

Mercosur and the behavior of labor markets in Argentina and Uruguay*

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* Rodrigo Arim has performed an excellent job as a research assistant.

1. Introduction

The aim of this paper is to study the evolution of labor market in Argentina and Uruguay since Mercosur has come into effect. The establishment of Mercosur since 1991 has been associated with a significant increase in trade among member countries. This increase in trade flows could potentially have effected labor and wages decisions taken by families and firms in these two economies. In this paper we empirically document these trade-related impacts and we assess whether Mercosur has implied a more integrated regional labor market.

We start in section 2 describing the evolution of labor market institutions in both countries and we make an assessment whether regulations, taxes and other policies affecting labor have tended to converge since the establishment of the trade agreement. The main conclusion is that there has been no official attempt to move in the direction of integration of the labor markets across the MERCOSUR countries. This is a pending issue in the integration agenda. What is more, there are appreciable differences among the labor market institution between Argentina and Uruguay and, more generally, between Argentina and the rest of the Mercosur members. Thus, an agenda that favors the convergence of labor market institutions between the Mercosur countries is required.

Section 3 gives an account of the behavior of trade flows both within Mercosur and with the rest of the world. We show that regional trade has increased substantially and also that the composition of trade has changed significantly. In particular, trade within the area has been more diversified compared to that conducted with the rest of the world.

The impact of trade developments on production and employment structures is studied in section 4. There we show that the production and employment structure of Argentina and Uruguay has moved against manufacturing and in favor of services. In particular, industry employment fell very significantly since the beginning of the nineties and this can be in part associated to the process of trade liberalization. Still, Argentina and Uruguay show different responses. While in the case of Argentina the fall in employment

seems to be associated with increasing competition that industries faced with imports coming from the rest of the world (with almost no significant effect, on average, from Mercosur partners), in the case of Uruguay, Mercosur imports are negatively and significantly correlated with industry employment. Thus, we conclude that in the case of Uruguay Mercosur trade flows have been a determinant of industry job destruction.

In section 5 we analyze the trends in relative wages, both in terms of the differential by educational level as well as the evolution of inter-industry wages. We find that in both countries the risk premium associated to university education has raised during the nineties. As we indicate (based upon evidence reported in Galiani and Sanguinetti (2000) and in Sanguinetti et al (2001b)), in the case of Argentina part of this increase can be related to trade deepening, while in the case of Uruguay the association is weak. Regarding inter-industry wage differentials, using micro-data wage regressions, we estimate sector-specific wage premium. We find a clear and similar pattern in the rankings of sectors in both countries. Thus, textile products, wood production, retail trade, hotel and restaurants and construction are at the bottom of the ranking. On the other hand, the financial and insurance services, electricity gas and water, communications, real state services and the chemical industry are at the top of the rankings.

In order to test the hypothesis that trade liberalization and Mercosur affected the inter-industry wage differentials, we calculated the Spearman rank correlation coefficients between the structures of the wage premia during the period 1991/94 and the period 1995/99. For both countries, we cannot reject the hypothesis that the ordering of the inter-industry wage differentials is the same in both periods. In other words, we do not find evidence that the Mercosur and the trade liberalization policies adopted during the early 90s have had a noticeable impact in the wage premium by activity. On the other hand, we do find some evidence that Mercosur generated a convergence process in the inter-industry wage differentials between Argentina and Uruguay. An overall assessment of the impact of Mercosur in Argentina and Uruguay's labor markets is provided in the concluding section.

2. Labor markets institutions

In order to outline the characteristics of labor market institutions in Argentina and Uruguay we compare the different regulations applied in these economies to labor with those in place in OECD countries. We shall consider labor taxes, trade unions and the structure of wage bargaining, laws and regulations governing employee's rights, the social security system and the treatment of the unemployed worker. Finally, we briefly discuss convergence in regulations the Mercosur area.

2.1 Taxes on labor

Under this heading, we include payroll taxes, income taxes and consumption taxes. Of course, this is to some extent an arbitrary choice since some income taxes fall on capital income and individuals who are out of the labor force pay consumption taxes. However, taxation and labor typically operates via the wedge between the real cost of a worker to an employer and the real consumption wage of the worker. Consider a representative firm in a closed economy producing GDP. Then real labor cost per worker is W/P where W is nominal labor cost per worker and P is the GDP deflator (at factor cost). The corresponding consumption wage, assuming workers consume GDP, is $W(1-t_1)(1-t_2)/P(1-t_3)$ where t_1 is the payroll tax rate, t_2 is the income tax rate and t_3 is the consumption tax rate. The tax wedge is $(1-t_1)(1-t_2)/(1-t_3) - [1 - (t_1+t_2+t_3)]$.

Thus, in general, we may expect the labor market consequences of taxation to operate via the sum of the three tax rates, $(t_1+t_2+t_3)$. However, there are some exceptions. For example, because unemployed individuals are not liable for payroll taxes, but do pay income and consumption taxes, the payroll tax rate alone (t_1) is considered important. Furthermore, the above analysis is based on proportional linear tax schedules. If, for example, the income tax schedule is progressive, then marginal tax rates may have an impact, which is independent of the average tax rates, and the degree of progressivity may be important.

In Table 1, we present some information on tax rates across the OECD and in Argentina and Uruguay. In the first column, we have the payroll tax rate, defined as the ratio of labor costs to wages (less unity). In the second, we add to this the average income and consumption tax rates derived from aggregate tax and income data.

The key features of these numbers are first, the enormous variation in payroll tax rates stretching from Denmark, where the government levies no social security taxes on firms, to France and Italy with rates close to 40 percent. Second while there is less variation in the other two columns, it is clear that the total rates in Europe are, with the exception of the UK, Switzerland and Portugal, higher by 10 to 20 percentage points than the other countries, with the Nordic countries being the highest of the lot. This is the consequence of higher levels of public expenditure in continental Europe than elsewhere, mainly focused on more generous social security and pension benefits, and the public provision of health care and higher education. Finally, the payroll taxes in Argentina and Uruguay are just above the median OECD rate, but the situation regarding the total tax wedge differs between these two countries: while in Argentina the total tax wedge is well below the continental European level and is similar to the OECD countries outside Europe, in Uruguay the tax wedge approximates that of the continental European countries.

Table 1 Tax rates on labor: 1989-96

	1 Payroll tax rate (%) t_1	2 Total tax wedge (%) $(t_1 + t_2 + t_3)$
Austria	22.6	53.7
Belgium	21.5	49.8
Denmark	0.6	46.3
Finland	25.5	65.9
France	38.8	63.8
Germany (W)	23.0	53.0
Ireland	7.1	34.3
Italy	40.2	62.9
Netherlands	27.5	56.5
Norway	17.5	48.6
Portugal	14.5	37.6
Spain	33.2	54.2
Sweden	37.8	70.7
Switzerland	14.5	38.6
UK	13.8	40.8
Canada	13.0	42.7
US	20.9	43.8
Japan	16.5	36.3
Australia	2.5	28.7
New Zealand	-	34.8
Argentina (pre 1996)	33.0	49.2
(post 1996)	23.9	40.1
Uruguay (1989)	30.4	48.9
(2000)	30.1	51.7

Notes: (1) Center for Economic Performance (LSE) OECD data set. Defined as the ratio of labor costs to wages (less unity). Note that this include pension and other mandated payments by employers. Argentina: employer mandated payments as a percent over wages: Pension system 16, employees benefits: 7.5, Employment National Fund: 1.5, employees health system (*obras sociales*): 6 and National Institute of Pensioned Social Services (INSSJYP): 2. Since 1996, employees' health system contributions were reduced to 5 percent while the other mandated payments have been reduced between 30 and 80 percent depending on the geographical area. We compute the payroll tax applying a reduction of 30 percent. The figures pre-1996 are computed under the tax/wage legislation of 1995. Uruguay in 1986, employer mandated payments as a percent over wages: Pension system 13, employees benefits 12.4, tax on nominal wages 1, employees health system 4. Since 2000 employer's contribution to the pension system were eliminated for the manufacturing industry and reduced to 12.5 for the other sectors. At the same time, the employment benefit was incremented to 14 percents and in 1996 was created a Employment National Fund with a contribution of 0.25 percent by the employers. We compute the average payroll tax take as weight the participation of each sector in all economy.

(2) Center for Economic Performance (LSE) OECD data set. Defined as the sum of the payroll tax rate, the income tax and the consumption tax rate. The latter are average rates derived from national income accounts including total tax receipts from different types of taxes. See "Data sources" in Bean et al (1986) for details. Argentina figures refer to 1995. t_1 is estimated from the aggregate information provided in Duran and Collar (1996), tables 2 and 3. t_3 Duran and Collar (1996) table 2 provides the 1995 figures for indirect taxes as proportion of GDP. We multiply this figure by the GDP to consumption ratio (at 1996 prices) to obtain the indirect tax rate. For Uruguay, we estimate the average consumption tax from the structure of the consumption reported in the Survey of Income and Expenses the Household (1995)

2.2 Trade Unions, wage bargaining and minimum wages

Both Argentina and Uruguay have a tradition of strong trade unionism and centralized wage bargaining. In this subsection, we present some indicators of trade union activity in these two countries. Again, we will compare these indicators with those of the OECD nations to have a reference point. In the first two columns of Table 2 we present 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, 1 is 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, non-union workers typically get the union negotiated rate and because, in many countries, union rates of pay are legally “extended” to cover non-union firms (see OECD, Jobs Study, part III, 1994, p15 for details). In Argentina around 45 percent of employees belong to a union and half the employees are covered while in Uruguay the percentage of the employees that belongs to a trade union is much lower; it is 18 percent. Additionally, in Uruguay, only 25 percent of the employees are covered by collective agreement. In both countries, most of the covered workers work in large firms. Workers in small firms (<25 workers) are typically not represented by a union (data obtained from the Household Survey Supplement, 1990 and Cassoni, 1999).

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 may ostensibly occur at the level of the individual firm. Coordination may be distinguished from centralization, which refers strictly to the level at which bargaining occurs; plant, firm, industry or economy. Of course, economy-wide bargaining must be coordinated but highly coordinated bargaining need not be centralized (as in Japan or Switzerland). In the last three columns of

Table 2, we present indices of union coordination and employer coordination, and a centralization ranking due to Calmfors and Driffill (1988). The coordination indices go from a low level of 1 to a high level of 3 whereas the most centralized economy has the rank 1. The most coordinated and centralized economies are those of Scandinavia and Austria followed by continental Europe and Japan. The Anglo-Saxon economies, including that of Ireland, exhibit little or no coordination, despite having quite high levels of union density and coverage in some cases.

Turning to Argentina, we find 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's federations. Further wage agreements may be struck at lower levels right down to the firm level using the industry-wide agreement as basis, particularly in recent years (see Aldao Zapiola et al, 1994, MTSS, 1995, 1997). There is no evidence of any coordination of bargaining across industries nor is there any coordination in the timing of the separate bargains. Turning to Uruguay, until the early nineties, wages were also determined by industry-wide bargains struck between a national industry union and one or more employer's federations. Nevertheless, since the mid-nineties, wage bargaining has been decentralized and now most collective agreements are achieved at the firm level. Only four industry sectors continue bargaining at the industry level: construction, health, transport and banking. However, in the first three sectors, the State still maintains a strong participation in the determination of the wages.

Since this notion of coordination is important, it is perhaps worth digressing at this point on the issue of whether coordination/centralization makes any significant difference to the workings of the labor market. To put it bluntly, is there any evidence that the distinctions between high and low levels of coordination/centralization are real ones? First, we have evidence that firm industry level wages are more responsive to firm/industry level shocks in economies where wage bargaining is less co-ordinated/centralized. Thus, in Layard et al (1991) chapter 4, table 4 we see that in US, firm wages are highly responsive to firm specific shocks, in Germany and the UK, their responsiveness is moderate and in the Nordic countries, their responsiveness is negligible.

Table 2: Trade Unions and Wage Bargaining (1988-94)

	1 Union Density (%)	2 Union Coverage Index	3 Union Co-ordination	4 Employer Co-ordination	5 Centralization Ranking
Austria	46.2	3	3	3	1
Belgium	51.2	3	2	2	1
Denmark	71.4	3	3	3	4
Finland	72.0	3	2	3	5
France	9.8	3	2	2	11
Germany (W)	32.9	3	2	3	6
Ireland	49.7	3	1	1	12
Italy	38.8	3	2	2	13
Netherlands	25.5	3	2	2	7
Norway	56.0	3	3	3	2
Portugal	31.8	3	2	2	11
Spain	11.0	3	2	1	11
Sweden	82.5	3	3	3	3
Switzerland	26.6	2	1	3	15
UK	39.1	2	1	1	12
Canada	35.8	2	1	1	17
US	15.6	1	1	1	16
Japan	25.4	2	2	2	14
Australia	40.4	3	2	1	10
New Zealand	44.8	2	1	1	9
Uruguay	18.0	1	1	1	-
Argentina	45.0	2	2	1	-

Notes: (1) OECD Jobs Study (1994), table 5.8, column 3. Trade union members as a percentage of all wage/salary earners. Argentina: 1991/4, Feldman (1995). (2), (3), (4) Layard, et al (1991), annex 1.4 and OECD Employment Outlook (1994a), pp. 175-85. 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. Argentina: 1995, FIEL (1997), column 2 only. For columns 3 and 4 see text. (5) Calmfors and Driffill (1988), table 3. A ranking of the centralization of wage bargains with 1 being the most centralized.

A second piece of evidence on the distinctiveness of coordinated wage bargaining systems is the fact that average wages are far more responsive to the state of the labor market in countries where wage determination is coordinated (see Layard, et al 1991, chapter 9, table 7). Finally, and not surprisingly, higher centralization/coordination is associated with lower levels of earnings inequality at given levels of union density and coverage (see OECD, 1997, chapter 3, table 3.B.1).

The wage bargaining structure is the most salient labor market institution. Indeed, the evidence suggests that labor market performance is mainly affected by the wage bargaining structure and the unemployment benefit system. Only Argentina has wage bargaining at the level of industry. In addition, in Argentina, the level of coordination is the lowest level possible for this type of wage bargaining structure. This type of wage bargaining, when coordination is not high, is prone to induce wage leapfrogging and, hence, a higher

equilibrium unemployment rate. Contrary, in the rest of the Mercosur countries (Brazil, Uruguay and Paraguay) and in Chile, wage bargaining is conducted at the firm level.

Looking next at minimum wages, the picture here is by no means uniform, because some have statutory minimum wages whereas others rely on extending collective bargaining agreements. In Table 3, we report the ratio of the minimum wage to average earnings as well as an estimate of the percentage of workers at or near the minimum.

A number of points are worth noting. First, there is substantial variation in the ratio of the minimum to the average wage, although the number of workers affected depends also on the spread of the earnings distribution. Thus, it appears that no one receives the minimum wage in Sweden despite that it is over 50 percent of the average wage. By contrast, around 4 percent of the workforce in the US is at or near the minimum wage even though it is less than 40 percent of the average. Second, there are crucial differences between countries on the application of minimum wage rules to young people. Thus, for example, in New Zealand and the Netherlands the minimum wage for those aged under 20 is only 60 percent or less of the adult rate. In the US and France, by contrast, there is

Table 3: The significance of the minimum wage in the 1990s

	Ratio of Minimum to Average Wage	Percent of workers at or near minimum
Austria	0.62	4
Belgium	0.60	4
Denmark	0.54	6
Finland	0.52	
France	0.50	11
Germany (W)	0.55	
Ireland	0.55	
Italy	0.71	
Netherlands	0.55	3.2
Norway	0.64	
Portugal	0.45	8
Spain	0.32	6.5
Sweden	0.52	0
UK	0.40	
Canada	0.35	
US	0.39	4
New Zealand	0.46	
Uruguay	0.29	4.5
Argentina	0.31	5

Notes: Source: Dolado et al (1996) table 1. OECD Job Study part II (1994) cart 5.14. Argentina: Household Survey (1997). The data include all the employees reporting wages for a 30 days period, over 18 years of age and exclude rural and domestic workers.

hardly any such adjustment (details can be found in Dolado et al, 1996, table 1, and OECD Jobs Study, part II, 1994, pp. 46). Finally, the statutory minimum wage in Argentina and Uruguay is rather similar to that in the US. It is set at a low level compared to the average wage and some 5 percent of employees have pay rates at or near to the minimum.

2.3 Laws and regulations governing employees rights

Under this heading, we consider two sets of rules and regulations, those that might come under the heading of the job security or employment protection, and those governing standards at work such as regulations on working time.

Employment Protection

In Table 4, we report some information on European employment protection laws alongside those of Argentina and Uruguay.

Table 4: Employment Protection (Late 1980s, Argentina, 1997)
Indicators of the “strictness” of employment protection legislation

	Regular procedural Inconveniences			Notice and severance pay for no-fault Individual dismissals						Difficulty of dismissals		
	Procedures	Delay to start of notice	Notice period after			Severance pay after			D	Trial Period	At 20 y	R
			9 m	4 y	20 y	9 m	4 y	20 y				
	Scale 0 to 3	Days	Months			Months			Scale 0 to 3	Months	Scale 0 to 3	
Austria	2.0	5.0	0.8	1.2	2.5	0.0	2.0	9.0	1.0	1.0	9.0	1.0
Belgium	1.0	3.0	2.0	3.6	11.4	0.0	0.0	0.0	0.0	3.3	12.5	0.0
Denmark	0.5	0.0	1.6	2.8	5.0	0.0	0.0	1.5	0.0	3.0	9.0	1.0
Finland	2.0	56.0	2.0	2.0	6.0	0.0	0.0	0.0	0.0	4.0	20.0	0.0
France	1.5	12.0	1.0	2.0	2.0	0.0	0.4	2.7	0.0	1.2	15.0	0.0
Germany	3.0	10.0	1.0	1.0	4.5	0.0	0.0	0.0	2.0	6.0	18.0	2.0
Greece	2.0	1.0	0.6	1.7	9.0	0.3	0.9	4.6	1.0	2.0	9.0	2.0
Ireland	1.5	3.0	0.2	0.5	2.0	0.0	0.5	3.9	0.0	12.0	24.0	1.0
Italy	1.5	0.0	0.3	1.1	2.2	0.7	3.5	18.0	0.0	0.8	32.5	3.0
Netherlands	3.0	35.0	0.6	1.0	5.3	0.0	0.0	0.0	1.0	2.0	5.3	1.0
Norway	1.5	3.0	1.0	2.0	5.0	0.0	0.0	0.0	2.0	1.0	15.0	2.0
Portugal	2.0	17.0	0.8	2.0	9.1	0.2	1.7	9.3	3.0	1.0	20.0	3.0
Spain	2.25	40.0	1.0	3.0	3.0	0.2	1.3	6.0	2.0	1.7	35.0	0.0
Sweden	2.0	7.0	1.0	4.0	6.0	0.0	0.0	0.0	1.0	6.0	32.0	0.0
Switzerland	0.5	1.0	1.0	2.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0
UK	1.0	3.0	0.2	0.7	2.8	0.0	0.9	4.6	0.0	24.0	10.8	0.0
Argentina	0.0	3.0	1.0	1.0	2.0	1.0	2.0	10.0	0.0	3.0	20.0	0.0
Uruguay	0.0	3.0	0.0	0.0	0.0	1.0	4.0	6.0	0.0	3.0	6.0	0.0

Notes: (i) the variables tabulated under each key are as follows:

Procedures: procedures to be followed when issuing a regular dismissal notice; 1 for a statement in writing to the employee of reasons for dismissal, 2 for notification to a third party (works council or local employment exchange), and 3 when prior permission for dismissal must be obtained from a third party.

Delay to start of notice: the delay between a decision to dismiss and the time that notice can become effective after following required procedures in days (e.g. notification by registered letters assumed to involve 3 days).

Notice of period, 9m, 4y, 20y: the lapse between issuance of a dismissal notice and the effective cessation of employment, in months. The columns refer to workers who have been with the employer 9 months, 4 years, and 20 years respectively.

Severance pay, 9m, 4y, 20y: a lump-sum payment to the dismissed employee at the time of cessation of employment: the three columns differ as for the “notice period” above.

D= definition of unfair dismissal: scored 0 when worker capability or redundancy of the job are adequate grounds for dismissal, 1 when social considerations, age or job tenure must, when possible, influence the choice of which workers to dismiss, 2 when retraining to adapt the worker to different work must be attempted prior to dismissal, and 3 when worker capability can never be a basis for dismissal.

Trial period: the maximum length of the period after hiring during which an appeal against dismissal on grounds of unfairness cannot be made.

Compensation at 20y: the compensation payable to a worker who has been unfairly dismissed after 20 years with the employer.

Reinstatement: scored 0 if, following a court judgment of unfair dismissal, reinstatement is never granted, 1 if reinstatement is “rare”, 2 if reinstatement is “possible”, and 3 if the employee always has the option of reinstatement.

(ii) All rankings increase with the strictness of employment protection (the UK, with a 24-month trial period before unfair dismissals claims become possible, is ranked 1 for this variable). The summary rankings for each subheading in panel B are ranks of the unweighted average of the ranks of each variable shown in Panel A and the overall ranking in Panel B is the rank of the unweighted average of the first 3 columns.

Source: Table 6.5, OECD Jobs Study, 1994. Argentina: the numbers are based on the 1974 Contract of employment law (20.744) as modified by law 21.297 and the 1991 National employment law (24.013) and laws 24.465 and 24.467 on contracts.

Note that in all these rankings, a higher number means a stricter system. As we can see, Argentina and Uruguay have a relatively generous system of severance pay. On the other hand, the actual procedures (e.g. notice period, etc.) are straightforward. Overall, Argentina and Uruguay lies about half way up the OECD ranking, well below the strict

systems of Southern Europe but offering more job security than is standard in North America.

General Labor standards

Laws referring to the treatment of employees by companies include regulations on working hours, annual leave, health and safety, employee representation rights, workers compensation insurance as well as those on fixed term contracts and job security which we have already mentioned. In order to give an impression of where Argentina and Uruguay stand in relation to the OECD countries, we present in Table 5 a synthetic labor standards index as well as some background information on statutory leave and parental leave associated with childbirth. The labor standard index is produced by the OECD and refers to the strength of the legislation governing a number of aspects of the labor market. Each country is scored from 0 (lax or no legislation) to 2 (strict legislation) on five dimensions: working hours, fixed term contracts, employment protection, minimum wages and employees' representation rights. The scores are then summed, generating an index ranging from 0 to 10. The overall impression generated here is one of minimal labor market regulations and entitlements in the US and UK and strict regulation with generous entitlements in much of continental Europe. Argentina and Uruguay are around half way between these two extremes.

Table 5: Employee Rights

	1	2	3
	Labor Standards 1985-93	Minimum Annual Leave (week) ^a 1992	Duration of Parental Leave (weeks) 1995
Austria	5	5	104
Belgium	4	4	(260) ^b
Denmark	2	5	28
Finland	5	5	156
France	6	5	156
Germany (W)	6	3	156
Ireland	4	3	18
Italy	7	None	46
Netherlands	5	4	40
Norway	5	4.2	52
Portugal	4	3-4.4	40
Spain	7	5	52
Sweden	7	5.4	78
Switzerland	3	4	14 ^c
UK	0	None	40
Canada	2	2	38
US	0	None	12
Japan	1	2	52
Australia	3	4	52
New Zealand	3	3	52
Argentina	5	2	26
Uruguay	5	2	26

Notes: (a) In addition to public holidays that range from 8 days in Switzerland to 13 in Austria. (b) this is not comparable to the other numbers since it refers to the career brake total, which can be allocated at will. (c) 1988.

(1) OECD Employment Outlook (1994 a), table 4.8, col. 6 extended by author. This is a synthetic whose maximum value is 10 and refers to labor market standards enforced by legislation on, successively, working time, fixed-term contracts, employment protection, minimum wages and employees representation rights. Each of these is scored from 0 (lax or no legislation) to 2 (strict legislation) and the scores are then added up. Argentina: working time legislation is strict; fixed term contract regulations are similar to Portugal which the OECD scores as 1; employment protection ranking is close to Netherlands and Norway, both scored as 1 by OECD; minimum wages are really low, similar to the US federal minimum wage, scored as 0 by OECD; employee representation rights we score as 1. (2) OECD Jobs Study (1994), Part II, table 6.12. Argentina and Uruguay: two weeks is the absolute minimum. In Argentina, as job tenure increase the entitlement rises to 5 weeks when tenure exceeds 20 years. Rodriguez Mancini (1996). (3) OECD (1995), table 5.1 and Rhum (1996) table 1. Argentina: 26 weeks is the maximum entitlement although 13 of these weeks is paid at full salary by the social security system. Martinez Vivot (1996).

Benefit System and Active Labor Market Policies

The key features of the unemployment benefit system are the amount of benefit and the length of time for which the benefit is available. In the first two columns of table 6, we present the replacement rate (the share of income replaced by unemployment benefits) and the duration of these benefits (four years means indefinite duration). Benefit systems come in five main types. Barely existent, as in Italy. Miserly but indefinite, as in Britain, Ireland, Australia and New Zealand. Averagely generous but fixed term as in Japan and US. Generous but fixed term as in Scandinavia. And generous and long term or indefinite as in much of continental Europe. The Argentine and Uruguayan systems fit into the

averagely generous but fixed term category although it is important to recognize that the coverage of the system is minimal in Argentina (around 9 percent of the unemployed, see MTSS, 1996, 1997, 30 percent in the case of Uruguay). This arises because of the restrictive rules on entitlement (see Rodriguez Mancini, 1996). Indeed, the requirements are strict but every unionized worker with some tenure would qualify. For that reason, the coverage was higher in 1993, for example. However, as the unemployment inflow has become more dominated by employees ending fix-term contracts and self-employees, the coverage of the system has been reduced to minimum levels.

In addition to the level of benefits, the systems in place to get the unemployed back to work are also significant. In column 3 of Table 6 we present a measure of the expenditure on active labor market policies. This includes expenditures for the unemployed on labor market training, assistance with job search and employment subsidies. The variable itself is active labor market spending per unemployed person as a percentage of GDP per member of the labor force. This variable indicates a higher than average expenditure in the unemployed in most European countries with Spain and Ireland being notable exceptions. Argentine expenditure of this type is negligible.

Table 6: The benefit System 1989-94

	1 Benefit replacement ratio	2 Benefit duration (years)	3 Active labor market policies (1991)
Austria	50	2	8.3
Belgium	60	4	14.6
Denmark	90	2.5	10.3
Finland	63	2	16.4
France	57	3	8.8
Germany (W)	63	4	25.7
Ireland	37	4	9.1
Italy	20	0.5	10.3
Netherlands	70	2	6.9
Norway	65	1.5	14.7
Portugal	65	0.8	18.8
Spain	70	3.5	4.7
Sweden	80	1.2	59.3
Switzerland	70	1	8.2
UK	38	4	6.4
Canada	59	1	5.9
US	50	0.5	3.0
Japan	60	0.5	4.3
Australia	36	4	3.2
New Zealand	30	4	6.8
Argentina	50	1	0.6
Uruguay	50	0.5	--

Notes: (1), (2) Mainly US department of health and social services, Social security programs throughout the world, 1993. See Layard et al (1991), annex 1.3 for precise details of the definitions. 4 years = indefinite. Argentina: the 50 percent rate only applies for the first four months. This decreases by 15 percent for the next four months and by 30 percent for the last four, the maximum entitlement being for one year. Rodriguez Mancini (1996). The coverage of the Argentine system is minimal (? 9 percent).

(3) OECD employment outlook (1995). The variable is dated 1991 and measures current active labor market spending as % of GDP divided by current unemployment. Expenditure on the disabled is excluded. Argentina: see Golbert (1997) for full details.

2.4 Convergence of the labor market institutions in the Mercosur

Until now, there has not been any official attempt to move in the direction of integration of the labor markets across the MERCOSUR. This is a pending issue in the integration agenda. What is more, there are appreciable differences among the labor market institution between Argentina and Uruguay and, more generally, between Argentina and the rest of the Mercosur countries. Thus, an agenda that favors the convergence of labor market institutions between the Mercosur countries is required.

Mainly, Argentina needs to move to a more decentralized level of wage bargaining. There is a worldwide trend towards decentralization, notable not so much in the decline of central bargaining as in the growth of bargaining at the firm or workplace level (see Ozaki, 1999). This results because uniform regulations concerning wages and terms of employment applied to unique situations distort productivity (see Heckman, 1997). Thus, higher competitiveness increasingly requires working out solutions to problems that are well adapted to the specific circumstances of the firm. Additionally, wage decentralization may help in achieving wage responsiveness to shocks. Decentralization makes it easier to vary relative wages.

Once Argentina moves in the direction of decentralization in wage bargaining, all Mercosur countries will have similar wage bargaining structures. The other dimension where countries may need to introduce reforms to converge among them is the severance payment system. Again, Argentina has a system more generous than the one in the rest of the countries although Uruguay also has a generous system.

The main difficulty in the convergence of norms among the Mercosur countries may reside in the fact that Argentina Unions are quite more strong and representative than the Unions in the other countries. This may explain why Argentina lacks the other countries of the region in term of reforms.

3. The behavior of trade flows in Argentina and Uruguay: Mercosur and Rest of the world.

Trade flows in Argentina and Uruguay have been subject to significant changes during the nineties in coincidence with the establishment of Mercosur. Not only regional trade has increased but also the composition of goods and services exchanged has suffered important modifications. This, in turn, may have had consequences on the production and employment patterns in both countries, issue that will be studied in the next section. In this section, as a background analysis, we analyze the main features of the trade structure in Argentina and Uruguay during the nineties, focusing on the composition of imports and exports, to both Mercosur and the rest of the world.

3.1 Total trade: Mercosur and rest of the world.

As a consequence of the trade liberalizations policies that these countries implemented since the beginning of the nineties total trade flows have increased substantially. This is clearly the case for Argentina as shown in Table 7. For this country, the trade openness indicator (export plus imports over 2GDP) almost doubled between 1991 and 2000. In the case of Uruguay, we also see a raise in this parameter though it increased in a less dramatic way. This may be explained by the fact that this country has had since the beginning of the eighties, and relative to Argentina, lower barriers to trade¹.

Table 7: Trade openness indicator (exports + imports)/(2 PIB)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Argentina	5,3%	5,9%	6,3%	7,5%	8,4%	9,3%	10,3%	10,0%	8,7%	9,0%
Uruguay	15,6%	15,3%	14,3%	14,2%	13,8%	15,1%	16,3%	16,3%	13,9%	14,5%

Source: own elaboration based upon information provided by CEI.

¹ Still Uruguay implemented some liberalization policies afterwards (Sanguinetti et al (2001), Vaillant (1999)).

A more significant change has occurred with the composition of trade flows by destination. As we see in Table 8, regional trade has raised significantly. In the case of Argentina, the proportion of export and imports originated in MERCOSUR countries was 18% of total imports and exports in 1991 and went up to 30% at the end of the decade. In the case of Uruguay, we also observe an increase in regional trade though less significant. This is because Uruguay had already in 1991 a significant proportion of its trade flows conducted with MERCOSUR countries, and this is in turn explained by the already indicated fact that Uruguay has followed a less protectionist trade policy since the beginning of the eighties.

Table 8: Evolution of Regional Trade: MERCOSUR export and imports as proportion of total trade

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Argentina	18,3%	22,1%	25,8%	25,6%	27,7%	28,9%	30,2%	30,0%	27,3%	30,2%
Uruguay	38,8%	37,9%	44,3%	49,0%	46,5%	45,4%	46,1%	48,4%	44,1%	44,1%

Source: Own elaboration based upon information provided by CEI.

We observe that regional trade, in particular exports, has also risen when measured in terms of GDP (see Table 9). Still, for the case of Argentina Mercosur sales still represent a relative small share of its total output (around 4%). For the case of Uruguay, the impact of Mercosur is instead much more significant. The proportion of exports to GDP reached a value of 8% in 1998 (doubling that of Argentina) though it decreased in the following years because of the recession affecting its Mercosur partners.

Table 9: Mercosur Exports in terms of GDP

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Argentina	1,4%	1,3%	1,9%	2,4%	3,5%	3,9%	4,3%	4,1%	3,3%	4,0%
Uruguay	5,8%	5,0%	5,5%	5,8%	5,7%	6,3%	7,2%	8,0%	5,3%	5,4%

Fuente: elaboración propia en base al CEI, INE de Bolivia y Mrio. de Hacienda de Paraguay.

3.2 The composition of export and import

To what extent the increase in trade flows has also been associated with changes in the composition of trade by commodities? Is the structure of export and imports different when we look at Mercosur and the rest of the world separately? To answer these questions we will look at more disaggregate trade data using the Standard International Trade Classification (SITC).

The following tables show the evolution of export and import shares corresponding to the 1-digit SITC aggregates for total trade and for trade with Mercosur countries. Table 10 and 11 show the data for Argentina. Regarding import structure (Table 7), we observe a significant decline in the share of imports of crude material, fuel and lubricants, and chemical products. Clearly, this is related to the process of strong investment in natural resources-related activities that took place since the beginning of the nineties, and which produced a process of import substitution. On the other hand, there was an increase in the import share of manufactured goods and machinery and equipment. Again this last phenomenon seems to be entirely consistent with the comparative advantages of Argentina in the area of primary and natural resources intensive products and manufactures. On the other hand, at this level of aggregation, the pattern of evolution of import shares from Mercosur countries does not differ very significantly from that corresponding to total imports.

Table 10: Argentina imports shares

1-digit SITC	Total Imports				Mercosur			
	1986	1991	1996	1999	1986	1991	1996	1999
0 - FOOD & LIVE ANIMALS	7%	5%	4%	4%	16%	9%	7%	7%
1 - BEVERAGES AND TOBACCO	0%	1%	0%	0%	0%	0%	0%	0%
2 - CRUDE MATER.EX FOOD/FUEL	11%	7%	3%	3%	19%	10%	6%	6%
3 - MINERAL FUEL/LUBRICANTS	9%	6%	4%	3%	0%	1%	3%	4%
4 - ANIMAL/VEG OIL/FAT/WAX	0%	0%	0%	0%	0%	0%	0%	0%
5 - CHEMICALS/PRODUCTS N.E.S	24%	21%	19%	18%	23%	16%	15%	14%
6 - MANUFACTURED GOODS	11%	15%	14%	15%	17%	27%	24%	23%
7 - MACHINERY/TRANSP EQUIPMT	33%	39%	46%	47%	21%	33%	39%	39%
8 - MISCELLANEOUS MANUF ARTS	4%	6%	9%	10%	3%	4%	6%	8%
9 - COMMODITIES NES	0%	0%	0%	0%	0%	0%	0%	0%

Source: Own calculation from DATA INTAL

On the export side (see Table 11) the data suggest that export have diversified during the 1986/1999 period. Thus in 1986, 47% of total exports were accounted by food and live animals. This share decreased to 34% in 1999. The export items which increased its participation were mineral /fuel and lubricants, chemicals and machinery and transport equipment. When we look at regional data, we observe a similar pattern but with a stronger increase in the share of machinery and transport equipment, which goes from 11% in 1986 to 27% in 1999. It is natural to relate this phenomenon with the special regime that has been in place in Mercosur, regulating the regional trade in cars and other transport equipment.

Table 11: Argentina imports shares

1-digit SITC	Total				Mercosur			
	1986	1991	1996	1999	1986	1991	1996	1999
0 - FOOD & LIVE ANIMALS	47%	39%	39%	34%	45%	39%	28%	28%
1 - BEVERAGES AND TOBACCO	1%	2%	1%	2%	0%	1%	1%	1%
2 - CRUDE MATER.EX FOOD/FUEL	13%	13%	8%	8%	3%	5%	4%	4%
3 - MINERAL FUEL/LUBRICANTS	2%	6%	13%	12%	8%	8%	20%	14%
4 - ANIMAL/VEG OIL/FAT/WAX	10%	10%	8%	10%	5%	3%	2%	2%
5 - CHEMICALS/PRODUCTS N.E.S	5%	6%	6%	8%	9%	11%	8%	12%
6 - MANUFACTURED GOODS	14%	15%	12%	11%	16%	15%	9%	10%
7 - MACHINERY/TRANSP EQUIPMT	7%	7%	11%	12%	11%	16%	25%	27%
8 - MISCELLANEOUS MANUF ARTS	2%	2%	3%	2%	3%	3%	4%	3%
9 - COMMODITIES NES	0%	0%	0%	2%	0%	0%	0%	0%

Source: Own calculation from DATA INTAL

Table 12 and 13 describe the data for Uruguay. From the import side (table 9) we observe a significant reduction in the share of minerals fuel/lubricants (from 20% to 11%) and in chemicals, which has been compensated by an increase in manufactured goods and machinery. This pattern of evolution of import shares is similar to that observed in Mercosur.

Table 12: Uruguay imports shares

1-digit SITC	Total				Mercosur			
	1986	1991	1996	1999	1986	1991	1996	1999
0 - FOOD & LIVE ANIMALS	8%	6%	9%	9%	12%	10%	14%	16%
1 - BEVERAGES AND TOBACCO	1%	1%	1%	1%	0%	1%	1%	2%
2 - CRUDE MATER.EX FOOD/FUEL	6%	5%	4%	3%	8%	6%	4%	3%
3 - MINERAL FUEL/LUBRICANTS	20%	16%	11%	11%	11%	7%	9%	8%
4 - ANIMAL/VEG OIL/FAT/WAX	0%	0%	1%	1%	1%	1%	1%	1%
5 - CHEMICALS/PRODUCTS N.E.S	23%	20%	17%	18%	20%	19%	16%	18%
6 - MANUFACTURED GOODS	13%	16%	16%	15%	19%	22%	22%	21%
7 - MACHINERY/TRANSP EQUIPMT	24%	30%	32%	31%	25%	30%	25%	22%
8 - MISCELLANEOUS MANUF ARTS	5%	7%	9%	11%	4%	5%	7%	10%
9 - COMMODITIES NES	0%	0%	0%	0%	0%	0%	0%	0%

Source: Own calculation from DATA INTAL

Regarding exports (see Table 13), at this level of aggregation, the data does not suggest a big gain in diversification. Food and live animals was the main item in Uruguay exports in 1986 (41%) and in 1999 (with even a larger share of 46%). What we do observe is a decline in the export share of crude material (mainly wool), which was compensated with a raise in the export share of machinery and transport equipment (from 2% in 1986 to 8% in 1999). When we look at the data corresponding to Uruguay exports to Mercosur, we do find a strong process of diversification. In 1986 export to Mercosur where even more concentrated, that total exports. For example, Food and live animal exports had a share equal to 57%. This proportion fell to 38% in 1999 while we have significant increases in machinery and equipment and in beverages and tobacco. Again, as in the case of Argentina, the export structure to Mercosur of Uruguay shows a strong increase in some manufactured products, like machinery and equipment, that are not that important in overall exports.

Table 13: Uruguay imports shares

1-digit SITC	Total				Mercosur			
	1986	1991	1996	1999	1986	1991	1996	1999
0 - FOOD & LIVE ANIMALS	41%	40%	45%	46%	57%	45%	47%	38%
1 - BEVERAGES AND TOBACCO	0%	0%	1%	3%	1%	0%	2%	6%
2 - CRUDE MATER.EX FOOD/FUEL	22%	19%	16%	11%	3%	5%	2%	5%
3 - MINERAL FUEL/LUBRICANTS	0%	0%	1%	1%	1%	1%	3%	3%
4 - ANIMAL/VEG OIL/FAT/WAX	1%	0%	1%	1%	0%	0%	1%	2%
5 - CHEMICALS/PRODUCTS N.E.S	6%	7%	5%	6%	16%	16%	11%	16%
6 - MANUFACTURED GOODS	15%	18%	18%	17%	11%	15%	15%	6%
7 - MACHINERY/TRANSP EQUIPMT	2%	2%	4%	8%	5%	6%	8%	24%
8 - MISCELLANEOUS MANUF ARTS	13%	13%	9%	8%	5%	11%	11%	0%
9 - COMMODITIES NES	0%	0%	0%	1%	0%	0%	0%	0%

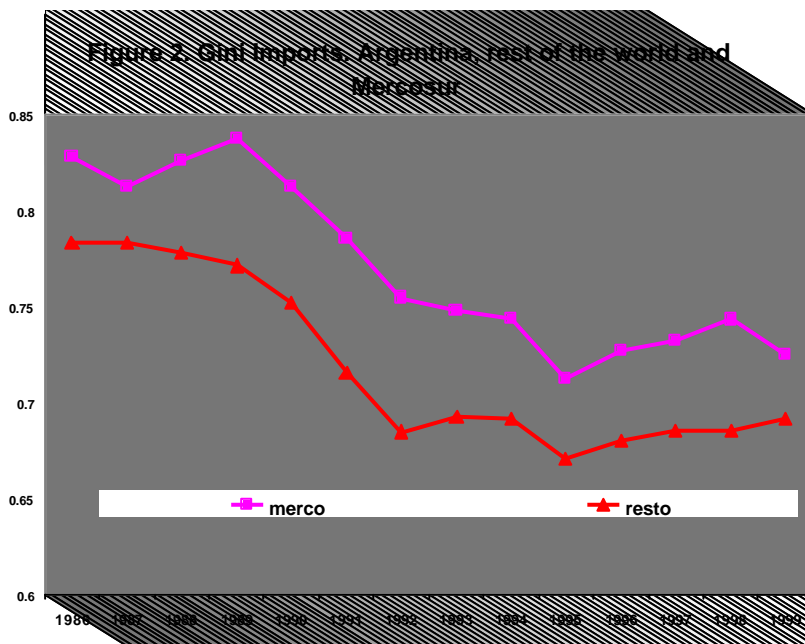
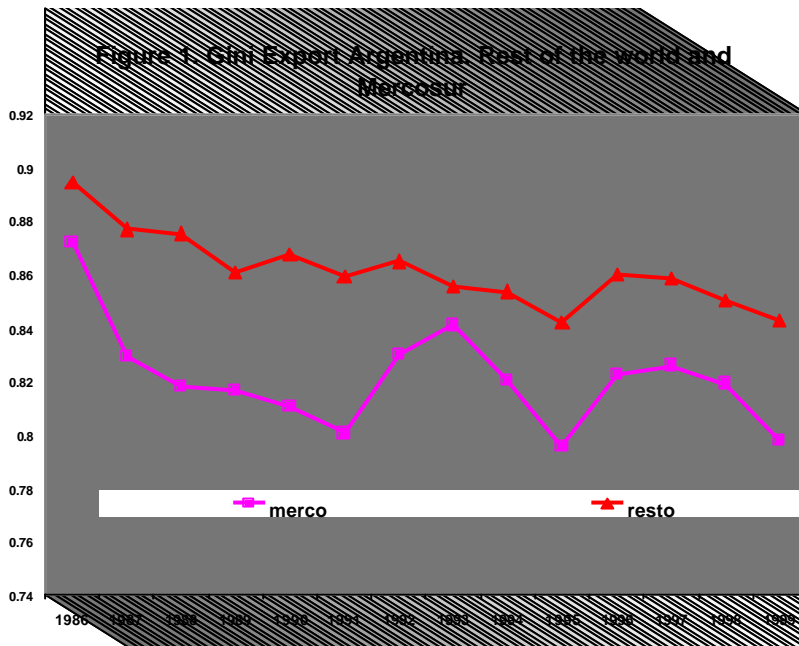
Source: Own calculation from DATA INTAL

3.3 Indicator of trade Diversification: Mercosur and rest of the world².

The analysis developed above already suggested that a process of diversification in trade flows might have occurred during the nineties in Argentina and Uruguay. To check whether this has been the case on a more global level, below we present the estimation of the Gini concentration indicator, applied to trade flows, for both countries. As we also want to know whether the degree of concentration varies for regional and non-regional trade, we have calculated those indexes for MERCOSUR and rest of the world trade data.

Figures 1 and 2 present the estimations of the Gini concentration indicators for Argentina's exports and import.

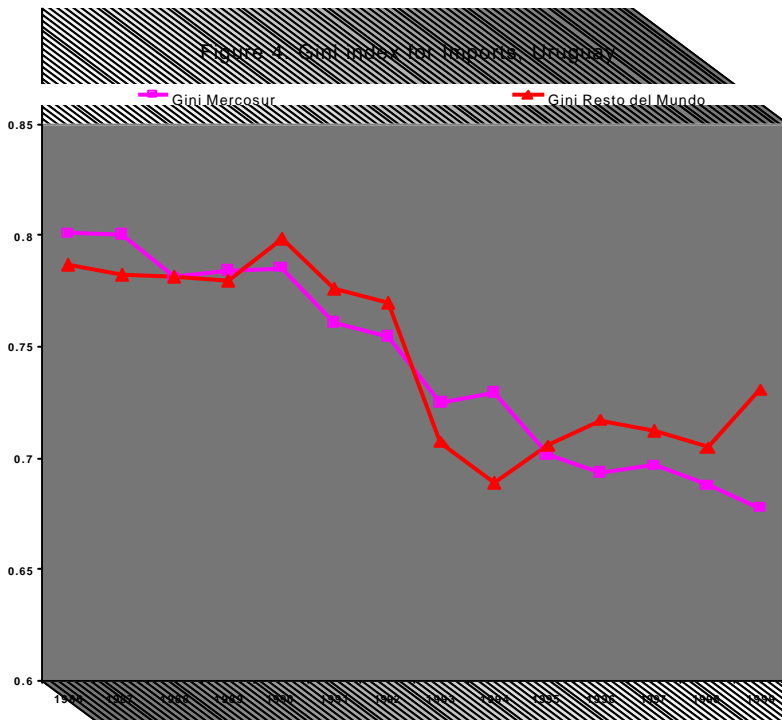
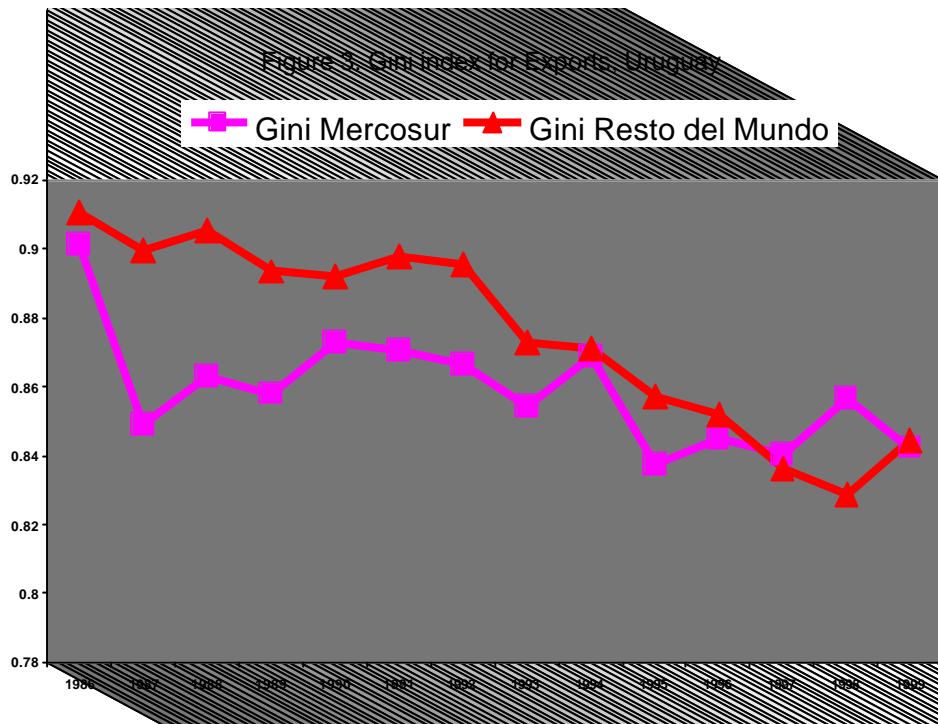
² This section draws heavily on Sanguinetti et al (2001).



The evidence for Argentina shows that, as we expected, exports toward Mercosur are less concentrated compared to those to the rest of the world while on the import side we find the inverse phenomenon; a greater level diversification of those imports coming from the rest of the world. Regarding the evolution of concentration, we see that the export indicator for Mercosur behaved more erratically compared to that corresponding

to the rest of the world. More importantly, export diversification within Mercosur raised through time, though some diversification occurred even before 1991. This may reflect that, on the export side, considerable market access was obtained before 1991 through the partial agreements signed between Brazil, Argentina and Uruguay. On the other hand, import concentration decline significantly after 1991 showing the effect of across-the-board regional (and unilateral) trade liberalization that took place since that year.

The evidence for Uruguay (see Figures 3 and 4) shows that on the export side we also observe a greater level of diversification of those going to Mercosur compared to sells to the rest of the world. The difference in the level of the concentration indicators across destinations seem to be less significant (and have declined over time) than those found for Argentina. On the import side, we don't find a clear difference in the concentration indicators between regions. As we see in Figures 4 the Gini index gives similar values for imports from the region and from the rest of the world. Still, and similar to Argentina, it is observed a significant decline in all concentration indicators around the beginning of the nineties, coinciding with the deepening of trade liberalization policies.



4. Production and employment outcomes in Argentina and Uruguay during the nineties: The evidence

In this section we want to associate the above indicated changes in trade patterns, within which the surge of Mercosur have played a key role, with changes in sectoral composition of production and employment in these economies. We start analyzing the evolution of production structure for both countries. Afterwards, we analyze the change in the employment structure and the differences in the sectoral requirements of human capital. Then we will try to measure trade related job creation and destruction. Finally, we will analyze the consequences of this shift in production and employment structures on relative wages across industries, occupations and skills.

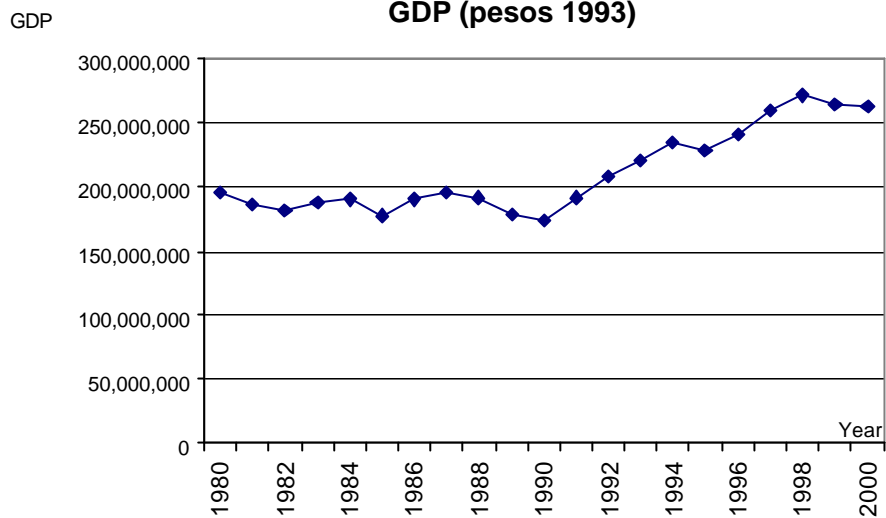
4.1 Production patterns³

A- Argentina

The evolution of aggregate GDP for Argentina shows a marked contrast between the eighties and the nineties. During the first decade GDP falls 10% while in the nineties GDP raises approximately 37% (see figure 5). This result is not a surprise taking into account the deep and far reaching reforms that the country has experienced since 1991. Within these reforms, inflation stabilization has had a strong impact in spurring aggregate demand, which has plunged since late 1988 because of the hyperinflation process suffered by the economy. Nevertheless, the strong growth that we observe since 1991 was not only a cyclical recuperation from a low level of output. Several estimations (see Zarazaga (2000), Meloni (2000)) suggest that the potential GDP of Argentina have change its tendency during this period as a consequence of the increase in capital accumulation that was spurred by the reforms policies such as trade and investment liberalization.

³ This and the next subsection are based in part on information presented in Sanguinetti et al (2001b)

Figure 5
GDP (pesos 1993)



Beyond what has happen with aggregate GDP, from the point of view of this paper, we are interested in analyzing the changes that may have occurred in the structure of production during these two periods. Table 14 presents the structure of GDP disaggregate at 1 digit of the ISIC since 1980.

Table 14: _GDP structure. Argentina (in %)

Year	Agriculture and Fishing	Mining	Industry	Electricity, Water and Gas	Construction	Retailing and Hotel services	Transport and telecommunication	Financial and real state	Public Administration	total
1980	5.12	1.42	21.10	1.46	8.52	19.10	5.82	18.21	19.26	100
1981	5.51	1.46	19.39	1.54	7.80	18.18	5.72	20.20	20.20	100
1982	5.98	1.46	19.39	1.66	7.25	17.17	6.01	20.18	20.91	100
1983	5.90	1.45	20.20	1.72	6.93	17.45	6.03	19.55	20.76	100
1984	5.82	1.41	20.43	1.83	6.07	18.22	6.34	19.00	20.89	100
1985	6.11	1.46	19.71	2.00	5.53	17.37	6.64	19.67	21.52	100
1986	5.71	1.27	20.50	1.93	6.20	17.28	6.69	19.59	20.83	100
1987	5.42	1.33	20.18	1.98	6.92	17.00	6.74	19.35	21.07	100
1988	5.96	1.43	19.65	1.88	6.84	16.65	6.75	19.38	21.46	100
1989	5.86	1.53	19.47	1.92	5.54	16.64	7.16	19.12	22.77	100
1990	6.53	1.61	19.25	2.12	4.52	17.05	7.12	18.59	23.22	100
1991	6.16	1.50	19.24	1.98	5.35	17.84	7.11	19.14	21.68	100
1992	5.67	1.53	19.72	1.98	5.78	18.17	7.33	18.90	20.91	100
1993	5.49	1.59	19.50	2.08	6.05	17.76	7.29	19.63	20.59	100
1994	5.56	1.71	19.18	2.17	6.03	17.85	7.57	20.24	19.70	100
1995	6.03	2.04	18.29	2.39	5.44	16.96	7.91	20.59	20.35	100
1996	5.65	2.02	18.48	2.36	5.60	17.36	8.03	20.74	19.76	100
1997	5.26	1.89	18.68	2.37	6.04	17.83	8.27	20.61	19.04	100
1998	5.47	1.74	18.20	2.44	6.28	17.64	8.61	21.11	18.49	100
1999	5.72	1.70	17.28	2.60	5.93	16.97	8.75	21.79	19.26	100
2000	5.61	1.88	16.90	2.79	5.29	16.70	8.90	22.27	19.66	100

Source: INDEC.

Two trends are clearly observed from the data. On one hand, industry has been losing importance in terms of its participation in GDP. It was around 20% in the beginning of the 80s and ended up with a share near 17 % in year 1999- 2000. Still most of the decline in this participation has occurred during the nineties; in 1991-1992; industry participation was around 19.5; which was pretty close to the average of the eighties. The second clear trend was the increase in participation in the service sector. Its share was 43% of the GDP in 1980 and increased to 48% in year 2000. Again, most of the increase in this share has happened during the nineties. Within the service category the ones that increase the most were electricity, gas and water; transport and telecommunication; and financial services and services to firms. Clearly the raise in the first two activities is associated with the

major privatization policies adopted by Argentina at the beginning of the nineties; on the other hand, the expansion of financial services has been consequences of the stabilization policies which implied a import increase in the degree of monetization of the economy and specially in financial intermediation.

Regarding the other sectors, primary, the least important of all, experienced an erratic behavior in terms of its share, reflecting the volatility of prices of these commodities. Agriculture and fishing's share remain stable between the two extreme years of the period while we observe temporary rises in some years in concordance with the behavior of agricultural prices. On the other hand, we observe an increasing trend in mining, which took place since the beginning of the nineties, though it was partially reverted at the end of the decade when international prices for these products suffered sharp declines.

Finally, construction shows a declining tendency over the period, which was mainly produced during the eighties. The share corresponding to public sector activities has also remained stable between the extreme years of the period though it rose at the end of the eighties as a consequence of the sharp recession that affected the rest of the activities during the hyperinflation episode.

B. Uruguay

The evolution of GDP in Uruguay during the last 15 years shows a gradual process of recuperation of the economy after the stagnation suffered in the first half of the eighties. Thus between 1986 and 1991 the economy grew at an annual rate of 1.8%. Afterwards in the nineties the growth rate accelerated, reaching an average value of 4.1% between 1991 and 1999.

The structure of production has also undergone significant changes in last two decades as illustrated by the data presented in Table 15, where we show a disaggregation of GDP by 1-digit sector of the ISIC classification for selected years.

Table 15: GDP Structure. Uruguay (in %)

	1986	1988	1994	1999
1 Agriculture/cattle	12.7	8.7	7.7	5.5
2 Mining	0.1	0.1	0.2	0.2
3 Industry	29.7	26.5	18.3	16.0
4 Electricity, gas and water	3.6	2.6	3.1	3.8
5 Construction	2.7	3.6	5.7	5.8
6 Retailing ad hotel services	12.6	14.6	16.5	13.5
7 Transportation and telecommunications	6.4	6.5	6.9	8.4
8 Financial Institutions	18.3	21.1	22.8	26.2
9 Public sector and other services	14.0	16.2	18.8	20.6

Source: Banco Central del Uruguay

As was the case in Argentina, manufacturing is the sector for which we observe the most significant fall in GDP participation between 1986 and 1999. Industry represented a 29.7% of GDP in 1986 and fell to around 17.0% in 1999. Again, similarly with Argentina, most of the fall in the participation took place in the nineties, especially in the first half of the decade. The other sector that losses participation is primary production mainly by the reduction in participation of Agriculture and cattle (fishing and mining activities are negligible in the case of Uruguay). The share of primary production was 12.7% in 1986 and went down to 5.5% in 1999. Compare to industry, the decline of the share in this sector has been a more continuous process, which took place along the whole period.

The sectors where we find an expansion in production above the average are those related with certain services. This is notably the case of financial institutions and services to enterprises, for which the share went up from 18.3% in 1986 to 26.2 in 1999. Construction was also another sector that increase its participation in total production, especially during the nineties. The activity associated with public sector and other services (sector 9) has also expanded its production above the average, increasing its share from 14.4% in 1986 to 21.3% in 1999. On the other hand, for retail, restaurants and hotel services we find similar shares in 1986 and 1999, though there was a temporary raise in it at the end of the eighties and beginning of the nineties.

4.2 Changes in the composition of employment and skill requirements across sectors

To what extent does the above change in the production structure has been translated to the structure of employment? In this section, we will look at this issue describing the evidence on the sectoral allocation of labor across major industry and services sectors of the economy.

4.2.1 Changes in the composition of the employment across sectors

A. Argentina

The evidence from the Permanent Household Surveys shows that there is a significant decline in the employment share for almost all manufacturing sectors during the period under analysis. For the aggregate of industry, the reduction was equal to 10 percentage points (see Table 14) and it occurred mostly during the nineties. This fall was compensated by increases in some services sectors, mainly business and financial services, which expanded overall from 7.8% in 1985 to 11.5% in 1999. Table 13 shows that the reduction in manufacturing employment is more important for Textile and Footwear, falling from 8.2% in 1985 to 3.5% in 1999. These sectors are the usual reference as an example of the negative impact of trade liberalization on employment.

Given that the survey coverage is only urban, primary sector employment share is substantially underestimated and, as a consequence, manufacturing and services employment shares are overestimated.

Table 16: Employment share by selected sectors, Argentina

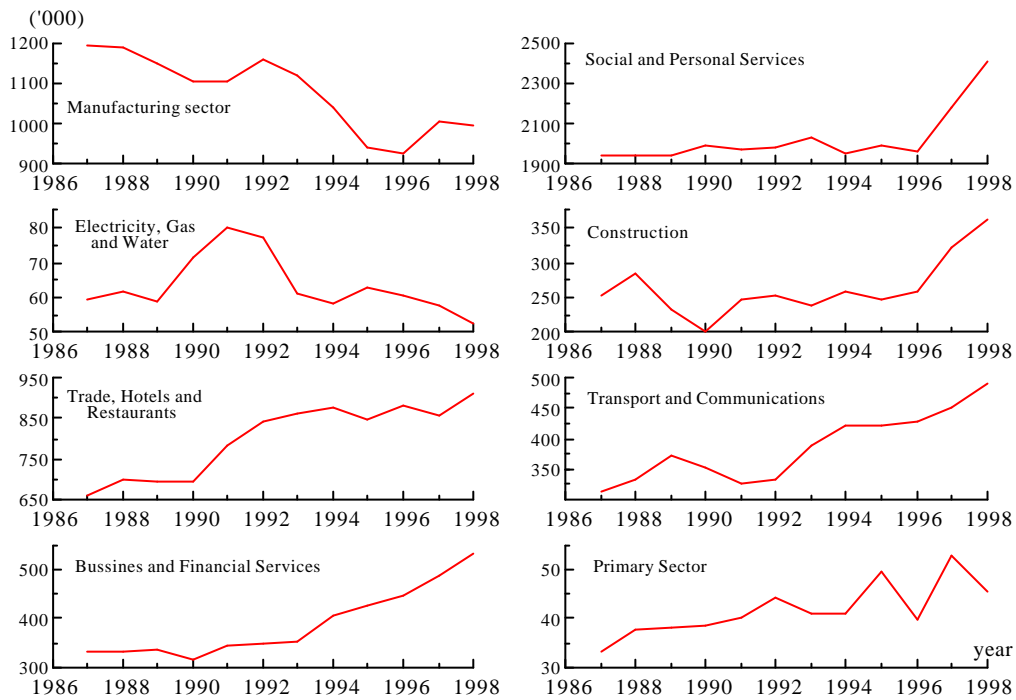
Sector	1985	1990	1994	1999
<i>Primary products</i>	0.3	0.4	0.4	0.4
<i>Manufacturing Sector</i>	26.1	24.0	21.3	17.3
Food Drinks and Tobacco	3.5	3.3	3.5	2.8
Textile and Footwear	8.1	6.2	4.1	3.4
Chemical Productos	3.1	3.1	2.5	2.9
Metalic products	6.3	6.1	6.3	4.6
Other Industries	5.1	5.2	4.9	3.5
<i>Electricity, Gas and Water</i>	0.2	0.8	0.7	0.4
<i>Construction</i>	6.9	6.2	7.1	7.6
<i>Trade, Hotels and Restaurants</i>	18.6	20.1	20.7	19.3
Major Trade	3.6	3.7	5.5	4.6
Retail trade	13.1	13.9	12.1	11.5
Hotels and Restaurants	1.9	2.6	3.1	3.3
<i>Transportation and Communications</i>	7.2	8.0	9.2	9.7
Transportation	5.8	6.4	6.6	6.6
Transportation related services and comunications	1.4	1.6	2.6	3.1
<i>Bussinnes and Financial Services</i>	7.8	7.2	9.2	11.5
Finance	1.6	2.3	2.8	2.8
Real estate and businnes services	6.2	4.9	6.5	8.7
<i>Social and Personal Services</i>	32.9	33.2	31.5	33.8
Public Administration and Defense	4.0	5.1	4.7	5.1
Teaching	5.2	5.7	6.3	7.0
Social and Health services	4.0	5.1	4.9	5.4
Other social services	3.8	4.0	3.7	4.4
Repair services	3.1	2.5	3.1	2.8
Housekeeping	8.2	9.2	7.6	7.8
Other personal services	4.6	1.6	1.2	1.4

Source: Authors calculations based on EPH

Figure 6, taken from Galiani and Sanguinetti (2000), shows the evolution of the employment level for the 8 aggregates highlighted in the previous table. As we can see, not only the manufacturing sector lost participation in total employment, but also there was a significant decline in the absolute level of employment.

Figure 6

Evolution of employment by selected sectors (thousands) Argentina



B. Uruguay

Similarly to Argentina, in Uruguay manufacturing was the most affected sector in terms of lost of employment (see Table 17). Again, for this economy the bulk of the decline is concentrated in the nineties. Between 1986 and 1990 the manufacturing sector employment share remains relatively stable or even increases slightly. The 5-percentage points decline in the share occurred between 1990 and 1999, which seems moderate compared to the case of Argentine.

Table 17: Employment share by sectors, Uruguay.

Sectors	1986	1990	1994	1999
Agriculture, Hunting, Fishing	4.3	3.4	4.4	3.9
Mining	0.2	0.2	0.1	0.1
Manufacturing	20.6	21.1	19.2	15.9
Electricity, Gas and Water	1.7	1.5	1.2	1
Construction	5.1	6.6	7.3	8.4
Retail Trade, Restaurants and Hotels	17.8	17.8	19.2	19.8
Transportation, Storage and Communication	7	6	6	6.1
Financial and Bussinnes Services	4.5	4.8	5.9	6.5
Personal, Social and Comunal Services	38.8	38.5	36.6	38.3

Source: authors elaboration based on ECH and information from BCU

The most dynamic sectors displaying increases in their employment shares were Construction and Financial and Business services. However, preliminary and more disaggregated computations show that the majority of this increment is due to business services and not to financial services. The other sectors remained relatively constant all along the period.

4.2.2 Human capital requirements across sectors

A- Argentina

In this section, we briefly summarize the changes in human capital requirements across different sectors. We will use three educational levels defined as follows. People with low education are those that have an incomplete secondary or lower level of formal education. We define the medium level for those that have completed the secondary school and those that have started but not completed a college degree. Finally, we reserve the highest educational level for those who have a complete college degree⁴.

Table 18 displays the relative intensities for these three educational levels across activities. We observe substantial movements in all sectors towards a more high skilled intensive form of production. This is reflected in a widespread decline in the low education intensity of employment across all sectors. This process coincides with the increase in relative supply of skilled workers that took place during this period (Galiani (1999)). On the other hand, we see that sectors that ranked among those with higher human capital requirements in 1986, like Business and Financial Services or Personal and Social Services, still remained in that condition in 1999⁵. This fact could have important consequences on the relative demand for skilled labor, if, as is the case for Business and Financial Services, we observe a parallel increase in the employment share of those sectors. This may result in an increase in the relative demand for high skilled labor and as a consequence a raise in the wage premium.

⁴ Galiani (1999) shows that this is the relevant classification of educational skills when analyzing the evolution of wages.

⁵ Here we neglect Primary Products given the urban coverage of the survey and other sectors with a very small number of observations like Electricity, Gas and Water

Table 18 :Human Capital requirements by sectors, Argentina

Sector	Education level					
	1986			1999		
	Low	Medium	High	Low	Medium	High
Primary products	56%	25%	19%	59%	6%	35%
Manufacturing Sector	76%	21%	4%	60%	33%	7%
Food Drinks and Tobacco	84%	15%	1%	71%	26%	3%
Textile and Footwear	82%	17%	2%	68%	30%	3%
Chemical Productos	63%	29%	8%	49%	39%	12%
Metalic products	73%	22%	5%	50%	40%	10%
Other Industries	74%	22%	5%	65%	30%	5%
Electricity, Gas and Water	38%	62%	0%	55%	30%	15%
Construction	87%	9%	4%	83%	14%	3%
Trade, Hotels and Restaurants	73%	23%	3%	58%	36%	6%
Major Trade	65%	30%	4%	43%	45%	13%
Retail trade	74%	24%	3%	61%	34%	5%
Hotels and Restaurants	88%	12%	1%	67%	30%	3%
Transportation and Communications	73%	23%	4%	61%	33%	6%
Transportation	77%	19%	3%	69%	27%	4%
Transportation related services and com.	57%	36%	7%	44%	46%	10%
Bussinnes and Financial Services	29%	48%	24%	20%	50%	30%
Finance	33%	57%	10%	11%	65%	24%
Real estate and businnes services	27%	43%	30%	23%	45%	32%
Social and Personal Services	64%	21%	15%	48%	28%	24%
Public Administration and Defense	54%	33%	13%	39%	42%	18%
Teaching	17%	44%	39%	13%	33%	54%
Social and Health services	41%	21%	38%	28%	22%	50%
Other social services	63%	24%	13%	55%	35%	10%
Repair services	84%	15%	1%	69%	27%	4%
Housekeeping	97%	3%	0%	86%	12%	2%
Other personal services	73%	22%	5%	52%	43%	5%

Source: Authors calculations based on EPH

B- Uruguay

The change in human capital requirements in Uruguay is very similar to that of Argentina. On the supply side, there is a significant rise of the educational level of the labor force. Coinciding with this phenomenon, almost all sectors increase their tertiary labor intensity (see Table 19). We also observe, that sectors that were more intensive in tertiary level employment in 1986, mainly services sectors, remained also very intensive in the use of this factor in 1999 (e.g. Real Estate and Business services, Finance and Insurance and Social services, etc). In addition, these sectors were those where

employment expanded the most. We may suspect that this change in relative demand could have affected relative wages between skilled and unskilled workers.

Table 19 :Human Capital requirements by sector, Uruguay

Agriculture, hunting, mining	77.6	20	2.3	59.4	34.5	6.1
Food Drinks and Tobacco	57	40.5	2.5	35.3	59.7	4.9
Textile and Leather	49.6	47.6	2.8	31.8	65.4	2.8
Wood	46.3	52.7	0.9	29.3	68.3	2.5
Paper and paper products and print	35.2	57	7.8	17	69	14.1
Chemical products	43.2	51.8	6.7	23.7	60.4	15.8
Metalic products, machines and equipment	38.5	58	4.5	26.4	67.5	6.1
Other manufacturing industries	38.1	58.6	3.3	17	75.7	7.3
Electricity, Gas and Steam	43.1	50.1	6.9	18.7	60	21.4
Water and Hidraulic Projects	40	49.9	10	36.8	49.6	13.6
Construction	69.7	28.8	1.5	54.6	43	2.4
Major Trade	40.5	52.9	6.7	18.6	67.7	13.6
Retail Trade	40.8	55.2	3.9	19.7	70.8	9.5
Restaurants and Hotels	58.2	40.2	1.6	30.6	62	7.4
Transportation and Storage	49	48.8	2.3	31.2	61.6	7.2
Communications	33	57	9.9	11.7	66.4	21.9
Finance and Insurance	13.2	74.5	12.3	3.5	57.2	39.3
Real Estate and bussiness service	14.9	66.8	18.3	10.2	54.9	35
Public Administration and Defense	42.5	49	8.5	27.2	57.9	14.9
Social Services and other Comun.	23.4	40.6	36	12.7	39.8	47.5
Entertaining	43.4	50	6.6	25.5	54.3	20.2
Personal Services	67.3	31.7	0.9	49.6	48.3	2.1

Source: authors' calculations based on ECH microdata

4.3 Trade related job creation and destruction in manufacturing activities.

To what extent the significant changes in employment patterns we documented in the previous section are related to changes in trade flows? Was the increase in foreign competition faced by the manufacturing activities in Argentina and Uruguay associated with a fall in employment in those sectors? Did Mercosur trade flows played a central role in this dynamics? In what follows, we bring in some evidence to try to answer these questions.

In Tables 20 and 21 we show the evolution of employment by manufacturing industry in Argentina (Table 20) and Uruguay (Table 21). For the case of Argentina, we use the two-digit ISIC rev 3 classifications, which encompasses 21 sectors. In the case of Uruguay, we use the two digit-ISIC rev 2 classifications with only 8 manufacturing activities. As we see the fall in employment (job destruction) has occurred in most industry sectors in both countries. Overall employment fell 11% in Argentina between 1993 and 1998, while in Uruguay the reduction was around 23% between 1993 and 2000. Still we have an interesting variability across sectors. For example, in Argentina, Metal Products and Rubber and Plastic suffered very small declines in employment (actually, in the case of Plastic products employment raised), while in Petroleum Distillery and Audio, Video and Communication Equipment we observed rates of decline that are above 30% for the whole period. In the case of Uruguay, we see a similar phenomenon. For example, in Basic Metals employment fell only 2.3%, while textiles experienced a declined in employment of 54% between 1993 and 2000.

In order to associate this changes in employment across sectors with trade flows we first have to investigate whether the industry in both countries have been more exposed to import and export flows. Moreover, as we are particularly interested in the potential impact of Mercosur, we want to distinguish whether the greater level of import competition (or export orientation) is coming from (going to) Mercosur markets or the rest of the world. Thus, Tables 22 and 23 present estimations of import and export

penetrations by destination for Argentina while Tables 24 and 25 present the same estimations for Uruguay.

Table 20: Workers occupied index. Manufacturing Industry. Base 1993=100, by sector. Argentina. Years 1993/1998

Manufacturing industry sector (1)	1993	1994	1995	1996	1997	1998	Percentual variation 1993-98
General Level	100	97.1	91.3	88.0	89.3	88.3	-11.7%
Food and Beverages	100	100.0	95.2	91.1	91.6	88.0	-12.0%
Tobacco	100	89.9	82.3	72.5	79.4	67.2	-32.8%
Textil products	100	90.0	83.6	83.0	85.6	81.2	-18.8%
Apparel	100	92.1	83.5	77.9	77.3	78.9	-21.1%
Leather, footwear	100	97.0	86.6	85.2	85.8	85.2	-14.9%
Wood production (non furnitures)	100	98.8	89.8	86.9	91.3	92.9	-7.1%
Paper production and paper products	100	100.5	94.1	93.6	88.2	83.3	-16.7%
Printing and publishing	100	100.3	96.7	94.1	89.2	91.2	-8.8%
Petroleum destilery	100	73.3	71.0	69.1	66.9	66.8	-33.2%
Chemical products	100	97.4	95.8	94.6	94.6	93.4	-6.6%
Rubber and Plastic products	100	96.0	98.7	97.9	103.0	102.5	2.5%
Non metal mineral products	100	95.0	87.1	84.0	86.7	83.9	-16.1%
Basic metals	100	96.3	93.3	93.0	92.6	93.0	-7.0%
Metal products (Non machinery and equipment)	100	97.0	90.4	86.4	95.7	98.8	-1.2%
Machinery and equipment	100	95.9	91.9	89.2	89.0	90.8	-9.2%
Computer , Accounting and Office Machinery	100	97.0	97.2	92.0	83.6	76.3	-23.7%
Engines and Electric equipment	100	94.9	87.9	82.2	85.2	84.6	-15.4%
Audio, video, TV, and communication equipment	100	89.1	71.6	64.8	66.8	66.2	-33.8%
Medical, Ophtalmic, watches, clocks,etc.	100	94.6	91.3	89.0	90.3	85.3	-14.8%
Motor vehicles and equipment	100	103.5	94.8	85.8	87.6	91.0	-9.0%
Other Transportation equipment	100	87.0	70.2	73.0	81.0	83.3	-16.7%
Furnitures and manufacturing industries	100	93.9	83.0	80.4	84.1	87.0	-13.0%

(1) ISIC, Rev 3 classification

Source: INDEC, Encuesta Industrial Mensual.

Note: Encuesta Industrial Mensual is a national coverage survey

based on a sample of more than 3000 establishments with 10 or more persons occupied

Table 21 Employment index: Manufacturing industry by sector. Base 1993=100. Uruguay

Manufacturing sector	1993	1994	1995	1996	1997	1998	1999	2000	Variation 1993-2000 (%)
Chemicals products (including petroleum distillery)	100	91.9	83.0	77.3	76.5	72.6	65.2	63.9	-36.1%
Food, beverages and Tobacco	100	94.6	88.8	86.1	86.1	83.5	78.3	78.1	-21.9%
Textile products, apparel and leather	100	85.2	72.2	62.9	64.0	57.8	46.4	45.7	-54.3%
Paper production, paper products, printing and publishing	100	94.6	87.0	83.3	75.6	71.4	67.6	66.1	-33.9%
Chemicals products (including petroleum distillery)	100	98.1	92.6	89.5	87.0	84.5	78.7	77.0	-23.0%
Non metal mineral products	100	90.4	75.1	66.6	63.3	58.8	40.3	33.3	-66.7%
basic metal	100	93.4	92.1	121.0	128.8	121.9	113.4	97.7	-2.3%
metal products, machinery and equipments	100	89.7	78.5	66.0	66.8	63.4	61.4	59.9	-40.1%

Source: INE

Table 22: Import penetration by ISIC sector, Argentina

	1994		1995		1996		1997		1998		1999	
	Merco sur	Rest of the world	Merco sur	Rest of the world	Merco sur	Rest of the world	Merco sur	Rest of the world	Merco sur	Rest of the world	Merco sur	Rest of the world
15-MANUFACTURE OF FOOD PRODUCTS AND BEVERAGES	1.4%	2.0%	1.3%	2.0%	1.5%	2.2%	1.8%	2.4%	2.1%	2.6%	1.7%	2.3%
16-MANUFACTURE OF TOBACCO PRODUCTS	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.2%	0.1%	0.2%
17-MANUFACTURE OF TEXTILES	4.3%	9.9%	4.9%	8.0%	7.0%	8.7%	10.3%	12.8%	11.5%	15.2%	10.1%	12.3%
18-MANUFACTURE OF WEARING APPAREL; DRESSING AND DYEING OF FUR	2.5%	8.4%	2.7%	6.9%	2.7%	4.8%	3.3%	6.2%	3.9%	7.8%	4.7%	9.1%
19-TANNING AND DRESSING OF LEATHER; MANUFACTURE OF LUGGAGE HANDBAGS SADI	1.3%	6.7%	1.7%	7.1%	2.4%	4.9%	3.6%	7.7%	5.3%	9.7%	6.9%	7.0%
20-MANUFACTURE OF WOOD AND OF PRODUCTS OF WOOD AND CORK EXCEPT FURNITUF	6.9%	6.9%	8.8%	8.8%	6.8%	7.6%	6.7%	7.1%	11.8%	11.1%	12.6%	10.4%
21-MANUFACTURE OF PAPER AND PAPER PRODUCTS	7.9%	14.5%	10.5%	20.4%	13.9%	20.5%	15.9%	27.3%	17.1%	29.2%	16.4%	23.9%
22-PUBLISHING PRINTING AND REPRODUCTION OF RECORDED MEDIA	0.6%	5.2%	0.6%	7.9%	0.5%	6.5%	0.6%	8.4%	0.8%	12.9%	0.8%	12.3%
23-MANUFACTURE OF COKE REFINED PETROLEUM PRODUCTS AND NUCLEAR FUEL	1.3%	3.7%	0.8%	5.7%	0.8%	5.0%	0.4%	3.7%	0.3%	3.8%	0.7%	3.2%
24-MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	6.0%	24.6%	9.2%	30.0%	8.7%	36.3%	10.8%	39.8%	11.0%	42.1%	10.8%	43.5%
25-MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	5.8%	13.3%	7.9%	20.6%	7.3%	16.2%	9.1%	24.0%	9.9%	28.6%	9.9%	25.3%
26-MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	3.1%	6.1%	3.9%	6.4%	4.2%	6.4%	4.8%	7.6%	5.9%	9.8%	5.7%	8.3%
27-MANUFACTURE OF BASIC METALS	8.8%	9.1%	9.5%	11.2%	9.5%	11.4%	12.8%	16.6%	14.5%	17.5%	13.9%	14.5%
28-MANUFACTURE OF FABRICATED METAL PRODUCTS EXCEPT MACHINERY AND EQUIPME	4.6%	11.3%	5.8%	16.0%	5.5%	15.2%	7.1%	19.0%	7.2%	23.6%	8.0%	22.3%
29-MANUFACTURE OF MACHINERY AND EQUIPMENT N.E.C.	12.0%	67.8%	10.5%	61.3%	13.7%	68.2%	16.7%	87.2%	17.7%	92.0%	16.7%	93.5%
30-MANUFACTURE OF OFFICE ACCOUNTING AND COMPUTING MACHINERY	8.1%	574.1%	12.8%	381.2%	30.8%	404.2%	27.4%	380.3%	44.8%	568.0%	57.1%	375.4%
31-MANUFACTURE OF ELECTRICAL MACHINERY AND APPARATUS N.E.C.	9.8%	53.1%	11.0%	56.0%	11.1%	55.5%	11.8%	65.7%	11.4%	89.0%	11.3%	70.8%
32-MANUFACTURE OF RADIO TELEVISION AND COMMUNICATION EQUIPMENT AND APPAR/A	2.3%	110.0%	3.8%	100.6%	1.8%	46.0%	7.3%	97.2%	7.7%	115.7%	14.6%	112.7%
33-MANUFACTURE OF MEDICAL PRECISION AND OPTICAL INSTRUMENTS WATCHES AND C	7.8%	140.5%	10.3%	132.8%	11.1%	136.6%	9.4%	122.5%	14.2%	183.0%	16.6%	174.0%
34-MANUFACTURE OF MOTOR VEHICLES TRAILERS AND SEMI-TRAILERS	14.9%	21.9%	16.2%	21.7%	16.1%	19.9%	20.6%	23.2%	30.5%	32.8%	26.8%	28.7%
35-MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	1.6%	103.2%	3.6%	79.0%	3.4%	76.2%	5.9%	89.0%	4.9%	96.7%	10.0%	229.3%
36-MANUFACTURE OF FURNITURE; MANUFACTURING N.E.C.	3.9%	30.0%	4.7%	28.4%	4.3%	23.2%	5.1%	27.0%	6.0%	36.2%	8.3%	42.4%
Total	4.9%	16.9%	5.4%	17.6%	5.9%	18.1%	7.6%	22.3%	8.8%	25.9%	7.9%	23.7%

Source: Own elaboration based on information provided by Data Intal and INDEC.

Table 23: Export Penetration by ISIC sector, Argentina

	1994		1995		1996		1997		1998		1999	
	Mercosur	Rest of the world	Mercosur	Rest of the world	Mercosur	Rest of the world	Mercosur	Rest of the world	Mercosur	Rest of the world	Mercosur	Rest of the world
(export/gross output)												
15-MANUFACTURE OF FOOD PRODUCTS AND BEVERAGES	3.0%	17.8%	4.9%	24.0%	5.4%	29.2%	5.5%	29.3%	6.5%	29.9%	4.9%	30.1%
16-MANUFACTURE OF TOBACCO PRODUCTS	0.4%	0.2%	0.7%	0.4%	0.6%	0.3%	0.8%	0.4%	0.9%	0.4%	1.3%	0.3%
17-MANUFACTURE OF TEXTILES	1.9%	4.5%	4.8%	5.0%	3.5%	4.6%	4.5%	5.1%	4.4%	3.9%	3.5%	4.0%
18-MANUFACTURE OF WEARING APPAREL; DRESSING AND DYEING OF FUR	0.7%	4.8%	1.5%	10.6%	0.9%	8.8%	1.1%	7.6%	1.0%	5.2%	0.8%	4.0%
19-TANNING AND DRESSING OF LEATHER; MANUFACTURE OF LUGGAGE HANDBAGS	6.6%	32.1%	10.2%	47.1%	6.3%	30.4%	8.0%	39.6%	8.4%	39.3%	7.3%	37.2%
20-MANUFACTURE OF WOOD AND OF PRODUCTS OF WOOD AND CORK EXCEPT FURNITURE	0.7%	1.8%	2.7%	4.6%	4.7%	5.0%	4.2%	3.6%	4.4%	4.1%	3.9%	6.0%
21-MANUFACTURE OF PAPER AND PAPER PRODUCTS	1.4%	3.6%	4.7%	7.9%	5.1%	5.1%	7.3%	5.2%	8.3%	4.4%	6.7%	4.6%
22-PUBLISHING PRINTING AND REPRODUCTION OF RECORDED MEDIA	0.9%	1.8%	2.3%	2.6%	2.1%	1.8%	1.8%	1.1%	3.0%	1.5%	2.1%	1.6%
23-MANUFACTURE OF COKE REFINED PETROLEUM PRODUCTS AND NUCLEAR FUEL	3.3%	3.5%	3.4%	4.3%	6.0%	3.6%	6.4%	3.5%	4.7%	4.3%	6.9%	6.5%
24-MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	4.7%	5.4%	7.1%	8.4%	7.2%	6.9%	7.7%	7.4%	10.0%	9.0%	11.3%	9.8%
25-MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	3.2%	1.1%	6.8%	2.3%	5.4%	1.6%	6.0%	1.7%	8.1%	3.1%	6.5%	4.1%
26-MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	1.3%	1.6%	2.6%	2.8%	1.8%	2.7%	1.9%	2.3%	2.2%	2.8%	1.6%	2.8%
27-MANUFACTURE OF BASIC METALS	1.4%	14.6%	2.7%	23.4%	2.3%	22.7%	3.3%	24.9%	4.4%	25.8%	4.6%	29.8%
28-MANUFACTURE OF FABRICATED METAL PRODUCTS EXCEPT MACHINERY AND EQUIPMENT	1.0%	2.1%	2.0%	3.8%	2.5%	2.0%	2.3%	2.3%	2.6%	2.1%	2.4%	2.7%
29-MANUFACTURE OF MACHINERY AND EQUIPMENT N.E.C.	3.4%	3.9%	6.3%	5.6%	5.7%	5.1%	6.6%	4.4%	7.7%	6.5%	8.6%	8.2%
30-MANUFACTURE OF OFFICE ACCOUNTING AND COMPUTING MACHINERY	9.0%	50.4%	15.5%	23.0%	1.8%	23.6%	1.4%	8.6%	2.7%	15.2%	2.1%	8.5%
31-MANUFACTURE OF ELECTRICAL MACHINERY AND APPARATUS N.E.C.	3.5%	13.0%	3.8%	4.0%	4.0%	2.0%	8.6%	1.8%	8.8%	1.6%	7.5%	4.7%
32-MANUFACTURE OF RADIO TELEVISION AND COMMUNICATION EQUIPMENT AND INSTRUMENTS	2.3%	0.9%	6.4%	0.9%	1.6%	0.7%	2.6%	1.3%	2.3%	1.3%	2.1%	1.4%
33-MANUFACTURE OF MEDICAL PRECISION AND OPTICAL INSTRUMENTS WATCHES	2.4%	14.1%	3.0%	64.6%	4.2%	7.6%	5.0%	6.3%	6.1%	12.3%	7.6%	11.0%
34-MANUFACTURE OF MOTOR VEHICLES TRAILERS AND SEMI-TRAILERS	9.6%	1.2%	21.0%	1.8%	18.3%	0.7%	24.9%	-0.4%	36.4%	0.9%	28.0%	4.1%
35-MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	1.5%	8.2%	3.9%	11.7%	1.9%	21.0%	1.7%	12.3%	1.3%	11.7%	6.6%	24.7%
36-MANUFACTURE OF FURNITURE; MANUFACTURING N.E.C.	1.2%	18.9%	3.4%	6.8%	2.9%	5.6%	2.5%	5.1%	3.2%	7.0%	2.6%	13.7%
Total	3.4%	8.8%	5.8%	12.5%	5.9%	11.7%	7.3%	11.7%	8.8%	12.8%	7.2%	14.5%

Source: Own elaboration based on information provided by Data Intal and INDEC.

Table 24 Import Penetration by ISIC sector, Uruguay

		1994	1995	1996	1997
ISIC sector Mercosur					
31	Food, Beverages, Tobacco	3.9%	4.2%	5.1%	6.1%
32	Textil products, Appareal	8.1%	9.2%	11.2%	11.8%
33	Wood production (with furnitures)	52.9%	58.9%	68.6%	108.7%
34	Paper production and paper products and printing	11.2%	15.7%	15.9%	24.2%
35	Chemical products	43.9%	20.0%	21.9%	26.6%
36	Non metal mineral products	12.0%	18.3%	15.8%	20.4%
37	Basic metals	61.8%	62.4%	53.9%	51.4%
38	Metal products	69.5%	67.0%	93.5%	114.4%
Rest of the world					
31	Food, Beverages, Tobacco	1.9%	2.0%	2.1%	2.6%
32	Textil products, Appareal	8.5%	8.5%	10.3%	13.4%
33	Wood production (with furnitures)	53.7%	64.9%	90.0%	124.6%
34	Paper production and paper products and printing	8.2%	8.2%	10.8%	13.7%
35	Chemical products	31.8%	20.7%	25.1%	26.5%
36	Non metal mineral products	9.4%	9.1%	12.3%	12.6%
37	Basic metals	19.4%	15.2%	31.4%	20.4%
38	Metal products	101.6%	130.8%	184.5%	235.3%

Table 25: Export Penetration by ISIC sector, Uruguay

		1994	1993	1996	1997
ISIC sector Mercosur					
31	Food, Beverages, Tobacco	9.9%	10.3%	14.4%	16.9%
32	Textil products, Appareal	10.4%	12.5%	14.2%	18.6%
33	Wood production (with furnitures)	19.3%	30.4%	27.9%	37.8%
34	Paper production and paper products and printing	6.5%	7.5%	10.0%	16.2%
35	Chemical products	14.6%	11.2%	11.4%	12.9%
36	Non metal mineral products	7.0%	7.9%	9.9%	14.9%
37	Basic metals	14.1%	15.6%	19.5%	21.7%
38	Metal products	34.8%	22.7%	23.7%	36.0%
Rest of the world					
31	Food, Beverages, Tobacco	12.9%	12.9%	13.9%	17.4%
32	Textil products, Appareal	41.1%	46.2%	52.6%	51.4%
33	Wood production (with furnitures)	7.6%	13.9%	14.6%	20.9%
34	Paper production and paper products and printing	0.3%	0.9%	0.3%	0.8%
35	Chemical products	1.7%	1.1%	1.2%	1.7%
36	Non metal mineral products	5.3%	4.9%	4.9%	4.9%
37	Basic metals	0.9%	5.7%	6.0%	11.4%
38	Metal products	1.8%	2.3%	3.4%	3.6%

The behavior of these indicators of import competition and export performance by sector also shows a great deal of variance across activities. In the case of Argentina we see that import penetration (Table 22) has increased considerably in sectors like Computer, Accounting and Office Machinery; Engines and Electrical equipment; Audio, Video, TV and Communication Equipment; etc. In general, we can say that import

penetration raised the most in sectors intensive in technology and where natural resources are not a complement factor of production. Regarding the geographical sources of those imports, we see that the domestic industry faced strong competition from regional markets in the case of some labor intensive products like Textiles (also Wood Products) where almost half of the foreign supply came from Mercosur in 1999 (it was a lower proportion in 1994). On the other hand, in the case of capital-intensive goods like Machinery and Equipment; Electrical Machinery; and Communications, the supply is mostly provided from extra-Mercosur markets. The only capital-intensive product from which the supply from Mercosur is significant is that of Motor Vehicles.

On the export side, Table 23 suggest that export penetration has improved in those sectors where Argentina has clear comparative advantages like Food and Beverages, Chemicals, Rubber and Plastic and Metal Products. Regarding destination, we can divide export products in three groups. First, those exports that goes mainly to international markets. Here we have manufactures of Food and Beverages and Leather. Then we have products that go both to Mercosur and to the rest of the world. Here we have Manufactures of Textiles; Manufactures of Refined Petroleum; Chemicals and Plastics. Finally, we have items that are exported mainly to Mercosur and very little to the rest of the world. In this last category, we have Motor Vehicles.

For the case of Uruguay, import penetration (Table 24) is on average higher than in Argentina. Still we also find a great deal of variability across sectors. As we may have expected, given Uruguay comparative advantage in food products, import penetration in this sector is rather low, while export over gross production is relative high (Table 25). We also find that Uruguay has a relative competitive textile industry as suggested by the comparison of the import and export penetration indicators for this activity. On the other extreme, activities like Metal Products, Machinery and Equipment seem to be sectors dominated by foreign suppliers. The coefficient of import penetration has risen significantly during the nineties for these products. Regarding the origin and destination of imports and exports, we see that, at this level of aggregation, most manufacturing sectors in Uruguay faced a similar degree of competition both from Mercosur and from

the rest of the world. The only two sectors in which we observed a clear distinction is Basic Metals where most imports come from Mercosur and Metal Products, Machinery and Equipment where 2/3 of the imports are originated in the rest of the world. On the export side, we see that Textiles are exported in a greater proportion to the rest of the world, confirming the above-indicated statement about the competitiveness of this activity in Uruguay. Food products are exported in similar proportions to both markets. The rest of manufacturing export activities have a clear Mercosur destination.

To what extent this increase in import penetration and in foreign competition, both from Mercosur and from the rest of the world, has been a source of job destruction? Does the need to increase productivity implied a fall in employment also in sectors that, on the contrary, faced more export opportunities?. To answer these questions we have run simple correlation across sectors and across time between change in employment and import and export penetration. Table 26 and 27 presents the results for Argentina and Uruguay, respectively.

Table 26: Correlation between changes in employment by sectors and trade, Argentina 1994/1999

Imports and exports penetration: Mercosur	
	change in employment
with mean of import and export penetration	
export penetration	-0.9%
import penetration	-9.5%
Imports and exports penetration: rest of the world	
	change in employment
with mean of import and export penetration	
export penetration	-19.8%
import penetration	-30.3%

Table 24 Correlation between trade penetration and employment (manufacturing industry), Uruguay (1994/1997)

1- Rest of the world	
with mean of import and export penetration	
	change in employment
export penetration	-32.8%
import penetration	-23.8%
2-Mercosur	
with mean of import and export penetration	
	change in employment
export penetration	-36.8%
import penetration	-30.8%

The above results suggest that in the case of Argentina the increase in trade flows with Mercosur countries has not been associated, on average, with a significant process of job destruction. As we see, both correlation coefficients are negative but have a relative small value. Instead, export penetration, and especially import penetration, calculated using trade flows with the rest of the world, is negatively and significantly associated with job destruction in manufacturing. Thus, we conclude that in the case of Argentina the impact of Mercosur on manufacturing employment was relative small, while it is more visible and significant in the case of trade with the extra Mercosur countries.

For Uruguay, we don't find such a clear-cut distinction between the impact of Mercosur and trade with rest of the world. In both cases, we find a negative and relative significant correlation, for both import and exports. If anything, it seems that the impact of Mercosur on manufacturing employment is larger. Thus, we conclude that in the case of Uruguay Mercosur trade flows have negatively affected the level of industry employment.

These results should be taken with caution though. They are simple correlations so that we are not controlling for many other forces that may have induced different manufacturing activities to change their employment levels. One such determinant that was very important in the case of Argentina was the process of privatization of state enterprises. This has affected very seriously sectors like steel and petroleum.

5. Trends in relative wages in Argentina and Uruguay

5.1 Evolution of the wage differentials by educational level

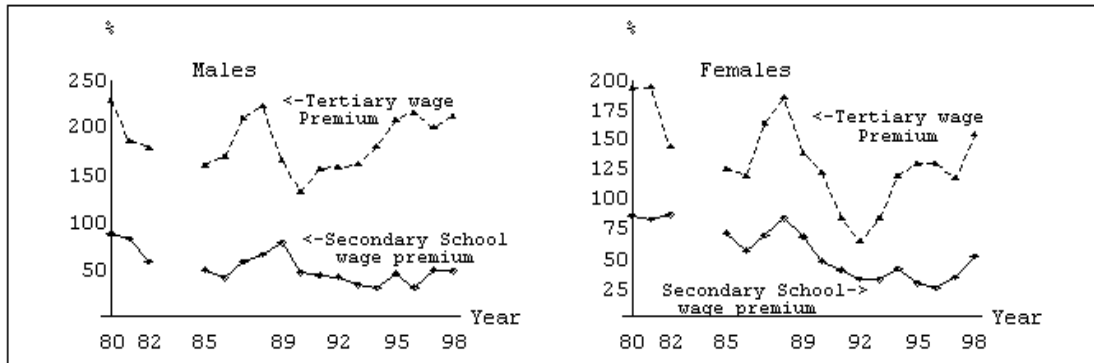
In this section, we study the evolution of the wage structure in Argentina and Uruguay. In the Argentinean case, the empirical evidence available is from Greater Buenos Aires, the main urban agglomerate.⁶ We measure wage differentials by educational attainment levels. We define the ensuing three skill groups: unskilled (those individuals who at most have attended high school but have not finished it), semi-skilled (those that have finished high school) and skilled workers (those that have finished a tertiary degree)⁷. Our study excludes self-employees, owner-managers and unpaid workers because we are only interested in the study of the changes in the wage structure. The results of the estimation of the wage premia by gender are shown in the Figure 7.⁸

⁶ This market covers approximately half of the labor force of the country.

⁷ Galiani (1999) shows that this is the relevant classification of educational skills when analyzing the evolution of wages.

⁸ These estimations 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.

Figure 7: Skilled and semi-skilled workers wage premia
(Base category: unskilled workers)



Source: Galiani (1999).

For the whole period, the main changes in the wage structure are the following: the semi-skilled group has become more like the unskilled group as time has passed, that is, they have seen their wages deteriorated relative to the unskilled group wages. Additionally, the unskilled group has not seen its wages deteriorate relative to the skilled workers wages. For example, the male skilled wage premium was 228 percent in 1980, 156 percent in 1991 and 211 percent in 1998 while the male semi-skilled wage premium was respectively, 87, 44 and 48 percent.

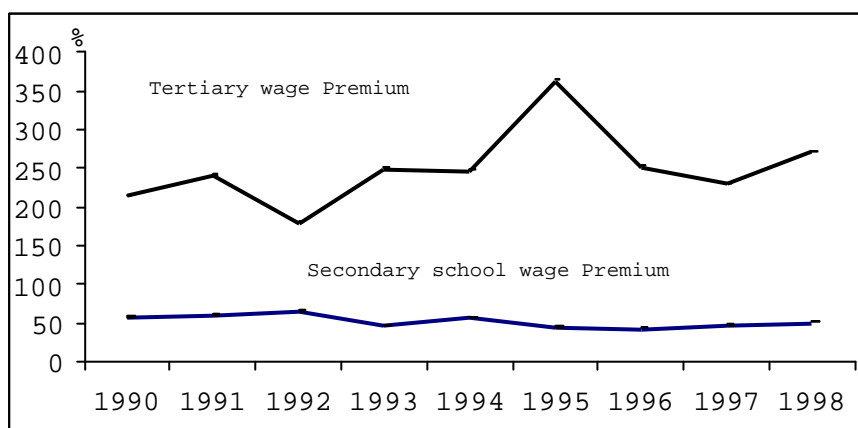
Nevertheless, if the analysis is restricted to the evolution of wages during the nineties, the period when trade liberalization was deepened, we see a somewhat different picture. The wages of the semi-skilled group did not deteriorate relative to the unskilled group wages while both the unskilled and semi-skilled wages deteriorated relative to the skilled group wages. Indeed, the skilled-unskilled wage premium increased substantially during the 90s.

Figure 8 illustrates the evolution of the wage premia for the manufacturing sector.⁹ Due to sample size considerations, we present only an average wage premium by

⁹ 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, a quadratic function in potential experience and a gender dummy. The dependent variable is the logarithm of the hourly

skill group. It is manifest from the figure that the trends we observe in the manufacturing sector during the nineties are similar to those we observe for the whole economy. We find a significant positive trend in the college wage premium. On average, it increased approximately 7 percentage points per year during the nineties while the secondary school wage premium slightly decreased but not significantly.¹⁰ Thus, overall, we may conclude that during the nineties, the trends in the wage structure in the manufacturing sector are quite similar to those for the whole economy.

Figure 8: Skilled and semi-skilled workers wage premia in the manufacturing sector, Argentina (Base category: unskilled workers)



Source: author's elaboration.

For Uruguay, we use the microdata from household surveys for the period 1986-1997. In this case, we had access to the whole dataset not only the main metropolitan area so the result extends more naturally to a national (urban) interpretation. Table 27 displays the logarithmic change in hourly real wages for urban Uruguay for different periods and

earnings of the sampled individuals in their main occupation. The yearly data is taken from the October wave of the Household survey for Greater Buenos Aires (GBA).

¹⁰ Indeed, like for the entire economy, the rise in the skilled workers wage premium started in 1992. It is also worth noting that the 1995 value of this statistic is extremely high in the manufacturing sector. However, it may be even due to sampling variability or measurement error.

different educational levels. We can draw some interesting conclusions regarding the evolution of relative wages. The overall rate of growth in wages is similar for both periods (1986-1990 and 1991-1999) and will be our benchmark point of reference to evaluate the performance of wages for different educational levels. It is interesting to note that in the second half of the eighties Complete Primary and Complete Secondary were the sectors with the largest wage increases, while higher educational level wages performed from moderate growth (Incomplete College) to disappointing 1.1 (complete college) and -0.5 (Professors). The picture is the exactly the opposite in the nineties with higher educational levels wages growing clearly faster than those corresponding to lower of education like incomplete/complete primary and secondary.

Table 27: Logarithmic Change in Real Hourly Wages by educational level, Uruguay

Educational level	1986/1991	1991/1999	1986/1999
Primary school	14.9	9.9	24.8
Incomplete high school	11.4	6.2	17.5
Complete high school	18.1	4	22.1
Technical education	16.7	8.7	25.4
Teachers	-0.5	25.8	25.3
Incomplete collage	9.2	18.3	27.5
Complete collage	1.1	32	33.1
Overall	11.7	11.5	23.2

Source: Arim and Zoppolo (2000)

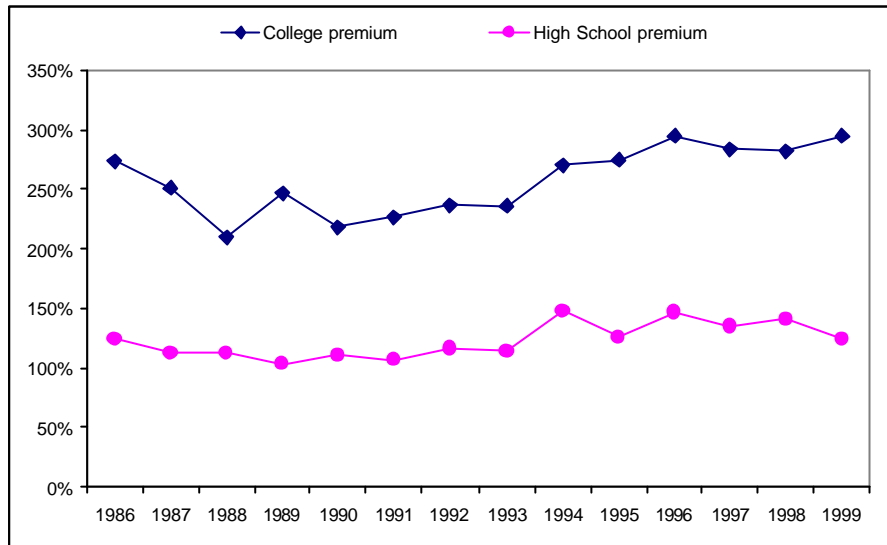
For Uruguay, we categorize the skill levels slightly differently that what we did for Argentina. Thus, the high skill group for Uruguay includes complete as well as incomplete college workers. Workers with complete and incomplete high school compose the semi skill group. The remaining workers (those with at most complete primary education) are in the low-skill group.

Figure 9 shows the evolution of the wage premia in the manufacturing sector for Uruguay. We observe that, for both men and women, there has been an increase in the

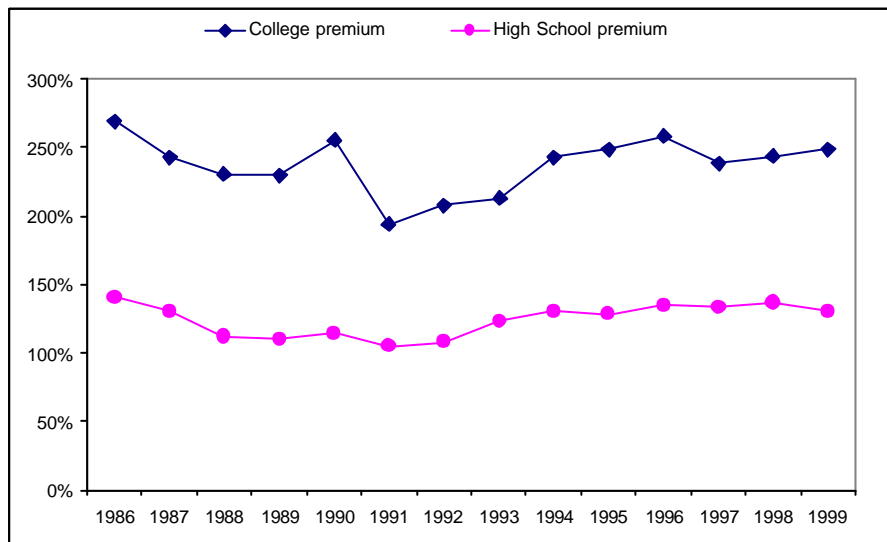
college wage premia, especially during the nineties. Thus, the observed wage patterns are very similar in both countries.

Figure 9: Skilled and semi-skilled workers wage premia in the manufacturing sector, Uruguay
(Base category: unskilled workers)

A-Men



B- Women
(Base category: unskilled workers)



Source: authors elaboration based on household surveys

5.2 Evolution of inter-industry wage differentials

In order to analyze the impact of Mercosur on the wage differentials between the industries we consider the following regression function

$$\log(w_{it}) = \sum_g \beta_g ds_{igt} + \alpha_t age_{it} + \alpha_t^2 age_{it}^2 + \beta_t dsex_{it} + \sum_s \gamma_s dsec_{si} + c_t + u_{it} \quad (1)$$

where ds_{igt} is a dummy variable that indicates schooling group g in period t , and β_g is a schooling effect in period t ; age_{it} and age_{it}^2 represents a quadratic expression in the age of individual i in period t , which is linear in the coefficients to be estimated. $dsex_{it}$ is a dummy variable indicating the gender of individual i and β_t is the gender impact on wages in period t ; c_t is the intercept in period t (the period effect); and u_{it} is the error term for individual i in the t period. $dsec_i$ is a dummy variable that indicate the sector to which the individual belongs. Thus, when we estimate equation (1), we allow the coefficients of the education, age and sex variables to be time variant whereas we assume a fix effect by industry.

The dependent variable is the logarithm of the hourly earnings of the sampled individuals in their main occupations. The schooling groups are the unskilled group, the semi-skilled group and the skilled group defined previously. For Argentina, the micro data on wages comes from the household survey for the period 1991-1999 for both waves of the year (May and October). For Uruguay, we use the Continuous Households Survey (ECH) corresponding to the 1991-1999 period.

We divide the sample period in two sub-periods: 1991/94 and 1995/99. In this way, we obtain an estimation of the inter-industry wage differentials – controlling by personal characteristics- for early nineties and another one for the late nineties. These estimates allow us to compare the relative ordering (ranking) of these coefficients during the first years of Mercosur with the more recent years.

Table 28 shows the ranking of the inter-industry wage differentials for the periods 1991/94 and 1995/99 in both countries.

Table 28: Rank of inter-industry wage differentials (on 24 sectors)

Sectors	Uruguay		Argentina	
	91-94	95-99	91-94	95-99
<i>Primary products</i>	24	24	5	2
Food, Beverages, Tobacco	11	16	20	19
Textil products, Appareal	22	23	23	22
Wood production (with furnitures)	21	21	19	21
Paper production and paper products and printing	9	11	10	11
Chemical products	3	5	12	9
Non metal mineral products	18	19	7	18
Basic metals	5	3	17	7
Metal products	10	15	14	13
<i>Electricity, Gas and Water</i>	6	4	6	10
Construction	19	17	13	17
Major Trade	8	10	11	16
Retail trade	20	20	21	23
Hotels and Restaurants	17	18	24	24
Transportation	12	14	18	20
communications	14	8	8	6
Finance	1	1	4	1
Insurances	2	2	1	3
Real estate and businnes services	4	7	9	14
Public Administration and Defense	15	12	16	8
Other social services	16	6	2	5
Teaching. Health service and other social services	7	9	22	15
repair services	13	13	15	12
House keeping and other personal services	23	22	3	4

Source: authors elaboration based on household surveys

There is a clear and similar pattern in the rankings of sectors in both countries. Thus, textile products, wood production, retail trade, hotel and restaurants and construction are at the bottom of the ranking. On the other hand, the financial and insurance services, electricity gas and water, communications, real state services and the chemical industry are at the top of the rankings.

In order to test the hypothesis that trade liberalization and the Mercosur affected the inter-industry wage differentials, we calculated the Spearman rank correlation coefficients between the structures of the wage premia during the period 1991/94 and the period 1995/99. In the panel A of the Table 29 we report the results. For both countries, we cannot reject the hypothesis that the ordering of the inter-industry wage differentials is the same in both periods. In other words, we do not find evidence that the Mercosur and the trade liberalization policies adopted during the early 90s have had a noticeable impact in the wage premia by activity sector.

Finally, we are interested in analyzing if the Mercosur implied that the ranking of the inter-industry wage differentials tended to converge between both countries. With this goal in mind, we compute the Spearman rank correlation coefficient between the inter-industry wage premia rankings of the Argentina and Uruguay. Panel B of the Table 29 shows that while at the beginning of the decade, the structure the inter-industry wage premia was different between both countries, at the end of the decade we cannot rejected the hypothesis that the rankings are the same. In other words, there is certain evidence that Mercosur generated a convergence process in the inter-industry wage differentials between Argentina and Uruguay.

Table 29: Spearman rank correlation coefficients for the Inter-industry wage differentials

Panel A: time correlation (between periods 1991/94 and 1995/99)	
<i>Argentina</i>	91-94/95-99 0.7887
Prob > t =	(0.0000)
<i>Uruguay</i>	0.8957
Prob > t =	(0.0000)
Panel B	
Panel B: correlation between countries	
91/94	0.2009
Prob > t =	0.3466
95/99	0.5148
Prob > t =	0.0101

Source: authors elaboration based on household surveys

6. Conclusions

In this work, we have analyzed the implications of Mercosur, and more generally, trade liberalization, on the labor markets of Argentina and Uruguay. We obtained several important results that we recapitulate here. In addition, we have presented a very extensive review of the trade information of Mercosur.

Firstly, we considered comparatively, the labor market institutions of Argentina and Uruguay with references to the remaining Mercosur countries: Brazil and Paraguay. We find that by far, Argentina is the country with more dysfunctional labor market institutions. In terms of what matters, unions are more powerful in Argentina than in the other countries. Wage bargaining is at the industry level in Argentina while in the other countries it is mainly at the firm level. What is more, in Argentina, the level of coordination is the lowest level possible for this type of wage bargaining structure. The Argentine type of wage bargaining is prone to induce wage leapfrogging and, hence, a higher equilibrium unemployment rate. Unfortunately, this is what is observed in this country.

The second important institution is the system of unemployment benefits. The countries of Mercosur do not offer a generous system at all. The reasons are well known: the dual characteristic of their labor markets. Finally, all these countries have generous systems of severance payment even though the Argentine system is considerably more generous than the system in the other countries (see, for example, Uruguay in the text). Thus, Argentina needs urgently to move in the direction of the other countries of the trade agreement in terms of its labor market institutions. Until now, however, there has not been any official attempt to move in the direction of integration of the labor markets across the MERCOSUR. This is a pending issue in the integration agenda. Thus, an agenda that favors the convergence of labor market institutions between the Mercosur countries is required.

Mainly, Argentina needs to move to a more decentralized level of wage bargaining. There is a worldwide trend towards decentralization, notable not so much in the decline of central bargaining as in the growth of bargaining at the firm or workplace level (see Ozaki, 1999). This results because uniform regulations concerning wages and terms of

employment applied to unique situations distort productivity (see Heckman, 1997). Thus, higher competitiveness increasingly requires working out solutions to problems that are well adapted to the specific circumstances of the firm. Additionally, wage decentralization may help in achieving wage responsiveness to shocks. Decentralization makes it easier to vary relative wages.

In both Argentina and Uruguay, employment in the manufacturing sector has decreased substantially. For example, we have showed that the reduction in manufacturing employment was more acute in the Textile and Footwear industry. These sectors are the usual reference as an example of the negative impact of trade liberalization on employment. Indeed, all the evidence presented in this work suggest that trade liberalization in general has impacted negatively on the employment of the manufacturing sector.

In the case of Argentina, the increase in trade flows with Mercosur countries, however, has not been associated, on average, with a significant process of job destruction. Instead, export penetration, and especially import penetration, calculated using trade flows with the rest of the world, is negatively and significantly associated with job destruction in manufacturing. Thus, we conclude that in the case of Argentina, the impact of Mercosur on manufacturing employment was relative small, while it is more visible and significant in the case of trade with the extra Mercosur countries. For Uruguay, we don't find such a clear-cut distinction between the impact of Mercosur and trade with rest of the world. However, it seems that the impact of Mercosur on manufacturing employment is larger. Thus, we conclude that in the case of Uruguay, Mercosur trade flows have negatively affected the level of industry employment.

Finally, we were interested in analyzing if the Mercosur implied a change in the inter-industry wage distribution. We asked the data to answer whether or not the ranking of the inter-industry wage differentials tended to converge between both countries. We find certain evidence that Mercosur generated a convergence process in the inter-industry wage differentials between Argentina and Uruguay.

Thus, overall, we find significant impacts of Mercosur on the working of the labor market: it affects prices and, to some extent, also quantities.

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