other activities that arise as a result of decentralization or of employment arrangements originally devised to confront foreign competition, which are by definition in keeping with the interests of large enterprises (Tokman, 2001; Galli and Kucera, 2004).

Thus, there are points of intersection between the problematic of informality and the existence of atypical jobs. In the Argentine case, however, the rate of employment informality is higher than in other economies with the same level of development (Figure 1).

Figure 1 Informal employment, atypical jobs, and level of development, Argentina, 2010 [(1)]



[(1)] Data for 2010 or the most recent data available.

Source: ILO (2011), Eurostat, Heston *et al.* (2012). The source of the percentage of salaried workers with fixed-term contracts is the Permanent Household Survey (henceforth EPH for the acronym in Spanish) for registered salaried workers in Argentina; the Fundación SOL (2012) for formal salaried workers in Chile; and Urrea (2011) for formal salaried workers in the industrial sector in Colombia.

In keeping with the above, there are theories that identify different segments of the informal sector. Fields (1990) claims that there are two segments within the informal sector: a voluntary segment where jobs are better or even preferable to formal employment; and a segment where the informal status is involuntary and readily accessible. Ranis and Stewart (1999) also present a theory of the informal sector that entails two distinct segments, though their division is based on traditional subsistence versus what is seen as a more modern segment. Their theory argues that the more modern or competitive sector is often enmeshed in the formal economy. Thus, the scope and characteristics of the informal sector may well depend on the attributes of the formal sector such as its level of growth, competiveness, ability to subcontract out parts of the productive process, and others.

Another major segment of the labour market in Latin America consists of the self-employed.[2] This tends to be a very heterogeneous segment that encompasses what could be considered informal workers who are subject to a great level of precarity; atypical workers subject to a certain level of precarity; and formal well paid workers (Rodgers, 1989) with steady source of employment. In Argentina, there is a high rate of informality amongst self-employed workers, though the size of the sub-segment of subsistence self-employed workers has diminished pursuant to improvement in the employment rate since 2003 (Bertranou and Maurizio, 2011).

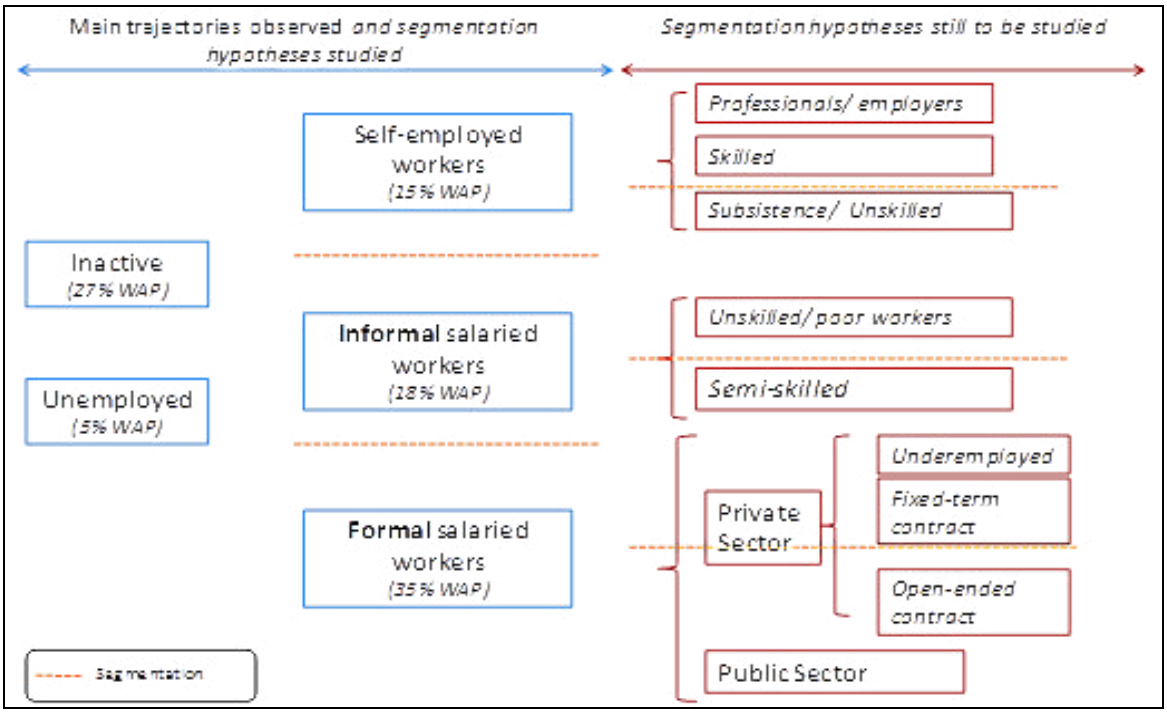
Many of the causes of informal employment, atypical employment, and some self-employment are the same (for instance, the inability of the economy to generate decent work that can satisfying a growing labour supply, strategies for competitiveness, and other factors), as is one of its consequences: precarity. In Argentina, though the labour market was rendered more flexible in the nineties, the weight of new atypical work arrangements was not as great as in some European countries. This is explained, in part, by the "de facto flexibilization" of a labour market with high rates of informality in both the salaried and the self-employed segments.[3]

For this reason, and considering the changes that have taken place in labour institutions and the macroeconomic context in Argentina in the last twenty years, the evolution of certain forms of precarious work (specifically informal work, atypical work, and informal self-employment) will be quantified and described below. Different hypotheses on labour market segmentation will be analyzed on the basis of patterns of mobility between certain types of labour (Figure 2), such as between informal salaried employment and inactivity, and between informal salaried employment and formal employment (Benítez *et al.*, 2011; Bertranou *et al.,* 2013). Other hypotheses on differences in wages and the lack of mobility between different segments of the labour market will be explored as well.

[2] Whereas in Europe self-employment represents around 15 per cent of all employment (UE, 2010), in Latin America it is close to 30 per cent, and in Argentina approximately 22 per cent (ILO, 2011b).

[3] This hypothesis posits that reforms that attempt to increase labour market flexibility in order to improve competitiveness may be redundant in a labour market with high rates of informality, since domestic companies can use informal employment as a means to compete with foreign companies (Portes, Castells and Benton, 1989; Tokman, 1992).

Figure 2. Hypothesis on mobility and labour market segmentation in Argentina



Note: WAP: Working-age population (18 to 65 years old).

Source: Own elaboration.

Regarding labour and employment policy, one factor taken into consideration is the regulatory changes introduced in employment protection legislation. This can have an effect not only on the level of employment but also on the composition of the workforce (specifically, the relative weight of atypical work, self-employment, and informal employment), and patterns of mobility and segmentation (Cazes and Nesporova, 2003; Cazes and Tonin, 2009; Galli and Kucera, 2004). Also taken into account in this analysis are the changes in policy regarding reduction of employer contributions to social security due to the effects that they can have on employment levels (OECD, 2007) and on levels of informal work (Perry *et al.,* 2007). Finally, this analysis will also consider macroeconomic issues due to their connection to the level and composition of employment (Frenkel and Taylor, 2005; Bour and Susmel, 2000). Over the course of the last two decades, there have been considerable modifications in all of these factors, which together constitute a pattern of correlation[4] that renders assessing the effects of each of these factors on the labour market still more difficult. For this reason, in this paper we have adopted an approach that associates all of these dimensions with labour market performance, attempting to isolate these effects whenever possible.

[4] In the nineties, employment protection legislation was made more flexible, employer contributions to social security were reduced and, on the macroeconomic level, a low employment-product elasticity was registered; the opposite was observed in the 2000s.

3. Economic context and labour institutions

One clear and simple explanation for the increase in informal and atypical employment in the nineties and then the reversal of that tendency in the 2000s is related to overall economic performance in terms of growth of the domestic product and the labour market, which meant an increase in the level of employment. Changes in the level of precarious employment, whether informal or formal, can be explained by factors like labour regulations, sectoral changes in production and production technology, and improved competitiveness due to greater commercial openness.

On that basis, this section will provide a brief description of the economic environment, employment and labour institutions, and labour market performance during the nineties and the 2000s, in order to depict the framework in which to analyze changes in mobility patterns and labour market segmentation in the Argentine case.

3.1. Macroeconomic performance

In the early nineties, an anti-inflationary policy known as "Convertibility Plan", whereby the exchange rate was pegged to the dollar, was established in Argentina. The macroeconomic structure was characterized by an appreciated real exchange rate and commercial and financial openness, as well as a battery of other "pro-market" reforms in different economic sectors (ILO, 2009). In terms of inflation, this policy was very successful, and levels of inflation were soon in keeping with international rates. The increase in productivity witnessed during the first years of this model's implementation did not last as the decade wore on. Indeed, the level of economic activity proved highly volatile, due in part to the inability of this economic regime to offset external shocks by means of nominal flexibility in monetary and exchange rate policy (Damill *et al*., 2011). Furthermore, even during the period of highest growth (1991-1994), the demand for labour was weak compared to a growing labour supply, leading to an increase in the unemployment rate. For this reason, in the mid-nineties in particular, reforms in labour regulations were implemented on the basis of the notion that greater labour market flexibility would yield greater demand for labour (see section 3.2).

From 1998 to 2000, the economy suffered from a series of negative shocks due to the impact of international crises (in Russia, Brazil, and Turkey). These, combined with a currency run in early 2000, led to a full-blown economic, financial, exchange-rate, and social crisis: from the beginning of the recession in 1999 until the collapse of the Convertibility regime in 2002, the Gross Domestic Product dropped by 18.4 per cent.

Table 1. Economic and development context of employment policy in Argentina: Two contrasting periods, before and after the 2001 crisis

1991-2000	2002-2011
• Overwhelming influence of the "Washington Consensus" in the development of public policies • Structural adjustment • Fixed currency exchange rate – pegged to the dollar – growing debt • Privatization • Deregulation • Growth with low rate of job creation • Increasingly flexible job market • Compensatory job-market policies • Growing rate of informal employment and inequality • Low inflation	• High real exchange rate • Improved economic competitiveness • Growth with high rate of job creation • Reversal of privatization and deregulation • Increase in formal employment • Growing role of labour institutions: collective bargaining, minimum wage, workplace inspection • Development of public employment services network • Drop in inequality • Substantial increase in the tax collection-GDP ratio • Growing inflation

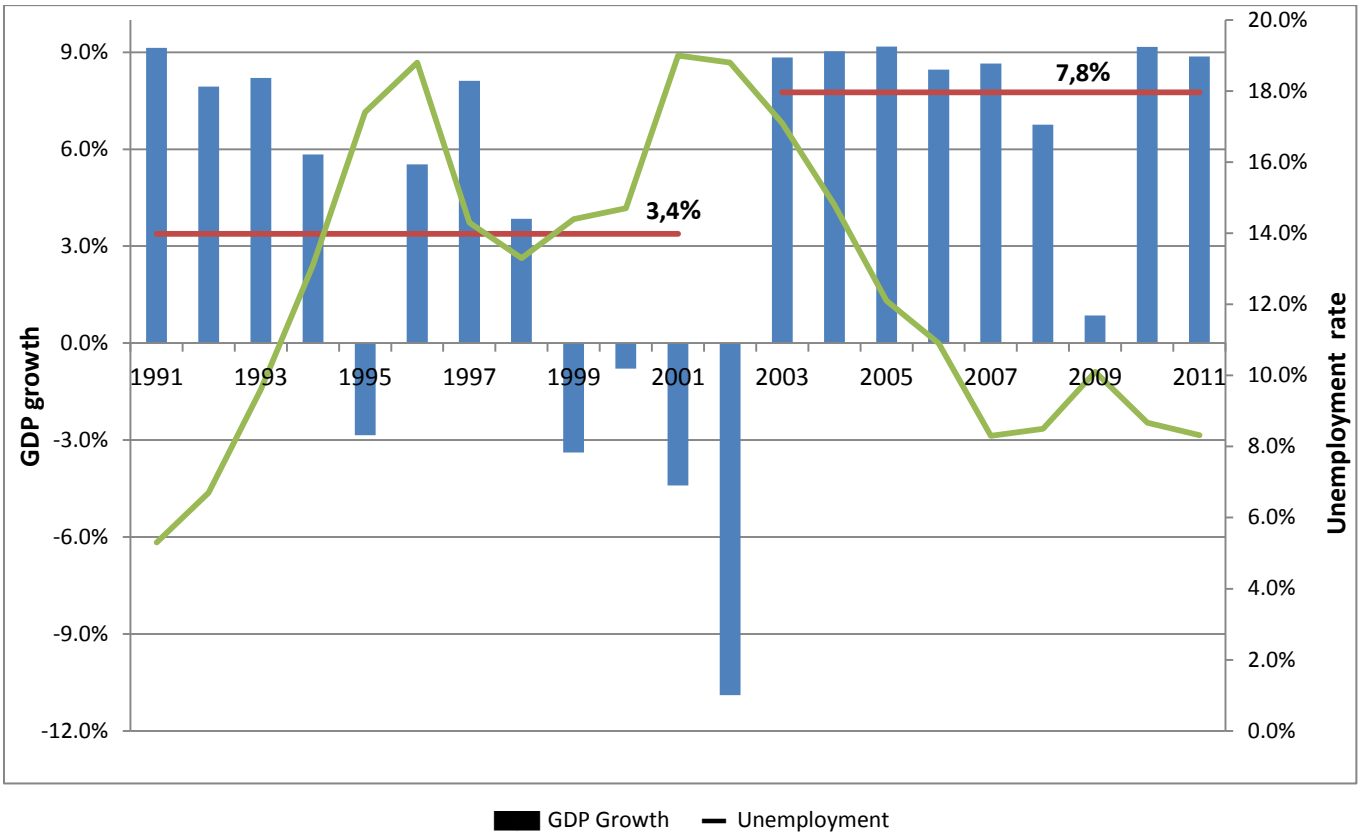
Source: Own elaboration

After the 2001-2002 crisis, a different macroeconomic regime was adopted. It was characterized by an administered floating exchange rate scheme geared to greater foreign competitiveness, sustained growth in the non-traditional tradable goods sector, and higher rates of investment and employment through an expansion of the domestic market (Ministry of Labour, Employment and Social Security, henceforth MTEySS for the acronym in Spanish, and ILO, 2012). Table 1 presents the main differences between the nineties and the 2000s in terms of economic attributes and economic policy.

The reversal of the tendency towards economic contraction, which began in mid-2002, and the subsequent growth were linked to domestic factors: the change in relative prices as a result of devaluation in conjunction with the implementation of a set of policies that stabilized prices domestically and the exchange rate parity, as well as macroeconomic equilibrium (ILO, 2009). An additional factor domestically was the implementation of employment policies and social protection that bolstered depressed aggregate demand. It is important to point out, however, that until the great international crisis of 2008-2009, the pillars of the new macroeconomic scheme were fortified by an international context favourable to Argentina due to increasing demand on the part of China and India (which largely explains improvement in the terms of trade and the upward trend in international commodity prices interrupted temporarily in 2009) and the great liquidity of international financial markets until at least 2007 (MTEySS and ILO, 2012).

As part of this new panorama, starting in 2003 the economy began to show high growth rates; indeed, from 2003 to 2011, the average growth rate was 7.8 per cent, despite the slowdown in 2009 as a result of the great international crisis and the drought that affected the agricultural sector. From 2003 to 2008, registered employment was created at a rapid rate in conjunction with high levels of employment-product elasticity that would later begin to decrease (MTEySS and ILO, 2012).

Figure 3. Gross domestic product growth and unemployment rates, Argentina, 1991-2011



Note: This is the unemployment rate for the Greater Buenos Aires metropolitan area.

Source: Ministry of Economics and Public Finance; Permanent Household Survey of the National Institute of Statistics and Consensus (henceforth INDEC, for the Spanish acronym).

In a context where employment was at centre stage in public policies, macroeconomic measures were coordinated with social and employment policies. This was the framework in which an array of negotiations and discussions on the issue of salaries, specifically collective bargaining and minimum wage, were resumed; employment regulations were strengthened, a battery of employment policies implemented, and various aspects of labour law modified (see section 3.2) (MTEySS, 2010).

3.2 Labour institutions and employment protection

In the nineties, the debate on labour market reform played a central role in economic policy (Hopenhayn, 2005). In Argentina, this exchange of ideas was important due to growing unemployment and the influence of the Washington Consensus which advocated flexible labour markets in keeping with reforms in other areas of the economy, like freer markets. These modifications were intended to increase competitiveness and create jobs (Marshall, 2004).

The reforms addressed issues related mainly to employment protection and the use of temporary contracts, but also dealt with factors linked to labour costs (employer contributions to social security, for instance) and the role played by unions in companies' decisions about the use of the workforce.

Below is a description of the changes in the labour market introduced during the nineties.

Length of contracts. While Argentine law already permitted fixed-term contracts (up to five years with clauses regarding severance pay and other protections), in 1991 legislation was introduced authorizing certain fixed-term contracts with lower employer contributions to social security and, in some cases, lower costs for dismissals and contract terminations. There were, however, a number of clauses that limited companies' ability to put these measures into effect (agreements with unions, increase in work volume, lack of collective dismissals in previous years, limits on staff) and, hence, those measures were used sparingly (Salvia *et al*., 2000; Marshall, 2004; Hopenhayn, 2005).

The limited use of the contractual modalities established by the 1991 Employment Law meant that in March 1995 new labour laws were enacted that attempted to broaden the scope of temporary contracts, thus promoting these types of contracts by means of greater flexibility. For small and medium-sized companies, the requirement to pay severance at the end of a contract that had run its course was abolished. The requirement that fixed-term contracts be authorized by collective bargaining agreements was eliminated, as was the requirement that such contracts be registered with a governmental employment agency. In 1998, the laws governing fixed-term employment passed in 1991 and 1995 were repealed. The 1998 law also modified the terms of internship contracts between an employer and a student when the aim was to provide the student with training.[5] A number of other provisions on internships were repealed again in 2008, when a new program on educational internships for students over the age of eighteen enrolled in institutions of higher education was created.[6] In 2011, a program of internships for high school students between the ages of sixteen and eighteen was created.

Severance pay. The terms of compensation for unfair dismissal were modified during the nineties and again in the 2000s. In 1989, what was seen as a low wage ceiling for determining severance pay was eliminated, thus increasing the cost of firing without just cause (Beccaria and Galin, 2002).[7] In 1991, however, a new wage ceiling, higher than the previous amount, was set as the basis on which to calculate severance pay. It is still in effect.

In 1998, legislation was modified in order to reduce the cost of dismissal without just cause. The required length of prior notice to workers with less than three months seniority was reduced. This reform also imposed a tighter relationship between period of service and compensation for dismissal in order to reduce severance pay awarded to workers with less seniority. According to the previous system, compensation for dismissal was based on a monthly salary for each year of service or fraction of a year greater than three months; this was changed to 1/12 the monthly salary for every month of service or fraction of a month that exceeded ten days (Marshall, 2004).[8]

[5] Initially, internships were regulated by Decree N° 340/92 issued by the Ministry of Education. Under these internships, students would work at public and private establishments in order to complement theoretical training with hands-on experience. According to this system, interns were given an "allocation" though no employment relationship was established between those students and the public or private establishment in question.

[6] Law N° 26,427 (2008) stipulates a maximum term of one year for this type of internship with four-hour workdays. The norm establishes that compensation for this work cannot be less than the basic salary according to relevant agreements proportional to the number of hours worked. This law reduces the workday and extends the maximum period relative to professional training internships (up to six hours a day for a maximum period of two years); it includes health care coverage which was not considered in earlier regimes.

[7] Until 1989, severance pay was calculated on the basis of one monthly salary per year of service with a maximum of three minimum salaries. Due to the low real value of the minimum salary, that amount was quite low (Marshall, 2004).

[8] Dismissal costs were reduced by approximately 50 per cent, but the cost of layoffs (that is, dismissals for economic reasons) increased by 33 per cent (Marshall, 2004; Beccaria and Galin, 2002).

Later, in the wake of the economic crisis of 2002, dismissals without just cause were prohibited, establishing that, in case of violation of that law, employers must pay workers affected twice due severance.[9] This regulation, albeit in modified form,[10] was extended through October 2007. Lastly, the 2004 reform restored the basis for severance to one monthly salary for each year of service or fraction of a year greater than three months. Required notice was set at fifteen days during trial period; one month when the worker had five or fewer years of seniority; and two months for longer-standing employment relationships.

Furthermore, as will be explained below, the Productive Recovery Program (henceforth REPRO, for the acronym in Spanish) was created in the framework of the 2002 crisis for large-scale dismissals. A tool deployed by the Ministry of Labour to confront the employment crisis, the program entailed a payroll subsidy. REPRO, along with the Crisis Prevention Procedures (known as PPC for the acronym in Spanish), was used intensively to prevent dismissals during the great international crisis of 2008-2009 (MTEySS and ILO, 2012).

Trial period. It was introduced into the employment protection legislation in 1995. It was initially set at three months with the option of being extended to as long as six months. In fact, before the change in regulations the notion of a "trial period" was already operative since severance pay for unfair dismissal was not levied until seniority exceeded three months. The 1995 reform also introduced the figure of the part-time contract. While part-time employment with prorated salary had existed before the reform, it was not expressly included in the legal framework (Marshall, 2004). Later, in 1998, the trial period was set at one month with the possibility of an extension to up to six months pursuant to a collective bargaining agreement.

By means of an additional labour reform put into effect in 2000, the trial period was re-established at three months with the option of extension to up to six months pursuant a collective bargaining agreement; in the case of small companies, the trial period was set at six months with the option of extension to a maximum of twelve months. Similarly, certain exemptions regarding contributions to social security were eliminated, and restrictions geared to avoiding abuse of the trial period were put into place (Marshall, 2004). Finally, in 2004, the trial period was set definitively at three months.[11]

[9] Starting in January 2003, this additional amount of severance pay was not applicable to new permanent employees.

[10] In January 2005, the increase in severance pay was reduced from 100 per cent to 80 per cent and, in December of 2005, it was set at 50 per cent.

[11] Appendix 1 of this document provides more detailed information on employment protection legislation in Argentina.

Table 2. Changes in labour regulations in Argentina, 1991-2011

Labour regulation	Baseline (1990)	Intense flexibilization 1991 to 1995	Moderate flexibilization 1998 to 2000	Crisis 2002	New regime 2004
A) Linked to open-ended contracts					
Trial period	Not explicit, but severance pay in cases of dismissal were levied after three months of employment	**1995**. The figure of the trial period (3-6 months) was introduced Exemptions from social security contributions.	**2000**. Extended to 12 months for small and medium-sized establishments. Elimination of exemptions from social security contributions.		Set at 3 months
Compensation in case of unfair dismissal (severance payment)	One month for each year of service or fraction of a year greater than 3 months (no limit set for that calculation). Severance pay cannot be less than 2 salaries.	**1991**. A top limit is set for the calculation of severance (3 negotiated salaries, without seniority).	**1998**. Severance pay for workers with less seniority is reduced. The required prior notice for workers with less than 3 months seniority is reduced.	**2002**. Suspension of dismissals without just cause. Double severance pay (until 2007).	**2004**. One month for each year service or fraction of a year greater than 3 months. (the total cannot be less than 1 salary)
Social security contributions (employers rate)	33%	Overall reductions implemented over the course of the 1990s. The legal average rate of contributions dropped almost 15 p.p. during the decade.		**2002**. Employer contributions are partially restored.	23% (approximately). Temporary reductions for new hires.
B) Linked to fixed-term contracts					
Fixed-term	***Fixed-term contracts:*** up to 5 years with severance pay at the end of the contract period (50% of the standard calculation for typical contract). Other arrangements: occasional and seasonal contracts.	**1991**. Fixed-term contracts. Duration: 6 to 24 months; severance pay at the end of the contract (half salary); employer contributions reduced by 50%.	**1995**. Greater flexibility in open-ended contracts in the cases of small and medium-sized establishments. **1998**. Fixed-term contract legislation is repealed		
Other flexible fixed term contracts		**1991**. Other employment arrangements are created and promoted. Fixed-term contracts; no employer contributions; no severance pay at the end of the term of the contract .	**1995**. Changes to encourage greater use of new employment arrangements. **1998**. Repeal of 1991 and 1995 legislation promoting those other arrangements		

Source: Own elaboration on the basis of labour legislation in effect from 1991 to 2011.

Collective bargaining, social security contributions, and workplace inspection. In pursuit of flexibility, the labour reform of 2000 repealed the extension in time[12] of the collective bargaining agreements put into effect prior to 1988, forcing the parties to

[12] In Argentina the legislation allows the "*ultra-activity"* principle that guarantees the validity of a collective agreement after his expiration.

§renegotiate. In 2004, however, that law was cancelled and the extension it had reversed reinstituted.

At the same time, the last two decades have witnessed other modifications in legislation and in institutions that affect employment and its dynamics both in terms of level of activity and job quality. Such modifications include general reductions in employer contributions to social security, temporary reductions in employer contributions to social security for new jobs; the intensification of workplace inspections; and the promotion of social dialogue as a mechanism to protect employment in the 2000s (see Table 1).

The battery of measures undertaken in the nineties to increase the demand for labour included reductions in labour costs by cutting the rate of employer contributions to social security. In 1993, those rates were reduced by between 30 per cent and 80 per cent without taking into account employer contributions to health insurance. This policy was modified in a number of occasions between 1993 and 2000. Nonetheless, for much of the nineties, the unified rate of salary contributions was far below 33 per cent, where it had been established in 1991.

Table 3. Rate of contributions to social security and to social health insurance. Salaried workers in the private sector, Argentina, 1991-2011

Item	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002-2011*
National Social Security Regime	*26.9*	*26.9*	*26.9*	*16.5*	*21.8*	*16.3*	*16.3*	*16.3*	*13.3*	*12.7*	*14.7*	*17.2*
Comprehensive penion and retirement system	16	16	16	9.8	13	9.7	9.7	9.7	7.3	6.8	8.7	10.4
Family benefits	7.4	7.4	7.4	4.6	6	4.5	4.5	4.5	4.5	4.5	4.6	4.6
National Employment Fund	1.5	1.5	1.5	0.9	1.2	0.9	0.9	0.9	0.9	0.9	0.9	0.9
I.N.S.S.J. y P.	2	2	2	1.2	1.6	1.2	1.2	1.2	0.6	0.5	0.5	1.3
Social Health Insurance system	*6.0*	*6.0*	*6.0*	*3.7*	*5.0*	*5.0*	*5.0*	*5.0*	*5.0*	*5.0*	*5.0*	*5.8*
Total	**32.9**	**32.9**	**32.9**	**20.2**	**26.8**	**21.3**	**21.3**	**21.3**	**18.3**	**17.7**	**19.7**	**23.0**

Note: The overall, as opposed to effective, rates are presented for the 2002-2011 period, considering temporary deductions linked to the creation of new jobs according to the regimes established by Laws N° 25.877 (2004) and N° 26.476 (2008).

Source: National Office of Social Security Policy, MTEySS.

In 2001, the norms that implemented exemptions or reductions in the employer contribution rates were rendered void.[13] Starting in 2002, the employer contribution rate (with the exception of health insurance) was located at 21 per cent for employers in sectors mainly geared to services and at 17 per cent for other employers. An additional 6 per cent was geared to the funding of social health insurance for workers and their dependents.

During the 2000s, the upper limit for determining compensation subject to employer contributions was eliminated, and two schemes geared to the temporary reduction in employer contributions in the case of new jobs were developed. The first was in effect from 2004 to 2008, and the second from 2008 onwards. Under this second scheme, which was applied to all companies—the first was geared solely to small and medium-sized

[13] With the sole exception (starting in 2001) of employers who increased their payroll of workers with open-ended contracts. As will be discussed below, this measure was repeated years later, though the reduction was not for all workers on the payroll but only for new hires.

enterprises—, both the percentage of the reduction and its extension in time are greater (two years as opposed to one).[14]

At the same time, considering that employment protection can also be obtained through collective bargaining (ILO, 2012), it is important to point out the revitalization of this labour institution in Argentina during the 2000s (ILO, 2011c). Starting in 2005, the instances of negotiations as well as the number of workers covered by collective bargaining agreements grew. Furthermore, the strengthening of the social dialogue by means of Crisis Prevention Procedures successfully avoided dismissals at critical moments like 2002 and 2009. While the Crisis Prevention Procedures had been in existence since 1991, in 2002 they were complemented by other measures, like the doubling of severance pay (from 2002 to 2007) and REPRO, from 2002 onwards. By means of REPRO, which was used widely during the 2009 crisis, the payrolls of enterprises in crisis that, in the framework of the Crisis Prevention Procedures, submitted a tripartite plan were subsidized to avoid terminations and losses of positions and salaries (MTEySS and ILO, 2012; Rial, 2009).[15]

Lastly, during the 2000s the Ministry of Labour regained the authority to oversee and monitor compliance with social security regulations throughout the country. In conjunction with provincial governments and other nationwide institutions, the level of detection of non-registered employment increased (Bertranou *et al.,* 2013), thus improving enforcement of laws and compliance with labour regulations.

3.3 Description of the labour market in Argentina[16]

The behaviour of the labour market also varied dramatically between the nineties and the 2000s. While 1991 and 1992 witnessed improved levels of employment (indeed, the rate of full-time employment peaked in those years), that did not prove sustainable over the course of the decade due partly to the effect that certain features of the macroeconomic scheme had on the labour market, for instance the conjunction of open markets and an appreciated currency (Damill *et al.*, 2011). Thus, over the course of the nineties the employment rate[17] decreased and mirrored economic cycles of crisis and recovery. At the same time, the unemployment rate tended to increase (with peaks of nearly 20 per cent in 1995 and 2002), due to the economy's inability to generate jobs in a context where the rate of economic activity was increasing (for the first half of the decade) due to greater female participation in the labour market. Starting in 2003, with the recovery of economic activity, the employment rate increased in a sustained fashion until 2007, when it levelled off due to the gradual decrease in employment-product elasticity (MTEySS and ILO, 2012).[18]

[14] Under the first scheme, the reduction was 33.3 per cent, whereas under the second it was 50 per cent for the first year and 25 per cent, for the second.

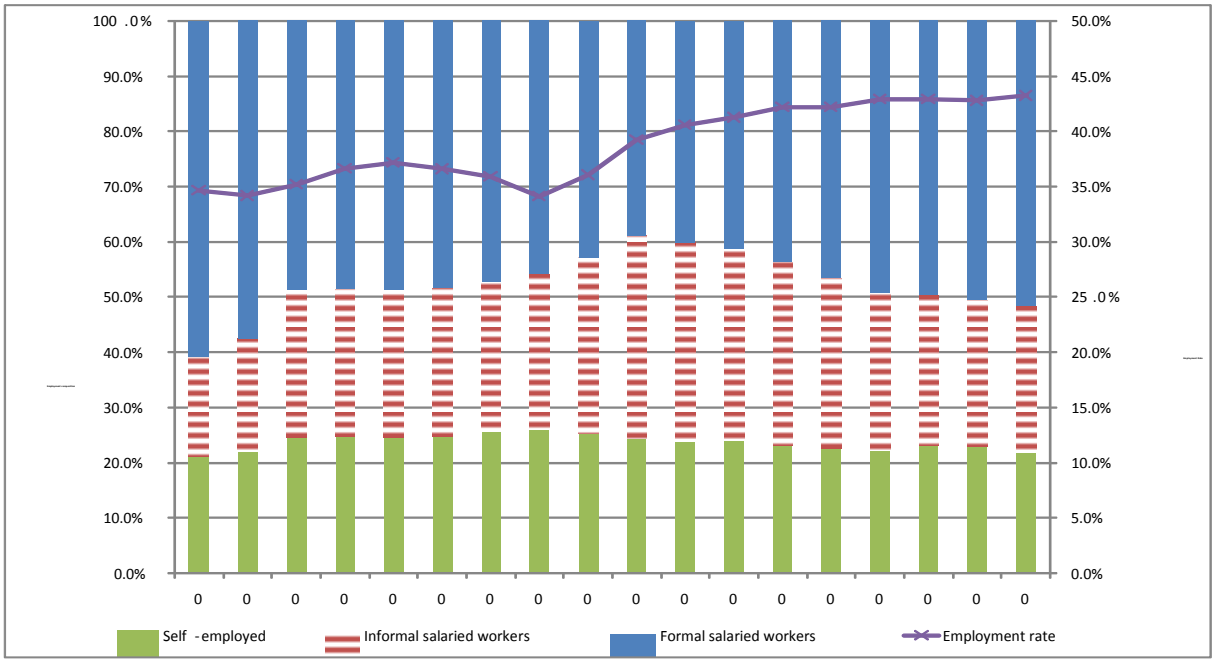
[15] During the great international financial crisis (2008-2009), the Crisis Prevention Procedures had an impact on over 50 per cent of all companies, causing them to modify the measures they had originally envisioned taking and, hence, vastly reducing the number of workers who would have been affected (Rial, 2009).

[16] Appendix 2 contains detailed information on the sources of information used for this empirical analysis.

[17] In Argentina, the employment rate is defined as the ratio between the employed population and the total population.

[18] The estimated indicators are annual in order to facilitate international comparisons. To calculate them, the bi-annual databases (two waves) of the Permanent Household Survey (EPH-P for the acronym in Spanish) and the quarterly databases of the Continuous (on-going) Permanent Household Survey (EPH-C for the acronym in Spanish) were joined, yielding annual samples with a greater number of observations thus making it possible to obtain more precise estimations for the relevant sub-groups. In order to avoid possible bias in the annual estimations, the databases that included the same observations between consecutive waves of the EPH-P and consecutive quarters of the EPH-C were eliminated from the annual database, making it possible to formulate the final sample.

Figure 4. Evolution of employment and of employment composition, Argentina, 1995-2011



Note: For 2003, two different data are considered, one taken from the specific Permanent Household Survey for that year and the other from the ongoing version of the same survey. See Appendix 2 for more information on sources of information used in this paper.

Source: Own elaboration on the basis of EPH-INDEC data.

Box 1. Composition of employment according to the type of worker´s labour market insertion: A guide to the abbreviations found in tables and figures

This document formulates a classification of employment insertions based on certain attributes that define job quality, mainly: social security coverage; contract type; hours worked (involuntary underemployment); and task description (in terms of the productivity of the task performed).

1. Within the category of salaried workers (AF), which refers to all salaried workers registered with social security, the following subgroups are specified:

1.1.1. *Formal salaried workers with typical contracts* (AFMCT): formal salaried workers with open-ended contracts; this category includes only those part-time workers who work part-time on a voluntary basis

1.1.2. *Formal salaried workers with atypical contracts* (AFMCA): formal salaried workers with fixed-term contracts and those who work on a part-time basis involuntary (regardless the type of labour contract)

1.1.3. *Informal salaried workers* (AI): salaried workers not registered with social security

1.1.4. *Skilled informal salaried workers* (AIC): informal salaried workers who perform skilled tasks

1.1.5. *Unskilled informal salaried workers* (AINC): informal salaried workers who perform unskilled tasks

Within the category of formal salaried workers, the subgroup of domestic service is, in some characterizations, analyzed as its own category.

2. Within the category of self-employed workers, the following subgroups are specified:

2.1. Employers (see 2.2 below)

2.2. *Professional self-employed workers* (CPPyP): highly skilled self-employed workers. For this analysis, these workers are grouped with self-employed employers in an employment category called "self-employed professionals and employers"

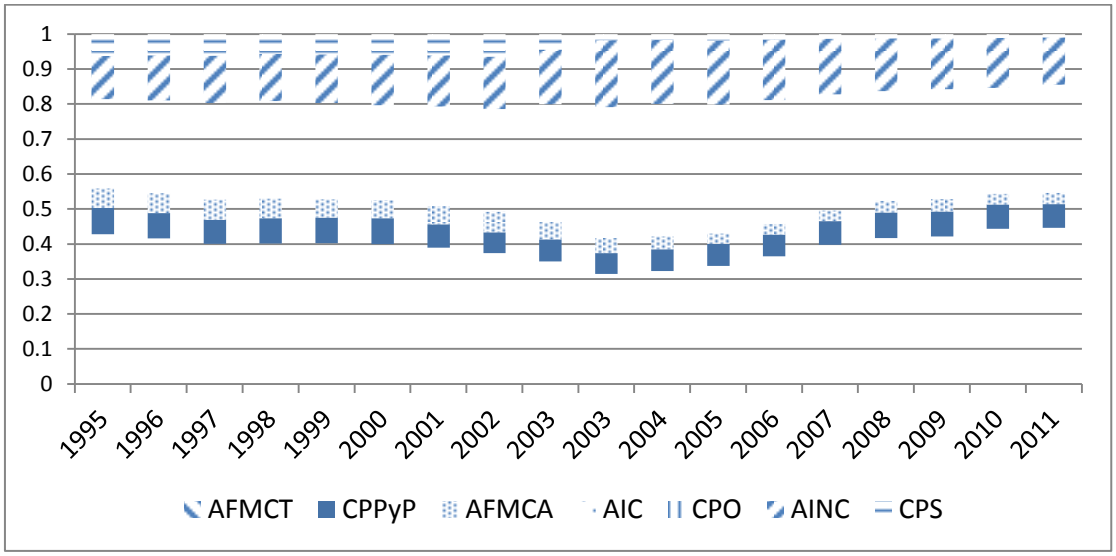
2.3. *Skilled self-employed workers* (CPO): non-professional and non-technical self-employed workers who performs skilled tasks

2.4. *Subsistence self-employed workers* (CPS): self-employed workers who perform unskilled tasks.

In addition to these categories, the category of formal workers includes all formal salaried workers, skilled self-employed workers and employers, and other self-employed workers who work in the public sector or in enterprises with over five workers. All other workers are considered informal workers.

Thus, the evolution of the composition of employment according to these categories also describes job quality. The figure below demonstrates that composition and the text that follows provides further information on the specific characteristics of each group as well as an analysis of the hypothesis of segmentation between those groups.

Employment composition according to type of labour market insertion, Argentina, 1995-2011

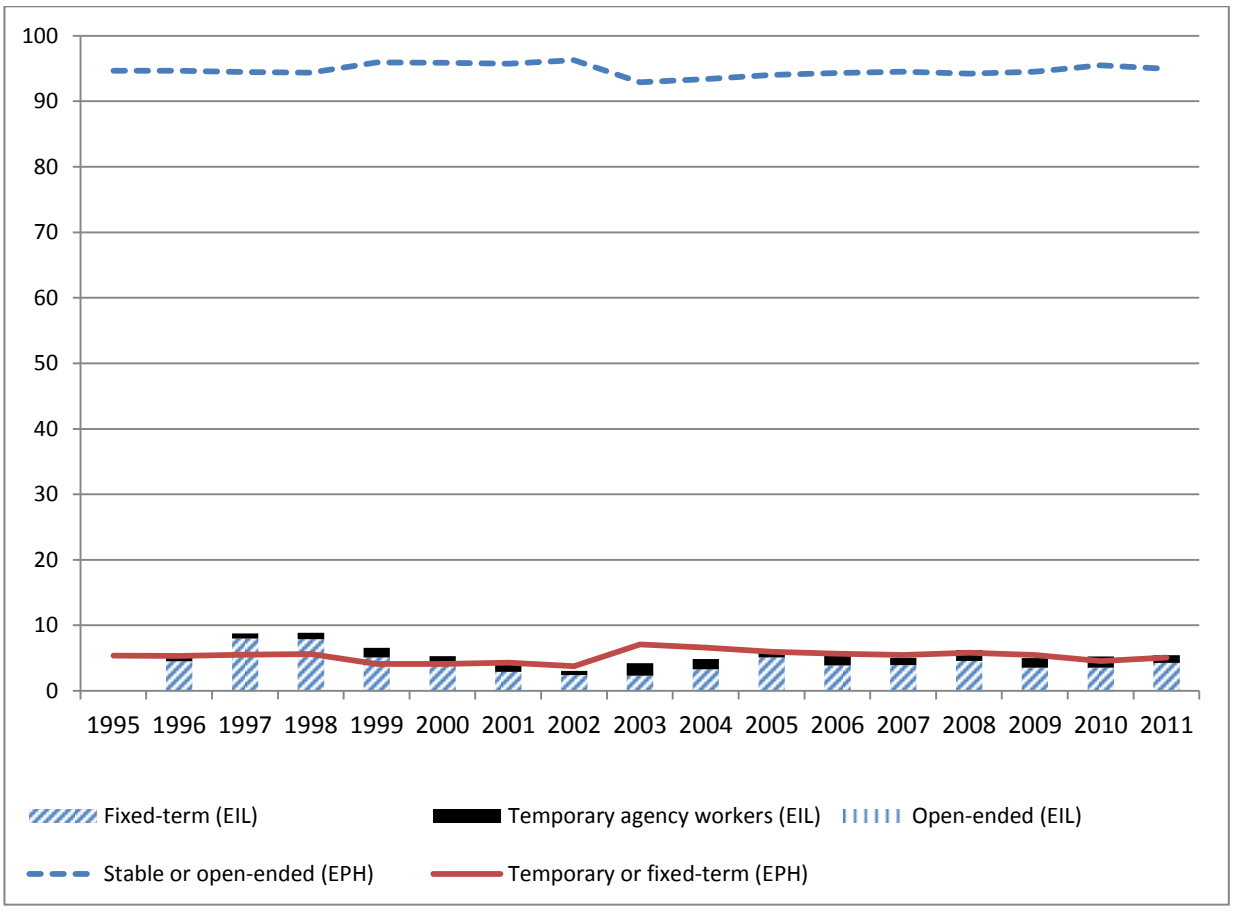


Source: Own elaboration on the basis of data from the EPH-INDEC.

If all salaried workers are taken into account, the rate of non-registered employment dropped from 49.1 per cent in 2003 to 34.5 per cent in 2011. If the self-employed are taken into account as well, the drop in the rate of non-registered employment appears to be less dramatic, to a rate of 58 per cent in 2010. On the basis of this information, the rate of non-registered employment amongst the entire workforce, that is, including both salaried workers and the self-employed, would be 43.8 per cent (Bertranou *et al*., 2013)

When an analysis of contract type and hours of service is limited to formal salaried workers, the most frequent form of employment is a full-time (defined as more than thirty-two hours a week) stable (defined as governed by an open-ended contract) job.[19] Information provided by the Permanent Household Survey (EPH) and the Employment Indicators Survey (EIL) evidences the relative low weight of fixed-term contracts within the universe of formal employment (Figure 5).

Figure 5. Composition of registered salaried employment in the private sector according to type of contract, Argentina, 1995-2011. EPH for all urban areas and EIL for Greater Buenos Aires labour growth and wage share



Note: EPH makes reference to information provided by the Permanent Household Survey; EIL to data provided by the Employment Indicators Survey (enterprise survey). See Appendix 2.

Source: Employment Indicators Survey – Ministry of Labour, Employment, and Social Security, and EPH-INDEC.

An analysis of informal salaried workers reveals that the composition of skilled/ semi-skilled workers and unskilled workers is almost identical. Among this group, underemployment is high (42.2 per cent in 2011). Another significant feature is that almost 60 per cent of the workers in this group consider their job stable, despite the fact that they

[19] See Appendix 3 for further information.

are not registered with social security. Ten per cent of all salaried workers work in domestic service; most of them are not registered. The rate of informal employment amongst domestic workers climbed from 89 per cent in 1995 to 96.5 per cent in 2003, and then dropped to 84 per cent in 2011.[20] Amongst the self-employed, the category of skilled self-employed workers[21] is the largest. In 2011, it represented 67 per cent of all self-employed workers, followed by professional self-employed workers and employers, and subsistence self-employed workers.

Study of the demographic and occupational characteristics of workers in each category reveals that men constitute the majority of the self-employed. Women, on the other hand, constitute most domestic workers, informal unskilled salaried workers, and formal salaried workers with fixed-term contracts or who work on a part time basis involuntary, that is, workers with atypical contracts. The opposite is true of informal skilled salaried workers and formal full-time or voluntary part-time salaried workers with open-ended contracts, that is, workers with typical contracts.

In general, the percentage of young people (under the age of twenty-four) is significantly lower in all categories of self-employment than in categories of salaried employment; the opposite holds true for adults over the age of sixty-five.[22] The groups of workers with the largest percentage of youth fall in the category salaried informal employment, and the group with the smallest is informal unskilled salaried employment. In the case of salaried formal employment, youth participation is greater amongst those with atypical than those with typical contracts. The domestic worker subgroup contains a higher percentage of young people than the formal salaried employment category, but a smaller percentage than the salaried informal category.

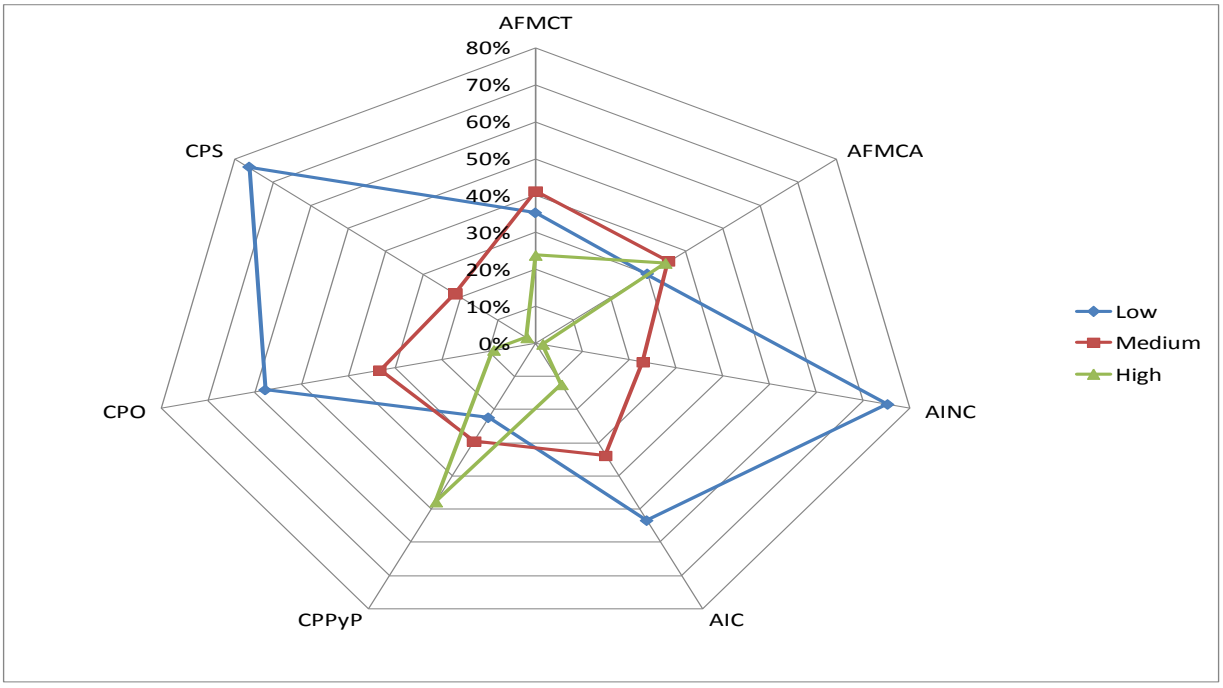
The composition of the different employment categories by educational level reveals a high level of heterogeneity. Amongst the self-employed, more than half of all skilled and subsistence self-employed workers have a low educational level (they have not completed secondary school), whereas the opposite holds true of self-employed professionals and employers. Most informal salaried workers and domestic workers have not completed secondary school, whereas most formal salaried workers have. Within the formal salaried category, the average percentage of workers with low educational levels is greater amongst those with typical than those with atypical contracts, whereas the rate of those to have completed higher education is less amongst the former group.

[20] This drop in the percentage of non-registered domestic employees is probably due, in part, to the implementation of tax incentives to register this type of worker.

[21] This category includes non-professional and non-technical self-employed workers who perform skilled tasks.

[22] These results may be consistent with the existence of restrictions on credit which, as Evans and Jovanovic (1989) point out, require potential entrepreneurs to accumulate physical and human capital. These restrictions may also be exacerbated in developing countries, where the credit market does not function well and, furthermore, educational systems often complicate the accumulation of human capital (Jiménez, 2011).

Figure 6. Type of employment and educational level, Argentina, average 1995-2011
Percentage distribution for each employment category



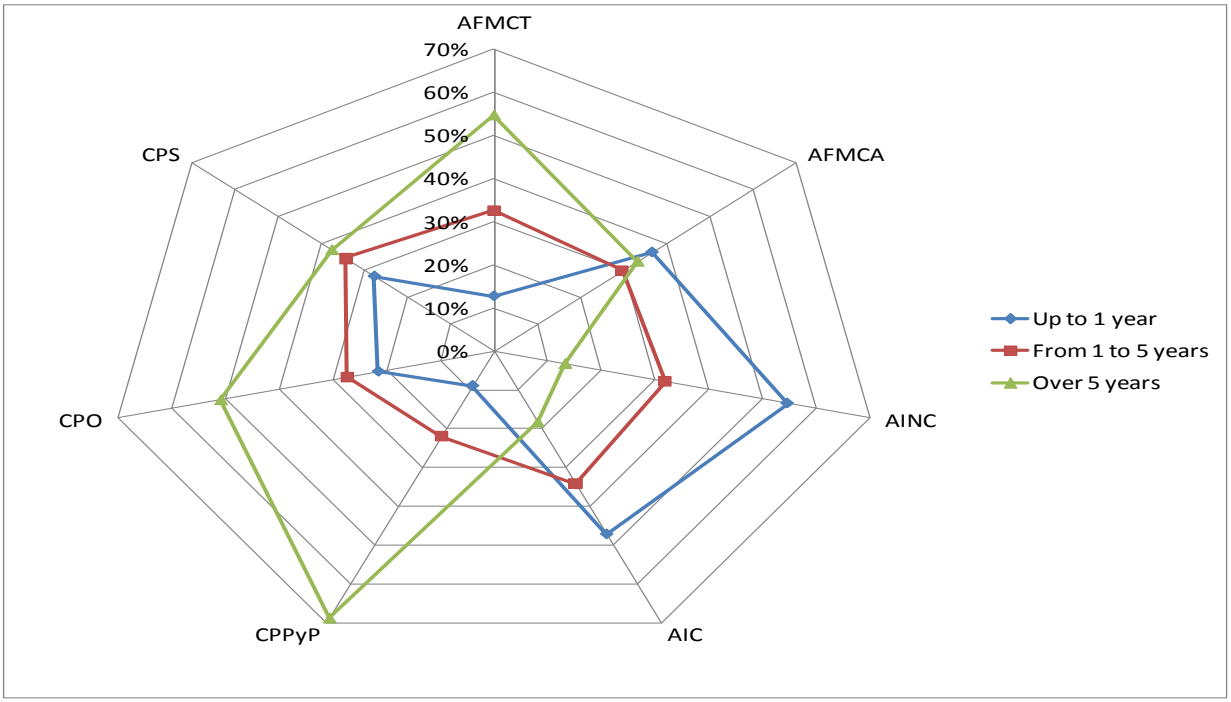
Note: Educational levels: i) low: mandatory level education incomplete; ii) medium: mandatory level complete, higher education incomplete; iii) high: higher education complete.

Source: Own elaboration on the basis of EPH-INDEC data. Computed by author using data from Singapore Ministry of Manpower

Most self-employed workers, regardless of category, work in a small establishment. This is the case amongst informal salaried workers as well, particularly those who perform unskilled tasks. Most formal salaried workers, regardless of the type of contract they have, work in medium-sized and large enterprises.

Amongst the self-employed, most professionals and employers in this category and almost half of all skilled self-employed workers have, on average, over five years of seniority at their jobs; the opposite is true of subsistence self-employed workers. In fact, 21.5 per cent of all skilled self-employed workers and 27.8 per cent of all subsistence self-employed workers report less than one year seniority. This suggests the intermittent nature of employment at skilled and subsistence tasks (Jiménez, 2011). Amongst informal salaried workers, although most have less than five year of seniority, the percentage of salaried workers with less than one year seniority is greater amongst those performing unskilled tasks (54.6 per cent) than those performing skilled tasks (for whom the rate is 47.2 per cent). As is to be expected, while the seniority of most salaried formal workers with atypical contracts is no more than five years, the opposite holds true amongst those with typical contracts. On the other hand, though most domestic workers report between one and five years of seniority in the 2003-2011 period, the percentage of these workers with less than one year seniority is comparable to the percentage amongst formal salaried workers with atypical contracts, though it is less than the percentage amongst informal unskilled salaried workers.

Figure 7. Type of employment and seniority, Argentina, average 1995-2011
Percentage distribution for each employment category



Source: Own elaboration on the basis of EPH-INDEC data.

4. Patterns of mobility and labour market segmentation in the nineties and the 2000s

While informal employment may well be just one facet of labour precariousness,[23] it is the most widely studied phenomenon in terms of job quality in Argentina. This is due to the dynamic and scope of informal employment in the country, but also due to its effect on the labour market as well as more general individual wellbeing. The topic of segmentation has been addressed by a number of studies that deal with the effects of informality on the labour market.

In Argentina and other countries in Latin America, the problem of segmentation has traditionally been assessed empirically on the basis of its main consequence: the salary differential between formal and informal workers with the same characteristics.[24] In fact, a number of studies have concluded that the labour market is segmented.[25]

A number of studies carried out in the second half of the nineties analyzed the effects of greater labour market flexibility on job market performance. Evidence suggests that, with the exception of the 1996-1998 period, fixed-term contracts—which were favoured

[23] This term includes, among other things, uncertainty about the continuity of employment, the possible existence of several employers, a disguised employment relationship, outright lack or inadequate access to social protection and the benefits afforded by labour laws, low wages, and/or obstacles to collective bargaining.

[24] Some critics of this approach make reference to how difficult it is to control for non-observable characteristics in the case of both workers and jobs (Maloney, 1999).

[25] Patrap and Quintín (2003), Beccaria *et al.* (2007), Alzúa (2008), Arias and Khamis (2008), Jiménez (2011), among others.

by flexibilization—never represented a significant percentage of total registered employment. Nor was there resounding evidence on the effects that such contracts may have on the labour market.

In terms of the relationship between greater flexibility and mobility, there was evidence for an increase in the hazard rate of employment exit during the first months of a labour relationship (Hopenhayn, 2001). Other studies, however, have found evidence of just the opposite (Beccaria and Maurizio, 2005). Still other studies suggest that labour market flexibilization does not favour job creation (Cruces *et al.,* 2010; Mondino and Montoya, 2005; Galli and Kucera, 2004).

This section attempts, on the one hand, to analyze patterns of mobility and segmentation observed in the last two decades in Argentina, taking into account categories not limited to the strictly formal and informal. The discussion will focus particularly on differential patterns amongst the self-employed, informal salaried workers, and formal salaried workers (see Figure 2, Box 1). On the other hand, on the basis of the results obtained, we will analyze how changes in the economic context and in labour institutions might explain transformations in the composition of employment, mobility, and labour market segmentation.

4.1. Job creation, turnover and mobility

As mentioned above, the behaviour of the labour market was cyclical in the nineties and in the 2000s. Employment-product elasticity, the composition of net job creation (or loss), and mobility patterns, however, varied to a certain extent between the two decades.

As Bertranou *et al.* (2013) have shown, total job creation in the nineties was lower than in the 2000s. From 1991 to 2001, salaried employment grew at an annual rate of 0.5 per cent due to the increase in non-registered salaried employment as the participation of registered salaried employment diminished. From 2003 to 2011, salaried employment grew at an annual rate of 2.7 per cent, but this time that was due to an increase in registered employment, which grew at an annual rate of 6.2 per cent.

During the second period of economic expansion, under the Convertibility regime (from 1996 to the third quarter of 1998), almost 40 per cent of (net) registered salaried jobs creation can be explained by an increase in fixed-term contact jobs. During this period, fixed-term contracts came to constitute as much as 8 per cent of all registered salaried employment (Figure 5). During the recession and crisis of Convertibility (from the third quarter of 1998 to the third quarter of 2002), the reduction in fixed-term contract employment explains 34.1 per cent of the drop in the employment rate, whereas the reduction in open-ended employment explains 58.3 per cent of the drop.

Table 4. Job creation according to contract type, Argentina, 1996-2011 Greater Buenos Aires Metropolitan Area, First quarter1996=100

Period	1996 - Q1 to 1998 - Q3		1998 - Q3 to 2002 - Q4		2002 - Q4 to 2008 - Q3		2008 - Q3 to 2009 - Q3		2009 - Q3 to 2011 - Q4	
Contract type	*Percentage variation*	*Impact on (net) job creation*	*Percentage variation*	*Impact on (net) job creation*	*Percentage variation*	*Impact on (net) job creation*	*Percentage variation*	*Impact on (net) job creation*	*Percentage variation*	*Impact on (net) job creation*
Open-ended	3.4%	41.1%	-10.1%	58.3%	38.2%	84.3%	0.1%	-3.5%	6.4%	82.2%
Fixed-term	62.9%	38.8%	-73.5%	34.1%	204.4%	10.6%	-38.7%	68.0%	55.5%	22.7%
Temporary agency workers	222.5%	20.0%	-56.4%	7.6%	205.4%	5.1%	-42.4%	35.5%	-26.7%	-4.9%
Total	*7.8%*	*100.0%*	*-15.6%*	*100.0%*	*43.8%*	*100.0%*	*-2.7%*	*100.0%*	*7.4%*	*100.0%*

Note: Areas shaded in grey indicate new job loss.

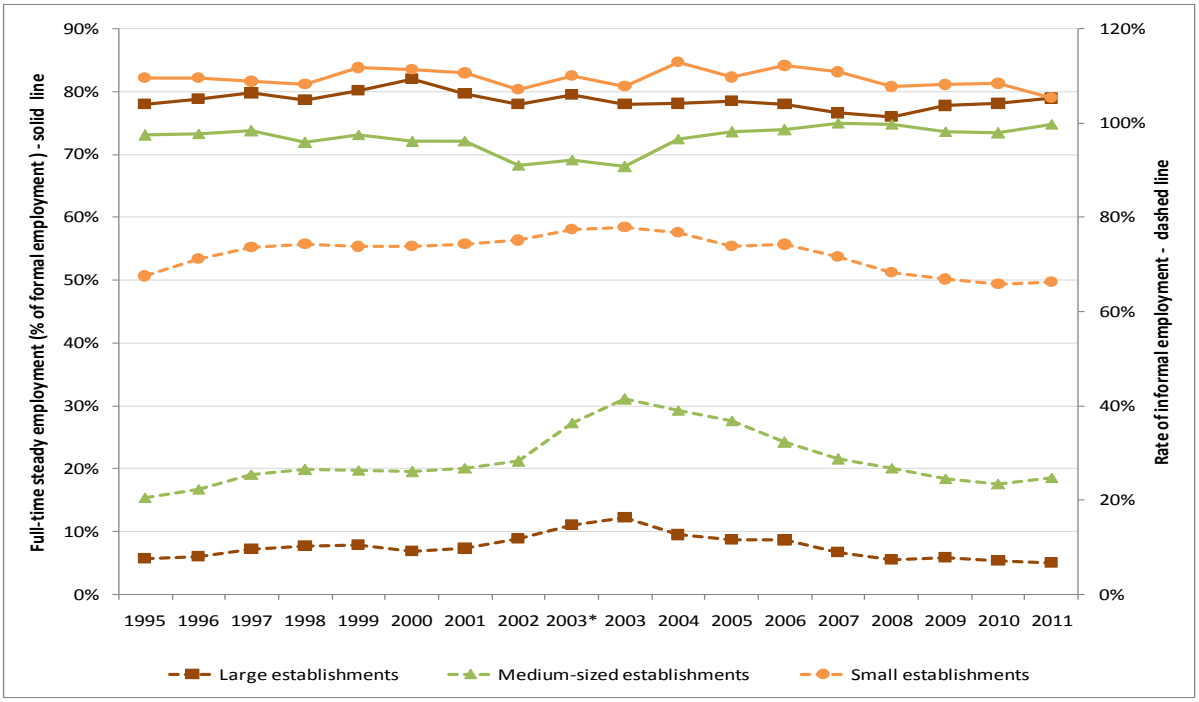
Source: Employment Indicators Survey, Ministry of Labour, Employment and Social Security.

After the crisis of Convertibility, the growth in registered employment was marked by an increase in jobs with open-ended contracts. Indeed, this type of contract accounts for 84.3 per cent of net job creation from the first quarter of 2003 to the third quarter of 2008. In 2009, job creation was interrupted due to the effects of the international financial crisis on the domestic economy. The net job loss, though, occurred amongst temporary agency workers and those with fixed-term contracts.[26] Once the 2009 international crisis had subsided, open-ended employment once again accounted for almost all net job creation.

Medium-sized and large enterprises account for a smaller proportion of stable full-time employment, that is, those enterprises made greater use of other types of contracts (especially during the nineties) than smaller enterprises. In the latter "flexibility" means primarily informal employment. During the nineties, medium-sized enterprises were more susceptible to loss of full-time stable jobs and to greater employment informality. Conversely, during the 2000s, they were more susceptible to job creation and reduction in rates of informality (Figure 8). In 2011, the percentage difference according to size of establishment between levels of full-time registered salaried employment with open-ended contact was less than in earlier periods. Nonetheless, the differences in rate of non-registered employment continued to be very high.

[26] Some counter-cyclical policies geared to the protection and creation of formal employment may explain the mild impact that the 2009 crisis had in terms of job loss (especially in terms of open-ended employment) (MTEySS and ILO, 2012).

Figure 8. Evolution of full-time, stable salaried employment and informal employment according to size of establishment, Argentina, 1995-2011



Note: Small enterprises are considered those with fewer than six employees; medium-sized those with between six and one hundred employees; and large enterprises those with over one hundred employees. Two different sources of data are considered for 2003, one from the EPH-P and the other from the EPH-C. See appendix 2 for further information.

Source: Own elaboration on the basis of EPH-INDEC data.

The turnover and mobility patterns of the groups considered in this analysis show marked differences in behaviour in the nineties and the 2000s. Amongst formal salaried workers there was a lower turnover rate in the 2000s in the case of formal salaried workers with typical contracts, whereas there was a greater turnover rate for formal salaried workers with atypical contracts. In the first case, this was mainly due to a drop in the exit rate, whereas in the second it is due to greater exit and entry rates.

Amongst informal workers, particularly unskilled workers in that category, the turnover rate in the 2000s was lower. This is due to a drop in the workforce entry rate and, amongst unskilled workers, a lower exit rate as well.

During the same period, there was a lower turnover rate amongst skilled self-employed workers and a greater turnover rate amongst subsistence self-employed workers. In the first case, this is due to lower rates of both entry and exit, whereas in the second the greater turnover rate is mainly due to higher rates of entry and exit.

Table 5. Rates of entry, exit and turnover according to employment category, Argentina, 1995-2011

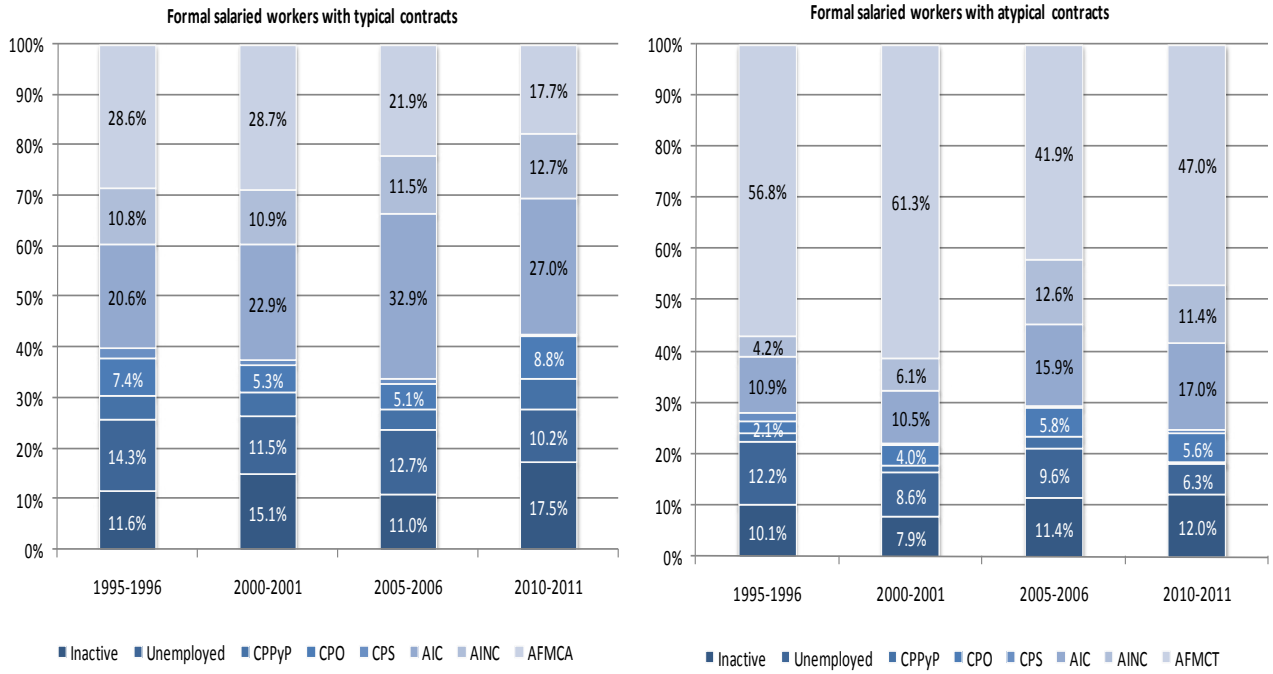
Occupational status	1995-1996	2000-2001	2005-2006	2010-2011	1995-1996	2000-2001	2005-2006	2010-2011	1995-1996	2000-2001	2005-2006	2010-2011
	Entry Rate				Exit rate				Turnover rate			
Inactive	7.7	8.1	17.3	16.5	9.3	9.3	15.1	13.8	8.5	8.7	16.2	15.2
Unemployed	68.9	72.2	69.9	78.3	67.1	62.3	74.6	79.5	68.0	59.8	45.9	78.9
Self-employed												
Professional (CPPyP)	54.9	40.9	45.2	42.4	51.0	47.4	46.1	42.8	54.1	48.1	46.1	42.6
Skilled (CPO)	52.6	54.8	47.0	46.5	53.3	55.3	46.0	47.7	56.0	55.5	45.6	47.1
Subsistence (CPS)	57.3	54.8	72.9	60.7	59.4	56.3	61.9	61.6	52.9	54.8	54.4	61.1
Informal salaried												
Skilled (AIC)	70.0	58.7	56.9	63.2	66.2	63.9	56.9	63.3	61.7	59.9	56.9	63.3
Unskilled (AINC)	66.0	60.2	54.4	58.1	63.2	61.1	53.3	57.9	66.6	60.2	53.8	58.0
Formal salaried												
Typical contracts (AFMCT)	25.4	23.8	28.9	24.6	24.9	28.2	21.3	20.5	45.4	26.0	25.1	22.5
Atypical contracts (AFMCA)	69.9	72.7	81.7	81.8	70.1	70.0	82.3	82.8	47.7	71.3	82.0	82.3

Note: Turnover rate is defined as the simple average of rates of entry and exit.

Source: Own elaboration on the basis of EPH-INDEC data.

In keeping with these observations of turnover rates, employment trajectories of formal salaried workers show a tendency toward greater stability in registered, stable and full-time or voluntary part-time jobs. Whereas in the second half of the nineties nearly 77 per cent of workers in this category stayed at their jobs for at least one year, that percentage rose to nearly 85 per cent in the 2000s (see Appendix 3 for further information). New formal salaried workers with steady full-time or voluntary part-time jobs came from other occupations rather than from the ranks of the unemployed or the inactive. During the nineties they largely came from registered salaried fixed-term or involuntary part-time employment; at the beginning of the new century, though, they mainly came from non-registered skilled salaried employment (see Figure 9). At the same time, it has been shown that those individuals who leave a formal salaried job with a typical contract move into a registered fixed-term or voluntary part-time job (primary target employment category in the nineties) or into a skilled non-registered job (primary target employment category in the 2000s).

Figure 9. Source of new workers holding formal salaried positions according to contract type and previous occupational status, Argentina, 1995-2011



Note: CPPyP: Self-employed professionals and employers: CPO: skilled non-technical and non-professional self-employed workers; CPS: subsistence self-employed workers; AIC: skilled informal salaried workers; AINC: unskilled informal salaried workers; AFMCT: formal salaried workers with typical contracts; AFMCA: formal salaried workers with atypical contracts (See Box 1).

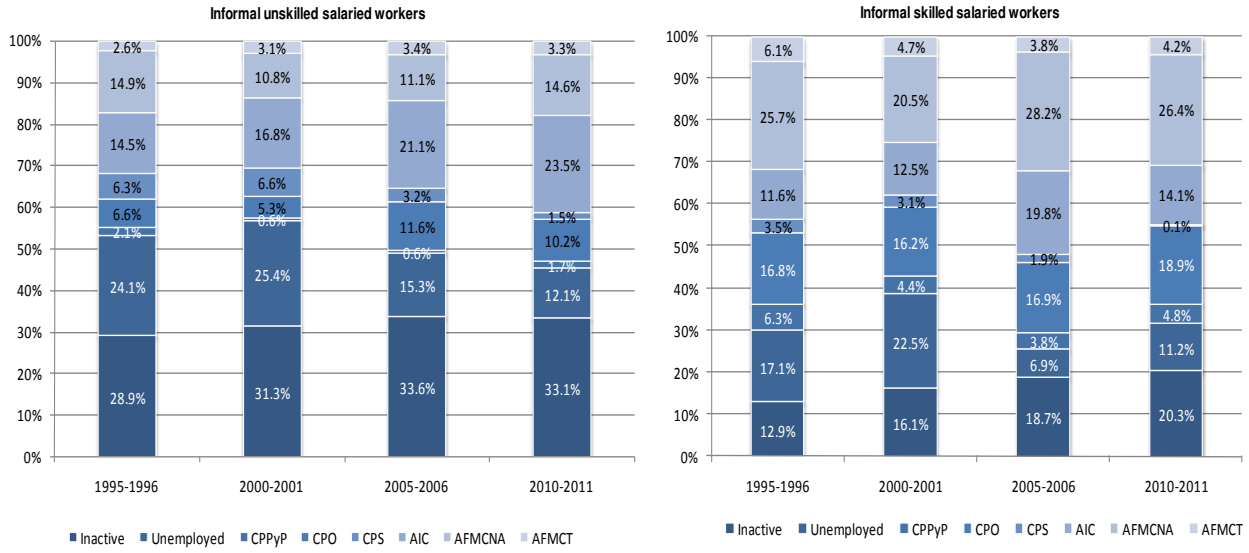
Source: Own elaboration on the basis of EPH-INDEC data.

There is considerable mobility between formal salaried workers with atypical contracts and formal salaried workers with typical contracts. On the one hand, between 65 and 76 per cent of those individuals who leave jobs in the first former category manage within the term of one year to find a job in the second category. On the other, between 42 and 62 per cent of new fixed-term or voluntary part-time salaried workers, come from the ranks of those holding steady registered full-time salaried positions.

Most of the mobility amongst unskilled informal salaried workers is towards unemployment or inactivity, though some move between occupations. During the entire period taken into account, the percentage of workers to stay for at least one year in an informal unskilled salaried position was less than 50 per cent (see Appendix 3).

Amongst informal skilled salaried workers, the rate of permanence within the category is even lower than amongst informal unskilled salaried workers (45 per cent or less of these workers stay in the same category for a full year). Skilled workers are less likely to transition into inactivity or unemployment, and more likely to move into another type of employment. Especially in the 2000s, those who leave informal skilled salaried jobs move mostly into formal salaried positions with typical contracts; albeit at a lesser extent, other common transitions for these workers are into informal unskilled salaried employment or skilled self-employment (see Figure 10 and Appendix 3).

Figure 10. Target employment category of skilled and unskilled informal salaried workers who leave their employment category, Argentina, 1995-2011



Note: CPPyP: Self-employed professionals and employers; CPO: skilled non-technical and non-professional self-employed workers; CPS: subsistence self-employed workers; AIC: skilled informal workers; AINC: unskilled informal salaried workers; AFMCT: formal salaried workers with typical contracts; AFMCA: formal salaried workers with atypical contracts (See Box 1).

Source: Own elaboration on the basis of EPH-INDEC data.

Finally, the employment trajectories of skilled and subsistence self-employed workers suggest that most of the workers in those categories who leave their jobs transition into other jobs, that is, they do not leave the labour market. One year after leaving their employment category, most skilled self-employed workers hold informal skilled salaried positions. The main destination of subsistence self-employed workers who leave their employment category is skill self-employment. Indeed, the link between skilled self-employed workers and informal skilled employment is even greater insofar as the second type of employment constitutes the main source of new workers in the skilled self-employed category. The main source of subsistence self-employed workers in 1995 was informal unskilled salaried employment, whereas in the 2000s the main source of new workers in that category was skilled self-employed workers (see Appendix 3).

In order to assess the intensity of flows between these employment categories, the probability of transition has been standardized and adjusted according to the size of target sector. On the basis of these standardized rates of transition, it is possible to determine whether flows into a certain category are particularly high or low compared with what would occur if workers moved randomly between sectors. Furthermore, analysis of the existence—or lack of—symmetry in flows between two employment categories can suggest if flows tend to be unidirectional or bidirectional (Maloney, 1999). The results yielded by this exercise confirm, in general terms, the stylized facts regarding employment trajectories stated above (see Appendix 3). Considerable flow is observed between formal salaried workers with typical contracts and formal salaried workers with atypical contracts during the entire period analyzed, with more intense movement from the latter into the former.

On the basis of observation, the flows between skilled and unskilled jobs within the informal employment category do not appear to be symmetrical. Informal unskilled salaried workers are more likely to move into unemployment and into skilled informal salaried employment. As opposed to observations based on non-standardized probabilities of transition, informal unskilled salaried workers move at a great rate into various kinds of

self-employment, like subsistence self-employment, though the intensity of that flow diminished over the course of the period analyzed. Indeed, the greatest flow of informal skilled salaried workers was into categories of self-employment such as skilled self-employment, and into atypical formal salaried employment. The former flow was more intense in 1995 and the latter in the early 2000s.

At the same time, there is bidirectional movement between different categories of self-employment albeit at different rates of intensity. Significant flow has been observed between skilled self-employment, on the one hand, and self-employed professionals and employers, on the other, mostly from the former into the latter and specifically during certain years.

Another important consideration is employment turnover and mobility between jobs within the same category. Over 85 per cent of formal salaried employees with typical contracts who have retained that status for at least one year stay at the same job; the percentage is lower for the other subgroups (formal salaried workers with atypical contracts, informal unskilled salaried workers, and informal skilled salaried workers). In the case of informal unskilled salaried workers, there is greater mobility amongst those workers who have been in this category for at least one year. Between 2010 and 2011, almost 40 per cent of informal unskilled salaried workers that stayed in this category changed jobs.

To summarize the findings in this section, the evidence corroborates that atypical formal employment does not represent a high percentage of the overall workforce, and that atypical contracts were used mainly in the nineties by large enterprises. In smaller enterprises, labour market flexibilization seems to be connected with non-registered employment. There also appears to be a high rate of labour market turnover in general, but particularly in those segments with poorer quality employment, though the turnover rate has diminished in the 2000s due to employment formalization and greater stability amongst formal salaried workers with typical contracts.

Table 6. (Standardized) percentage of salaried employees at the same or different job according to employment category, Argentina, 1995-2011

Panel	Informal salaried		Formal salaried	
	Skilled (AIC)	*Unskilled (AINC)*	*Typical arrangements (AFMCT)*	*Atypical arrangements (AFMCA)*
1995-1996				
Same job	69.0%	71.5%	95%	88.7%
Different job	31.0%	28.5%	4.6%	11.3%
2000-2001				
Same job	79.6%	74.6%	96.8%	83.9%
Different job	20.4%	25.4%	3.2%	16.1%
2005-2006				
Same job	60.3%	65.2%	88.6%	64.7%
Different job	39.7%	34.8%	11.4%	35.3%
2010-2011				
Same job	66.2%	59.6%	85.1%	70.5%
Different job	33.8%	40.4%	14.9%	29.5%

Source: Own elaboration on the basis of EPH-INDEC data.

4.2. Labour market segmentation

One of the main hypotheses of the literature on labour market segmentation is that each segment has a different mechanism to determine labour incomes, which means that comparable individuals receive different wages. For wage gaps between sectors to exist, the conjecture is that the level of employment mobility must be low (Taubman and Wachter, 1986).

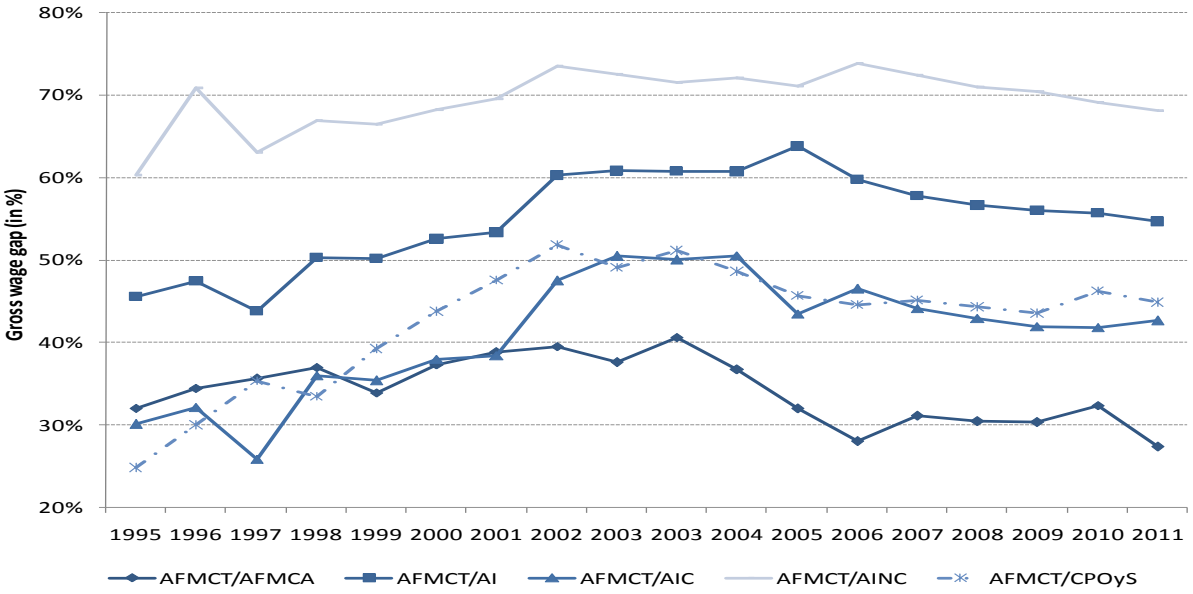
On the basis of the empirical literature, we will now analyze salary differentials between the employment categories defined above: formal salaried employment with typical contract, formal salaried employment with atypical contracts (both of which fall into the category of formal salaried employment); informal skilled salaried employment and informal unskilled salaried employment (both of which fall into the category of informal salaried employment); and skilled and subsistence self-employment, and self-employed professionals and employers (all of which fall into the category of self-employment).

A first consideration is the gross wage gap[27] between the different occupational categories taken into account, specifically in relation to full-time or voluntary part-time formal salaried workers with open-ended contracts (formal salaried workers with typical contracts). The evolution of these income differentials evidences that, during the 2000s, the largest gaps have been between formal salaried workers with typical contracts and informal unskilled salaried workers, and between formal salaried workers with typical contract and self-employed professionals and employers in the second half of the nineties. On the other hand, the gap between the salaries of formal salaried workers with typical contracts and formal salaried workers with atypical contracts and informal skilled salaried workers is less dramatic. In recent years, though, there has been a considerable reduction in salary gaps between formal salaried workers with typical contracts and self-employed professionals and employers probably due to the role of collective bargaining.

These salary differentials cannot be considered evidence of segmentation because they are not based on the comparison of individuals who are "identical" in all aspects except salary received. Furthermore, the decision about what job to take may not be an exogenous factor.

[27] The term "gross" refers to wage gaps resulting from the simple comparison of employment income received by workers in each of the categories compared, without taking into account the specific characteristics of the worker or the job.

Figure 11. Gross wage gap between salaried workers with different types of contracts, Argentina 1995-2011, in relation to formal salaried workers with typical contract



Note: Data from two different sources are considered for the year 2003, one from the EPH-P and the other from the EPH-C. See appendix 2 for further information.

Source: Own elaboration on the basis of EPH-INDEC data.

To address possible endogenous factors, an additional estimation strategy has been implemented, one that entails calculating salary differentials associated with transitions from one sort of employment arrangement to another, indicating the percentage increase or drop in income of the worker as a result of this transition.[28] That is, for each worker who moved from one labour market segment to another, the percentage difference in salary received in the initial category and in the final category is calculated. The advantage of this method compared with gross salary gap estimations amongst earners in different segments is that it does not compare workers with different characteristics in terms of production, which could largely explain observed wage differentials. Instead, the income that the same earner received in one segment is compared to his or her income in another after a transition between segments. This method, then, controls for both observable[29] and unobservable characteristics[30] of workers by means of a fixed effect panel model.[31]

[28] One of the problems of this strategy is the reduction in the number of observations.

[29] Gender, potential experience, education, household position, and characteristics of the job such as task description, hours worked, sector (public or private), size of establishment, branch of activity, and seniority.

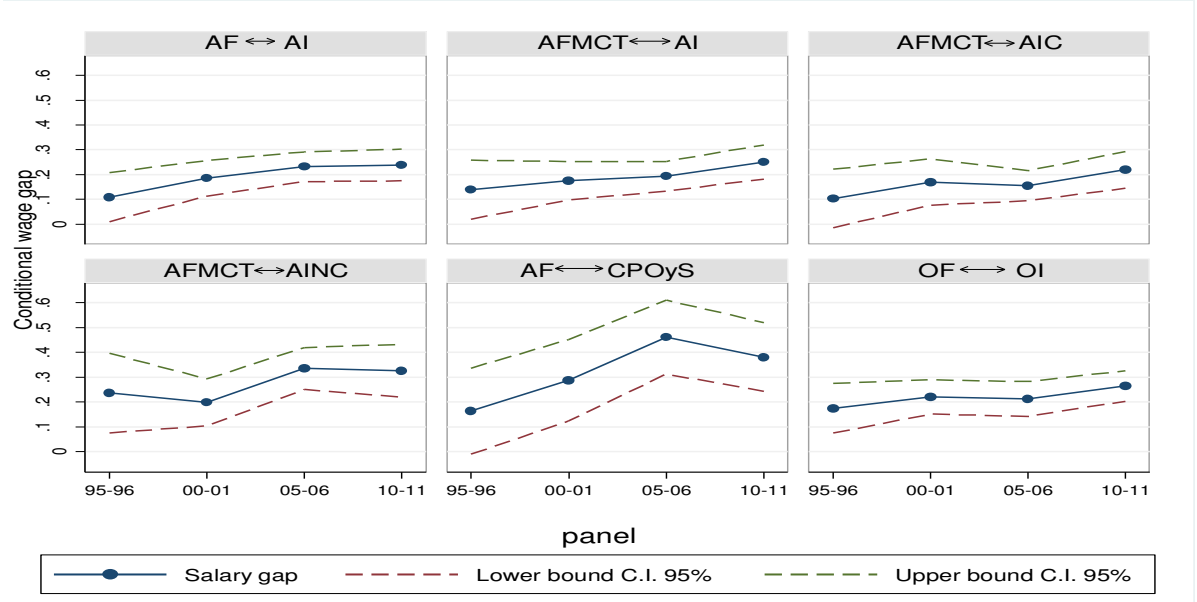
[30] For example, unobservable factors that do not vary with time such as workers' skills.

[31] There are, however, a series of limitations associated with the estimation of wage gaps by means of fixed effects. First, the fixed effect method does not control for certain omitted unobservable variables that change over time or, more importantly, for certain non-pecuniary benefits associated with the job that may influence the voluntary decision regarding which segment to work in. Regardless, it is possible that these unobservable characteristics that change over time as well as non-pecuniary benefits do not yield a significant bias in estimated salary gaps considering that the unobservable characteristics that vary over time are not many and that the effects of the unobservable variables associated with non-pecuniary benefits that do not vary over time are eliminated by means of the fixed effect method. Second, since gaps are calculated between earners in different categories, they could be capturing a potential selection bias within employment. To assess the impact of that bias on sample selection, a method to correct the estimation was implemented (see Appendix 4). Appendix 5 presents estimated wage gaps with the fixed effect method considering the different specifications of the model.

The results of the fixed effect estimation demonstrate the existence of a significant and positive gap in transitions between formal and informal salaried employment. When the comparison is between employment income of formal workers with stable full-time or voluntary part-time jobs, the salary gap between formal and informal jobs increases slightly. If, however, the categories of comparison are formal salaried workers in atypical jobs (that is, with fixed-term contracts or involuntary part-time contracts) and informal salaried workers, salary gaps are less, though still significant (except for the 1995-1996 period). If the point of comparison is employment income of skilled informal salaried workers, salary gaps compared to formal workers, regardless of contract type, are lower than if compared to the salaries of unskilled informal salaried workers. These differences, however, are only statistically significant in the 2000s.

No significant income gap was observed in transitions from formal salaried employment with typical contract to formal salaried employment with atypical contract, or from informal skilled salaried employment to informal unskilled salaried employment. When the fixed effect methodology is applied, there is no evidence to support the hypothesis of segmentation within formal salaried employment or within informal salaried employment (with the exception of the 1995-1996 period, in the first case, and the 2005-2006 period, in the second). Similarly, in the formal employment segment there was no gap significantly different from zero pursuant to transitions from the private to the public sector.

Figure 12. Wage gaps associated with transitions between employment categories, estimated using the fixed effects method



Note: ↔ indicates transitions or trajectories between employment categories. Only statistically significant results are presented (for further information, see Appendix 5). C.I.: confidence interval.

Source: Own elaboration on the basis of EPH-INDEC data.

In terms of self-employment, there appears to be a statistically significant gap between self-employed professionals and employers, on the one hand, and skilled or subsistence self-employed workers, on the other. The gap in earned income of skilled or subsistence self-employed workers versus that of formal salaried workers with similar characteristics regardless of contract type (typical or atypical) is significant and negative (except during the 1995-1996 period). These results, along with those yielded by an analysis of employment trajectories, suggest that skilled and subsistence self-employed workers seem to have trouble finding formal salaried employment. Given their

characteristics, in 2011 these workers would have received an income approximately 40 per cent higher if they had held a formal salaried position with typical contract, and 32 per cent higher if they had held a formal salaried position with atypical contract. Within the broad category of informal employment, a significant and negative income gap is observed only when the salaries of skilled and subsistence self-employed workers are compared to those of informal salaried workers.[32]

5. Closing remarks and conclusions

This document has analyzed labour market performance in Argentina in terms of job quality and segmentation, indicating some contrasts between the nineties and the 2000s.

In terms of job creation, the nineties witnessed cyclical variations in the employment rate. Specifically, both typical and atypical registered salaried employment tended to decline even when policies were implemented to increase labour market flexibility and to reduce employer contributions to social security which were both believed to encourage formal employment. With the labour flexibilization measures of 1995, atypical jobs (that is, fixed-term and temporary agency workers) accounted for almost 60 per cent of the (already low) rate of job creation in the context of an expanding national product. A major reduction in atypical employment followed during the recession and crisis in the Convertibility regime, a tendency perhaps furthered by the repeal of the measures encouraging atypical employment enacted in mid-1998. In any case, it is important to emphasize that the contract types encouraged by those regulations (mainly, fixed-term contracts) never constituted more than 8 per cent of registered salaried employment.

The new century saw an increase in the employment rate and, in particular, in formal salaried employment. This ensued in a context that witnessed a reversal of reforms geared to flexibilization that had been put into effect in the nineties (specifically, employment protection legislation and reductions in employer contributions to social security). This contradicts the hypothesis that deregulation, greater labour market flexibility, and the reduction in the cost of labour lead to a resounding drop in informal employment. On the contrary, evidence indicates the importance of a macroeconomic regime and of policies that encourage the creation of decent work.

At the same time, in the 2000s there was a decline in self-employment, especially subsistence self-employment. There is, then, no stylized fact that connects more restrictive labour regulations (in this case, the elimination of fixed-term contracts) with a greater rate of self-employment. On the contrary, what is observed is a reduction in self-employment in conjunction with the aforementioned increase in formal typical salaried employment. The drop in subsistence self-employment can be associated with diminished workforce participation of vulnerable groups in this type of employment as a result of major expansion in cash-transfer forms of social protection.

In terms of employment turnover and mobility, the 2000s witnessed a decrease in turnover amongst formal salaried workers with typical contracts. A similar drop in turnover took place amongst informal workers during the same period, especially amongst unskilled informal workers. At the same time, while the relative weight of formal salaried

[32] Significantly, when estimated by means of the fixed effect method, the direction and the magnitude of the wage gaps between the different categories considered do not vary significantly when they are corrected for a potential bias in sample selection (for information on this topic, see Appendix 5).

employment with atypical contracts dropped, turnover increased in this segment in the 2000s.

The (unconditional) probability of formal salaried workers with typical contracts to remain in this category increased to more than 77 per cent in the mid-nineties and to 85 per cent in 2010. For the other categories analyzed, the probability is substantially lower, around 60 per cent for self-employed professionals and employers; 40 per cent for informal skilled salaried workers; and 20 per cent for formal salaried workers with atypical contracts.

The transitions observed evidence a labour market with a high rate of mobility, not only in segments with greater levels of informality but also in those that tend towards formality. From the outset, this contradicts the idea of low mobility sustained by labour market segmentation theory. As mentioned above, however, rates of workforce entry and exit are considerably lower in the formal salaried employment with typical contract segment than in other segments; the greatest source of workers moving into new formal salaried jobs (whether typical or atypical) are those working in the informal skilled segment. Most workers leaving the formal salaried employment segment transition into the informal skilled salaried employment segment.

Another striking aspect of labour market mobility is flow between typical and atypical salaried employment. The main source of new formal salaried workers with typical contracts is those working in formal salaried jobs with atypical contracts, and the main destination of formal salaried workers who leave a job with a typical contract is a salaried job with an atypical contact. There is also a high level of mobility between the skilled informal salaried segment and the formal atypical salaried segment.

It has also been observed that workers in formal salaried jobs with atypical contracts do not tend to transition into unemployment or inactivity. With the exception of the 2000-2001 period, the greatest flows were into other types of employment arrangements.

The percentage of workers that transition to and from typical formal salaried jobs and informal typical salaried jobs is high enough to cast doubt on the relevance of obstacles to access to formal employment. This could support the notion of escape from formal employment (that is, voluntary participation in the informal segment). Nonetheless, there is evidence that a wage differential exists between these types of employment. Other studies carried out in Argentina show that informal salaried workers do not decide about their formal or informal status (World Bank and MTEySS, 2008; Bertranou *et al.,* 2011); these studies emphasize that a high percentage of informal salaried workers perform their tasks in formal productive units (World Bank and MTEySS, 2008; Bertranou *et al.,* 2011). This fact could be associated with a structuralist hypothesis on informality (Chen, 2007; Portes *et al.* 1989), since in the Argentine case close links between the formal and informal segments are considered likely to exist.

There is evidence of segmentation (estimated on the basis of wage gaps) and less mobility between self-employment and formal salaried employment. This is in keeping with other studies that have detected that informal self-employed workers are subjected to a double exclusion: on the one hand, they are excluded from the formal sector of the economy and, on the other, from salaried employment (Contartese *et al.,* 2011). This sort of double exclusion, however, cannot be applied to all self-employment, since for other groups of self-employed workers (albeit a minority) this type of employment is preferable to salaried employment (World Bank and MTEySS, 2008).

The results yielded by an analysis of segmentation on the basis of econometric estimations of salary gaps suggest the existence of a segmented structure in the Argentine labour market mostly associated with informal employment. The most striking finding yielded by analysis of income gaps is the existence of a prime salary associated with

formal jobs versus informal jobs. The results do not seem to support the hypothesis of worker segmentation according to contract type within formal salaried employment or within informal salaried employment.

The evidence presented, then, indicates that the most widespread factor affecting job quality in Argentina is informality. The empirical analysis presented here, as well previous studies, evidence that informal employment in Argentina is not associated with any single cause (whether escape or exclusion, and—in the case of exclusion—whether dualist or structural) but rather with various factors that together determine the level and nature of informal employment.

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Appendix 1. Main aspects of legislation in effect pertinent to labour protection and fixed-term contracts

- ***Employment contract types***

1. **Fixed-term contracts.** According to existing legislation, employment contracts are understood to be in effect for an **open-ended period of time**, unless the length of the contract is specified or the nature of the tasks or activities performed justifies that the contract not be open-ended. Except in cases of temporary contracts, the three first months of the employment contract are considered a **trial period**. During that time, either the employer or the employee can terminate the relationship without express cause with no right to severance pay, but with the obligation to give prior notice. During the trial period, the parties are required to make social security contributions.
2. **Part-time contract.** The legislation in effect also addresses part-time employment. Under part-time contracts, it is possible to employ workers to render services for less than two thirds (2/3) of what are considered normal working hours per day or per week. Compensation for that work cannot be less than the proportion due a worker in the same category or at the same job as established by law or by collective bargaining agreement if that task were performed on a full-time basis.
3. **Fixed-term contract.** Fixed-term contracts with a maximum duration of five years are also permitted. Under this type of contract, severance is due in cases of unjustified dismissal should the agreement be terminated before the contract expires.
4. **Internships.** Another type of contract is associated with the **Internship Program** for students in higher levels of education. Educational internships do not establish any employment relationship between the intern and the company or organization where the work is performed. The minimum length of internships is two months and the maximum length twelve months, though an extension of six additional months is permitted.
5. **Seasonal contracts.** Temporary contracts may be established between parties when the normal activities performed by a company occur cyclically at a certain time each year. The severance pay for unjustified dismissal applicable in the case of these contracts is identical to severance pay in fixed-term contracts.
6. **Temporary Employment.** Temporary contracts are established when a worker performs a task for an employer in order to meet a specific need (for example, constructing a building).

- ***Temporary employment agencies***

Regulations governing temporary employment agencies establish that workers hired by such agencies are considered permanent full-time employees of those agencies, whether on a continuous or discontinuous basis. The modification of the regulation introduced in 1991 establishes that the employer who hires workers through a temporary employment agency is jointly responsible—along with the agency—for all employment obligations and must, therefore, deduct from payments made to the temporary employment agency contributions to relevant social security agencies. The regulation also establishes that workers hired through temporary employment agencies are protected by collective bargaining agreements, represented by the relevant union, and entitled to the health care benefits corresponding to the area of activity in which he or she performs services.

- ***Severance benefits***

Termination of an employment contract requires **advanced notice** of fifteen days in the case of the worker and of fifteen days during the trial period in the case of the employer, of one month when the worker has over three months but less than five years seniority; and of two months when the worker has over five years seniority. In small and medium-sized companies, however, advanced notice is set at one month regardless of seniority.

In the case of dismissal without just cause, **severance pay** is equivalent to a month's salary for each year of service or fraction of a year greater than three months. In cases of dismissal due to force majeure or a patent decline in workflow beyond the control of the employer (layoffs), the worker has the right to receive half the severance pay based on the aforementioned calculation.

In the case of fixed-term contracts, severance pay, pursuant to dismissal with due advanced notice, is equivalent to half the amount of severance pay without just cause for workers with open-ended contracts as long as the length of the contract has not been less than one year. The worker can also sue for damages as established by common law. A similar compensation is given if the contract is completed in full.

- ***Collective dismissals***

The National Labour Law outlines Crisis Prevention Procedures (PPCs) in the case of mass dismissals or layoffs due to force majeure, or for economic or technological reasons. Crisis Prevention Procedures are applicable when the layoffs affect:

- 15 per cent of workers in the case of enterprises with fewer than four hundred workers;
- 10 per cent of workers in the case of enterprises with between four hundred and one thousand workers;
- over 5 per cent of worked in the case of enterprises with more than one thousand workers.

These procedures are put into effect at a stage of negotiation between employers and workers' organizations that precedes the actual implementation of layoffs. The two parties are not required to reach an agreement, but if an agreement is reached it must be endorsed by the Ministry of Labor. If no agreement is reached after a ten-day period, the process is considered finalized and the parties can act freely (during the negotiation period, the employer cannot dismiss or lay off workers and workers cannot strike or engage in other active forms of protest).

To further the Crisis Prevention Procedures, in July of 2002 the Productive Recovery Program (REPRO) was created as a tool available to the Ministry of Labour to confront the employment crisis by means of a payroll subsidy. It was not until after the international crisis of 2008 that REPRO grew in scope. In exchange for the subsidy, employers agree to keep the entire staff and not to dismiss workers without cause or due to force majeure. The amount of the subsidy—whose maximum term is twelve months—was set at $800 per employee for the first quarter of 2012, $1000 for the second (during this period the minimum wage was $2300).

Appendix 2. Sources of information used in this empirical analysis

Most of the empirical analysis presented in his document is based on microdata from the Permanent Household Survey (EPH) from 1995 to 2011.

The EPH is a nationwide program for the systematic and permanent production of social indicators; it is carried out by the National Institute of Statistics and Census (INDEC) in conjunction since 1974. The aim of the EPH is to use indicators to provide knowledge about a set of aspects that enable a demographic description of the population (basic demographic characteristics) in terms of its participation in the production of goods and services (occupational characteristics) and its participation in the distribution of the social product (characteristics related to housing, education, income, and migration). Until 2003, the EPH (EPH-P) was carried out twice a year, in May and October (waves), in most of the provincial capitals and other major cities in Argentine provinces.

The EPH was modified substantially in 2003. The on-going EPH (EPH-C) was established pursuant to a comprehensive methodological reformulation of the EPH in response to changes in the population's socioeconomic characteristics and in types of labour market insertions and dynamics. It now encompasses three main areas: topic-related, sample-related, and organization-related. The redesigned questionnaires of the new EPH-C are applied to a sample distributed in time by means of a continuous-survey modality; results are presented more frequently.

The geographic scope of the survey has gradually increased, and as of May 1995 it encompassed twenty-five urban areas. It then further expanded to twenty-eight urban areas encompassing 70 per cent of the country's urban population; 98 per cent of the population that resides in urban areas with 100,000 inhabitants or more; and 91 per cent of the population that resides in urban centres with 50,000 or more.

Since the change in the Permanent Household Survey (EPH) took place in 2003, the data from period that spans from 1995 to 2003 differ from the data from the period that spans from 2003 to 2011. It is important to emphasize that the estimations based on EPH data collected in the two different periods are not strictly comparable due to changes in methodology. This is an obstacle that often limits the study of long-term indicator series resulting from the EPH.

On the basis of this source of data, the scope of non-registered salaried employment can be quantified and described (that is, it provides a picture of informality within salaried employment). However, for self-employment is not possible to analyze labour informality under the same approach since the survey does not inquire about the compliance of social security by independent workers.

For the analysis presented here, data from the EPH is complemented with data from the Employment Indicators Survey (EIL) which has been released by the Ministry of Labour on a monthly basis since December 1995. Initially, the results were only for Greater Buenos Aires, but its scope, as well as the size of its sample, has gradually increased. In all the urban areas it currently covers, the EIL encompasses 67 per cent of all registered employment in private enterprises with ten workers or more, not including the primary sector. In order to encompass a historical series that covers a longer period, this study considers only Greater Buenos Aires when it makes use of EIL data.

Appendix 3. Employment Trajectories, 1995-2011

Initial employment status/ Final employment status		Inactive	Unemployed	Self-employed			Informal salaried		Formal salaried	
				Professional (CPPyP)	*Skilled (CPO)*	*Subsistence (CPS)*	*Skilled (AIC)*	*Unskilled (AINC)*	*Typical arrangements (AFMCT)* [1]	*Atypical arrangements (AFMCA)* [2]
						1995-1996				
Inactive		91.29	4.00	0.15	0.72	0.56	0.92	1.54	0.60	0.23
Unemployed		27.16	33.64	0.30	6.82	2.23	9.99	10.81	6.55	2.50
Self-employed	*Professional (CPPyP)*	6.64	2.16	52.13	21.28	5.92	8.02	0.31	3.15	0.39
	Skilled (CPO)	10.01	11.94	7.38	48.10	3.00	10.59	3.05	5.25	0.68
	Subsistence (CPS)	18.50	8.22	5.92	9.86	41.91	3.89	6.97	3.48	1.25
Informal salaried	*Skilled (AIC)*	8.50	11.26	3.06	11.08	2.29	35.22	7.64	16.95	4.00
	Unskilled (AINC)	17.52	14.58	1.30	4.02	3.81	8.77	39.46	9.00	1.55
Formal salaried	*Typical arrangements (AFMCT)* [1]	2.78	3.84	1.20	1.71	0.66	4.37	1.93	77.61	5.90
	Atypical arrangements (AFMCA) [2]	5.63	6.60	0.69	1.33	2.15	5.35	1.02	45.06	32.16
Total		**60.66**	**7.18**	**1.71**	**4.43**	**1.96**	**4.33**	**4.07**	**13.65**	**2.04**
						2001-2002				
Inactive		91.11	3.80	0.07	0.85	0.56	0.90	1.85	0.68	0.18
Unemployed		26.18	38.32	0.53	9.93	3.50	6.26	7.90	5.36	2.02
Self-employed	*Professional (CPPyP)*	8.93	3.45	55.07	15.43	6.81	5.04	0.52	4.55	0.19
	Skilled (CPO)	12.68	14.74	5.84	45.28	4.12	9.33	3.75	3.08	1.16
	Subsistence (CPS)	17.79	8.94	4.22	10.66	44.64	3.10	9.32	1.22	0.10
Informal salaried	*Skilled (AIC)*	10.39	14.48	1.00	10.45	2.03	37.21	8.02	13.31	3.11
	Unskilled (AINC)	18.50	14.99	0.29	3.15	3.90	9.94	41.03	6.39	1.81
Formal salaried	*Typical arrangements (AFMCT)* [1]	3.13	6.29	0.78	1.42	0.43	5.56	1.63	74.44	6.32
	Atypical arrangements (AFMCA) [2]	3.63	6.91	0.00	1.46	0.35	6.31	2.01	46.90	32.42
Total		**60.21**	**7.85**	**1.58**	**4.58**	**2.10**	**4.59**	**4.52**	**12.65**	**1.91**
						2005-2006				
Inactive		85.54	4.32	0.23	2.25	0.30	2.58	3.59	0.92	0.27
Unemployed		27.38	25.90	0.71	9.76	0.82	11.78	14.35	7.68	1.62
Self-employed	*Professional (CPPyP)*	4.04	1.64	54.56	21.58	1.16	8.35	1.13	6.50	1.03
	Skilled (CPO)	13.33	5.63	5.62	55.09	2.76	9.12	5.24	2.44	0.77
	Subsistence (CPS)	8.22	3.15	1.83	25.72	38.25	3.25	14.08	4.79	0.70
Informal salaried	*Skilled (AIC)*	10.50	3.85	2.13	9.48	1.06	43.92	11.09	15.83	2.13
	Unskilled (AINC)	17.63	8.01	0.33	6.09	1.68	11.06	47.60	5.83	1.78
Formal salaried	*Typical arrangements (AFMCT)* [1]	2.28	1.88	1.23	1.35	0.06	4.56	1.07	84.56	3.01
	Atypical arrangements (AFMCA) [2]	2.15	5.49	0.86	1.79	0.56	4.28	3.96	61.78	19.13
Total		**46.94**	**5.68**	**2.46**	**8.67**	**0.97**	**8.38**	**8.21**	**17.29**	**1.40**
						2010-2011				
Inactive		86.95	3.19	0.26	2.24	0.18	2.34	3.15	1.45	0.25
Unemployed		34.10	20.91	0.88	8.74	0.61	11.46	12.09	9.70	1.51
Self-employed	*Professional (CPPyP)*	6.81	1.34	58.29	18.92	0.21	5.92	0.57	7.85	0.07
	Skilled (CPO)	15.29	3.94	7.89	53.75	1.25	7.80	4.97	4.41	0.70
	Subsistence (CPS)	14.58	0.19	1.30	20.93	39.64	8.85	12.39	0.97	1.15
Informal salaried	*Skilled (AIC)*	12.66	7.00	2.96	11.76	0.09	37.66	8.82	16.44	2.61
	Unskilled (AINC)	18.72	6.84	0.95	5.74	0.82	13.28	43.51	8.26	1.88
Formal salaried	*Typical arrangements (AFMCT)* [1]	3.61	1.56	1.10	1.53	0.03	3.52	1.56	84.67	2.43
	Atypical arrangements (AFMCA) [2]	6.62	3.09	1.07	1.79	0.26	6.39	8.20	53.67	18.90
Total		**48.87**	**4.10**	**3.16**	**8.08**	**0.49**	**6.68**	**6.32**	**21.01**	**1.29**

Probability of moving from one employment category to another employment category

Notes: (1) AFMCT: typical contracts.(2) AFMCA: atypical contracts. The values in the "Total" row represent the proportion of individuals in each category at the end of each period.

Source: Own elaboration on the basis of EPH data.

Probability of moving from one employment category to another employment category										
Initial employment status/ Final employment status		Inactive	Unemployed	Self-employed			Informal salaried		Formal salaried	
				Professional (CPPyP)	*Skilled (CPO)*	*Subsistence (CPS)*	*Skilled (AIC)*	*Unskilled (AINC)*	*Typical arrangements (AFMCT)* [1]	*Atypical arrangements (AFMCA)* [2]
1995-1996										
Inactive			55.71	8.77	16.25	28.57	21.25	37.84	4.40	11.27
Unemployed		44.77		17.54	153.95	113.78	230.72	265.60	47.99	122.55
Self-employed	*Professional (CPPyP)*	10.95	30.08		480.36	302.04	185.22	7.62	23.08	19.12
	Skilled (CPO)	16.50	166.30	431.58		153.06	244.57	74.94	38.46	33.33
	Subsistence (CPS)	30.50	114.48	346.20	222.57		89.84	171.25	25.49	61.27
Informal salaried	*Skilled (AIC)*	14.01	156.82	178.95	250.11	116.84		187.71	124.18	196.08
	Unskilled (AINC)	28.88	203.06	76.02	90.74	194.39	202.54		65.93	75.98
Formal salaried	*Typical arrangements (AFMCT)* [1]	4.58	53.48	70.18	38.60	33.67	100.92	47.42		289.22
	Atypical arrangements (AFMCA) [2]	9.28	91.92	40.35	30.02	109.69	123.56	25.06	330.11	
2000-2001										
Inactive			48.41	4.43	18.56	26.67	19.61	40.93	5.38	9.42
Unemployed		43.48		33.54	216.81	166.67	136.38	174.78	42.37	105.76
Self-employed	*Professional (CPPyP)*	14.83	43.95		336.90	324.29	109.80	11.50	35.97	9.95
	Skilled (CPO)	21.06	187.77	369.62		196.19	203.27	82.96	24.35	60.73
	Subsistence (CPS)	29.55	113.89	267.09	232.75		67.54	206.19	9.64	5.24
Informal salaried	*Skilled (AIC)*	17.26	184.46	63.29	228.17	96.67		177.43	105.22	162.83
	Unskilled (AINC)	30.73	190.96	18.35	68.78	185.71	216.56		50.51	94.76
Formal salaried	*Typical arrangements (AFMCT)* [1]	5.20	80.13	49.37	31.00	20.48	121.13	36.06		330.89
	Atypical arrangements (AFMCA) [2]	6.03	88.03	0.00	31.88	16.67	137.47	44.47	370.75	
2005-2006										
Inactive			76.06	9.35	25.95	30.93	30.79	43.73	5.32	19.29
Unemployed		58.33		28.86	112.57	84.54	140.57	174.79	44.42	115.71
Self-employed	*Professional (CPPyP)*	8.61	28.87		248.90	119.59	99.64	13.76	37.59	73.57
	Skilled (CPO)	28.40	99.12	228.46		284.54	108.83	63.82	14.11	55.00
	Subsistence (CPS)	17.51	55.46	74.39	296.66		38.78	171.50	27.70	50.00
Informal salaried	*Skilled (AIC)*	22.37	67.78	86.59	109.34	109.28		135.08	91.56	152.14
	Unskilled (AINC)	37.56	141.02	13.41	70.24	173.20	131.98		33.72	127.14
Formal salaried	*Typical arrangements (AFMCT)* [1]	4.86	33.10	50.00	15.57	6.19	54.42	13.03		215.00
	Atypical arrangements (AFMCA) [2]	4.58	96.65	34.96	20.65	57.73	51.07	48.23	357.32	
2010-2011										
Inactive			77.80	8.23	27.72	36.73	35.03	49.84	6.90	19.38
Unemployed		69.78		27.85	108.17	124.49	171.56	191.30	46.17	117.05
Self-employed	*Professional (CPPyP)*	13.93	32.68		234.16	42.86	88.62	9.02	37.36	5.43
	Skilled (CPO)	31.29	96.10	249.68		255.10	116.77	78.64	20.99	54.26
	Subsistence (CPS)	29.83	4.63	41.14	259.03		132.49	196.04	4.62	89.15
Informal salaried	*Skilled (AIC)*	25.91	170.73	93.67	145.54	18.37		139.56	78.25	202.33
	Unskilled (AINC)	38.31	166.83	30.06	71.04	167.35	198.80		39.31	145.74
Formal salaried	*Typical arrangements (AFMCT)* [1]	7.39	38.05	34.81	18.94	6.12	52.69	24.68		188.37
	Atypical arrangements (AFMCA) [2]	13.55	75.37	33.86	22.15	53.06	95.66	129.75	255.45	

Notes: (1) AFMCT: typical contracts. (2) AFMCA: atypical contracts. Standardized probabilities are based on the ratio between probability of transition and size of sectors or employment category moved into as reported in the last row of the previous Table.

Source: Own elaboration on the basis of EPH data.

Appendix 4. Econometric model of panel data with fixed effects

The following econometric model is used for estimations:

$$w_{it} = \beta X_{it} + \phi I_{it} + \gamma_t + \alpha_i + \varepsilon_{it} \quad [1]$$

where w_{it} is the natural logarithm of the wage for the ith worker in the year t; X_{it} is the vector of observable characteristics of the employed individual and of the job; α_i is the set of the worker's unobservable characteristics that do not vary over time; I_{it} is the dummy variable that indicates the worker's employment category; γ_t is a temporal dummy; and ε_{it} is the term of error for which strict exogeneity is assumed. The sign and size of the parameter associated with the *dummy* I_{it} indicate the direction and the magnitude of the average wage differential yielded regardless of entry into one job as opposed to another, that is, controlling for the effect of other personal attributes and characteristics of the specific job.

Since employment income is only observable in the case of those who are employed and, according to standard economic results, it is likely that selection within the workforce or within employment is correlated with potential employment income,33 estimations of earning gaps were corrected to compensate for this selection bias. To this end, and in keeping with Wooldridge (1995), the following selection equation was used for the estimation, which is assumed to present the Tobit model for the data panel:

$$h_{it} = max(0, X_i\psi_t + \upsilon_{it}) \; [2]$$

where h_{it} are hours worked; $\upsilon_{it}|X_{it}$ w_{it} is observed if $h_{it} > 0$. Under the assumption that for an unobservable effect g_i, $E(\varepsilon_{it}|X_i, \alpha_i, g_i, \upsilon_{it}) = E(\varepsilon_{it}|g_i, \upsilon_{it}) = g_i + \rho\upsilon_{it}$, the following equation is operative:

$$E(w_{it}|X_i, \alpha_i, g_i, \upsilon_{it}) = \beta X_{it} + \phi I_{it} + \gamma_t + \rho\upsilon_{it} + f_i \quad [3]$$

where $f_i = \alpha_i + g_i$. Therefore, the estimation of (3) for fixed effects using the data panel would yield estimations of $\beta, \phi \; y \; \rho$. To that end, υ_{it} terms of error are replaced by Tobit residuals $\hat{\upsilon}_{it}$ obtained from the estimation of the equation (2)34 on the basis of T data of the cross section that make up the panel.

[33] For further information, see Heckman (1979) and Vella (1998).

[34] In the Tobit model of hours worked, age, sex, education level, marital status, enrolment in an educational institution, existence of an employed head of household or spouse, and number of children under the age of five in the household were taken into account as explicatory variables.

Appendix 5. Estimated wage gaps - model of panel data with fixed effects

Initial employment status/ Final employment status	1995-96				2000-01				2005-06				2010-11			
	Unconditional gap		Conditional gap		Unconditional gap		Conditional gap		Unconditional gap		Conditional gap		Unconditional gap		Conditional gap	
	Uncorrected	Corrected	Uncorrected	Corrected	Uncorrected	Corrected	Uncorrected	Corrected	Uncorrected	Corrected	Uncorrected	Corrected	Uncorrected	Corrected	Uncorrected	Corrected
Between formal salaried jobs																
and informal salaried jobs																
AF ↔AI	10.2%	10.8%	10.9%	10.5%	20.7%	19.5%	18.6%	19.8%	29.1%	27.9%	23.2%	22.6%	29.1%	28.5%	23.9%	24.2%
	(0.040)	(0.042)	(0.050)	(0.050)	(0.033)	(0.032)	(0.037)	(0.036)	(0.030)	(0.029)	(0.031)	(0.030)	(0.036)	(0.034)	(0.033)	(0.032)
	23193	22174	17753	18144	18264	18104	15340	15762	26749	26695	21928	23332	33657	33599	27591	29205
Informal salaried	16.3%	16.4%	13.9%	13.8%	19.4%	17.5%	17.5%	17.7%	29.5%	26.6%	19.3%	18.2%	34.6%	32.4%	25.1%	24.0%
	(0.048)	(0.050)	(0.061)	(0.061)	(0.035)	(0.035)	(0.040)	(0.040)	(0.034)	(0.033)	(0.031)	(0.031)	(0.046)	(0.043)	(0.035)	(0.035)
	16962	16258	12493	12572	13293	13197	10885	10984	18762	18749	15404	15612	23688	23676	19673	19810
AFMCA ↔AI	4.4%	4.9%	3.9%	3.6%	11.8%	13.3%	15.3%	14.0%	24.6%	23.5%	17.5%	16.3%	16.6%	17.5%	17.7%	16.3%
	(0.052)	(0.056)	(0.067)	(0.066)	(0.042)	(0.042)	(0.049)	(0.049)	(0.041)	(0.039)	(0.039)	(0.039)	(0.059)	(0.056)	(0.049)	(0.048)
	16962	16258	12493	12572	13293	13197	10885	10984	18762	18749	15404	15612	23688	23676	19673	19810
AFMCT ↔ AINC	21.9%	24.4%	23.6%	23.7%	26.5%	24.5%	19.8%	18.5%	44.8%	40.5%	33.5%	33.3%	45.6%	41.5%	32.6%	32.1%
	(0.068)	(0.069)	(0.082)	(0.081)	(0.056)	(0.056)	(0.048)	(0.048)	(0.042)	(0.039)	(0.043)	(0.042)	(0.062)	(0.058)	(0.054)	(0.054)
	16959	16255	12494	12573	13282	13186	10880	10979	18744	18732	15415	15623	23656	23645	19663	19800
AFMCT ↔ AIC	13.8%	12.9%	10.3%	10.2%	16.4%	14.6%	17.0%	17.8%	22.0%	20.2%	15.5%	14.1%	28.6%	28.0%	21.9%	21.2%
	(0.050)	(0.051)	(0.060)	(0.060)	(0.041)	(0.040)	(0.048)	(0.047)	(0.031)	(0.030)	(0.031)	(0.031)	(0.048)	(0.046)	(0.038)	(0.037)
	16959	16255	12494	12573	13282	13186	10880	10979	18744	18732	15415	15623	23656	23645	19663	19800
AFMCA↔AINC	10.0%	12.9%	13.8%	13.8%	18.8%	20.2%	16.9%	14.2%	38.3%	35.8%	31.4%	31.2%	27.2%	26.2%	25.1%	24.2%
	(0.069)	(0.071)	(0.085)	(0.084)	(0.060)	(0.061)	(0.058)	(0.057)	(0.047)	(0.044)	(0.049)	(0.048)	(0.074)	(0.070)	(0.065)	(0.064)
	16959	16255	12494	12573	13282	13186	10880	10979	18744	18732	15415	15623	23656	23645	19663	19800
AFMCA↔AIC	1.9%	1.4%	0.6%	0.2%	8.7%	10.3%	14.2%	13.5%	15.5%	15.6%	13.3%	11.9%	10.2%	12.7%	14.4%	13.3%
	(0.055)	(0.058)	(0.068)	(0.067)	(0.046)	(0.047)	(0.056)	(0.055)	(0.039)	(0.037)	(0.040)	(0.039)	(0.061)	(0.059)	(0.049)	(0.049)
	16959	16255	12494	12573	13282	13186	10880	10979	18744	18732	15415	15623	23656	23645	19663	19800
According to contract type																
AFMCT ↔ AFMCA	11.9%	11.5%	10.0%	10.2%	7.6%	4.2%	2.2%	3.7%	5.0%	3.1%	1.8%	1.9%	18.1%	14.9%	7.5%	7.7%
	(0.028)	(0.030)	(0.036)	(0.036)	(0.030)	(0.031)	(0.034)	(0.034)	(0.029)	(0.029)	(0.030)	(0.030)	(0.044)	(0.041)	(0.038)	(0.037)
	16962	16258	12493	12572	13293	13197	10885	10984	18762	18749	15404	15612	23688	23676	19673	19810
According to sector																
AFSPub ↔ AFSPriv	-0.4%	-1.4%	-6.8%	-5.1%	2.4%	2.1%	2.5%	0.7%	-2.0%	-1.8%	-4.5%	-2.8%	-5.0%	-3.9%	-0.6%	-2.5%
	(0.046)	(0.047)	(0.056)	(0.055)	(0.040)	(0.041)	(0.053)	(0.051)	(0.037)	(0.037)	(0.033)	(0.034)	(0.037)	(0.036)	(0.040)	(0.037)
	17255	16535	12496	12792	13576	13475	10888	11196	20173	20140	15552	16812	25657	25612	19815	21264
Between self-employed positions																
and informal salaried jobs																
CPPyP↔AI	28.3%	31.7%	17.2%	18.1%	16.5%	11.6%	-7.7%	-3.3%	26.7%	21.9%	3.0%	0.4%	12.9%	14.5%	1.3%	3.9%
	(0.075)	(0.073)	(0.083)	(0.081)	(0.077)	(0.075)	(0.098)	(0.095)	(0.073)	(0.075)	(0.091)	(0.090)	(0.061)	(0.062)	(0.089)	(0.087)
	10571	10063	8721	8886	9293	9172	8468	8678	15147	15114	12447	12800	16205	16181	13256	13559
CPOyS↔AI	5.7%	9.7%	5.9%	6.8%	2.2%	0.0%	-8.5%	-6.8%	-4.4%	-7.5%	-12.9%	-12.4%	-14.4%	-13.0%	-17.8%	-20.2%
	(0.057)	(0.054)	(0.057)	(0.055)	(0.059)	(0.055)	(0.059)	(0.058)	(0.052)	(0.050)	(0.048)	(0.048)	(0.047)	(0.046)	(0.049)	(0.050)
	10571	10063	8721	8886	9293	9172	8468	8678	15147	15114	12447	12800	16205	16181	13256	13559
CPOyS↔AIC	2.1%	3.5%	2.3%	4.2%	-4.9%	-6.4%	-11.0%	-8.2%	-16.1%	-15.9%	-17.0%	-17.0%	-18.3%	-17.2%	-17.9%	-21.0%
	(0.053)	(0.052)	(0.059)	(0.056)	(0.055)	(0.052)	(0.057)	(0.056)	(0.043)	(0.043)	(0.044)	(0.044)	(0.044)	(0.043)	(0.044)	(0.044)
	22759	21760	17389	17771	17952	17796	15052	15471	26728	26675	21938	23343	33557	33500	27517	29133
CPOyS↔AINC	6.6%	10.3%	6.8%	8.7%	2.9%	1.9%	-7.7%	-7.3%	2.8%	0.5%	-0.9%	0.9%	-2.3%	-3.0%	-3.5%	-6.4%
	(0.060)	(0.059)	(0.071)	(0.069)	(0.065)	(0.063)	(0.061)	(0.061)	(0.054)	(0.053)	(0.055)	(0.054)	(0.053)	(0.051)	(0.053)	(0.054)
	22759	21760	17389	17771	17952	17796	15052	15471	26728	26675	21938	23343	33557	33500	27517	29133
and formal salaried jobs																
CPPyP↔AF	14.9%	14.3%	0.9%	4.4%	-7.4%	-8.1%	-15.1%	-13.5%	-1.7%	-1.7%	-11.6%	-8.4%	-1.5%	-4.3%	-4.7%	-6.8%
	(0.082)	(0.084)	(0.090)	(0.090)	(0.097)	(0.095)	(0.093)	(0.088)	(0.086)	(0.085)	(0.086)	(0.084)	(0.079)	(0.074)	(0.084)	(0.081)
	17682	16915	13562	13865	13043	12953	10760	11080	18172	18130	15855	17050	25315	25268	21981	23457
CPOyS↔AF	-14.0%	-14.2%	-16.3%	-14.1%	-32.5%	-31.3%	-28.8%	-29.2%	-46.6%	-45.6%	-46.2%	-45.0%	-35.5%	-36.8%	-38.1%	-39.4%
	(0.073)	(0.074)	(0.089)	(0.088)	(0.086)	(0.083)	(0.084)	(0.082)	(0.078)	(0.077)	(0.076)	(0.075)	(0.067)	(0.065)	(0.071)	(0.068)
	17682	16915	13562	13865	13043	12953	10760	11080	18172	18130	15855	17050	25315	25268	21981	23457
CPOyS ↔ AFMCT	-14.1%	-12.0%	-12.3%	-10.9%	-24.9%	-23.5%	-27.5%	-26.8%	-37.4%	-36.4%	-33.2%	-31.5%	-44.4%	-41.5%	-38.4%	-39.0%
	(0.054)	(0.054)	(0.064)	(0.063)	(0.056)	(0.053)	(0.057)	(0.056)	(0.050)	(0.049)	(0.048)	(0.048)	(0.050)	(0.047)	(0.048)	(0.048)
	22453	21473	17391	17556	17666	17515	15058	15268	25335	25301	21798	22150	31619	31594	27394	27696
CPOyS↔AFMCA	-3.9%	-3.9%	-6.5%	-4.6%	-16.7%	-19.4%	-24.5%	-22.6%	-34.4%	-35.3%	-33.6%	-32.0%	-26.8%	-26.5%	-31.1%	-31.2%
	(0.059)	(0.061)	(0.073)	(0.071)	(0.061)	(0.058)	(0.066)	(0.064)	(0.058)	(0.055)	(0.057)	(0.056)	(0.062)	(0.059)	(0.057)	(0.057)
	22453	21473	17391	17556	17666	17515	15058	15268	25335	25301	21798	22150	31619	31594	27394	27696
According to skill level																
CPPyP↔CPOyS	19.7%	17.8%	12.5%	14.0%	11.2%	8.6%	8.7%	11.9%	37.7%	35.7%	36.3%	36.3%	26.1%	26.5%	25.8%	25.6%
	(0.081)	(0.084)	(0.083)	(0.082)	(0.072)	(0.069)	(0.079)	(0.070)	(0.080)	(0.084)	(0.091)	(0.087)	(0.067)	(0.068)	(0.071)	(0.067)
	5491	5215	4895	4981	4373	4318	4171	4282	6573	6552	6375	6519	7931	7918	7711	7876
Between informal salaried jobs																
AIC↔AINC	8.0%	11.3%	13.2%	13.3%	9.7%	9.4%	2.8%	0.1%	22.5%	21.0%	18.1%	20.2%	15.6%	13.6%	10.9%	12.6%
	(0.061)	(0.060)	(0.067)	(0.066)	(0.065)	(0.065)	(0.059)	(0.058)	(0.035)	(0.034)	(0.038)	(0.037)	(0.056)	(0.054)	(0.054)	(0.054)
	17268	16545	12494	12790	13579	13478	10881	11189	20155	20123	15563	16824	25626	25582	19806	21257

Note: Between parentheses are robust standard errors; below them is the number of observations used to estimate each gap. The gaps were corrected for sample selection bias according to the method described in Appendix 4.

Source: Own elaboration on the basis of EPH data.

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