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Working paper

**UNEMPLOYMENT, MACROECONOMIC POLICY AND LABOR MARKET
FLEXIBILITY: ARGENTINA AND MEXICO IN THE 1990S**

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ABSTRACT

This paper compares the divergent unemployment experiences in Argentina and Mexico in the 1990s, examining in detail the remarkable contrasts in the adjustment of the labor market in these two countries that occur despite equally striking similarities in the evolution of a number of macroeconomic variables and external economic shocks. The paper focuses on the role of macroeconomic policies and the type of industrial restructuring in these developments and considers to what extent the divergent unemployment experiences can be explained by differences in the institutional characteristics of the labor market.

RESUMEN

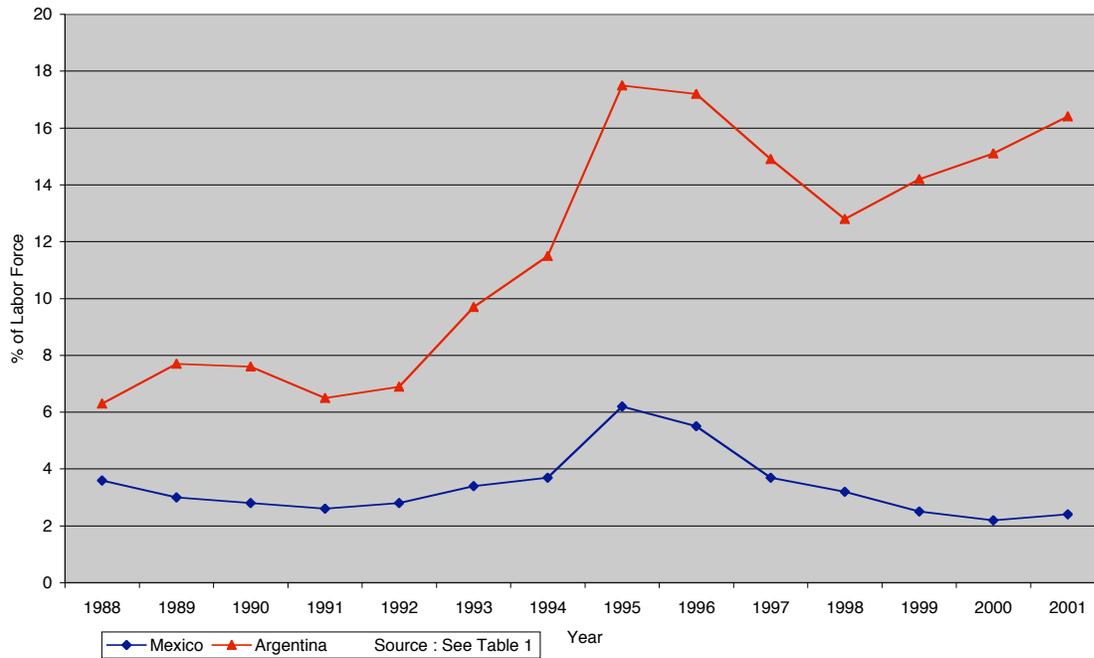
Este artículo compara las experiencias divergentes de desempleo en Argentina y Mexico en los años noventa, examinando en detalle los notables contrastes en el ajuste del mercado de trabajo en esos dos países que ocurren a pesar de igualmente notables similitudes en la evolución de varias variables macroeconómicas y de choques externos. El artículo se concentra en el papel de las políticas macroeconómicas y del tipo de reestructuración industrial y considera la medida en que las divergentes experiencias de desempleo pueden explicarse por diferencias en las características institucionales del mercado de trabajo.

Mexico since the mid 1980s and Argentina in the 1990s liberalized their economies, in particular their trade regimes, and adopted exchange-rate-based stabilization programs. Early in the 1990s, both received massive capital inflows which contributed to the appreciation of the real exchange rate in the early 1990s and, as capital movements were reversed, to a sharp downturn of economic activity in 1995. In the second half of the decade, they continued to be affected by the volatility of capital flows, particularly by the East Asia, Russia and Brazil crises, although exchange rate policies diverged sharply.¹ In a number of aspects the behavior of the two economies is similar: GDP growth is identical for the 1990s as a whole, the real exchange rate appreciates during the stabilization phase, and real wages stagnate from beginning to the end of the decade. At the same time there is a striking contrast in the adjustment of the labor market: starting from somewhat similar levels in the late 1980s, open unemployment had become extremely high in Argentina (of the order of 16–17% of the labor force) a decade later, while remaining very low in Mexico (2 to 3%, see Figure 1). This is the central stylized fact that motivates this paper.²

What explains this remarkable contrast in the adjustment of the labor market that occurs despite equally striking similarities in a number of macroeconomic variables and external economic shocks? What was the role in these developments of macroeconomic policies? Can the divergent unemployment experiences be explained by differences in the institutional characteristics of the labor market? These are the questions addressed by this paper. We begin in section 1 with a brief summary of the policy and institutional context of the 1990s. We then turn in section 2 to the role of GDP growth, real wages, and the real exchange rate in employment performance. Section 3 examines the role of the pattern of trade specialization in explaining the evolution of employment in the tradable goods sector. Section 4 looks at the role of labor market characteristics and that of the non-tradable goods sector in the evolution of the unemployment rate. Section 5 concludes.

FIGURE 1

Urban Unemployment



1. The Policy Context

Mexico in late 1987 and Argentina in early 1991 adopted stringent stabilization programs aimed at bringing high inflation rapidly under control. Both Mexico's Solidarity Pact, based on the initial fixing of the exchange rate followed by a crawling band, and Argentina's convertibility plan based on a hard peg, relied on the exchange rate as a major policy instrument and an anchor for inflation expectations. The Convertibility Law, reinforced later on by a new Central Bank Law, imposed strict limits on monetary policy and established a 100% backing of international reserves for the monetary base.

These stabilization programs took place in the midst of or were followed by wide-ranging economic reforms. Trade liberalization, which had begun in 1985 in Mexico with the reduction of import restrictions on intermediate and capital goods, accelerated in 1988 with the liberalization of consumer goods imports. Starting in January 1994, the free trade agreement with

the United States and Canada became the new institutional framework for trade and capital flows within North America. In Argentina, a policy of gradual reduction of tariffs was implemented in 1988. In the nineties the gradualist approach was abandoned and trade opening was accelerated. Tariffs were reduced from an average of 26.5% in October 1989, to 9.7% in April 1991. In addition, some specific taxes and quantitative restrictions on imports were simultaneously eliminated. At the same time as the approval of the Convertibility Law in April 1991, trade and financial flows were fully liberalized. Equal treatment of foreign and domestic investment was also established.

Other economic reforms accompanied the trade liberalization/exchange-rate-based stabilization programs of the 1990s. Economic liberalization accelerated in Mexico under the Salinas administration (December 1988–December 1994) with the privatization of state banks and public enterprises, as well as the liberalization of the financial system and the capital account of the balance of payments. In Argentina, the Menem administration started a radical program of privatizations. The 1989 State Reform Law provided the legal base for the privatization of public enterprises through public debt-equity swaps. This process affected a wide range of activities (oil, communications, railways, energy, and the state airlines). By 1994, most public firms had been transferred to the private sector.

Along with these reforms came massive capital inflows, predominantly in the form of financial investment. Our two countries were the major recipients of capital flows in Latin America from 1990 to 1993. In Mexico, the main receiver, the capital surge was followed in 1994 by a sudden contraction that led to the December 1994 devaluation of the peso, followed by a deep recession that a massive international rescue package managed to reverse in 1996. Mexico's "Tequila Crisis" had reverberations across Latin America, particularly in Argentina, which suffered from massive outflows and a financial and economic contraction in 1995.³

Macroeconomic policies diverge sharply in the two countries in the second half of the decade. An initially undervalued peso, under a floating-exchange-rate regime, prevails in Mexico, while in Argentina the convertibility law yields an increasingly appreciated currency, especially as major trading partners depreciate their currencies, including in particular Brazil in early 1999. A large and increasing foreign debt in Argentina prevents the use of fiscal policy to offset the adverse effects of overvaluation on economic activity. In Mexico, rapid export growth up to 2001 makes fiscal expansion unnecessary, while contributing to the fall of the debt-export

ratio, which had already been reduced to low levels by the privatizations at the beginning of the decade.

2. Manufacturing Employment, GDP Growth, and the Evolution of Key Prices

The stabilization programs, accompanied by trade liberalization and real exchange rate appreciation, constituted the macroeconomic setting in which both economies evolved during the first part of the decade (up to 1994) and, in the case of Argentina, for the whole decade. As in other experiences of trade liberalization with real appreciation, the tradable goods sector adjusted to the shock through an acceleration of labor productivity growth.⁴ The counterpart of this acceleration has typically been a growth slowdown or even a contraction of employment in the tradable goods sector. As shown in Table 1 and Figure 2, from 1990 to 1994 manufacturing employment (which we use as our indicator of employment in the tradable goods sector) falls in both experiences, although considerably more in Argentina than in Mexico (where the contraction is insignificant). Following the 1995 recession, associated with Mexico's balance of payments crisis in late 1994 and its Tequila effect in Argentina, employment recovers at a relatively fast pace in Mexico while it continues to contract in Argentina until, in 2001, it reaches two thirds of its 1990 level (see Figure 2).

It is remarkable that neither the GDP growth rate nor real wages are good candidates to explain the contrast in the evolution of employment. The behavior of real wages for the decade as a whole and the average rate of growth of GDP are remarkably similar in the two economies (with annual GDP growth rates of approximately 3.1% for 1990–2001 and slight variations in manufacturing real wages). Moreover, from 1990 to 1994, manufacturing employment falls by 1.1% in Mexico (6.4% for 1990–95), compared to a fall of 11% in Argentina (16.3% for 1990–95). Thus, in the first part of the decade (1990–94), GDP growth is faster in Argentina (7.6% vs. 3.6% per year in Mexico), where employment falls more, and real wages increase more in Mexico (14% vs. 1.3% in Argentina), where employment falls less. In the second part of the decade, after the 1995 recession, the anomalies partly disappear with employment growing faster where GDP grows more (in Mexico). Indeed, from 1996 to 2001, employment in Argentina continues to fall at an annual rate of 4.7% while in Mexico it recovers at a pace of 5.7% per year (1996–2000). In this period, Mexico catches up with a GDP growth rate of 4.3 % for 1996–2001 (compared to 0.6% in Argentina). The anomaly remains for the decade as a

whole: the behavior of GDP is very similar while the evolution of employment is notably different and real wages increase less where employment falls more.

FIGURE 2

Manufacturing Employment

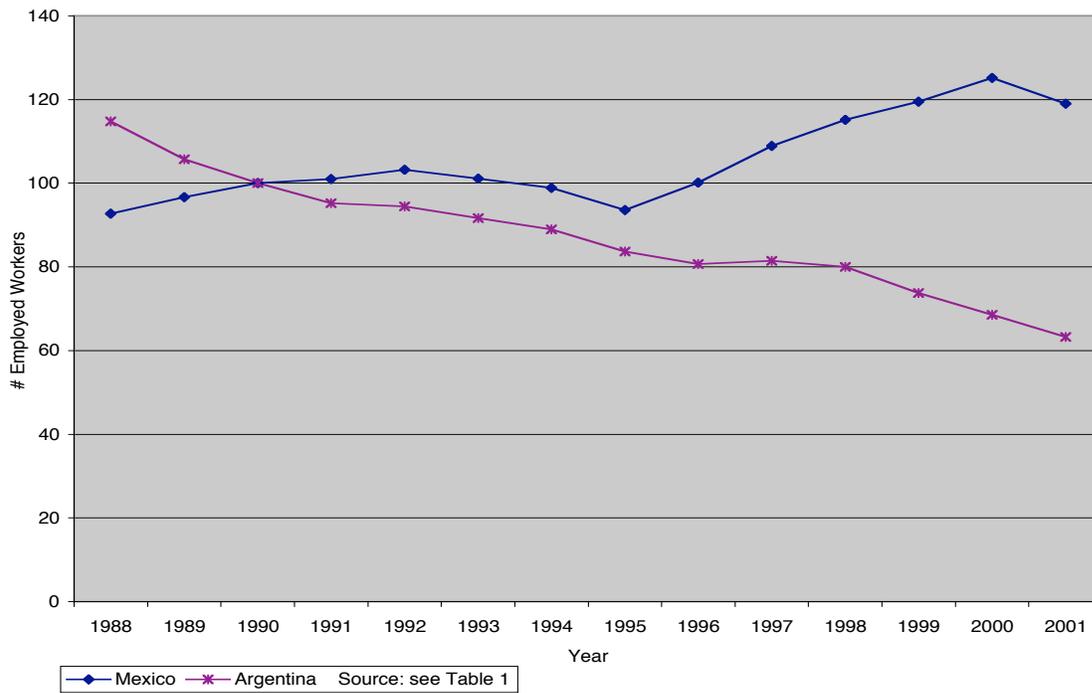


TABLE 1

Macroeconomic and Labor Market Indicators

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Mexico														
GDP (index) ^a	94.6	95.8	100	104.2	108.0	110.1	115.0	107.8	113.4	121.1	127.2	131.7	140.4	140.0
GDP growth rate (%) ^a	1.3	4.2	5.1	4.2	3.6	2.0	4.4	-6.2	5.2	6.8	5.0	3.6	6.6	-0.3
Inflation (% , end of year) ^b	51.7	19.7	29.9	18.8	11.9	8.0	7.1	52.0	27.7	15.7	18.6	12.3	9.0	4.4
Real exchange rate (index) ^c	111.1	105.6	100	91.4	83.3	78.9	82.0	118.6	107.5	95.1	96.2	88.1	82.3	78.6
Real wages (index) ^d	92.6	100.2	100	103.3	108.7	109.8	114.0	99.2	90.6	90.1	92.7	93.9	99.9	105.2
Wages in constant dollars ^e	83.3	95.4	100	113.1	130.4	139.2	139.0	83.6	84.3	94.8	96.4	106.5	121.3	133.8
Manufacturing employment ^f	92.7	96.7	100	101.0	103.2	101.1	98.9	93.6	100.1	108.9	115.2	119.5	125.2	119.0
Urban unemployment ^g	3.6	3.0	2.8	2.6	2.8	3.4	3.7	6.2	5.5	3.7	3.2	2.5	2.2	2.4
Argentina														
GDP (index) ^h	109.0	102.2	100	109.7	119.6	126.4	133.8	130.0	137.2	148.3	154.0	148.8	147.6	141.1
GDP growth rate (%) ^h	-1.4	-6.2	-2.2	9.7	9.0	5.7	5.9	-2.8	5.5	8.1	3.9	-3.4	-0.8	-4.4
Inflation (% , end of year) ⁱ	387.7	4923.6	1343.9	84.0	17.5	7.4	3.9	1.6	1.0	0.3	1.5	-1.8	-0.8	-1.6
Real exchange rate (index) ^j	141.0	180.3	100	64.9	55.4	51.9	51.1	50.8	52.3	53.2	53.5	55.3	57.7	59.4
Real wages (index) ^k	123.0	104.3	100	94.1	97.9	99.4	101.3	96.2	96.3	93.5	91.9	92.4	93.6	92.7
Wages in constant dollars ^l	87.2	57.9	100	144.8	176.9	191.6	198.3	189.3	184.3	175.7	171.9	166.9	162.1	156.2
Manufacturing employment ^m	114.8	105.7	100	95.2	94.5	91.7	89.0	83.7	80.7	81.5	80.0	73.8	68.6	63.3
Urban unemployment ⁿ	6.3	7.7	7.6	6.5	6.9	9.7	11.5	17.5	17.2	14.9	12.8	14.2	15.1	16.4

Notes: ^a Mexico: At constant 1993 prices. Source: National Accounts, INEGI.

^b Consumer prices. Source: Banco de México.

^c Based on consumer prices in US and Mexico. Source: Banco de México and IMF, International Financial Statistics.

^d Average real earnings in manufacturing. Source: National Accounts, INEGI. The value for 2001 was extrapolated using the Encuesta Industrial Mensual.

^e Estimated as real wages divided by real exchange rate.

^f Wage employment (index). Source: National Accounts, INEGI.

^g Open unemployment as % of labor force. Source: INEGI Argentina.

^h At constant 1993 prices. Source: National Accounts, Ministerio de Economía de Argentina.

ⁱ Consumer prices. Source: INDEC.

^j Based on consumer prices in US and Argentina. Source: INDEC and IMF.

^k Average real wage in manufacturing. Source: Encuesta Industrial Mensual, INDEC.

^l Estimated as real wages divided by real exchange rate.

^m Number of employed workers in manufacturing (index). Source: Encuesta Industrial Mensual, INDEC.

ⁿ Open unemployment as % of labor force. Source: Encuesta Permanente de Hogares, INDEC.

What then is the reason for the sharply different evolution of employment, if not a different behavior of real wages or a slower growth of output? One factor seems to be the different evolution of wages in constant dollars, which, arguably, is more relevant than real wages to the competitiveness and the evolution of employment in the tradable goods sector. While dollar wages increase in Argentina by almost 100% in 1990–94 (56% for the period 1990–2001 as a whole), they increase by less than 40% in Mexico (for both 1990–94 and the period as a whole). Although the difference between the increases in dollar wages in Mexico and Argentina for the whole period is not very significant, there is a substantial difference between the paths followed by this relative price throughout the decade.

What accounts for the different trajectories of the dollar wage rates? The answer seems clear-cut: the evolution of the real exchange rate, given that the dollar wage is nothing but the ratio of real wages to the real exchange rate. Given that the real wage stagnates in Mexico and falls in Argentina, it is the different evolution of the real exchange rate (a fall of 40% in Argentina and of around 20% in Mexico) that accounts for the different paths of dollar wages. In turn, the different trajectories of real exchange rates are largely due to the sharp devaluation of the Mexican peso by the middle of the decade. While the real exchange rate in Mexico is on average 95.2 for 1995–2001 (and 87.1 in 1990–94)—with a tendency to appreciate—in Argentina it oscillates around 54.6 (compared to 64.6 in 1990–94).

A comparison of the two subperiods also shows how the evolution of dollar wages removes the anomalous relationship between labor costs and employment that was suggested by the evolution of real wages. Now, in the first period (1990–1994) employment falls less where dollar wages increase less (i.e., in Mexico). In Argentina, a sharp appreciation of the real exchange rate takes place in 1991, the first year of the stabilization program, and the contraction of employment from then onwards appears to be mainly a response to this large shock (together with trade liberalization). The different evolution of employment in the second half of the decade also illustrates the key role of the exchange rate and how it did reverse, in the case of Mexico, the adverse effects on employment that the real appreciation/trade liberalization shock had in the first part of the decade. Clearly, the 1994–95 devaluation set the stage for the recovery of manufacturing employment in Mexico.

To see more clearly how real wages and dollar wages can move in different directions, let us write the real wage (w/p) as the dollar wage (w^*) times the real exchange rate:

$$w/p = w^* [(e p_N^*)^a (e p_T^*)^{1-a}] / [(p_N)^a (p_T)^{1-a}]$$

where w is the nominal wage rate;

$p = (p_N)^a (p_T)^{1-a}$ is the consumer price index (a and $1-a$ being, respectively, the shares of non-tradable, N , and tradable goods, T , in consumption);

$w^* = w / [(e p_N^*)^a (e p_T^*)^{1-a}]$ is the dollar wage (p_N^* and p_T^* being the foreign currency prices of non-tradable and tradable goods, respectively, in the domestic economy trading partners);

e is the nominal exchange rate.

Assuming that the prices of tradable goods are determined in the international market ($p_T = e p_T^*$), after some algebraic manipulation, we get:

$$w/p = w^* (p_T/p_N)^a (p_N^*/p_T^*)^a$$

Thus, a devaluation that increases (p_T/p_N) raises the real wage relative to the dollar wage. It is worth noting that even if in the long run (p_T/p_N) returns to its original value, the composition of employment will have changed in favor of the tradables sector. With increasing returns, due to economies of scale, and faster productivity improvements in the tradables sector and diminishing returns to labor in non-tradables, this reallocation of the labor force will have increased the productivity (and competitiveness) of the economy as a whole.

A second factor that contributes to explain the different behavior of employment growth in Mexico and Argentina is the expansion of the US economy in the 1990s, particularly in the second half of the decade. Since the mid 1980s and especially with the passage of NAFTA in 1994, Mexico's business cycle has become increasingly synchronized with that of the US. According to Gruben (2001) and Gould (1998), demand factors have a large contribution to the variation of employment growth in Mexico's maquiladora sector. Argentina does not appear to be nearly as dependent on demand conditions in the US as Mexico is.

3. Employment and the Pattern of Trade Specialization

We have noted in the previous section that in the first part of the decade (1990–94) growth is faster in Argentina, where employment falls more, and real wages increase more in Mexico, where employment falls less. While the anomaly disappears when we consider the behavior of the real exchange rate and dollar wages, a puzzle remains. Why is it that in Mexico employment largely remains constant in the first part of the decade despite a sharp appreciation

of the real exchange rate, the increase in dollar wages, and sluggish growth? We now turn to the role of the pattern of trade specialization in the evolution of employment in the tradable goods sector.

Argentina and Mexico are representative of two different patterns of trade specialization in Latin America.⁵ As shown in Figures 3 and 4, the composition of Mexico’s exports is heavily and increasingly oriented towards manufacturing (with maquiladora and non-maquiladora manufactures representing around 80% of total exports by 2000) while Argentina’s are dominated by natural-resource-intensive goods, with primary products and manufactures of agricultural origin (MOA in Figure 4) having a relatively stable share of the order, 70%, throughout the 1990s. These differences in trade patterns appear to have had important implications for the evolution of employment in the tradable goods sector.

FIGURE 3

Composition of Mexico’s Exports

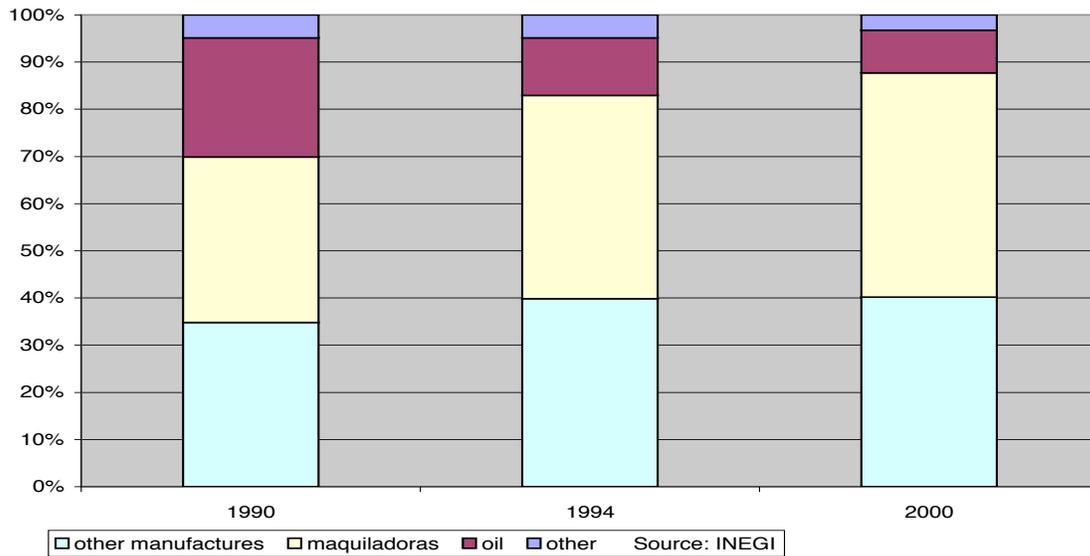


FIGURE 4

Composition of Argentina's Exports

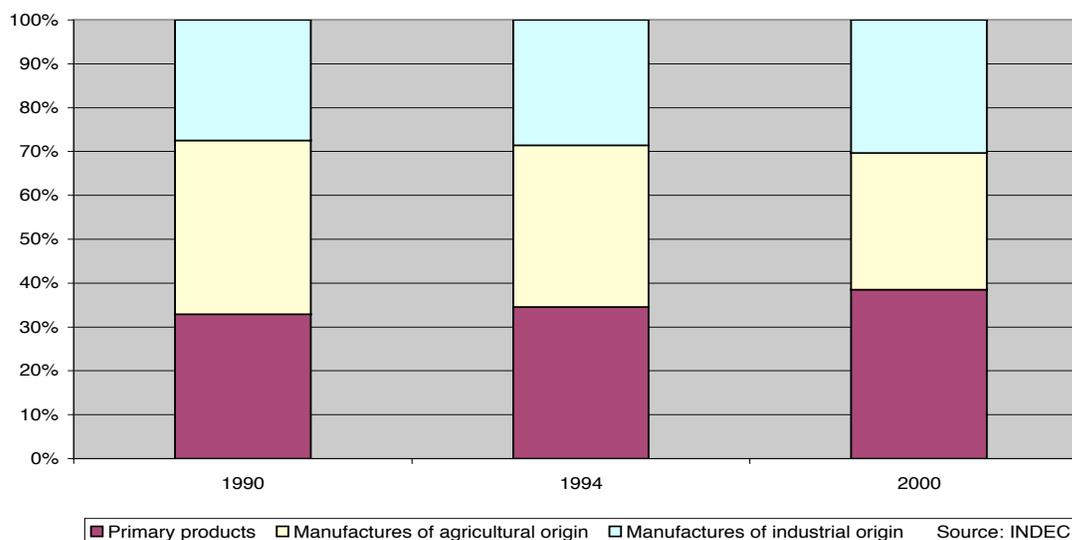


Table 2 shows the evolution of employment and labor productivity in Mexico in two manufacturing sectors: the maquiladora export industry—which includes a large segment of the exportable manufactures sector—and the non-maquiladora industry, comprising mostly importable goods activities. As shown in Table 2, in the period of simultaneous overvaluation and trade liberalization, the level of employment in the non-maquiladora industry actually falls (7.4% compared to the 11% fall in Argentina for manufacturing as a whole). It is thus the expansion of employment in the maquiladora industries which prevents manufacturing employment from declining significantly between 1990 and 1994 and which explains at least part of the contrast with Argentina's experience.

TABLE 2

Mexico: Employment and Productivity in Manufacturing (maquiladora and non-maquiladora industries), 1990–2001

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Employment^a												
Non-maquiladora industry												
Index 1990 = 100	100	101.7	101.8	98.6	94.8	86.6	89.6	94.3	97.7	98.1	99.5	95.5
As % of manufacturing employment	86.2	86.9	85.1	84.1	82.6	79.7	77.2	74.7	73.1	70.8	68.5	69.2
Maquiladora industry												
Index 1990 = 100	100	96.2	111.6	116.7	124.6	137.8	165.8	200.3	224.8	253.5	286.3	266.3
As % of manufacturing employment	13.8	13.1	14.9	15.9	17.4	20.3	22.8	25.3	26.9	29.2	31.5	30.8
Output per employee^b												
Non-maquiladora industry (index)												
	100	102.1	105.6	108.0	116.5	120.1	127.9	133.2	137.6	141.9	148.7	150.1
Maquiladora industry												
Index 1990 = 100	100	98.0	99.8	100.0	103.7	104.1	103.5	97.6	97.1	96.8	97.5	94.8
As % on non-maquila industry	31.6	30.4	29.9	29.2	28.1	27.4	25.6	23.2	22.3	21.6	20.7	20.0
Maquiladora industry												
Relative wages ^c	81.2	77.3	74.5	73.6	73.6	79.8	83.0	84.2	84.1	83.9	87.0	87.3
Profits as percent of value added ^d	24.0	26.8	19.0	19.1	17.9	22.3	21.0	20.2	22.0	22.4	18.1	19.9

Source: National Accounts, INEGI.

^a Wage employment.

^b Gross value added divided by wage employment.

^c Average earnings in maquiladora industry as % of average earnings in manufacturing.

^d Gross operating surplus as % of gross value added.

More generally, the decade records a major restructuring of the Mexican manufacturing sector with a rapid expansion of employment in the maquiladora industries, which increase their share in manufacturing employment from 14% to over 30% between 1990 and 2000. This rapid expansion, which continues at a high pace after the devaluation of the peso in late 1994, contributed in two ways to increase the labor requirements per unit of output in manufacturing. First, the maquiladoras are on average more labor intensive than manufacturing. At the beginning of the decade, value added per worker was about a third of the level in the non-maquiladora industry (see Table 2). The contraction of the importable goods sector and the expansion of the exportable goods sector thus tended to increase the level of employment per unit of output. Second, labor productivity in the maquiladoras remained constant throughout the decade (see Table 2). The increasing share in overall output and employment of a sector with stagnant labor productivity contributed to the increase of employment in the tradable goods sector, largely offsetting the fall in labor requirements per unit of output in the non-maquiladora industry. The fact that, unlike what happened in the non-maquiladora industries, labor productivity did not increase rapidly after the trade reform is not surprising. The maquiladoras were born under a free trade regime and thus did not have to adjust to the new conditions created by trade liberalization.

The stylized facts of the Argentine experience do not differ from those observed in the Mexican non-maquiladora manufacturing sector in the first half of the nineties, although the employment contraction was significantly larger than in Mexico. The key difference is that no manufacturing subsector played a cushion role similar to that played by the maquiladoras in Mexico. The manufacturing sector in Argentina experienced a deep restructuring in the nineties. From 1991 onwards, employment in the sector fell continuously and there was a persistent upward trend in output per worker and in output per hour worked. Manufacturing sector employment fell 37% in the 1990–2001 period and output per worker in the sector as a whole increased by 94%. Taking into account the evolution of manufacturing output, the trajectory of employment in the sector can be decomposed in two components: a positive one related to the growth in production, and a negative one related to the contraction of employment per unit of output resulting from the adjustment process to the new conditions established by the combination of trade liberalization and an appreciated exchange rate. Estimations of the output-elasticity of labor (Frenkel and González Rozada 1999) show a coefficient significantly less than

one. So, output per worker growth has a cyclical component. In the 1990–2001 period, about one quarter of the rise in output per worker can be attributed to the increase in manufacturing output and three quarters to the autonomous trend of falling labor requirements per unit of output. *Ceteris paribus*, if manufacturing output had been stagnant at the 1990 level, employment in the sector would have experienced a 62% contraction (instead of the 37% contraction actually observed.)

An analysis of 26 individual manufacturing industries (Frenkel and González Rozada 1999) shows that none was an exception to the trends described above. Each one experienced an adjustment process qualitatively similar to the manufacturing sector as a whole. Almost all industries expelled labor force. Of course, the individual performances differ among them with respect to the rise in demand (domestic demand plus exports) and also with respect to the composition of the corresponding increase in supply (domestic output plus imports). A comparative analysis of the industries shows a *negative* correlation between the increase in output per worker and the change in the degree of economic openness (change in imports divided by change in demand). On the other hand, changes in the degree of openness are positively correlated with the degree of openness observed in 1990 at the beginning of the period. Domestic output and output per worker grew more in the industries showing lower import penetration before the new conditions of the nineties were established.

In fact, the different trajectories followed by the manufacturing industries seem to be mainly explained by the conditions of relative competitiveness prevailing at the end of the eighties. Confronted with lower tariffs, an appreciated exchange rate, and a strong increase in domestic demand, the industries that competed more advantageously with imports were those that already had higher relative competitiveness before the shock, for instance the processing of natural resources and industrial commodities. In the Mexican case, the forces that operated simultaneously in the first part of the nineties induced the accentuation and consolidation of the conditions of relative competitiveness of the late eighties. But in Argentina, as mentioned before, no manufacturing subsector played the role that the maquiladora industry performed in Mexico, absorbing part of the labor force displaced by import penetration and the reduction of labor per unit of output in the rest of the manufacturing sector. The whole manufacturing sector expelled labor force. The generalized reduction in labor per unit of output resulted mainly from the introduction of labor-saving technologies and organization schemes but also involved changes in

the production profile (for instance, a less diversified product basket and complementing the firm supply with imported final goods). Given that the data analyzed refer to sector output (instead of value-added) at the relatively aggregated level of 26 manufacturing industries, another factor that has to be mentioned is the reduction of value-added per unit of output as a result of more intensive use of imported inputs.

4. Unemployment, Labor Market Regulations, and the Role of the Informal Sector

We look now at the characteristics of labor markets in the two countries. We shall examine both level of and changes in labor market rigidities, since it is unclear whether either one or both may affect unemployment. While *changes* in labor market characteristics are a clear candidate to explain unemployment performance over time, it can also be argued that more flexible labor markets minimize the rise in unemployment in the face of negative shocks to aggregate demand and thus the level of flexibility can also affect the behavior of unemployment over time.

TABLE 3

Labor Market Characteristics in Argentina and Mexico

	Argentina	Mexico	Latin America
ILO conventions ^a	67	76	NA
Aggregate labor rigidity ^b	0.38	0.33	0.32
Payroll taxes ^c	36	23	NA
Tax wedge ^d	22.4	22.5	NA
Dismissal costs ^e	24.8	26.1	26.1
Unionization ^f	30	29	18.1
Collective bargaining ^g	Centralized, strong state intervention	Centralized, strong state intervention	

Notes: ^a Number of ILO conventions ratified. Source: Edwards and Lustig (1997).

^b Composite index based on average values, for the period 1970-1999, of the ratio of minimum wages to average labor costs in large manufacturing firms, social security contributions as percent of salaries, union membership as percent of labor force, and employment in general government as percent of labor force. The partial indicators are normalized (so that the country with the highest level gets a one and that with the lowest level gets a zero) and the aggregate is a simple average of the four components. Source: Forteza and Rama (2001).

^c As percent of gross wages, early 1990s. Source: Cox-Edwards (1997).

^d Fiscal contributions as percent of gross remuneration (including mandated benefits), 1995. Source: Guasch (1999).

^e 1999 (no change from 1990). Source: Heckman and Pagés-Serra (2000).

^f As % of labor force (average 1980-92). Source: Rama (1995).

^g Source: Guasch (1999).

Is Argentina's labor market more "distorted" than Mexico's (or vice versa)? What has happened to distortions in the two labor markets over the 1990s? The evidence presented in Table 3 shows striking similarities between the two countries.

The number of ratified International Labor Organization (ILO) conventions, which is often taken to indicate the nominal (on paper) "thickness" of labor market regulation—that is, the willingness and scope of government intervention in the labor market—is slightly higher in Mexico than in Argentina. Both have more ILO conventions than Chile (41) or Colombia (50), and about the same as Brazil (73). The aggregate labor market rigidity indicator, constructed by Forteza and Rama (2001), is a composite index based on the ratio of minimum to average wages, mandated benefits, trade union membership, and the share of government employment (see Note b in Table 3).⁶ According to this indicator, Argentina has a slightly more rigid labor market than Mexico. Both are close to Latin America's average (0.32), have considerable more rigidity than Chile (0.15, the most flexible labor market in the region), and significantly less than Uruguay (the most rigid market, with an indicator of .47).

The higher aggregate rigidity in Argentina is related to payroll taxes, which were considerably higher there in the early 1990s. As a percent of gross wages, these taxes were of the order of 23% in Mexico compared to 36% in Argentina (the highest in a sample of large and medium-size Latin American countries). However, by the mid 1990s the burden of non-wage costs as measured by the tax wedge estimated by Guasch (1999) was practically identical in the two countries. From 1990 to 1995, it had substantially decreased in Argentina (from 32.8% to 22.4%) and increased slightly in Mexico (from 20.7% to 22.5%).

Forteza and Rama's rigidity indicator does not take into account job separation costs. This gap can be filled with the job security index provided by Heckman and Pagés-Serra (2000). This index computes, at the time of hiring, the expected cost of future dismissal. Dismissal costs include advance notification costs and severance pay. It turns out that Argentina and Mexico have very similar firing costs (24.8% and 26.1%, respectively, as percent of annual wage). In fact, they are slightly higher in Mexico, which is right on the Latin American average. Both countries have lower costs than Chile (28.2%) and significantly higher costs than Brazil and Uruguay (14.9% and 18.6%, respectively).

Collective bargaining in our two countries is very similar.⁷ Both countries have centralized systems with high state intervention through registration of unions, conciliation, and

arbitration. Performance-based compensation represents a low percentage of collective labor contracts in both (Guasch 1999). Unionization rates (30% in Argentina and 29% in Mexico, as percent of labor force) are almost identical and among the highest in Latin America. The high degree of aggregate real wage flexibility in Mexico has been attributed to this combination of centralization and government intervention.⁸ For the case of the Argentine labor market, Damill, Frenkel and Maurizio (2002) present estimations of “wage curves,” relating real wages to unemployment rates, showing significant wage–unemployment elasticities, of similar value to the elasticities estimated for the US economy.

Have labor markets in our two countries become more rigid or more flexible during the 1990s? Dismissal costs were identical in 1990 and 1999 (see Table 3, Note e). In other aspects, Argentina’s labor market appears to have become, if anything, more flexible. In addition to pension reform in 1994,⁹ Argentina relaxed constraints on temporary contracts, reduced the tax wedge, and adopted legislation distinguishing between unjustified and justified dismissals (the latter being those associated to a firm’s economic difficulties). By contrast, Mexico did not experience much labor market reform in the 1990s except for the implications of the adoption of a fully funded pension system in 1997 (Loayza and Palacios 1997).

In conclusion, whether labor market interventions represent a major impediment to efficiency in resource use and allocation (as asserted by dominant “distortionist” views according to which there is an obvious trade-off between economic efficiency and the social protection of labor) or not,¹⁰ it is clear that the differences in labor market regulations between our two countries are too small to account for the sharp contrasts in employment and unemployment performance.

We believe, however, that some characteristics of the labor market, with no obvious and clear connection with labor regulations, do matter for unemployment performance. Tables 4 and 5 for Mexico and Tables 6 and 7 for Argentina show those sectors that experienced employment reductions and those that absorbed labor force, as well as the extent to which the increase in labor supply coming from the change in the participation rate and the contraction of the importable goods (or non-maquiladora) sector was channeled into other sectors of the economy, underemployment and open unemployment.

Despite the reversal of employment losses that took place in Mexico’s manufacturing sector in the second half of the decade, full-time employment in the non-maquiladora industries

was lower in 2000 (as % of urban population) than it was at the beginning the decade (see Table 4). Moreover, the 1990s recorded a sharp increase in the participation rate (3.3 percentage points of the urban population) that added almost a half percentage point per year to the growth of the labor supply. The contraction of non-maquiladora full-time employment plus the increase in the participation rate, equivalent together to 3.9 percentage points of the urban population, had to find its way as full-time employment in other sectors of economic activity, underemployment or open unemployment. As we know and illustrated again in Table 4, open unemployment (as percent of urban population) was the same at the beginning and the end of the decade. At the same time, the increase in underemployment (0.4 percentage points) falls well short of the overall increase in the labor supply.

TABLE 4

**Mexico: Full-time Employment, Unemployment and Underemployment
in Urban Areas, 1991–2000**

As % of urban population ^a	1991	1993	1995	2000	Δ 95-91	Δ 00-95	Δ 00-91
Full time employment ^b	29.0	29.1	28.6	32.0	-0.4	3.4	3.0
Non-maquiladora industry ^c	6.2	6.0	5.3	5.6	-0.9	0.3	-0.6
Maquiladora industry ^c	0.9	1.1	1.4	2.5	0.5	1.1	1.6
Non-tradable goods sectors	21.1	21.6	21.5	23.4	0.4	1.9	2.3
Employers	1.0	1.1	1.0	1.2	0.0	0.2	0.2
Wage employment	14.9	15.2	14.9	16.6	0.0	1.7	1.7
Self-employed	4.1	4.1	4.4	4.7	0.3	0.3	0.6
Unpaid and other	1.1	1.2	1.2	0.9	0.1	-0.3	-0.2
Other ^d	0.8	0.4	0.4	0.5	-0.4	0.1	-0.3
Underemployment ^e	7.8	8.2	8.2	8.2	0.4	0.0	0.4
Open unemployment	0.9	1.3	2.8	0.9	1.9	-1.9	0.0
Participation rate	37.7	38.6	39.6	41.1	1.9	1.5	3.4

Sources: Encuesta Nacional de Empleo, Encuesta Nacional Empleo Urbano and National Accounts, INEGI and Secretaria del Trabajo y Prevision Social.

^a Population in areas with more than 100,000 inhabitants.

^b Includes those working 35 hours or more per week.

^c Obtained multiplying shares in manufacturing by manufacturing share in full-time employment (manufacturing share includes extractive industries).

^d Includes agriculture, unspecified, and residual difference.

^e Includes those working less than 35 hours per week.

Thus, most of the job losses in the importable goods sector plus the increase in labor supply were absorbed through the expansion of full-time employment in other sectors of the economy. We have already seen the important role in this expansion of the maquiladora industries, which increased their employment share by 1.6 percentage points. The non-tradable goods sectors, with an increase in the employment share of 2.3 percentage points of the urban population, had an even larger role. As shown in Table 4, this expansion took the form of an increase in wage earners (1.7 percentage points) and self-employed (0.6 percentage points) and was concentrated in sectors of economic activity usually associated with a high degree of informality, such as other services (with an increase of 1.1 percentage points) and commerce (with an increase of 0.6 percentage points) (see Table 5). This is suggestive of the role that the informal sector had in Mexico in keeping unemployment and underemployment at low levels.

Table 5

Mexico: Full-time Employment in the Non-tradable Goods Sectors, 1991–2000

As % of urban population ^a	1991	1993	1995	2000	Δ 95-91	Δ 00-95	Δ 00-91
Construction	1.8	1.9	1.6	2.0	-0.2	0.4	0.2
Electricity	0.2	0.2	0.1	0.2	-0.1	0.1	0.0
Commerce	5.9	6.0	6.1	6.6	0.2	0.5	0.7
Transport and communications	1.8	2.0	2.0	2.2	0.2	0.2	0.4
Public administration	2.2	2.0	1.9	2.0	-0.3	0.1	-0.2
Other services	9.3	9.4	9.7	10.4	0.4	0.7	1.1

Sources: Encuesta Nacional de Empleo, Encuesta Nacional Empleo Urbano and National Accounts, INEGI and Secretaria del Trabajo y Prevision Social.

^a In areas with more than 100,000 inhabitants.

As shown in Tables 6 and 7, the experience of Argentina was very different. Not only were full-time employment losses in the importable goods sector much larger (3.5 percentage points of urban population), but almost every non-tradable goods sector contributed to the fall in full-time employment. The only exceptions are financial services and transport and communications. Thus, in contrast to Mexico, full-time employment in the non-tradables sector as a whole remained stagnant between 1991 and 2000 and consequently did not contribute to the absorption of the full-time jobs lost in the tradables sector. Some sectors had shown declining trends before the recession associated with the Tequila effect. The “other services” sector

showed a systematic falling trend, unlike what happened in Mexico. In the commerce and in the construction sectors there was a recovery of full-time jobs between 1995 and 2000, but in 2000 the corresponding proportions in urban populations were lower than in 1991.

TABLE 6

Argentina: Full-time Employment, Unemployment and Underemployment, 1991–2000							
As % of total population ^a	1991	1993	1995	2000	Δ 95-91	Δ 00-95	Δ 00-91
Full-time employment ^b	31.0	31.2	28.1	27.5	-2.9	-0.6	-3.5
Manufacturing	8.9	8.6	6.5	5.3	-2.4	-1.2	-3.6
Non-tradable goods sectors	22.1	22.7	21.6	22.2	-0.5	0.6	0.1
Involuntary underemployment ^c	3.3	3.8	5.1	7.2	1.8	2.1	3.9
Voluntary underemployment ^d	4.2	4.5	3.4	3.4	-0.8	0.0	-0.8
Open unemployment	2.6	4.7	9.3	7.3	6.7	-2.0	4.7
Participation rate	41.1	44.2	45.9	45.4	5.0	-0.6	4.4

Source: Encuesta Permanente de Hogares, INDEC.

^a This data correspond to the Greater Buenos Aires region.

^b Includes those working 35 hours or more per week.

^c Includes those working involuntarily less than 35 hours per week.

^d Includes those working voluntarily less than 35 hours per week.

TABLE 7

Argentina: Full-time Employment in the Non-tradable Goods Sectors, 1991–2000							
As % of total population ^a	1991	1993	1995	2000	Δ 95-91	Δ 00-95	Δ 00-91
Construction	2.2	2.1	1.7	1.9	-0.5	0.2	-0.3
Commerce	7.1	7.5	6.2	6.4	-0.9	0.2	-0.7
Transport and communications	2.2	2.6	3.0	3.0	0.8	0.0	0.8
Financial Services	2.6	2.6	3.2	3.7	0.6	0.5	1.1
Other services	8.0	7.8	7.5	7.2	-0.5	-0.3	-0.8

Source: Encuesta Permanente de Hogares, INDEC.

^a This data correspond to the Greater Buenos Aires region.

The contraction of full-time employment in the non-tradable goods sectors also reflected an adjustment process to the new relative prices (Damill, Frenkel, and Maurizio 2002). Although the non-tradable goods sector was not forced to compete with cheaper imports, these activities confronted incentives to incorporate labor-saving technology as the relative price of imported equipment fell with the reduction in tariffs and real exchange rate appreciation.

The fall in total employment was less than the contraction in full-time employment because of the persistent increase of involuntary underemployment (3.9 percentage points of urban population between 1991 and 2000). The inverse relation between full-time employment and involuntary underemployment variations is not merely arithmetical. In the short run, involuntary underemployment shows a counter-cyclical behavior, like open unemployment, while full-time employment has a significant pro-cyclical behavior. This suggests that involuntary underemployment plays some role in absorbing contractions in full-time employment, just as the informal sector does in Mexico. On the other hand, since the mid eighties there has been an upward trend in the participation rate in Argentina, explained by the rising participation of women. In the period 1991–2000, the participation rate increased 4.4 percentage points. The changes in employment and the participation rate resulted in an increase in open unemployment of about 5 percentage points of the urban population between 1991 and 2000. Adding the variations of open unemployment and involuntary underemployment provides a different perspective on the decade's employment problems. The sum of those categories increased 8.6 percentage points between 1991 and 2000. About one half of this increase corresponds to the reduction in full-time jobs and the other half to the increase in the participation rate.

What explains the contrast in the behavior of the non-tradable goods sectors in Mexico and Argentina? A full answer to this question is beyond the scope of this paper. We limit ourselves to note that the comparative literature on labor markets indeed suggests the presence of a relatively high turnover rate in Mexico (higher than in Argentina) which is suggestive of large employment flows into and out of its informal sector (Giugale, Lafourcade, and Nguyen 2001: ch. 22). This degree of employment flexibility is thus consistent with the high capacity of Mexico's informal sector to absorb employment losses in the formal sectors of the economy.

5. Conclusions

Argentina and Mexico constitute polar opposites in the adjustment of their labor markets to the macroeconomic policies and external economic shocks of the 1990s. The most striking difference between the two experiences is the behavior of unemployment, which increases sharply in Argentina while it remains at very low levels, even falling slightly, in Mexico. Table 8 summarizes some of our findings regarding this key difference. Using Tables 4 and 6, the table decomposes the change in unemployment from 1991 to 2000 (as percent of the urban population) into the sum of the increase in the participation rate; the fall in full-time employment in the tradable goods sectors; the fall in full-time employment in the non-tradable goods sector; and the fall in underemployment (all of these as percent of urban population). The large difference in the evolution of open unemployment (4.7 percentage points) should be attributed above all to the different evolution of full-time employment in the tradable goods sector, which falls by 4.4 percentage points in Argentina while increasing by 0.7 percentage points in Mexico. Behind this contrast is the fact that in the 1990s, manufacturing employment increases by 25% in Mexico while falling by over 30% in Argentina. The difference in the behavior of employment in the non-tradable goods sector (more favorable again in the case of Mexico) is less sharp and tends to be offset by an increase in underemployment which is larger in Argentina than in Mexico. It is worth noting, finally, that the higher increase of the participation rate in Argentina makes some contribution to the unemployment problem (1.1 percentage points difference from Mexico).

Thus, the contrast in the behavior of unemployment should be associated with the evolution of employment in both the tradable goods and non-tradable goods sectors in the two countries, with the first making the larger contribution. Two factors explain the contrast in the tradable goods sector. The first is the behavior of the real exchange rate and the associated behavior of dollar wages. In the case of Mexico, the sharp peso devaluation of the mid 1990s enhanced the internal competitiveness of the tradable goods sector (i.e., its capacity to attract resources from the rest of the economy) and the external competitiveness of the economy as a whole. In Argentina, a continuous real appreciation, aggravated by the devaluation of the Brazilian Real in 1999, had devastating effects on competitiveness and employment in the tradable goods sector. It is worth insisting that the important difference is the behavior of dollar wages and not that of real wages, which stagnate in Mexico while falling in Argentina.

TABLE 8

**Decomposition of Change in Open Unemployment in Argentina and Mexico, 1991–2000
(as % of urban population)**

	Argentina (1)	Mexico (2)	(1) – (2)
Change in open unemployment	4.7	0.0	4.7
Increase in participation rate	4.4	3.4	1.0
Fall in full-time employment (tradables)	3.6	-0.7	4.3
Fall in full-time employment (non-tradables)	-0.1	-2.3	2.2
Fall in underemployment	-3.1	-0.4	-2.7

Source: Tables 4 and 6

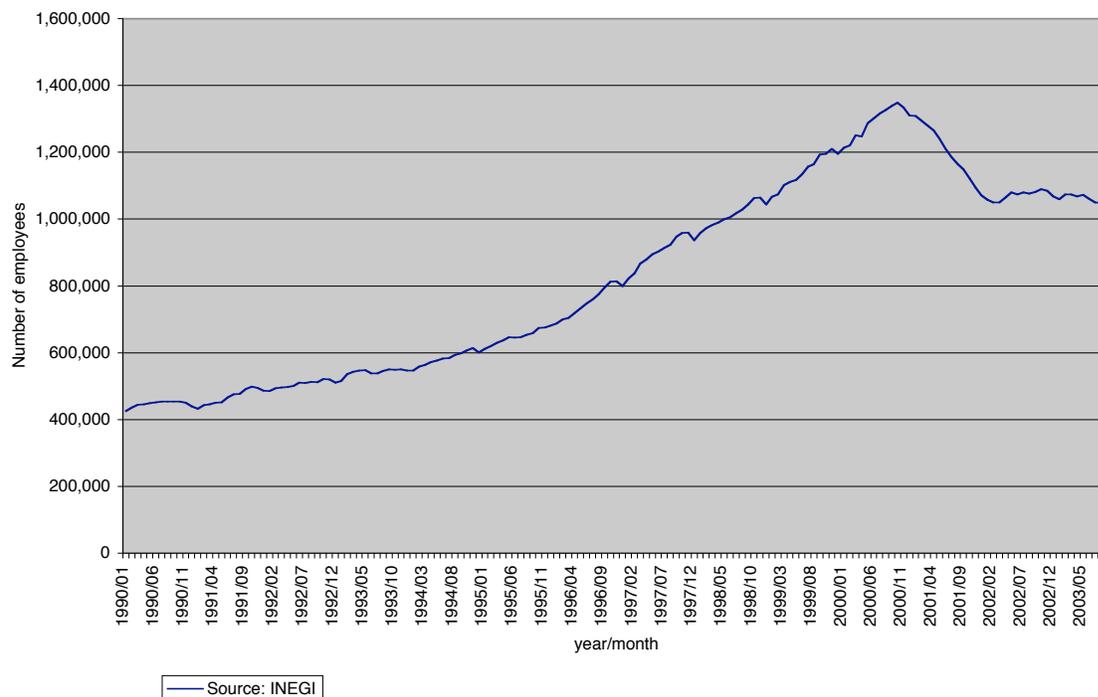
The pattern of specialization is the other important determinant of the evolution of employment in the tradable goods sectors in the two experiences. Mexico's trade specialization is dominated, and increasingly so throughout the decade, by manufacturing exports, especially those of labor-intensive maquiladoras, while Argentina's continues to be based on the processing of natural resources and industrial commodities, activities that could not offset the employment losses in the manufacturing sectors producing importables. It is worth noting, however, the shortcomings of Mexico's pattern of specialization. The counterpart of the high capacity of employment absorption by the maquiladora industry has been, as we have seen, low and stagnant labor productivity. As the real exchange rate has appreciated again in the recent past and dollar wages have increased, profit margins have declined.¹¹ This has put a brake on the expansion of maquiladoras' productive capacity and output, with a corresponding fall in employment starting in the third quarter of 2000 (see Figure 5). With no productivity growth, the maquiladoras constitute a sector that can only expand on the basis of low wages. Given the tendency of wages to increase in other sectors along with productivity gains, maintaining the internal competitiveness of the maquiladoras would require a continuous undervaluation of the currency.

The non-tradable goods sector also made a higher contribution to employment absorption in Mexico than in Argentina. This contrast appears to be related to the different capacities for employment absorption in the informal sectors of in the two countries. As we have seen,

measuring flexibility by the rate of turnover, Mexico's labor market appears to be more flexible than Argentina's. The higher employment flexibility of the Mexican labor market should not be confused, however, with a higher degree of real wage flexibility or a less regulated labor market that would tend to preserve employment in the formal sectors of the economy. The role of flexibility in the comparative evolution of unemployment refers to the capacity of the informal labor market to absorb employment losses in the formal sectors of the economy as well as to the growth of the labor supply.

FIGURE 5

Employment in the Maquiladora Industry



Thus, our findings, together with our comparison of the evolution of GDP and real wages in the two cases, challenge the conventional wisdom that the differences in the adjustment of the labor market must be due to the degree of real wage flexibility and labor market regulations. A premise of this view is that the striking differences in the adjustment of the labor market reflects the flexibility of Mexico's labor market (in particular its real wage flexibility) that contrasts with

the rigidities of Argentina's labor market. This premise is simply erroneous. Real wages stagnated in Mexico and fell in Argentina. Moreover, the characteristics of labor markets in the two countries are so strikingly similar that they could hardly explain the sharp differences in employment and unemployment performance.

All this leads us to a more general comment on Latin America's employment performance in the 1990s and the lessons that we can derive from it. There is a marked cleavage regarding the approach of policies that might reverse the poor employment performance in many countries of the region over the past decade, and particularly in the last five years. The dominant view attributes the problems to a supposed incompleteness of liberalizing reforms. In a permanent escape into the future, this approach recommends further reform in the face of any difficulty arising in economic performance. With regard to competitiveness and employment problems, this approach sees the institutional rigidity of the labor market as the most important obstacle and advocates "flexibilization" as the main policy instrument to resolve employment problems.

However, there seem to be no successful cases involving this kind of model in the development experience. Losses in competitiveness associated with massive capital inflows and currency appreciation have *not* been offset by reductions in real wages. More important from a normative point of view, even if processes of this kind were viable, they would surely be long and painful stories and promote a social structure that is even more unequal and unfair than the one we currently find in Latin America. This opinion should not be interpreted as a defense of existing labor legislation—which in many countries is obviously obsolete and inefficient—but rather as a criticism of the prevailing idea that the "cause" of employment performance is located in the rigidity of labor market institutions and that, consequently, flexibilization is the most important policy orientation in this regard, if not the only one.

Perhaps the cleavage over policy recommendations can be better understood if we express it in more technical terms. As such, it becomes clear that its deep roots date back to the origins of macroeconomics as a discipline, to Keynes's analysis of the causes and remedies of the Great Depression's unemployment and the debate Keynes sustained with his contemporaries. The approach we are criticizing asserts that there is only one equilibrium price configuration in every economy which yields full employment (or better, unemployment at its natural rate) in the labor market. When high rates of unemployment or employment generation problems are

observed, these problems must be attributed to imperfections in the labor market. The diagnosis, most often implicit, is that institutional obstacles inhibit the working of competition in this market, preventing the price of labor from falling to the point at which the unemployment rate equals the natural rate. This view disregards the importance of the precise trajectory followed by the economy in the past and its influence over the present, the so-called hysteresis phenomenon, which implies that the current macroeconomic configuration may be heavily determined by the past.

In this regard, consider the economic situation in Latin America at two points in time: the second half of the eighties and the first half of the nineties. In the first, the international interest rate was high; economies were financially rationed and made significant transfers abroad; absorption was lower than output; production was stagnant and productivity decreased. In the second period, the international interest rate was lower; economies had access to international financial markets and received transfers from abroad; absorption was greater than output; production was growing, and productivity went up. However, employment in the second period was lower than in the first, even though there seems to be no doubt that there was a positive shock between the former and latter. Why then should labor costs have to fall to preserve equilibrium conditions in the labor market, as is suggested by the diagnosis mentioned above?

The paradox we reach from the idea of a unique equilibrium configuration highlights the inadequacy of this perspective. The alternative implies considering the possibility of multiple equilibrium configurations depending, among other circumstances, on the factors imposed by the external context and economic policies. Some configurations are more favorable to employment and growth. Others imply that the economy is being driven to low-growth and low-employment traps. The observed changes between the eighties and the nineties do not appear to be paradoxical from this perspective. The conjunction of massive capital inflows and the specific implementation of liberalization policies drove some Latin American economies to low-growth and low-employment macroeconomic configurations.

Endnotes

¹ In addition, Mexico had a positive external shock in 1998–2000.

² It is worth noting that unemployment refers in both countries to an average of urban areas and is defined in a very similar way. Following ILO recommendations, unemployment includes those that did not work at all and were actively seeking jobs. In any case, our focus is the different evolution of unemployment rates over time rather than a comparison of levels at one point in time.

³ On the experience of the first half of the decade, see Frenkel and Simpson (2003) and Ros (2001). For an overview of the whole decade in Latin America, see Ffrench-Davis and Ocampo (2001).

⁴ Defined as output (sectoral gross value added) per worker. For the Mexican case, see a discussion of this acceleration in relation to the historical trend of productivity growth in Hernández Laos (1999), López (2002), Ros (1995), and Ros and Lustig (2001). For Argentina, see Frenkel and González Rozada (1999), and Damill, Frenkel, and Maurizio (2002).

⁵ On the Northern and Southern patterns of specialization in Latin America and their different employment consequences, see Ocampo (2003) and Stallings and Weller (2001).

⁶ In the literature on labor market rigidities, public employment is assumed to introduce distortions as overstaffing, higher earnings, and job security of public employees tend to increase labor costs in the private sector. (On the public sector wage premium, see Panizza, 2001.)

⁷ The effects of wage bargaining systems on unemployment (and the trade-off between inflation and unemployment) are not clear-cut (for a recent review and evaluation, see Thomas, 2002). Decentralized bargaining favors low unemployment to the extent that the high price elasticity of product demand at the firm level implies a large employment effect of wage changes which enhances wage flexibility in the face of economic shocks. Centralized bargaining limits these effects of competition but internalizes the negative effects of wage increases on employment, thus moderating wage demands. As a result both centralized and highly decentralized systems tend to have a better unemployment performance than intermediate structures such as industry-level bargaining. The latter are not subject to firm level competition (since the price elasticity of demand at the industry level is much lower) nor do they internalize the unemployment externalities of wage demands.

⁸ See, for example, Marquez and Ros (1990). Giugale et al. (2001) argue that the primary objective of Mexican labor unions is maintaining employment, at the cost of wage demands.

⁹ Fully funded pensions are considered to be less distortionary than traditional pay-as-you-go social security systems as they involve a stronger link between contributions and benefits from the perspective of the individual worker.

¹⁰ As argued, for example, by Freeman (1993).

¹¹ The increase in relative wages in the maquiladoras that has accompanied their rapid expansion in the recent past (see Table 2) has also contributed to the profit squeeze.

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