The Labor Market

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The study of the Argentine labor market, as would be the case for any labor market during the last century, reveals a substantial transformation. Its organization has become significantly more complex. The labor market has evolved from one in which wages were entirely determined by the business cycle, there was little human capital specific to any given firm, and both hiring and firing costs were negligible (i.e., an approximation of a spot market) to one characterized by both explicit and implicit long-term commitments between firms and workers.

In the United States, this transition occurred between the 1940s and 1950s, when a market based on contracts almost completely replaced the earlier market type, which lacked such long-term commitments between workers and firms (see Goldin 2000). In this chapter, we also date the Argentine transition to the years of the 1940s and 1950s.[1] Moreover, we suggest that the most important developments of the Argentine labor market are rooted in the fundamental changes that have taken place in the way the economy of the country has integrated with the rest of the world during the past century.

Even though the labor market of the postindustrial revolution era has never been strictly a spot market, the argument is, essentially, that in the labor market prior to the early twentieth century workers faced considerable job insecurity and widely fluctuating wages over the business cycle, invested little in human capital, and were disciplined by negative incentives. In contrast, the labor market of the post-World War II era is characterized by greater job security, contracted wage arrangements, internal labor markets, firm-related

benefits, investment in firm-specific human capital, and discipline by positive incentives (Doeringer and Piore 1971). In essence, the modern form of employment is characterized by job attachment (Parsons 1986).

Comparable to other labor markets during the last century, the Argentine experience also reveals that the period under study witnessed large gains in the absolute levels of wages and leisure. Additionally, the composition of the labor force has shifted considerably, and employees, to a large extent, gained job rights and employment security. However, during the last decade, job stability has deteriorated substantially in Argentina (see Galiani 2000; Galiani and Hopenhayn 2002).[2]

The development of a modern labor market in Argentina by no means implies that most workers participated in it. In developing countries, the era of modern labor markets has also been a period of dual (urban) labor markets, a phenomenon that has been accentuated in the last twenty years instead of reversed.

Most of the important changes we observe in the structure of the labor market are a reflection of the evolution and change of its institutions. Consequently, the study of the development of the labor market is, to a large extent, the study of the evolution of labor market institutions. In this chapter, we provide an integrated interpretation of the evolution of the Argentine labor market.

It needs to be underlined at the outset that the institutional development of an economy both affects and is affected by the working of the economic system. Trade unions provide good illustration of this relationship between the development of particular institutions

and the larger economic system. The standard view of trade unions is that they are organizations whose purpose is to improve the material welfare of their members, principally by raising wages above the competitive wage level. But what are the conditions under which unions achieve their target? For trade unions to exist as viable organizations, they must be able to capture some economic surplus. In noncompetitive industries in which firms are making extraordinary profits, unions with sufficient power can obtain higher wages without threatening the viability of the firm. Thus, one would expect a higher probability of union organization in noncompetitive industries than in competitive product markets.[3]

Likewise, consider a highly open economy that possesses comparative advantage in the production of primary goods. In that economy, the scope for trade unions would be limited. The opposite would be the case in an extremely closed economy in which several manufacturing sectors extract rents because of the existing level of tariffs and nontariff protection (and perhaps also from government subsidies).[4]

Thus, labor market institutions do not develop in isolation. In turn, *ceteris paribus*, they may significantly affect several important economic variables (e.g., income distribution and unemployment);[5] but it is also worth noting that, at least in the long run, they would not affect other variables (e.g., real wages) that are ultimately determined by the long-term performance of the economy.

We identify three periods in the evolution of the Argentine labor market: (1) the period of spot markets from 1870 to 1929, (2) the period of modern, institutional markets from 1943 to 1975, and (3) the period of transition toward modern, flexible labor markets from

1976 to 2000.[6] Although these periods do not necessarily coincide with the phases of Argentine economic growth, they do match with the phases of integration into, and isolation from, world factor and goods markets.[7]

The spot market era

Argentina possesses definite comparative advantages in agriculture. The country is endowed with a vast amount of highly fertile land. During the second half of the nineteenth century, there was an intense process of colonization of the territory in the form of *latifundia* (Adelman 1994). The sharp increase in the disposability of land induced an expansion in livestock raising, primarily because it was not labor intensive at a time when labor was a scarce resource.[8]

The period from 1870 to 1914 was one of free trade and market integration.[9] For instance, this period involved the most extensive real-wage convergence that the Atlantic economy has ever seen (O'Rourke and Williamson 1999). The dramatic decline in transport costs across the late-nineteenth century led to a trade boom and commodity price convergence internationally. In Argentina, the scarcity of labor and abundance of land, relative to Europe, induced a high marginal product of labor. The wage differential between Argentina and some European countries attracted a colossal flow of overseas immigrants that constituted Argentina's main labor force. A similar process also induced a massive flow of capital into the country. Table 1 illustrates the phenomenal wage differences in favor of Argentina compared to several European countries. It also illustrates the catch up of Argentina to the levels attained by Australia and US during the

period 1870–1913.[10]

The growth of the labor force was essential for the expansion of agriculture from the beginning of this century. The area of land under cultivation doubled between 1900 and 1905, and again between 1905 and 1915. The area of the humid Pampas being exploited grew from 5 million hectares in 1895 to 25 million hectares in 1930, a level that has remained virtually unchanged ever since.[11]

Until the beginning of the twentieth century, Argentina suffered an acute scarcity of labor. It was not until immigrants substantially increased labor supply and growth slowed down that this scarcity was overcome. Labor demand was highly seasonal. Arable agriculture needed two types of workers: one willing to work intermittently (during seasons of peak demand) and another willing to work year round (Adelman 1994). During the period 1870–1914, there were also intense internal migrations as a response to differential local labor market conditions (cf. Córtes Conde 1982). This search behavior provides evidence of the existence of an integrated internal labor market during this period characterized by flows that not only were due to overseas immigration, but also to the lack of human capital in the labor force and the specific characteristics of the productive system.

There is a serious problem in identifying the sector of employment for 25 to 40 percent of the working population in the first three national censuses. Interestingly enough, the main signal we should extract from this statistical nuisance is that workers, in the main, lacked any specialization and were highly mobile between the primary and secondary sectors of the economy.

Real wages were also extremely volatile during this period. Córtes Conde (1979) presents two important series for the period 1882–1912, one for unskilled workers and the other for the workers of the Bagley firm (a large industrial producer of processed foods such as biscuits and crackers). Figure 1 shows the annual variability of the monthly series of wages together with the variability of real gross domestic output per capita. The figures are striking: real wages change from one year to the next by as much as thirty percent in any direction. Although it is likely that there is considerable noise in these series, especially at the beginning of the period, wages were extremely volatile compared to the period of institutional or contractual labor markets.

Thus, we have some evidence that supports the assertion that the labor market before the 1930s was a spot – or more precisely, noncontractually based – labor market; this was especially so before World War I. Likewise, even during the 1920s, the industrial employment relationships were not contractually based, although industrialization had started to take off. Labor law was virtually nonexistent at both individual and collective levels. It was civil and commercial law that almost exclusively regulated labor relations during the whole period.[12]

The age of mass migration: The composition of the labor force

About 60 million Europeans set sail for the resource-abundant and labor-scarce New World during the century following 1820. Although three-fifths of them arrived on the shores of the United States, Argentina was among the main recipient countries, especially after 1870 (Table 2).

Until well into the nineteenth century, the cost of such a move was simply too high to be

afforded by free migrants. However, declining costs of passage and augmented family resources would change these conditions throughout the century. Hatton and Williamson (1998) conduct an empirical analysis of the determinants of emigration during the period 1860–1913 by pooling decadal data from twelve European countries. They find that the main variable in explaining European emigration rates during the period considered is the ratio of home- to recipient-country wages, as previously suggested by several other studies.[13]

Figure 2 shows net immigration by year between 1870 and 1935. Net immigration was particularly high between 1880 and 1890 and between 1905 and 1915. The distinction between gross and net migration becomes increasingly important as return migration also accelerated from the beginning of the twentieth century. Between 1857 and 1924, return migration from Argentina (by Italians and Spaniards) was 47 percent of the gross inflow. The high return migration rate among Italians represented a growing trend toward temporary, and often seasonal, migration (Hatton and Williamson 1998).

Typically, migrants brought with them both very high labor force participation rates and very low dependency burdens. Thus, although they were unskilled and frequently obtained employment in slow-growth sectors, they contributed to a period of substantial growth in the country. In particular, they favored a dramatic expansion in the agricultural sector.[14]

Although immigrants filled the labor force in a period characterized by scarce labor, there are always some who claim that immigrants caused conditions to deteriorate in domestic labor markets. However, the empirical evidence is contrary to this view: the impact of

immigrants on the domestic labor markets is usually negligible (Abowd and Freeman 1991; Friedberg and Hunt 1995). This result is the consequence of the endogeneity of the immigrants' flows. Workers migrate to places where labor demand is buoyant. Thus, it is not surprising that they diminish neither the actual wages of domestic workers nor their employment prospects. However, this is not to say that, *ceteris paribus*, wages would be unaltered if migration were restricted. Taylor (1997) calibrates a general equilibrium model to estimate the impact on wages of the massive flow of immigration to Argentina up to the World War I. His calibration suggests that the flow of immigration would have reduced real wages in Argentina by approximately twenty percent in comparison to the wages that would have prevailed if immigration had not taken place.

In any event, real wages increased during this period: between 1883 and 1911, real wages increased approximately one percent per year (Córtes Conde 1979). However, there is not doubt that the flow of immigration to Argentina, or for that matter to the entirety of the New World, had a profound distributive impact. Landlords gained since decreasing labor scarcity raised the land-labor ratio. Capitalists also gained for a similar reason. Williamson (2002) estimates a two hundred percent increase in the land-labor ratio in Argentina between 1880 and 1914. O'Rourke, Taylor, and Williamson (1996) document an eighty percent fall in the ratio of wages to land rents from 1870 to 1910.

Labor relations and trade unions before 1930

The Argentine syndical movement surged during the last two decades of the nineteenth century. However, prior to the 1920s, the role of trade unions was limited. Most of them were craft unions with no formal legal status and were confined exclusively to the state of

Buenos Aires. Moreover, during most of this period unions were ideologically divided (Matsushita 1983).[15] There were three prevailing ideological currents among unions: anarchism, socialism, and syndicalism. Although the anarchist strain emerged early on as the predominant ideology, it lost influence after 1910.

The expansion of the economy and the development of some large unions led to the growth of syndicalism. In addition, the empowerment of this syndical current was supported by the intervention of the government between 1916 and 1922. From then, the state became a key player in the relationship between capital and labor. The intervention of the state was decisive at that time. Most employers refused to negotiate with unions unless forced to do so, while unions found it extremely difficult to shut down a plant's operations. Consequently, only the government could apply the necessary coercion to induce negotiation between firms and unions (Torre 1990 and Horowitz 1990).

It was only in 1930 that a confederation of unions was formed, La Confederación General del Trabajo (CGT). Although the socialist unions had more affiliates than the syndicalist unions, the latter group imposed its orientation on the association. In spite of the fact that the majority of union members belonged to the CGT's constituent organizations, the role of the confederation did not increase markedly until the 1940s. In particular, union power decreased significantly after the crisis of 1929. Thus, although a new model of industrialization in Argentina was emerging, which for the first time allowed some scope for the development of unions, the economic crisis delayed this process for several years.

The period of modern, institutional markets

During the period we refer to as the era of the modern, institutional (or rigid) market, labor relations became contractual, both explicitly and implicitly, at the collective and individual levels. Several circumstances converged in the development of a contractual labor market in Argentina after the recovery from the deep crisis of the early 1930s. First, after the collapse of world trade, the country based its recovery on the growth of the manufacturing sector. From the early 1940s, the manufacturing and industrial sectors developed under the protection of an inward-looking, import-substitution strategy.[16] The development of a manufacturing sector in a noncompetitive environment favored the development of powerful trade unions. Additionally, state enterprises spread through the whole economy, empowering unions. The government also considerably expanded its weight in the economy by providing long-term employment relationships.

Second, a prolabor government also favored the development of unions and established a legal system of collective and individual labor legislation during the 1940s and early 1950s (see appendix). Additionally, during this period, the government not only favored prolabor legislation but also enforced it. Hence, unions obtained the necessary bargaining power needed for their growth.

It is important to note that labor legislation was not limited to the laws of collective organization and bargaining, although these laws remain of prime importance in understanding the historical relationship between law and labor overall. The individual labor legislation was substantial and constitutive of the set of property rights that workers own in their jobs. In particular, it is a mistake to treat the laws of collective activity in

isolation from the legal system of individual employment relationships. The latter shapes the space in which collective action operates. The individual labor legislation passed during the 1940s and early 1950s was also decidedly prolabor.

Third, with the expansion of the manufacturing sector, the skill content of jobs increased substantially, especially during the period of development of the heavy industries when the degree of specificity in human capital increased substantially as well. This characteristic of the productive system increased the necessity of both explicit and implicit employment contracts to define and regulate the employment relationship. The labor force also increased in terms of other forms of human capital, especially from the 1950s.

Finally, among the other factors that contributed to the power of the Argentine syndical movement – even up to the present day – the most important was the right granted to unions to administrate the workers' national health insurance system. This characteristic is unique to the Argentine syndical movement, and certainly, it has provided the unions with a considerable and enduring amount of power.

Nevertheless, we shall highlight here a different characteristic of the modern labor market period – the recurrent intervention of the state in the system of industrial relations. The Argentine state has retained the power to interfere in syndical life, a power that has been exercised frequently. What is more, every time the constitutional order has been disrupted, collective bargaining and other labor rights were suppressed. Additionally, under civilian as well as military regimes, wages were determined by the government instead of by collective bargaining. Thus, the deep transformation of the system of labor

relations initiated between the 1940s and early 1950s was as unstable as was the economy and its political institutions.[17]

How have unions developed?

The Argentine labor movement is the most important syndical movement of the New World. What are the causes of this phenomenon? One way to answer this question is through an analytical comparison of Argentine union expansion with the development of other trade union movements. This question is intimately related to yet another question: why did some labor movements enjoy remarkable growth in the postwar period while others withered?

Trade unions had become key players in the economies of Europe and North America by 1950. In developed countries, unions organized between one-third and two-thirds of all workers. Forty years later, things had changed markedly. Some syndical movements had grown to the point where they organized virtually the entire labor market, while others represented only a small fraction of workers left in the traditional manufacturing sectors.

Western (1997) presents strong evidence showing that labor movements grew more when they were institutionally insulated from the market forces that drive up competition among workers. Thus, although the reason trade unions developed during the autarkic period of world trade may be clear, the reason we have observed divergent trends in unionization between the 1950s and 1980s is not so evident. Western identifies three conditions essential to union growth that might explain this divergence across developed countries. His historical evidence suggests that union movements have grown where unions control unemployment benefits, where the labor market is centrally organized, and

where social democratic parties with close ties to organized labor have been in power.

Labor market centralization promotes the growth of organized labor by reducing employer opposition. In most developed countries, centralization was established in the early 1950s and largely survived until the early 1980s. In Argentina, as in Germany, Australia, New Zealand, and Britain, centralization is of the middle-density type: labor relations are characterized by multi-employer agreements at the industry level with large industrial unions.

The control of the unemployment insurance system boosts unionization by giving unions control over labor market competition from unemployed workers and by maintaining contact between workers and unions during spells of unemployment. In Argentina the unemployment insurance system was developed only during the 1990s, and it is not under the control of unions. However, along similar lines, we argue that the Argentine unions have had an even more powerful resource to sustain their growth, the administration of the workers' health insurance system. This system was originally developed through collective bargaining at the end of the 1950s. Employers agreed to contribute to the funding of the system while unions imposed statutory contributions from their members. During the early 1960s, the government created by law health insurance systems for some industries and some state government employees. Finally, in 1970, there was established a mandatory system for all workers that is financed by the contributions of both employers and employees, irrespective of whether or not the latter are union members, and that is administrated by the signatory union in the collective bargaining in that industry. The administration of the system, in addition to providing unions with

substantial financial resources, has provided a means to maintain union density at high levels, especially in industries in which direct control of affiliation by the syndicate is too costly, as is the case in industries in which the average size of firms is small (e.g., the trade sector).[18]

The histories of unions and political parties are closely intertwined. However, the link between them is more complicated than it might first appear. Econometric evidence for the effects of prolabor parties on union growth is often weak (see, for example, Booth 1983). Western (1997) argues that this is so because political parties often influence union growth through key events, such as a change in labor law or an intervention in collective bargaining.

In Argentina, the rise of Perón, first as secretary of labor in 1943 and then as president in 1946, substantially influenced the growth of unions, mainly through Perón's passage of prolabor legislation. It is true that, as first stated by Portantiero and Murmis (1971), unions were developing before 1943, and collective bargaining had also been on the rise since 1936 (cf. Gaudio and Pilone 1983 and 1984). Indeed, Ashenfelter and Pencavel (1969) argued that trade union legislation is largely a reflection of the general climate of opinion. However, the prolabor legislation and the state support of unions during the period 1943–55 were further stimuli that foster labor movement growth. Indeed, the Peronist period was a major watershed in the labor history of Argentina (Horowitz 1990). The state shifted the balance between labor and capital in favor of the former, and this action had a noticeable short-term impact, as the share of labor in national income abruptly increased eight percent toward the end of the 1940s, as well shall see below.

The growth of union density during the 1940s, although it is likely overestimated, is impressive and of an order of magnitude that it is beyond any doubt (see Table 3). The union density rate in Britain and the United States in 1935 was 25 and 7 percent, respectively. It was 39 and 23 percent in 1945, while it was 44 and 25 percent in 1955. U.S. union density peaked in 1945 while Britain's density peaked in 1980 with a rate of 53 percent. Argentina's rates seem to have stabilized around 45 percent up until the early 1990s when they dipped below 40 percent. Britain's rates have also decreased since the early 1980s, and they were approximately 40 percent by the early 1990s. Thus, Britain and Argentina show similar union density rates since the 1940s.

Business cycles and real wages during the era of rigid, modern labor markets

Although both real wages and output appear to be less volatile during the period 1930–75 than they had been previously, there are certain characteristics that deserve further consideration. During this period, real wages, apart from a few exceptional years, never varied more than five percent from one year to the next (with downward variation rarely approaching this level); normally, they changed even less than that. However, it is not obvious from the rough data whether or not real wages were less sensitive to output during this period.[19]

To further explore the issue of wage persistence, we condition (linearly) the logarithm of the real wage on its lagged value, the logarithm of gross domestic product per capita, the change in the inflation rate, and its lagged valued. We estimate this regression equation for the periods 1913–29 and 1930–73.

All the coefficients have the expected sign and are statistically significant at the 5 percent

level, with the exception of the lagged dependent variable in the regression function for the period 1913–29 (Table 4). These results show that wages became much more persistent (rigid) during the institutional labor market period than they were during the previous spot market period. As wages became substantially more persistent, they were affected substantially less by changes in output.[20]

The search for a modern, flexible labor market

Since the late 1940s, the Argentine economy has operated under high inflation rates. Real wages are likely to be more flexible in an inflationary and volatile environment than in a stable economy. However, during the period in which the economy operated under the regime of high inflation (Frenkel 1979), wages were indexed to the past level of inflation – the period of adjustment being reduced, the higher the volatility of the inflationary process (cf. Frenkel 1984; Heymann and Leijonhufvud 1995). Thus, wage flexibility was mainly achieved through recurrent episodes with a blunt acceleration in inflation. These types of episodes, in conjunction with state intervention in the wage determination process, are capable of providing huge levels of real wage flexibility.[21]

By the early 1970s, it was clear that the strategy of inward-looking import substitution adopted during the early 1940s could not be sustained any longer. The economy needed to recover full access to world markets for capital and goods to restore a process of economic growth.[22] Additionally, in 1975, inflation reached an unprecedented level of almost two hundred percent. What is more, public perspectives on inflation were now hostile. Argentines had had enough; inflation had to be eliminated. This mood

notwithstanding, it was clear that any attempt to stabilize prices would face a hurdle in the labor market. The bargaining structure of Argentina was extremely inflationary. Strong unions in an extremely closed economy without any bargaining coordination is a recipe for competitive behavior between unions, leapfrogging wage demands, and, ultimately, higher unemployment rates as attempts are made to suppress inflationary pressures.[23]

This period may be characterized one in which economic and labor market policies sought to provide the labor market with a higher degree of institutional flexibility; ultimately, this was a development achieved mainly, but not solely, in the 1990s. Interestingly enough, the main strategy adopted during this period to reduce wage pressure and discipline unions has been the increase of product market competition through trade liberalization.[24]

The military government that took power in 1976 established as its main economic goal the reduction of inflation. To achieve a successful stabilization of prices the government had to eliminate its chronic fiscal deficit. However, in a highly inflationary economy, the fiscal deficit itself may be considered an endogenous variable. Lurking beneath the disorder in public finances, one typically finds a system of institutions unable to resolve conflicts that revolve chiefly around the distribution of income (Heymann and Leijonhufvud 1995; Mallon and Sourrouille 1975).[25]

Therefore, a necessary condition to stabilize prices in Argentina was the elimination of the high level of wage pressure, which was prevalent at even low unemployment levels and which reflected the struggle between workers and firms (and amongst workers) for

their share in the distribution of income (Canitrot 1975; Mallon and Sourrouille, 1975).[26]

In a closed economy, it may be the case that a fully decentralized bargaining system reduces wage demands in comparison to a system of bargaining at the industry level. This follows because, in a closed economy, the relevant elasticity of labor demand taken into account in wage bargaining is lower at the industry level than at the firm level. Conversely, in an open economy, a country's share of any industrial market is quite small. Thus, industry-wide bargaining may be only slightly more harmful than fully decentralized bargaining (see Layard, Nickell, and Jackman 1991).

Only as late as 2000 was there a serious attempt to decentralize the collective bargaining system within the boundaries of constitutional law. Otherwise, the *only* powerful reform implemented to weaken union power during the last three decades has been the increase in product market competition. The most prominent reforms of the modern period, a massive privatization program and a wide-ranging trade liberalization process, were implemented at the beginning of the 1990s and have considerably reduced the power of unions. Certainly, these policies were not implemented explicitly to reduce the power of unions, but they contributed to the achievement of that goal.

The debate on labor market reform has been at the center of the discussion on economic policy since the beginning of the 1990s, and the debate has intensified with the increase in the unemployment rate observed during the last few years. The debate revolves around the decentralization of the collective bargaining system and the reduction of the high dismissal costs prevalent in Argentina. At the beginning of the 1990s, the reforms introduced a wide menu of fixed-term contracts of employment. However, the reforms

were later undone – a process that reflected dissatisfaction with the results.

Labor market institutions

In this subsection we study the main Argentine labor market institutions by relying on a series of cross-country comparisons.[27] The institutions we consider are trade unions and the structure of wage bargaining, employment protection, and the treatment of the unemployed.

Most workers in the OECD outside the United States have their wages determined by collective agreements that are negotiated at the plant, firm, industry, or even national level. In the first two columns of Table 5 we show the percentage of employees who belong to a trade union and an indicator of the percentage of workers covered by collective agreements (3 means over 70 percent, 2 means 25–70 percent, and 1 means under 25 percent). The main point that emerges here is that even if the number of union members is very low, as in France and Spain, it is still possible for most workers to have their wages set by union agreements. This occurs because, within firms, nonunion workers typically get the union negotiated rate and because, in many countries, union rates of pay are legally extended to cover nonunion firms (collective agreements have effects *erga omnes*). In Argentina around 45 percent of employees belong to a union and half of all employees are covered. The latter places Argentina somewhere in the spectrum between Europe and the United States. Not surprisingly, most of the covered workers in Argentina work in large firms; workers in small firms (fewer than 25 workers) are typically not represented by a union.[28]

An important aspect of union-based pay bargaining is the extent to which unions and/or

firms coordinate their wage determination activities. For example, in both Germany and Japan, employers' associations are actively involved in the preparation for wage bargaining even when the bargaining itself ostensibly occurs at the level of the individual firm (cf. Nickell and Layard 2000). Columns 3 and 4 of Table 5 present indices of union coordination and employer coordination. The coordination indices go from a low of 1 to a high of 3. The most coordinated economies are those of Scandinavia and Austria, followed by continental Europe and Japan. The Anglo-Saxon economies, including Ireland, exhibit little or no coordination, despite having quite high levels of union density and coverage in some cases.

Turning to Argentina, it is found that most workers whose pay is covered by a collective agreement have their wages determined, at least initially, by industry-wide bargains struck between a national industry union and one or more employer federations. Further wage agreements may be struck at lower levels right down to the firm level using the industry-wide agreement as a basis. There is no evidence of any coordination of bargaining across industries, nor is there any coordination in the timing of the separate bargains.

In the last column of Table 5 is an overall ranking of employment protection derived by the OECD along with an estimate of Argentina's final position. Note that in this ranking, a higher number means a stricter system. Argentina has a relatively generous system of severance pay. On the other hand, the actual procedures (e.g., the notice period) are straightforward. Overall, Argentina lies about half way up the OECD ranking, well below the strict systems of Southern Europe but offering more legal job security than is standard

in North America.

Finally, turning to the unemployment benefit system, the important issues are the amount of benefit and the length of time for which the benefit is available. The Argentine system is relatively generous, but of a fixed term (it lasts at most a year) and with minimal coverage (around 5 percent of the unemployed) as a result of the restrictive rules on entitlement.[29]

Job stability

Finally, we analyze the recent evolution of job stability.[30] Figure 3 shows the empirical probability distribution of reported tenure for the years 1986, 1990, 1994, and 1998. The rough shape of these distributions are similar: the highest proportion of workers are reporting tenure in the range 0–1 years with this proportion declining nearly monotonically for subsequent years. The empirical distributions of 1994 and 1998 have significantly shifted mass to the left in comparison to the distribution of 1986.

We pursue our analysis by evaluating the change in the one-year conditional retention rates. The overall retention rate did not change significantly between 1986 and 1990, when it decreased 1 percentage point, while between 1986 and 1998 the same statistic decreased 5.5 percentage points.

The one-year retention rate in the first year of tenure decreased 12 percentage points between 1986 and 1998. We find evidence that the unskilled group has been the one that suffered most. Notwithstanding, the semiskilled group has also been severely affected. Certainly, the contrast in the changes observed for Argentina with those for the United

States is impressive. In the United States, the one-year retention rate of the first year of tenure did not change noticeably in recent decades (Diebold, Neumark, and Polsky 1997).

Overall, workers gained job stability during the century; however, that stability has dissipated for unskilled workers during the last two decades while the labor market has searched for a more flexible organization. Only skilled workers have retained the same level of job stability in their jobs for two decades.

Labor market performance over the century

In this section we present some of the most important changes in the labor market over the century. In turn, we present long-term trends in labor supply, its composition, employment and its sectoral distribution, wages and productivity, income distribution, human capital, and unemployment.

Population

The Argentine population grew at extremely high rates up to World War I (Table 6). It is clear that rates of population growth decreased substantially between the census of 1914 and the census of 1947; the turning point occurred, most likely, during the 1920s. These initial high rates of population growth coincided with even higher rates of growth of the nonnative population as a result of the enormous flows of immigrants that the country received between 1870 and 1914. For example, the annual rate of growth in the nonnative population was approximately 5 percent between the first and third censuses and was close to 0 percent between 1914 and 1947.

Table 6 shows the increase in the immigrant population, mainly from southern Europe, as

a share of total population up to 1914, at which time it was 30 percent of the total population. Between 1896 and 1914, the growth in the immigrant population directly contributed 35 percent of the increase in total population.[31] After World War I, overseas immigration decreased, and it has been losing weight in the share of total population ever since. Total nonnative population itself decreased substantially in share of total population during the rest of the century, and in 1991 it was only 5 percent of total population. Since 1914, the annual rate of growth of border immigrants has always been positive and was particularly high between 1947 and 1960 (Marshal and Orlansky 1983) and between 1970 and 1980.[32]

Migration also took place within the country among the native population. Internal migration was at its highest between the censuses of 1947 and 1960. Additionally, during this period migration was almost unidirectional, from the north of the country to the growing manufacturing district of Buenos Aires.

Labor force composition and its evolution

It is extremely difficult to determine the level of labor force participation consistently for the past 100 years. The modern definition of the labor force took form with the 1940 federal population census in the United States and is defined as the sum of all individuals (over a given age) working plus those actively seeking work during a specific period of time. In Argentina, however, the modern definition of the labor force was adopted only in 1970. Nevertheless, Recchini de Lattes and Lattes (1975) present estimates of the labor force for certain census years from 1947. In Table 7, we extend these figures to the latest census.

Several important trends are represented by Table 7, which summarizes changes in the demographic composition of the labor force over the past one hundred years. The proportion of female workers in the labor force increased from 26 percent in 1947 to 33.2 percent in 1991. Thus, male participation in the labor force decreased from approximately 54 to 48.5 percent. These figures, however, mask disparate trends. A clearer account of the forces at work is gained through a look at the labor force trends of middle-aged groups. Between 1947 and 1991, the female labor force participation rate of the age group 25–50 approximately doubled (e.g., it increased from 23 to 49.9 percent for age group 30–34) while the male labor force rate decreased slightly for the same age group (by approximately 5 percent).

Column 1 of Table 8 compares female labor force participation rates in developed countries to that of Argentina in 1993. This cross-country comparison shows that female participation rates in Argentina are still well below those of the developed countries, even Italy and Spain.[33] In the remaining columns, we report a number of different aspects of labor input, most of which are self-explanatory.

Column 1 in Table 9 shows that the participation rates for the 15–64 age group appear to have declined until the mid-1980s when they began climbing upward, particularly during the 1990s. However, a different picture emerges if the indicator excludes (from both the numerator and the denominator) those individuals attending a school or college. After taking into account the negative effect on labor supply produced by longer periods of education, participation rates have increased steadily since the early 1980s (see column 4). The female labor force grew in importance throughout the period: with or without

correction for school attendance, the raw data indicate that the participation rate for the 15–64 age group rose from less than 40 percent in the early 1980s to more than 52 percent by the late 1990s.

Thus, for the central age groups, the rates of female labor force participation increased substantially during the second part of the century while the rates of male labor force participation decreased slightly. Additionally, labor force participation was reduced at both tails of the age distribution as a result of the rise of earlier retirement and the increase in educational attainment levels. Still, the participation of males in the age group 15–64 is relatively high in Argentina (column 2 in Table 9). Similar trends have been observed in most developed countries during this century.

Finally, we consider the evolution of work hours per week, which decreased considerably at the beginning of the century. From the late 1920s to the early 1940s, the average number of hours per week in industry decreased from fifty to forty-six, close to the legal maximum. Presently, the average number of hours per week effectively worked is approximately forty-two (2,059 per year), which is well above that of the developed countries (see column 4, Table 8).

Employment structure

The relative decline of agriculture and rise of the tertiary (service) sector can be seen in Table 10, which presents the sectoral distribution of the labor force. Employment in the primary sector constituted 35 percent of total employment at the end of the nineteenth century, and during the past one hundred years decreased to approximately 10 percent. Starting in the 1960s, employment in the manufacturing sector also declined from a

relatively high level apparent since the beginning of the twentieth century. Nevertheless, the data before 1947 are not very reliable. Finally, the proportion of employment in the tertiary sector doubled during the past one hundred years. The trends in employment distribution in Argentina are similar to the trends observed in all developed countries during this century.

Earnings and productivity

In the long run, wages are determined by productivity. However, in the short run, wages may respond to other factors. Real annual wages almost tripled during the century. A similar trend exists for productivity (see Figure 4). However, the growth of both series has not been smooth, as both are nonstationary and cointegrated (i.e. they have a long-run elasticity equal to one; see Figure 5). By taking into account the change in hours worked through the century, it is possible to obtain a unit elasticity of real wages to labor productivity. Thus, the fitted values of the real wage shown in Figure 5 may be considered the equilibrium path of real wages.

As such, Figure 5 is very informative. Notice that wages always revert to their (stochastic) equilibrium path, which is determined by labor productivity. However, there were several salient deviations during the century, which were the result of diverse economic phenomena. First, after the crisis of 1929, real wages were above their long-run trend but seem to have converged to it relatively fast, especially after 1932. It is worth noting that this was a period of price deflation. Second, during the first Peronist government, wages increased abruptly to unsustainable levels in terms of labor productivity, and were also adjusted downward abruptly twice during this period, in 1950

and in 1955 after Perón fell from power. Rather similar episodes took place at the end of the Peronist governments of the early 1970s and in 1984. In all these cases, the downward adjustment of wages was preceded by a strong devaluation of the Argentine currency. Finally, also during the early 1990s, real wages rose well above their long-run trend; however, on this occasion, the currency was not devalued, but real wages finally did start to converge to trend after unemployment soared in 1995 and remained well above 10 percent during the rest of the decade.

Labor productivity growth and its sources

The most utilized decomposition of labor productivity is one that divides it into two sources. One is the increase in productivity attributable to the enlargement of the stock of tangible capital that is available to aid each worker, or the contribution of the growth in capital intensity. The other element is the residual of the increase in labor productivity not attributable to tangible capital, or the crude total factor productivity (TFP). Thus, the growth rate of real output per unit of labor input can be expressed as

$$(Y^* - L^*) = A^* + \theta\,(K^* - L^*),$$

where Y stands for output, L for labor, and K for tangible capital stock, the asterisk denotes the per annum rate of increase, and the coefficient θ is the elasticity of output with respect to capital.

On average, labor productivity grew 1.3 percent per year during the period 1900–1992. Sixty-three percent of the rise of labor productivity is accounted by the increase in total factor productivity and, hence, the remaining 37 percent is due to the growth in capital

per worker (see Table 11). Labor productivity growth accelerated during the 1990s when both the stock of capital per worker and total factor productivity grew at a higher rate.

More generally, for the period as a whole, total factor productivity accounts for roughly one-fourth of Argentina's growth – slightly less than capital, which accounts for 33 percent, and less still than labor, which accounts for the remaining 42 percent of Argentine growth (see Véganzonès and Winograd 1997).[34]

Labor productivity growth varied from period to period. Between 1944 and 1980 there was substantial growth of which roughly 50 percent is accounted for by the increase in total factor productivity and 50 percent by the growth in capital per worker. It also grew at a high rate between 1900 and 1930. Interestingly, labor productivity grew less during the period 1900 to 1930 than between 1944 and 1980 even though GDP grew more during the former period. Two factors contribute to this phenomenon: labor grew at a rate of 2.6 percent per year during the period 1900 to 1930 compared to 1.6 percent per year between 1944 and 1980, while the stock of capital grew at a rate of 3.5 percent per year during the former period compared to 4.7 percent per year during the latter period. Finally, labor productivity slipped during the 1980s when neither the capital stock nor total factor productivity increased.

Education and human capital

The progress of labor across the twentieth century is closely associated with educational advances. The virtual elimination of child labor, the rise of the female labor force, the rise in real wages, and the evolution of various modern labor market institutions can all be related to educational progress (see Goldin 2000). Mean years of schooling by birth

cohort increased quite steadily for both males and females across the century (see Tables 12 and 13).

Income distribution

The share of labor in national income prior to the 1940s used to be around 40 percent. During the first Peronist government (1946–52) it increased to 50.9 percent as shown in Figure 6.[35] After 1954, however, the share of labor in income returned to the levels seen in the more distant past. It recovered again during the1960s and early 1970s, but had an impressive fall in 1976 to its minimum as a result of the blunt adjustment imposed by the military government. Since then, it has fluctuated widely around 35 percent.

The rise in the income share of labor during the first Peronist government was clearly unsustainable. Additionally, its reversion to the trend illustrates the impossibility of fundamentally altering income distribution through redistributive policies. It is interesting to notice that the government increased the share of labor through several policies (e.g., thirteen salary, paid vacations, and higher real wages), but after a few years the share of labor in income returned to its previous level. A similar experiment, although one more immediately costly to workers, was the wage policy of the Peronist governments of the early 1970s. Both episodes ended in a balance of payment crisis (see Gerchunoff and Llach 1998). Thus, the Peronist strategy of altering the distribution of income by arbitrarily raising real wages (without accompanying increases in productivity) was condemned to failure since, in the long run, real wages are ultimately determined by the performance of the economy. Therefore, these episodes can also be understood as illustrations of the weakness of populist policies.

Table 14 shows the distribution of wages since the early 1950s. Here we consider the distribution of income among workers instead of between capital and labor. The first salient feature is that the distribution of wages was almost invariant until the mid-1970s. It has clearly worsened since 1974, as wages have become more unequally distributed. Until 1974, only the workers in the first decile of the distribution lost out while the workers in the third decile apparently gained at their expense. Comparing the wage distributions of 1974 and the late 1990s, however, almost all deciles lost, save the workers in the ninth and tenth deciles.[36]

Turning to the evolution of the wage structure during the last two decades, we have to content ourselves with data only from the greater Buenos Aires area, the main urban agglomerate. We sought to emphasize the wage differentials induced by educational attainment levels, and for this purpose, we delineated three skill groups: unskilled (those individuals who never completed high school), semiskilled (those who have completed high school) and skilled workers (those who have completed a tertiary degree). We excluded the self-employed, owner-managers, and unpaid workers because we were only interested in changes in the actual wage structure. The results of the estimation of the wage premia (relative to the unskilled) are shown in Table 15.

For the whole period, the main change in the wage structure is that the semiskilled group's wages deteriorated relative to the unskilled group's wages. Additionally, the unskilled group did not see its wages deteriorate relative to those of skilled workers: the male skilled wage premium was 228 percent in 1980, 156 percent in 1991, and 211 percent in 1998, while the male semiskilled wage premium was 87, 44, and 48 percent,

respectively. Nevertheless, if the analysis is restricted to the evolution of wages during the 1990s, we see a somewhat different picture. The wages of the semiskilled group did not deteriorate relative to the unskilled group wages, while both unskilled and semiskilled wages deteriorated relative to skilled wages. Indeed, the skilled-unskilled wage premium increased substantially during the 1990s. In order to quantify the magnitude of these trends we fit a constant and a linear time trend to the wage premium [for those skill groups plotted in Figure 7. The coefficient associated with the time trend measures the percentage change per year in the respective wage premium. Table 15 shows the results.

We find significant negative trends for the female wage premia for both schooling groups. However, for the tertiary group, the trend is not statistically significant when we discard the first two years. We also find a negative trend in the male secondary school wage premium. Finally, there is no statistically significant trend in the male tertiary degree group wage premium.

Thus, even though there is no significant tendency in the male college wage premium for the whole period, since the beginning of 1990 we do find a significant positive trend. In particular, the estimated coefficient for this period implies that the male college wage premium rose 10 percentage points per year during the1990s. The female college wage premium behavior illustrates even more strongly the change in the wage structure that occurred during the 1990s. For the secondary school group we find, consistent with what we see in Figure 7, that its wage premium with respect to the incomplete secondary group has not changed during the 1990s, although it has been declining during the whole 1980–98 period.

Unemployment

Unemployment was not among the main concerns of policymakers before the late 1990s, when it came to be considered one of the most serious economic problems. Unfortunately, the time series only begins in 1963, and hence, we cannot make meaningful comparisons before that year.[37]

It is generally thought that unemployment was quite low before World War I because of the large-scale immigration and high rates of growth of real wages. However, the country went through severe crises during the twentieth century, which may have been followed by sharp increases in the unemployment rate. This seems to have been the case at the beginning of World War I (Ernesto Tornquist & Co., Ltd., 1919), but not as a result of the crisis of 1929 during which the rate was never above 10 percent.

There is no information available on unemployment during the period of industrialization even though some signs suggest low unemployment rates (cf. Véganzonès and Winograd 1997). At the beginning of the 1960s, unemployment was around 8 percent, but it decreased rapidly to less than 5 percent where it stayed until the mid-1980s when it edged toward 7 percent. Not until the mid-1990s did unemployment increase to two-digit levels, where it has remained ever since; that sharp rise is clearly illustrated in Figure 8.

After the introduction of a successful stabilization program at the beginning of the 1990s, GDP growth increased significantly and total employment rose steadily until mid-1993 (see Table 16). At this point unemployment started to rise (see Figure 9d). During the second half of 1994, the economy slowed down (see Figure 9c) and unemployment increased from 10 to 12.2 percent. Although the economy was already in a mild recession

at this point, conditions worsened substantially after the devaluation of the Mexican peso during December 1994. Domestic demand and GDP contracted abruptly, the latter declining by nearly 5 percent during 1995 (Figures 9a and 9c).[38] The consequences of this shock for unemployment were dramatic. With the labor force continuing to expand and employment falling sharply along with aggregate demand, unemployment rose by over 6 percentage points in 6 months (see Figures 9b and 9d).[39]

The recession was short despite its severity. The economy soon recovered and, between 1996 and 1998, both output and employment grew rapidly and unemployment declined substantially. However, at the beginning of 1999, the Brazilian currency underwent a strong depreciation. The Argentine economy contracted 4 percent in 1999, and unemployment increased again. Thus, unemployment was well above its equilibrium level during the 1990s, mainly as a result of a combination of macroeconomic shocks and labor shedding in the manufacturing sector.[40] Thus, although it has been argued that the high levels of unemployment during the 1990s are the result of the reduction in the capital-labor price ratio, simple evidence shows this position to be false.[41]

The manufacturing sector shed labor between 1992 and 1995. However, in general, the remaining sectors show employment growth during most of the years except 1994. Indeed, at the industry level, job creation has been high in every year in which growth has been high. In this respect, 1994 is the exception, since the economy started to contract during the second half of the year. Second, although job creation was high, job destruction was also high, primarily as a result of the contraction in the manufacturing sector.

Conclusion

The study of the Argentine labor market over the past century reveals some profound changes. Progress has been made in the rewards to labor in the forms of wages, benefits and increased leisure through shorter hours, vacation time, sick leave, and earlier retirement. Labor has also been granted greater security both on and off the job. But this study has also revealed that some aspects of the labor market have not progressed, while others have come full circle in the past century.

Labor market progress has interacted with social changes, alternately acting as cause and effect at given times. We identify three periods in the evolution of the Argentine labor market: (1) the "spot market" period from 1870 to 1929, (2) the institutional modern market period from 1943 to 1975, and (3) the period of a search for a modern, flexible labor market from 1976 to the present. Although these periods do not necessarily coincide with the phases of Argentine economic growth, they do match with phases of integration or isolation with regard to world goods and credit markets.

Appendix: Labor law in Argentina

Appendix Table A17 shows the development of the main Argentine labor laws. The Argentine labor relations system was mainly developed in the early 1940s, and although the collective laws system was then suppressed, just as the national constitution also has been suppressed in several periods, its structure has not been substantially modified (if at all) until the present (see Table A17).

During what we have called the spot era market, the general rule was freedom of

contracting. Civil and commercial law constituted the basis of Argentine labor law until the early 1940s when, among many changes to the system, severance payment was generalized to the whole economy. We single out the generalization of the severance payment because that constitutes a clear property right conceded to workers in their jobs, which we have identified as a characteristic of the contract of employment in the modern era.

Notwithstanding, there were several attempts to legislate a labor code since the beginning of the nineteenth century. These labor codes contemplated several aspects of what has been legislated since the 1940s by both individual and collective labor laws. The first of these attempts was the code elaborated by J. V. González in 1904. This code was very ambitious and certainly could not be passed at that time. It tried to legislate the terms of a host of employment issues: the contract of employment, accidents and professional sickness, a legal rest regime including weekly and daily hours of work, work by minors and women, security and hygiene conditions, trade unions, and collective bargaining and arbitrage in collective conflicts (see, for example, Zimmermann 1995). The projects of Usain in 1921, Molinari in 1928, and Saavedra Lamas in 1933 all followed González's lead.

Obviously, the lack of a general code did not imply the lack of labor legislation apart from civil and commercial law. Labor law started to develop early in the twentieth century and had progressed somewhat during the 1930s, but only after 1940 did it take off. The system that developed was not based on a unique code, but on several laws that legislated diverse aspects of the individual contract of employment and a system of

collective laws.

However, collective bargaining took place even before it was legislated (see Gaudio and Pilone 1983), and by its nature, it necessarily affected the individual contract of employment (as individual laws always shape and are shaped by collective bargaining).

A singular characteristic of the collective bargaining system in Argentina is that it was recurrently eliminated and reinstated by military and civil governments, respectively. While unique, this characteristic is hardly surprising given the country's institutional history. In spite of its constitutional guarantee since 1953, there were only a few windows of opportunity in which collective bargaining was unfettered.[42] Indeed, collective bargaining was banned from 1956 to 1958, 1967 to 1971, 1973 to 1975, and 1976 to 1988.

Clearly, the prolabor, Peronist party that possessed the support of all trade unions from 1946 (see Torre 1990) has passed the most favorable legislation for labor, both at the individual and collective level, first in the 1940s and early 1950s and again during the early 1970s. Although during the 1990s the party passed some flexible contractual forms that may not be considered prolabor, it favored trade unions when it left power in 1998.

The professional associations law only entitles one union to represent a group of workers by industry, profession, or enterprise in a determined geographical area in the bargaining process. Legal recognition was originally awarded to the most representative union. Given the union structure prevalent in Argentina, most collective agreements are national agreements that take place at the industry level. A collective agreement has to be

endorsed by the ministry of labor and social security to be extended to all workers and employers of a determinate activity in a specific geographical location. Thus, collective agreements endorsed by government have *erga omnes* effects, and the system of collective bargaining is fairly centralized.[43]

The main regulatory framework of the employment relationship is the contract of employment law passed in 1974 and modified in 1976. The contract of employment law is the main institution in labor law. The general rule it upholds is the principle of continuity of employment contracts. Employment contracts are settled for an indeterminate period of time. However, this conceived stability of jobs by law is not absolute. Much to the contrary, any employer has the right to end an employment contract without explanation. To dismiss an employee, the employer only has to give the worker a legislated severance pay determined by the worker's wage and tenure. During the last decade, there have been three laws that changed the contract of employment law by introducing flexibility at the margin (introducing fixed-term contracts exempted of severance payment at termination). However, these reforms have already been undone by laws reflecting dissatisfaction with their results.

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Tables and Figures

Table 1: Living standards, 1870-1913

Country	Real wages (GB 1905 = 100) 1870	1913	GDP per capita (1990 U$S) 1870	1913
European periphery	31	72	1478	2599
Ireland	49	90	-----	-----
Italy	26	55	1467	2507
Spain	30	39	1367	2255
European industrial core	58	86	2414	4101
France	50	66	1858	3452
Great Britain	67	98	3263	5023
Europe	43	77	1878	3242
New World	88	139	1986	3932
Argentina	61	92	1311	3797
Australia	127	128	3801	5505
Brazil	39	87	740	839
Canada	99	219	1620	4213
United States	115	169	2457	5307

Source: Wage data is taken from O'Rourke and Williamson (1997). GDP per capita data is taken from Maddison (1995).

Table 2: New World Immigration Rates by Decade (per 1.000 mean population)

Country	1851-1860	1861-1870	1871-1880	1881-1890	1891-1900	1901-1910
Argentina	38.5	99.1	117.0	221.7	163.9	291.8
Brazil	….	….	20.4	41.1	72.3	33.8
Canada	99.2	83.2	54.8	78.4	48.8	167.6
US	92.8	64.9	54.6	85.8	53.0	102.0

Source: Ferenczi and Willcox (1929).

Table 3: Union affiliation during the peronist period

	Year				
	1936	1946	1948	1950	1954
Total affiliation	369.969	877.333	1.532.925	1.992.404	2.256.580
Union density (%)	10	22	40	49	49

Notes: The union density rate is the total union affiliation divided by total non-agricultural employment.
Sources: Total affiliation is taken from Doyon (1975) and Horowitz (1990). Total non-agricultural employment is taken from Domenech (1986).

Table 4: Aggregate wage equations

Independent variable	1913-1929	1930-1973
	Dependent variable: logarithm of the average real wages at prices of 1960 (Log w_t)	
Log $Prod_t$	1.06 *	0.18 *
	(0.296)	(0.078)
Log w_{t-1}	0.217	0.848 *
	(0.228)	(0.091)
$\Delta\Pi_t$	-0.00396 *	-0.00177 *
	(0.0011)	(0.00036
$\Delta\Pi_{t-1}$	0.00252 *	0.00118 *
	(0.001125)	(0.00033)
Constant	Yes	Yes
R^2	0.92	0.94
Mis-specification tests:		
First-order autocorrelation	F(1,9) = 1.054 (0.33)	F(1,37) = 0.093 (0.76)
ARCH	F(1,8) = 0.67 (0.44)	F(1,36) = 0.167 (0.68)
RESET	F(1,9) = 1.56 (0.24)	F(1,37) = 0.107 (0.745)
N° of observations	15	45

Notes: * Statistically different from zero at the 0.05 level of significance. w_t is the real average wage from Domenech (1986), $Prod_t$ is GDP per capita at prices of 1990 from Maddison (1995). Π_t is the inflation rate in period t. Standard errors are robust to departure from homoskedasticity. The version of the regression function presented for the period 1930-1973 includes a dummy variable for the year 1946 and a dummy variable for the year 1947. If these (peronist) dummies are not included, the estimated model is similar (coefficients and standard errors are almost the same) but the overall stability of the model is lost.

Table 5: Trade Unions and Wage Bargaining (late 80s and early 90s)

	1 Union Density (%)	2 Union Coverage Index	3 Union Co-ordination	4 Employer Co-ordination	5 Employment Protection Ranking
Austria	46.2	3	3	3	16
Belgium	51.2	3	2	2	17
Denmark	71.4	3	3	3	5
Finland	72.0	3	2	3	10
France	9.8	3	2	2	14
Germany (W)	32.9	3	2	3	15
Ireland	49.7	3	1	1	12
Italy	38.8	3	2	2	20
Netherlands	25.5	3	2	2	9
Norway	56.0	3	3	3	11
Portugal	31.8	3	2	2	18
Spain	11.0	3	2	1	19
Sweden	82.5	3	3	3	13
Switzerland	26.6	2	1	3	6
UK	39.1	2	1	1	7
Canada	35.8	2	1	1	3
US	15.6	1	1	1	1
Japan	25.4	2	2	2	8
Australia	40.4	3	2	1	4
New Zealand	44.8	2	1	1	2
Argentina	45.0	2	2	1	10

Notes: (1) Trade union members as a percentage of all wage/salary earners. Union coverage is an index, 3 = over 70% covered, 2 = 25-70%, 1= under 25%. Union and Employer co-ordination in wage bargaining is an index with 3 = high, 2 = middle; 1 = low.
Source: Nickell and Layard (2000) and Galiani and Nickell (1999).

Table 6: Population by origin

	1869	1895	1914	1947	1960	1970	1980	1991
Total Population	1.737.076	3.954.911	7.885.237	15.983.827	20.010.539	23.390.050	27.947.446	32.615.528
Proportion of immigrants in total population (%)	12.1	25.5	30.3	15.2	13.0	9.5	6.8	5.0
Distribution of immigrants by origin								
Border countries (%)	19.7	11.5	8.6	12.9	17.9	24.2	39.6	50.2
Rest of the world (%)	80.3	88.5	91.4	87.1	82.1	75.8	60.4	49.8
Spain (%)	20.2	22.3	38.5	35.3	33.5	30.7	32.5	n.a.
Italy (%)	42.3	55.3	43.1	37.0	41.1	38.0	42.5	n.a.
Others (%)	37.6	22.4	18.4	27.7	25.4	31.3	25.0	n.a.

Source: Recchini de Lattes and Lattes (1975) and author's elaboration based on national censuses of population.

Table 7: Labor force participation rates (%)
Census data

	1869	1896	1914	1947	1960	1970	1980	1991
Age Group				MALES				
10—14	44.4	39.1	34.5	25.3	18.4	11.5	6,4	3,0
15—19	89.8	80.6	76.0	72.5	75.5	62.2	51,6	48,5
20—24	95.3	94.3	93.1	90.1	93.5	87.4	85,5	82,9
25—29	96.8	95.9	95.8	96.6	97.6	96.7	93,8	93,0
30—34	96.8	96.8	97.0	97.6	98.5	98.2	95,6	94,9
35—39	96.6	97.1	97.4	98.0	98.4	98.5	95,6	95,5
40—44	96.0	96.5	96.9	97.7	97.2	97.8	94,6	94,4
45—49	95.4	96.0	96.3	96.8	95.2	95.8	92,4	93,2
50—54	94.4	93.7	93.8	95.3	91.6	91.7	87,6	89,4
55—59	92.9	91.3	90.9	91.9	81.5	80.4	77,6	82,0
60—64	90.6	88.0	86.5	84.5	66.4	57.2	51,9	62,3
65—69	86.9	82.7	78.9	71.0	47.1	39.0	27,8	39,9
70—74	79.3	78.2	72.9	54.8	37.5	27.1	15,3	26,2
74+	67.3	78.2	72.9	54.8	37.5	27.1	7,5	13,3
All	86.0	84.8	83.4	82.0	78.7	73.2	68,3	66,9
				FEMALES				
10—14	....	....	....	9.1	72.0	6.2	5,2	4,7
15—19	....	....	....	30.0	34.8	31.9	27,8	29,5
20—24	....	....	....	34.4	40.1	44.2	42,2	52,4
25—29	....	....	....	27.1	29.6	36.6	37,5	54,3
30—34	....	....	....	23.0	24.5	31.8	35,2	53,1
35—39	....	....	....	21.5	22.7	29.3	34,5	53,3
40—44	....	....	....	20.4	21.6	27.1	33,3	53,6
45—49	....	....	....	19.4	19.5	25.2	30,2	51,6
50—54	....	....	....	17.7	15.5	22.1	25,4	44,9
55—59	....	....	....	15.3	12.1	16.2	17,6	34,2
60—64	....	....	....	13.0	9.1	10.3	9,8	22,1
65—69	....	....	....	10.1	7.0	6.8	5,4	14,1
70—74	....	....	....	7.5	5.0	4.4	2,9	8,8
74+	....	....	....	6.0	3.3	2.3	1,3	4,5
All	....	....	....	26.0	21.6	24.3	25,0	36,0

Notes: Labor force participation rates are not strictly comparable among Censuses, especially, before 1947. For this reason, we do not present the female participation rates before 1947 since the figures from these Censuses result in severely biased estimates of the Labor participation rates. In any case, they are not available for the 1914 census. The labor force participation of the age group 10-14 is estimated since 1970 (see Recchini de Lattes (1975)).
Source: Recchini de Lattes (1975) and author's elaboration based on Censuses.

Table 8: Comparative labor force statistics

	Women Participation. Rate (%) 1993 (1)	Early retirement Index (%) (2)	Self employment as % of total employment 1990 (3)	Annual hours worked per worker 1992 (4)
Austria	58.7	60	6.7	1610
Belgium	55.2	65	14.3	1580
Denmark	78.3	31	6.8	1510
Finland	70.0	55	8.8	1768
France	59.0	54	9.1	1654
Germany	55.2	42	8.0	1610
Ireland	46.1	35	12.8	1720
Italy	43.3	64	22.2	1730
Netherlands	56.0	54	8.1	1510
Norway	70.8	27	6.1	1437
Portugal	62.0	33	15.9	2004
Spain	43.0	38	17.5	1815
Sweden	75.8	25	7.1	1485
Switzerland	67.6	18	-	1637
UK	65.3	32	12.4	1720
Canada	67.7	35	7.5	1714
US	69.0	32	7.7	1919
Japan	61.8	17	11.6	1965
Australia	62.3	37	12.5	1850
New Zealand	63.2	43	14.7	1812
Argentina	39.7	27	21.4	2059

Notes: (1) OECD Employment outlook (1996), table K, p.197. Female labor force divided by female working population (15-64) in 1993. West Germany is for 1990. Argentina: Household survey, May 1997. (2) OECD Employment outlook (1996), table B, p.188. Defined as (100 – percent participation rate in 1990 for males aged 55-64) Argentina: Household survey, May 1997. (3) OECD Jobs Study (1994), table 6.8. Percentage share of self-employment in total employment in the non-agricultural sector. Argentina: Household survey, May 1997. (4) OECD Employment outlook (1996), table C, p.190. Average annual hours worked per employee (1992). Argentina: Household survey, May 1997.
Source: Nickell and Layard (2000) and Galiani and Nickell (1999).

Table 9: Labor force participation rates (%)
Household survey data (Greater Buenos Aires)

Year	Standard measures			Excluding students		
	Labor-force Participation Rates	Labor-force Participation rates by gender		Labor-force Participation Rates	Labor-force participation rates by gender	
		Males	Females		Males	Females
	(1)	(2)	(3)	(4)	(5)	(6)
1974[a]	62.2	88.1	38.9	….	….	….
1980	61.2	85.4	38.7	61.3	90.0	37.7
1981	59.9	83.7	38.1	59.8	88.4	36.6
1982	59.9	83.9	38.7	61.2	88.7	39.0
1984	60.7	84.0	39.2	62.3	89.4	39.4
1985	60.3	83.3	39.1	62.2	89.5	39.8
1986	62.3	84.4	42.8	63.6	90.2	43.0
1987	62.4	84.2	42.9	63.9	89.7	43.2
1988	62.9	83.6	44.2	66.1	90.2	45.4
1989	63.1	83.6	44.2	67.7	90.7	46.5
1990	63.9	84.1	45.2	68.7	91.8	47.7
1991	63.3	83.7	44.4	68.5	91.7	46.9
1992	64.5	84.5	46.0	70.0	92.3	49.5
1993	65.7	84.1	48.6	71.3	91.9	52.2
1994	65.9	84.1	48.8	72.0	92.3	52.6
1995	67.5	84.1	51.8	73.4	92.5	55.3
1996	68.1	84.8	52.3	73.8	92.6	55.8
1997	67.5	83.5	52.2	73.2	92.2	55.3
1998	67.3	83.5	52.4	74.1	93.0	56.5

Notes: all statistics are calculated for the age group [15,64]. (a) the statistics for this year where obtained from INDEC press reports and correspond to the age group [15,69].

Source: Galiani (1999).

Table 10: Employment sectoral distribution (%)

Industry	Census year					
	1895	1914	1947	1960	1970	1991
1. Primary Sector	34.9	26.8	27.2	20.3	16.7	11.5
2. Secondary Sector	29.8	35.6	29.7	35.4	33.8	25.1
Manufacturing Sector	27.1	31.3	25.0	27.8	23.9	17.5
Construction	2.6	3.9	4.2	6.4	8.7	6.8
Electricity, Gas and Water	0.1	0.4	0.5	1.3	1.2	0.9
3. Tertiary (service) Sector	35.4	37.6	43.1	44.3	49.5	63.3
Trade and Finances	13.3	16.2	14.0	13.5	16.7	26.1
Transport and Communications	3.8	3.4	6.1	7.8	6.85	5.2
Other Services	18.4	18.0	23.1	23.0	25.9	32.0

Source: Author's elaboration based on Censuses.

Table 11: Sources of labor productivity growth

Period	Labor productivity growth rate	Percentage of labor productivity growth due to capital intensity growth (%)	Percentage of labor productivity growth due to crude TFP growth (%)
1900-1992	1.3	37	63
1900-1929	1.4	19	81
1930-1943	0.7	-34	134
1944-1980	1.8	52	48
1981-1992	-0.1	30	70
1993-1997*	3.0	40	60

Source: Author's elaboration based on equation 2.4 and Table 2.5 in Veganzones and Winograd (1997).

Table 12: Population by education level (%)

Year	No education	Primary	Secondary	Higher
1910	25.0	63.0	11.0	0.5
1930	22.0	69.0	8.0	0.7
1947	13.6	77.4	7.8	1.2
1960	9.5	71.0	16.0	3.5
1970	5.7	69.0	20.5	4.7
1980	2.9	65.0	25.1	7.1
1991	2.1	54.8	31.7	11.4

Source: Veganzones and Winograd (1997)

Table 13: Enrollment Rates (%)

Year	Primary	Secondary	Higher
1895	30	….	….
1914	59	….	….
1960	98	27	11
1970	99	45	15
1980	99	56	22
1990	99	72	38

Source: Veganzones and Winograd (1997).

Table 14: Income distribution: Employees (%)

	Deciles									
Year	1	2	3	4	5	6	7	8	9	10
1953	2.7	4.7	5.8	6.9	7.8	9.1	10.5	12.0	14.9	25.6
1959	2.8	5.0	6.0	6.7	8.0	8.9	10.2	12.0	14.7	25.5
1961	2.4	4.5	5.6	6.5	7.9	9.0	10.5	11.9	14.8	27.0
1974	2.4	4.8	6.2	7.0	8.0	9.0	10.5	12.2	14.7	25.2
1980	2.9	4.5	5.3	6.3	7.1	8.1	9.5	11.6	14.8	29.8
1985	2.8	4.5	5.6	6.4	7.3	8.5	9.7	11.6	15.1	28.6
1989	2.0	3.6	4.5	5.4	6.4	7.4	8.9	11.4	16.2	34.2
1993	2.7	4.3	5.4	6.1	7.2	8.3	9.6	11.5	15.1	29.9
1999	2.0	3.8	5.0	5.9	7.1	8.3	9.6	11.7	15.7	31.0

Sources: For 1953, 1959 and 1961, author's calculations based on CONADE-CEPAL (1965). Since 1974, author's calculations based on the household survey data tapes for Greater Buenos Aires.

Table 15: Fitted time trends by schooling group
Fitted variable: wage premia by schooling group (base category: unskilled workers)

Period	Semi-skilled group		Skilled group	
	Males	Females	Males	Females
80-98	-2.11 ***	-3.37 ***	0.23	-3.41 ***
	(0.54)	(0.50)	(1.20)	(1.37)
90-98	0.25	-0.38	10.1 ****	6.7 **
	(1.03)	(1.21)	(1.47)	(2.2)

Notes: The time trend takes the values t = 1,2,3,6,7,…,19. *** if the coefficient is statistically different from zero at the one percent significance level. ** if the coefficient is statistically different from zero at the five percent significance level. We report the statistical significance of the fitted trends only as informative measures.
Source: Galiani (1999).

Table 16: Change in employment (thousands)

Industry	Year										
	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98
Manufacturing	-7.3	-36.5	-43.6	-0.2	52.9	-41.7	-78.6	-95.9	-17.6	78.9	-8.4
Electricity, gas and water	2.3	-3.2	12.8	8.8	-3.0	-16.4	-2.6	4.6	-2.5	-2.8	-5.1
Construction	30.3	-49.8	-32.9	50.0	7.7	-16.0	20.6	-10.2	11.3	62.3	38.9
Trade	39.5	-4.3	-1.1	85.3	61.6	21.4	13.0	-27.6	33.6	-27.6	58.1
Transport and communications	18.9	37.8	-19.3	-27.0	8.4	54.3	32.6	2.8	4.5	22.5	42.4
Finance	-0.5	5.8	-21.9	28.0	5.6	4.0	53.4	18.4	21.2	43.1	44.5
Community services	1.3	-1.5	49.3	-13.1	5.0	51.7	-83.1	45.7	-29.7	216.4	222.5
Total change	84.5	-51.6	-56.7	126.7	138.2	57.4	-44.8	-62.2	20.8	392.9	392.8
Total change as percentage of total employment	1.8	-1.1	-1.2	2.7	2.8	1.1	-0.9	-1.2	0.4	7.9	7.3
Job creation	92.3	43.7	62.1	167.1	141.2	131.5	119.5	71.5	70.6	423.3	406.3
Job destruction	7.8	95.3	118.8	40.3	3.0	74.1	164.3	133.7	49.8	30.4	13.5
Job turnover as percentage of total employment	2.1	2.9	3.8	4.4	3.0	4.1	5.6	4.1	2.4	9.1	7.8

Source: Galiani and Nickell, 1999.

Table A1: A summary of Argentine labor law

Year	Law	Sum and substance of the legislation
1859/62	Civil and Commercial law	**Individual labor law in the "spot market" era (there is not collective law during this period)**: The Commercial law constituted the basis of the argentine labor law, especially after it's reform in 1934. Nevertheless, this law only regulated the relations between workers and merchants in the trade sector. The labor relations in the remaining sectors of the economy were regulated by the Civil law.
1905/13	1st labor law (4.661/9.104)	This law established the prohibition to work during Sundays in the Federal District. This prohibition was then extended to the whole national territory in 1913. As it is commonly the case, these laws did not apply to domestic servant workers. The law 11.640 of 1932, which stretched the prohibition to Saturdays after 13 hours extended these laws.
1907	2nd labor law (5.291)	Prohibited the employment of individuals younger than 10 years old.
1915	Accidents and professional sickness (9.688)	This law regulated the accidents and professional sickness. Although with modifications, it was the law in practice until 1995. It established objective employer responsibility with tariff compensations.
1929	Weekly and daily hours of work (11.544)	Legislated the working time. It established the maximum duration of both daily and weekly working time. The law was only regulated in 1933 and it was in use through the Contract of Employment Law (1974 to 76) until 1991: 8 hours per day and 48 hours per week. The employment law (24.013) of 1991 relaxed these limits.
1933	Severance pay (11.729)	The law 11.729 reformed the severance payment system regulated in the Commercial law and also introduced paid vacations. Yet, until 1945, this law only applied to workers in the trade sector.
1934	Maternity leave (11.933)	Prohibited female employment since 30 days before childbirth to 45 days after it. It also created a maternity leave insurance system.
1940/47	Professional statutes	The statutory legislation begins in 1940 with the professional statute of the workers of the banking sector. Between 1944 and 1947 it expanded extensively covering the workers of several industries. The professional statutes regulated the labor relations by profession. During the rest of the century, there have been legislated new statutes (and many have been modified).
1945	Severance pay (12.921)	This law extended the severance payment legislation to all wage earners.
1945	Paid vacation (DL 1.740)	Extended paid vacations to all wage earners.
1945	DL 33.302	Legislated the minimum wage and established the creation of the National Institute of Remunerations for its determination. However, this Institute has never been created. It also increased the severance payment and instituted the thirteen wage.
1943	Professional associations (D 2.669)	**Collective labor law in the rigid modern labor market era**: Regulated the constitution, organization and working conditions of the professional associations. It guaranteed freedom of association to all workers. However, the system was (and it still is) based on the existence of a unique union by craft or industry: The syndicate that holds trade union representation (*Personeria Gremial*) and not only civil representation. It also established that unions could constitute federations and confederations (second and third order associations).
1945	DL 23.852	It legislated the unions' rights and regulated the collective agreement procedures until they were fully regulated by law. It made firms the agents of retention of the contributions of affiliated workers to their unions.
1952	Professional associations law (14.295)	Regulated the constitution, organization and working conditions of the professional associations following D 2.669.

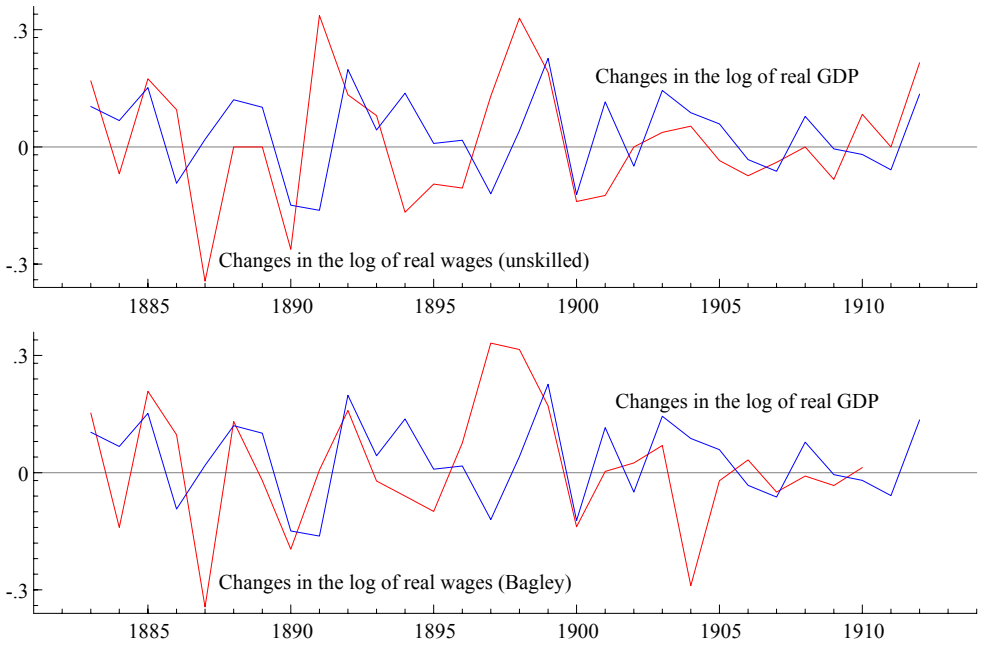
1953	Collective bargaining law (14.250)	Regulated the procedures and coverage of the collective agreements. It made collective agreements *erga omnes*.
1956	DL 9.270	It suppressed most of the dispositions of DL 23.852 and law 14.250. It established sindical freedom by eliminating the trade union representation. The principle of sindical freedom was also established in the Constitution of 1957.
1957	Equal payment (DL 2.739)	It established that the wages of workers performing the same task should not differ by gender.
1957	System of conciliation and arbitrage (DL 10.956)	It regulated the voluntary conciliation of conflicts. It also established the arbitrage role of the state in collective conflicts.
1958	Professional associations (14.455)	It undid DL 9.270. This (new) law of professional associations was similar to DL 23.852.
1964	Minimum wage (16.459)	It created the National Council of Minimum Wage. This institution was in charge of establishing the minimum wage in the country until 1990 when it was replaced by the Council of Productivity and Employment.
1966	Individual contract of employment (16.881)	It is the first contract of employment law passed by congress. However, the project was only partially promulgated by the executive power. Indeed, only 4 articles were promulgated while the rest of the law was vetoed.
1966	Financial control of trade unions (D 969)	It regulates the auditing and control of the financial resources of the trade unions.
1970	Women and child work (18.624)	Regulated minimum ages and tasks at work for women and child complying with the ILO resolutions.
1972	New law of hygiene (19.587)	Improved the conditions of work satisfying ILO resolutions.
1969	Collective bargaining intervention (18.016 and successive modifications)	It established that collective agreements should not bargain wages since 1970.
1971	Collective bargaining (18.887)	New law of collective bargaining and workers and firms' commissions. It established that wage increases should not exceed the inflation rate plus productivity growth.
1974	Contract of employment law (20.744)	**Contract of employment law**: Unified diverse institutions of the labor law. It was a law preeminent prolabor: It improved workers' rights in many dimensions (longer annual leaves, higher severance payment, etc.). It may be said that almost every article in the law was based in the most favorable legal antecedent for workers. The general rule upheld by the contract of employment law is the principle of (relative) continuity of employment contracts. Employment contracts are settled for an indeterminate period of time.
1973	Professional associations (20.615)	It replaced law 14.455. However, the sindical model adopted was the same. It gave more power and homogeneity to the union movement. It also created the legal sindical jurisdiction.
1973	Collective bargaining: *Pacto Social*	Called to a social pact among firms, unions and the government to establish wages and to reduce inflation. Industry level collective bargaining was fully reinstated in 1975 (just for a year).
1974	D 1.045	It allowed unions to charge sindical fees to all workers in the industry irrespective of whether or not they were union members.
1976	Reform of the Contract of employment law	Some rights granted to workers by law 20.744 were reduced or eliminated.

1976	Law 21.261	It suspended both the right to strike and collective bargaining. The government established (reference) wages since then on until the collective bargaining was reinstated during the late 80s.
1976	Professional associations (D 9)	It suspended all gremial activities.
1976	D 385	It derogated D 1.045.
1988	Professional associations law (23.555)	Regulated the constitution, organization and working conditions of the professional associations. It follows law 14.455. The system is still based on the existence of a unique union by craft or industry: The syndicate that holds trade union representation (*Personeria Gremial*).
1988	Collective bargaining law (23.545 and 23.546)	Regulated the procedures and coverage of collective agreements. It made collective agreements *erga omnes*. These laws are essentially similar to law 14.250.
1991	Employment Law (24.013)	This law introduced several fix-term contracts and it constitutes the first attempt to flexibilize the Argentine labor market. Introduced fixed term contracts and special training contracts for young workers. It also created the unemployment benefit system.
1995	Flexibilization of the contract of employment law (24.465)	This law generalized the set of fix-term contracts regulated in 1991 by law 24.013. It also introduced a trial period up to six month.
1996	Accidents and professional sickness (24.557)	It modified the previous legislation severely. It establishes an insurance system.
1998	25.013	It eliminated the promoted contracts regulated by laws 24.013 and 24.465. However, It also decreased substantially the severance payment for the short tenure employment relationships. It also increased the degree of centralization prevalent in the collective bargaining although law 25.250 undid this regulation.
2000	Decentralization of collective bargaining (25.250)	The main objective of this reform is the decentralization of collective bargaining. It is the first serious attempt to decentralize collective bargaining in the Argentina. Although the law of professional associations is not modified, law 25.250 establishes the right to bargain at any level of representation, that is, bargaining can be conducted by any union that posses enough representation even though there exist other union with a higher degree of representation (e.g., a first grade union when there is a second grade union). Additionally, it establishes that whenever bargaining is at the firm level, the representation of workers must include members of the internal commission of workers of the firm.

Note: The description of the labor law made in this table is just a synopsis and only tries to capture the most prominent general aspects of the evolution of the same. Sources: Vázquez Vialard (1999) and Vázquez Vialard (1996).

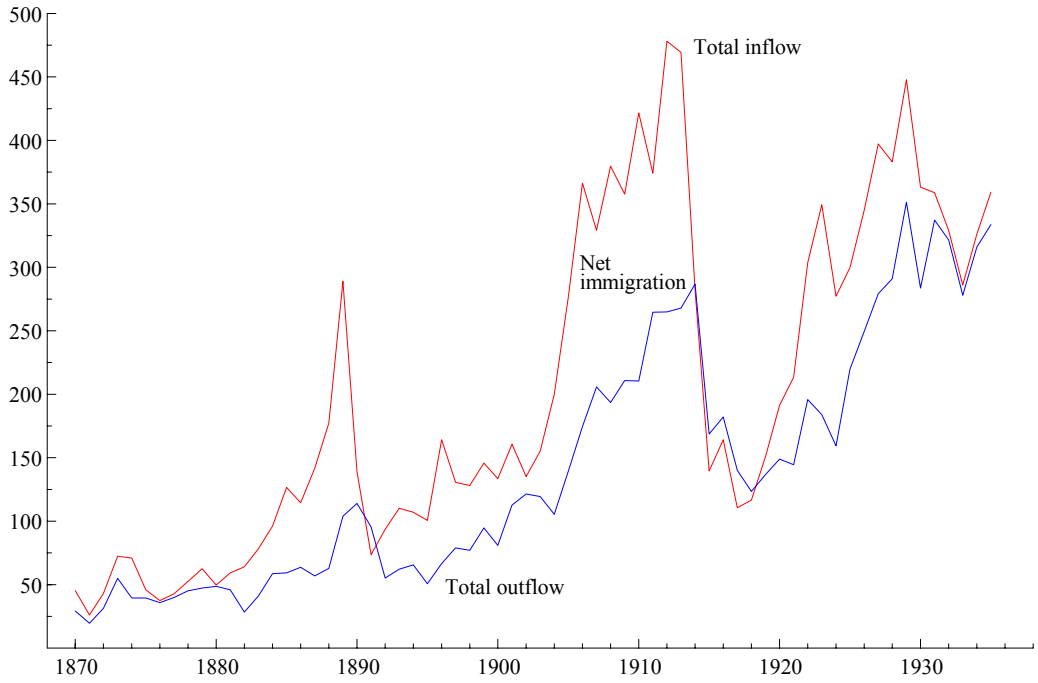
Figure 1: Real wages and GDP per capita variability

(First Differences of the logarithms of the series)



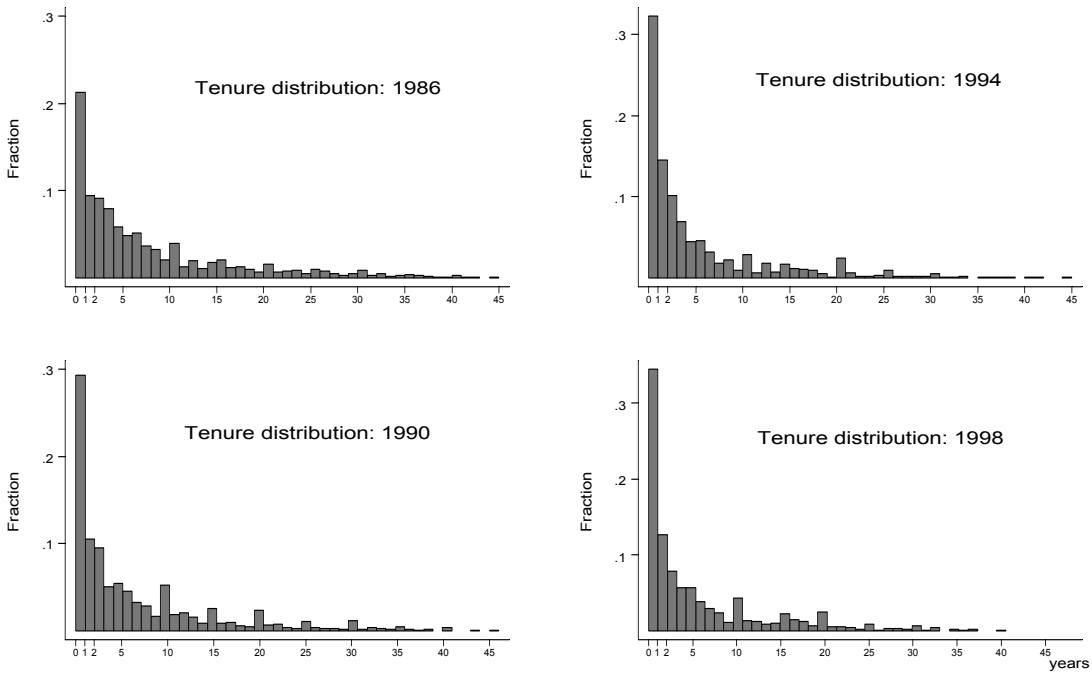
Sources: Unskilled real wages and Bagley real wages are taken from Córtes Conde (1979). Real GDP is taken from Córtes Conde (1984) and Population is taken from Recchini de Lattes and Lattes (1975).

Figure 2: Net immigration (in thousands)



Source: Recchini de Lattes and Lattes (1975).

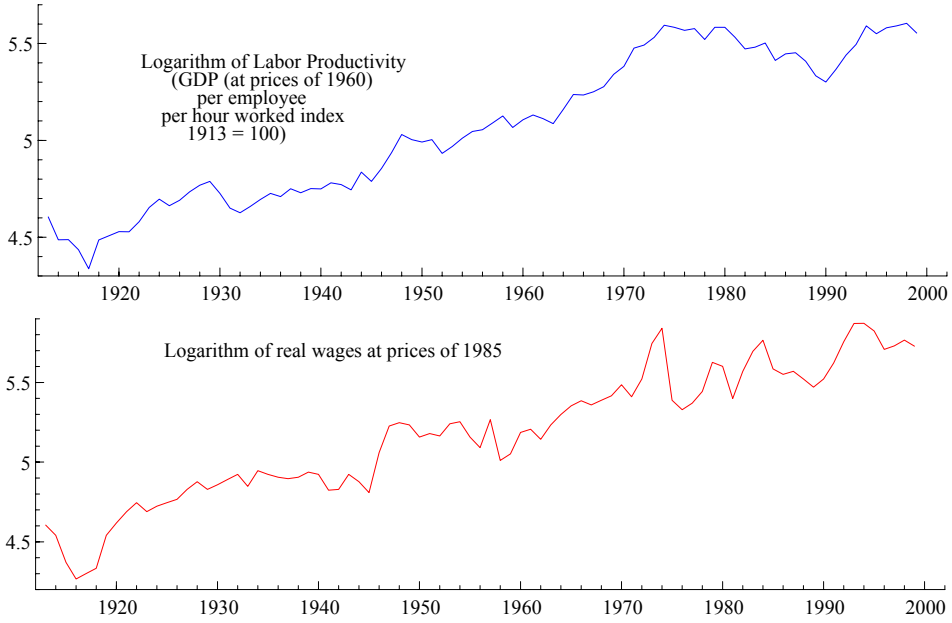
Figure 3: Job tenure distribution



Notes: Tenure is measured in years and fraction of years. The histograms are built using 45 accumulating intervals. The data is from the household survey, Greater Buenos Aires. Source: Galiani (1999).

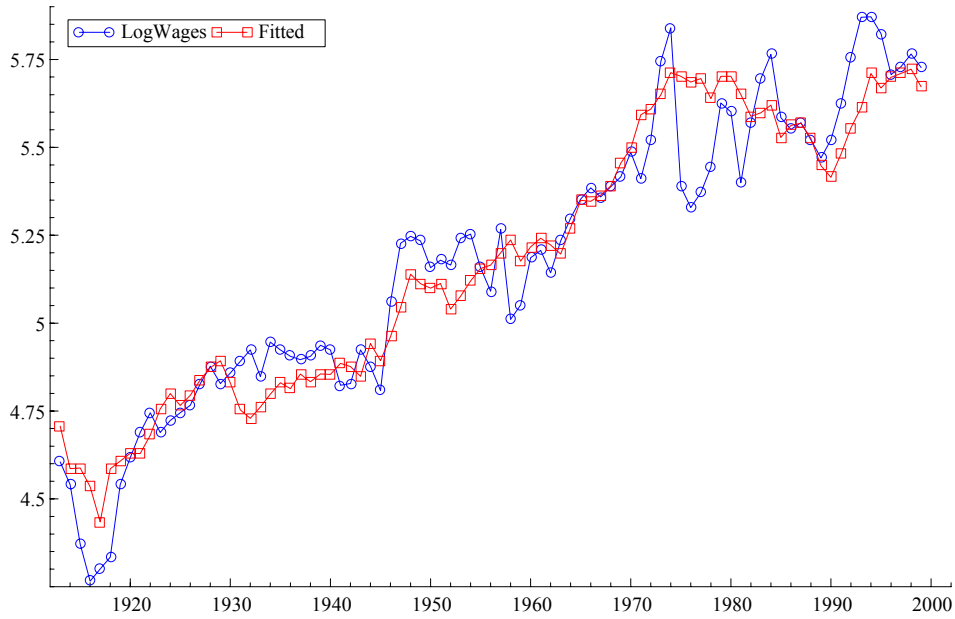
Figure 4: Productivity and Average Real Urban Wages

(Logarithms)



Notes: Wages are taken from Veganzones and Winograd (1997) up to 1990, and this series is continued until 1999 by applying the rate of growth of average wages estimated from the household survey for Greater Buenos Aires. GDP and employment are taken from Domenech (1986) up to 1984, and these series are continued until 1999 by applying the rates of growth of GDP (at prices of 1986) taken from ECLA and total urban employment estimated from the household survey. Average hours per week are estimated by fitting to the available information through the century.

Figure 5: Long run relationship between wages and productivity



Notes: Wages are taken from Veganzones and Winograd (1997) up to 1990, and this series is continued until 1999 by applying the rate of growth of average wages estimated from the household survey for Greater Buenos Aires. GDP and employment are taken from Domenech (1986) up to 1984, and these series are continued until 1999 by applying the rates of growth of GDP (at prices of 1986) taken from ECLA and total urban employment estimated from the household survey. Average hours per week are estimated by fitting to the available information through the century.

Figure 6: Share of labor in national income

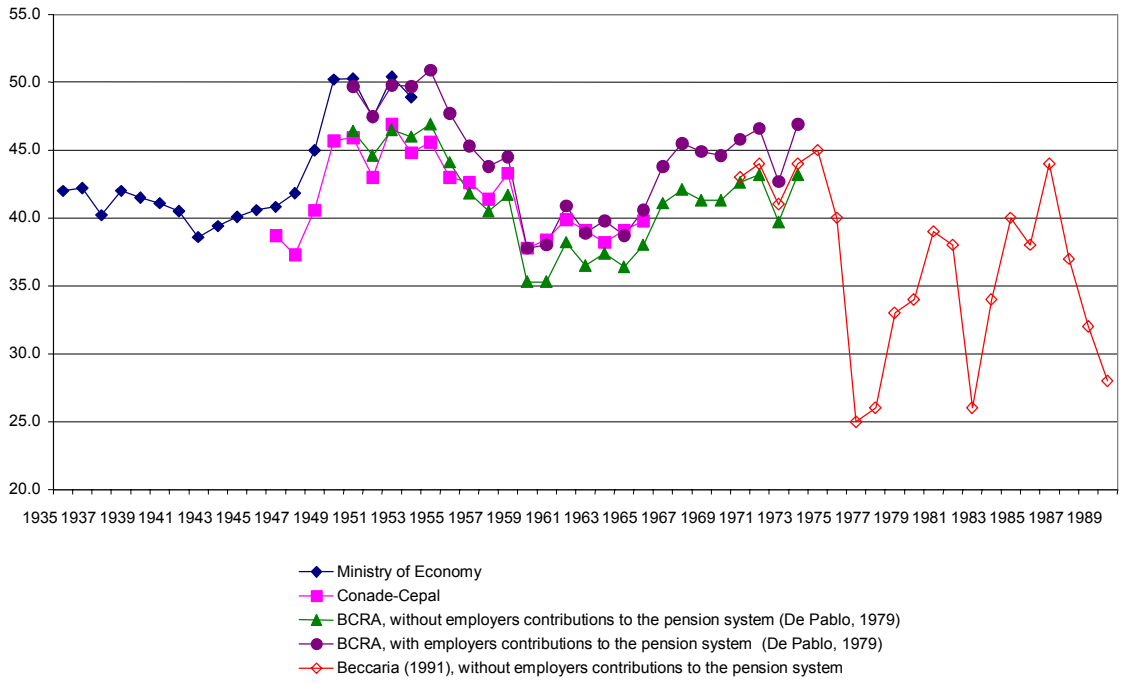
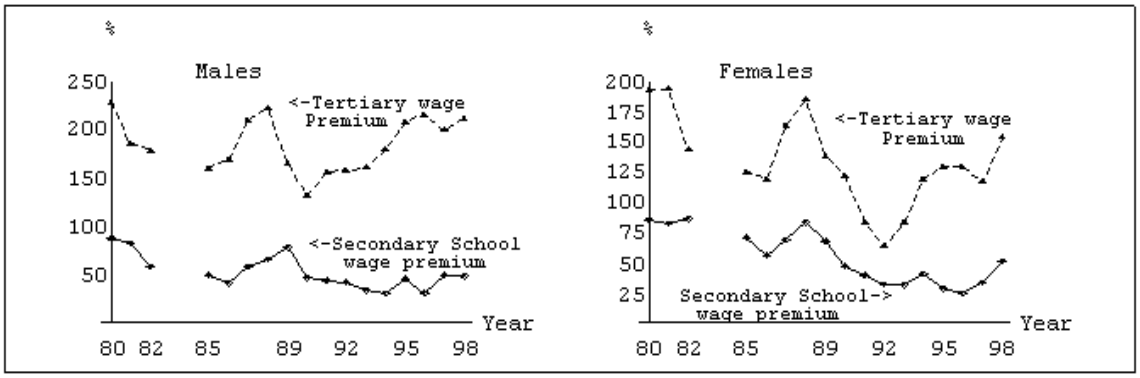


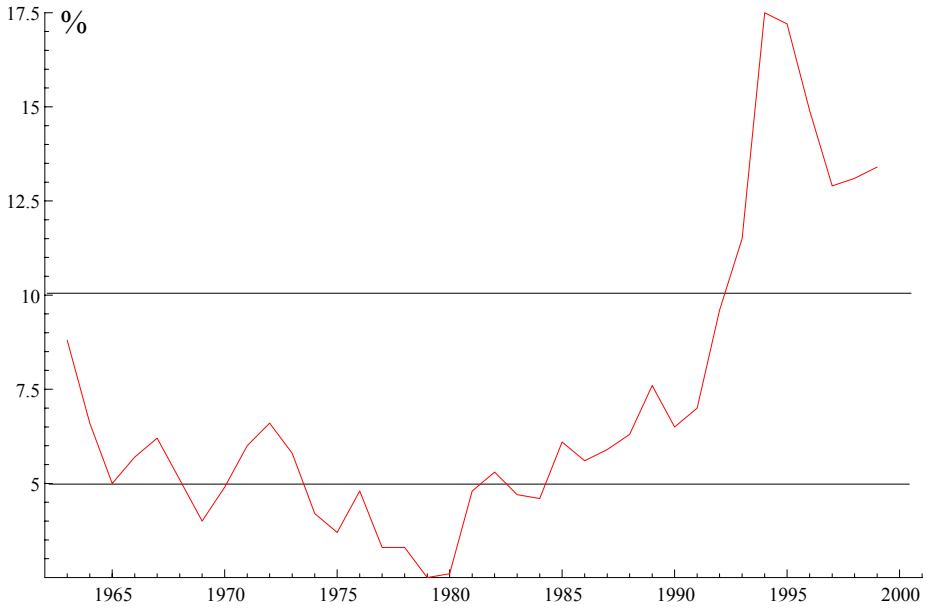
Figure 7: Skilled and semi-skilled workers wage premia

(Base category: unskilled workers)



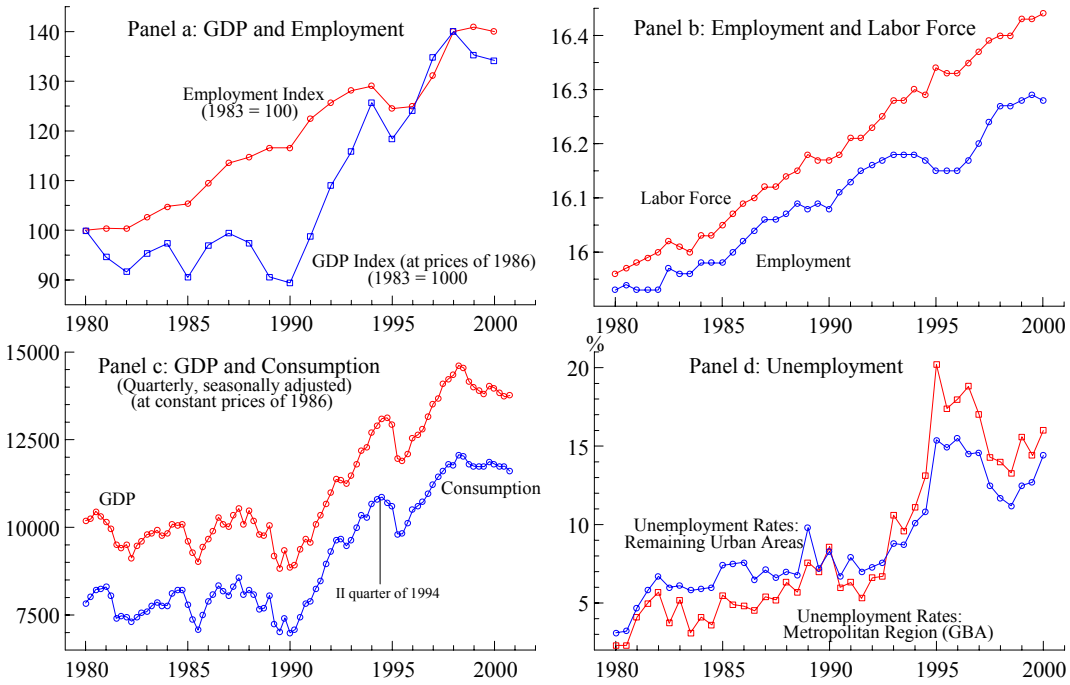
Notes: The figures report the evolution of the educational wage premia by gender. These statistics are derived from the coefficients of a wage equation where the dependent variable is the logarithm of the hourly wages and among the covariates there is a set of educational dummies and a quadratic function in potential experience. The equations are estimated separately by gender. The dependent variable is the logarithm of the hourly earnings of the sampled individuals in their main occupation. For employees, this variable is equivalent to the hourly wages. The schooling group *g* wage premium in year *t* is the expected percentage increase in the wage of a worker whose level of education is *g* with respect to the expected wage of an unskilled worker. The yearly data is taken from the October wave of the Household survey for Greater Buenos Aires (GBA). There are not data tapes available for the years 1983 and 1984. Source: Galiani (1999).

Figure 8: Urban Unemployment rates (%)



Source: author's elaboration based on household surveys.

Figure 9: The Argentine economy in recent years.



Sources: Panel a: ECLA and INDEC press reports; b: household survey, all urban agglomerates; c: ECLA; d: INDEC Press Reports.

Notes

[1] If a modern labor market is defined as a labor market in which trade rules are based on a contractual system, and, perhaps, on a well-developed system of collective bargaining, then all developed countries achieved the transition to a modern labor market immediately after World War II. Without a doubt, this transition was initiated at different points in time and in different ways across countries. For example, the Argentine transition was considerably more abrupt than the U.S. transition, although, at least in terms of collective action, the Argentine transformation was more deeply rooted.

[2] Although it frequently has been asserted that globalization has undermined job stability ubiquitously, there is not substantial evidence in favor of this hypothesis in developed countries (cf. Burgess and Rees 1996 and Farber 1998).

[3] Historically, U.S. employers were expeditious to suppress emerging unions, whereas British employers accepted unions. This difference of attitude was due to the fact that U.S. employers faced greater competitive pressures than did British employers (see Booth 1995).

[4] It may be useful to consider an economy populated by agents that have preferences of the Dixit-Stiglitz type, in which domestic firms' share in the industry total output is higher the more closed is the economy.

[5] Thus, labor market institutions crucially depend on the prevailing preferences on the

distribution of outcomes in society.

[6] We have chosen these phases in order to account for different labor market processes and not necessarily because of the realization of breaks at the boundary dates of any of these periods. We have in mind models of development that shape these processes, and hence, strictly speaking, we are dating latent processes. In any case, singling out a particular date is a convention and not something prone to instigate too much opposition.

[7] The Atlantic economy has witnessed three periods since the mid-nineteenth century: the late-nineteenth century *Belle Époque*, the dark ages between 1914 and 1950, and the late-twentieth century renaissance. The first and last epochs were ones of convergence and globalization; the middle epoch was one of divergence and global devolution (see O'Rourke and Williamson 1999). Only the U.S. labor market has matched the late evolution of the Atlantic economy; both European and Argentine labor markets have had a longer period of modern institutional (or rigid) labor markets than the U.S.

[8] See Sábato (1985) for an excellent description of the Argentine labor market during the period 1850–70.

[9] If the World War I period is not considered, this is a period of both absolute and comparatively rapid economic growth – although it is worth noting that there is not agreement about the phases of Argentine economic growth (see Díaz-Alejandro 1988 and Di Tella and Zymelman 1967).

[10] The segmented international labor market of this affected Argentina, which drew most

of its migrants from relatively low-wage areas of Europe, principally Italy and Spain (Taylor 1994).

[11] It is useful to consider the Ricardian model to understand the rapid growth of the country and its development during the late-nineteenth century. At the heart of the Ricardian system is the notion that economic growth must slow down, owing to the scarcity of natural resources. The system can be outlined by supposing that the whole economy consists of a giant farm engaged in producing wheat by applying homogenous doses of "capital-and-labor" to a fixed supply of land subject to diminishing returns. As less productive land is incorporated to production, output still increases but at a diminishing rate, implying that output per capita decreases.

Thus, a progressive extension (until exhaustion) of the agricultural frontier would induce a period of rapid growth, necessarily followed by a slow down, such as we have observed in Argentina during this period. Of course, this story could have been different if the world factor markets did not collapse after the crisis of 1929. Thus, for example, during the 1920s industrialization developed at a fast pace, and it is not really possible to argue that it accelerated during the 1930s, a period often considered to be the takeoff of industrialization in Argentina (see Gutierrez and Korol 1988 and Villanueva 1972). Hence, a growing and relatively more efficient industrial sector could have mustered a high and sustainable growth rate of output per capita based on technological innovation. Certainly, developments in the labor market could have been different as a result.

[12] The history of the industrial relations of the meat industry in Argentina have, perhaps

not surprisingly, a parallel with the development of the labor market of the manufacturing sector, although the meat industry expanded relatively earlier than the rest of the manufacturing sector. Lobato (1998) carefully documents the evolution of labor relations in the meat industry in Berisso, Buenos Aires between 1907 and 1970. From its beginning to its decline, *Frigorifiques,* Swift and Armour, were the mayor employers of Berisso: in 1907, Swift alone had 3,000 employees. However, the number of workers fluctuated widely each day (for example, during a random month in 1915, the number of employees at Swift fluctuated nonmonotonically between 3,190 and 4,070). During this period, the labor market of the meat industry resembled a spot market. The manager of personnel chose among workers at the door to the *frigorifique* where many workers waited in line for "…you, you, and you." Between 1907 and 1930, 80 percent of the workers of Swift had completed employment spells of less than a year, even though many of them had worked for the firm in several prior years. From the stories collected in Lobato (1998), we infer that workers could be fired for any reason and be recalled back, even during the same month.

The relationship between the workers and the *frigorifique* was plagued with conflicts. Among them, the argument over the extension of the working day predominated in the first decades of the century, while wages were the main conflict during the collective bargaining era. Additionally, workers strove for better working conditions: an infirmary was built in 1912 and a new medical service was opened in 1936. The dining room dates from the 1920s and the kindergarten from the 1940s. However, in both the social and productive spaces, hierarchies among laborers were well defined, and it was only during

the 1940s that most workers got access to these benefits.

During the 1940s, workers also battled for wage stability. Workers' performance was measured by outcome and, hence, their remuneration was highly volatile. In 1944, the government established a minimum payment scheme: every worker had to receive a minimum payment of 60 hours every two weeks, regardless of the time they worked during that period. Thus, the flexibility of labor relations in the industry was seriously broken.

The 1960s were a period of severe conflicts between workers and the *frigorifique*s. During the first five years of the decade, the motive of conflict was wages. During the last part of the decade, the industry entered a nonreversible decline; workers bargained over employment, opposing suspensions and layouts. By then, the industry trade union was powerful (by way of example, the strike of 1961 lasted 100 days). In 1969 Armour closed its doors. A year later, the multinational company that administered Swift went bankrupt, and Swift was then run by the Argentine state. Ten years later, Swift also closed its doors.

[13] However, this model does not explain the timing of movements, but instead just conditions on the (endogenous) wage differential between the country of origin and destination. The authors also find that emigration was positively affected by the rate of natural increase lagged twenty years, and that there is strong evidence of persistence in emigration rates as reflected in two variables: the emigration rate in the previous decade and the stock of previous emigrants living abroad.

[14] Immigrant labor was mobile. They displayed scant concern for long-term commitments that would impede their mobility. This coincided with the kind of labor force required in Argentina during this period (Adelman 1994).

[15] In addition, workers were divided by cultural differences.

[16] It is worth noting that this period may itself be divided into three subperiods. A first period of mild, general industrial protection was mainly achieved through commercial and exchange rate policies and extended into the early 1940s. A second period of high levels of industrial protection in which the light manufacturing sectors were heavily promoted concurrently with redistributive polices that stimulated the domestic market spanned the first Peronist government. The final period was one in which the heavy manufacturing sectors were resolutely promoted coupled with the development of extensive infrastructure projects (cf. Díaz-Alejandro 1970 and Gerchunoff and Llach 1998).

[17] Furthermore, constitutional governments also controlled unions through political power, and hence, restrained the unions' capacity for bargaining and demand. This was particularly true during the Peronist governments between 1946 and 1955 (Doyon 1984).

[18] Union members have always been granted privileged attention in the system over nonunion members.

[19] Obviously, the reading of the evidence crucially depends on the underlying view of the business cycle: if it is believed that nominal (as opposed to real) variables determine

output, it may be argued that it is the increased rigidity of nominal wages that made output less volatile.

[20] To check the specifications reported we ran a set of specification tests. We tested the null hypothesis of no first-order residual autocorrelation, the null of no first-order autocorrelated squared errors (in both cases we report the preferred *F*-statistic), and the null hypothesis of correct specification of the original model against the alternative that powers of the predicted value of the dependent variable have been omitted in the specification of the model (the RESET test). For both specifications reported in Table 4, we do not reject the null hypotheses of these tests at the conventional level of statistical significance (the statistics and the *p*-values are reported in Table 4). Additionally, a graphical analysis, based on recursive estimation of the models, shows that the null hypothesis of constancy of the parameters of the empirical models reveals no problems.

[21] State intervention in wage determination was a characteristic of the modern era until the 1990s when price stability was finally achieved. This shows that the modern era was, perhaps, not that modern after all.

[22] The development of trading institutions in the 1950s and 1960s laid the ground for a massive growth in the global economy. World trade was further liberalized in 1973.

[23] However, highly centralized wage bargaining systems may overcome some of the externalities generated by decentralized collective bargaining and moderate wage pressure. The problem for the fully unionized economy is the potential fragility of the coordination element. Coordination has elements of instability for all the usual reasons

displayed in standard oligopoly models (see Nickell and Layard 2000).

We are also not arguing that high inflation was the result of wage pushes. What we are arguing is that if money growth were suppressed, wage demands still would have been inconsistent with price stability.

[24] The military governments that ruled the country between 1976 and 1983 attempted to discipline unions by temporarily suppressing collective bargaining and some other syndical rights – an illegitimate and myopic strategy that did not work in the end.

[25] As part of the macroeconomic program of the military government a wide although gradual program of trade liberalization was implemented. The program itself was used as an instrument to reduce inflation, and the timing of tariff reduction was accelerated at the end of the 1970s when the stabilization program was not producing sufficient gains in reducing inflation (see Canitrot 1980 and 1981).

[26] Distributive conflicts are less inflationary in an environment of increasing productivity growth than in one of decreasing productivity growth.

[27] This subsection is based on Galiani and Nickell (1999).

[28] The data are from the Household Survey Supplement of 1990.

[29] Indeed, the requirements are strict but every unionized worker with some tenure qualifies. For that reason, coverage was higher in 1993 when the manufacturing sector was shedding labor. However, as the unemployment inflow has become dominated by

employees ending fix-term contracts and self-employers, the coverage of the system has been reduced to minimum levels.

[30] The empirical results of this subsection are taken from Galiani (2000).

[31] Of course, this is just a lower bound estimate of the total impact of immigration on population growth (see Taylor 1994).

[32] Of the 110,000 nonnative residents in the census of 1980 that did not live in the country before 1976, over 90 percent of them were borders immigrants.

[33] The female labor force participation rate in Argentina reported in Table 9 is above the one reported in Table 8 for 1991 because the former is the participation rate of densely populated urban areas only while the census figure covers the whole country. Similarly, these statistics differ because Table 9 only covers the population of Greater Buenos Aires, which is the area densely populated area.

[34] For a more detailed study of growth accounting in Argentina for the period 1950–2000 see Hopenhayn and Neumeyer (2001).

[35] The figure of 50.9 percent includes employers' contribution to the social security system; it was 46.9 percent excluding them.

[36] For example, the Lorenz curve of 1974 stochastically dominates the Lorenz curve of 1999.

[37] Unemployment is measured through representative household surveys. Thus, it is a

statistical construction of the second half of the century. Bunge (1928) and the Ministry of Labor (Comité Nacional de Geografía, 1941) developed an occupation index for the period 1914 to 1940 for Buenos Aires, which was used to estimate unemployment rates during that period. However, these estimates of unemployment are not comparable to any statistic derived from a modern household survey.

[38] The sharpening of the contraction is shown by the fact that between the last quarter of 1994 and the third quarter of 1995 domestic demand decreased 14 percent, investment fell 30 percent, and GDP decreased 10 percent.

[39] Indeed, the labor force grew fast during the whole period.

[40] There are reasons to expect that labor reallocation took place during the 1990s, as the privatized firms reduced their employment and, most importantly, the manufacturing sector faced a substantial decrease in its relative prices as it faced stronger foreign competition.

[41] It is sometimes argued that the rapid productivity growth of the early 1990s generated high unemployment because if output growth remains fixed, higher productivity growth must lead to lower employment growth. Of course, output growth does not remain fixed. Under sensible macroeconomic policies, output will expand with the supply potential of the economy.

[42] Between 1945 and 1953 collective bargaining was also unfettered although it was regulated by decree and not by law.

[43] Although employer organizations are regulated by civil law, they deserve consideration here, given that employer organizations are parties to collective bargaining. In Argentina, these are pluralist organizations, which frequently are structured federatively (associations, chambers, or federations). Any of them may coexist with other important employer organizations in the same activity. Finally, the employer position in bargaining (indeed the position of each party) is decided by majority rule.