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Colombia Labor Market Adjustment, Reform and Productivity

What are the Factors that Matter?

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ABBREVIATIONS AND ACRONYMS

AC	Apprenticeship Contract
CCFs	<i>Cajas de Compensación Familiar</i> (Family Assistance Associations)
CONPES	<i>Consejo Nacional de Política Económica y Social</i> (Council for Economic and Social Policy)
ECH	<i>Encuesta Continua de Hogares</i> (Household Survey post 2001)
ENH	<i>Encuesta Nacional de Hogares</i> (Household Survey pre 2001)
DANE	<i>Departamento Administrativo Nacional de Estadística</i> (Statistical Agency)
DNP	<i>Departamento Nacional de Planeación</i> (National Department of Planning)
GDP	Gross Domestic Product
ICBF	<i>Instituto Colombiano de Bienestar Familiar</i> (Family Welfare Institute)
IS	Informal Salaried Worker
FS	Formal Salaried Worker
FSu	Firm Survey
HEG	Hard to Employ Groups
LAC	Latin America and Caribbean
MH	<i>Ministerio de Hacienda y Crédito Público</i> (Ministry of the Treasury)
MPS	<i>Ministerio de La Protección Social</i> (Ministry of Social Protection)
PADE	<i>Programa de Apoyo al Empresario</i> (Employment Subsidy Program)
SENA	<i>Servicio Nacional de Aprendizaje</i> (Public Training Institution)
SE	Self-Employed
SISBEN	<i>Sistema de Selección de Beneficiarios</i> (targeting instrument)
TFP	Total Factor Productivity
UIH	Underemployed due to Insufficient Hours
UI	Unemployment Insurance

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EXECUTIVE SUMMARY

Despite the improvements observed since 2000, at the end of 2002 Colombia faced a difficult economic situation stemming from the recession of the late 1990s. Indeed, growth remained elusive, unemployment continued to show remarkable persistence and wage growth was sluggish. All these factors eroded the confidence of households and entrepreneurs to consume and invest, giving way to a vicious circle between low growth, high unemployment and low private consumption and investment. Since the causes of the recession and these ensuing problems were deemed to arise from deeply rooted factors, the government engaged in a series of structural reforms designed to revitalize the economy. Among these, a reform to the labor code, considered key due to its potential role in generating incentives for formal employment generation, was enacted in December 2002. Its goals were to be achieved by reducing extra-payments for over-time and nocturnal work, bringing down firing costs and introducing more flexibility through changes in other labor regulations. Also, the reform aimed at promoting employment for hard-to-employ groups, in particular through changes to the apprenticeship contract. Finally, an unemployment insurance system was introduced to alleviate the negative effects of high and persistent unemployment.

In this context, this report carries out a rigorous and detailed evaluation of the 2002 labor reform and, in doing so, it also assesses the performance of the Colombian urban labor market and identifies the main policy challenges faced in this area. The report has three broad goals. First, to provide additional evidence to inform the intense debate taking place in the country around labor market issues, especially the reform. Second, to shed light on the key factors preventing a swift recuperation of the labor market. Third, to offer sensible policy alternatives that complement the step taken with the labor reform and address those key factors. The analyses are carried out for the key labor market outcomes: employment, unemployment, formality and wages, as well as productivity. Through the analysis of these variables the report tries to enhance the understanding of issues such as informality, labor market rigidities, job creation, protection against shocks and private sector performance. By and large, these determine whether people can find gainful employment, be adequately protected against shocks and whether firms are profitable so that, on the one hand, investment and technology adoption take place and, on the other, employment and wages grow, which are the truly important concerns for policy makers.

The report illustrates key problems faced by Colombia: slow growth reflecting poor productivity performance, high and persistent unemployment and labor market rigidities that help in keeping unemployment high and productivity low. However, the 2002 labor reform shows positive results in some areas, while the impact on others was uncertain or moderate. Thus, the country today has three broad challenges. First, making the labor market as efficient as possible; second, increasing productivity growth as a precondition for stronger economic performance, and third, providing effective and inclusive services of social protection for the most vulnerable. These are the channels that will ultimately enable the increase of formal employment and favor wage growth.

In what follows, key findings related to the evolution of the main outcomes are summarized:

- **The Colombian urban labor market seems to have “stabilized” at a higher level of unemployment recently.** Despite the fact that there has been a downward trend in unemployment since 2001, the current level continues to be higher than that observed before the late 1990s’ recession.

- **Adult women, teenagers of both genders and the unskilled are the groups of the population that suffer the most during contractions of aggregate economic activity** and, despite their lower share of the population, are the ones that cause the largest movements of the overall unemployment rate.
- **The labor market became more segmented in the period 1996-2002.** That is, low quality self-employment grew and now seems to be increasingly populated by individuals that would prefer to be in a salaried job but cannot find one.
- **Wages, which are related to productivity, show sluggish growth.** Indeed, they increased by 9% between 1984 and 2004 (i.e. less than 0.5% on average per year). However, this growth was completely due to skill upgrades of the labor force (education increased) and not to effective growth of remunerations within education levels. In this sense, wages for the least and intermediate skilled fell between 10 and 25% over the period. Wage growth was impressive during the period 1991-96, which also coincided with high productivity growth.
- **All outcomes tend to be worse for the least and intermediate skilled, especially the latter.**
- **Productivity growth in Colombia has been sluggish (negative in the 1990s),** both for labor and total factor productivity (TFP), especially as compared to other countries.
- **The labor market is increasingly female and commerce and service oriented.**

The evolution of unemployment and segmentation has been largely determined by increasingly binding minimum wages (particularly since 1998), high non-wage costs (since 1995), and rigid wages that help in preventing a swift return to low unemployment rates. If the minimum wage had been kept constant at 1995 levels, unemployment for men and women would have been 7 and 4 percentage points lower in 2002, respectively, halving its actual level for men. The high minimum wage has its largest negative impact among those groups which supposedly were to be protected: the young and the least skilled. Additionally, the increased participation of women and other groups in the labor market intensified the pressure on unemployment. Indeed, if female participation had remained at 1993-95 levels, unemployment in 1999-01 (20.2%) would have been cut in half. Non-wage costs, combined with the reduction of labor demand brought about by the recession, appear to have exacerbated the move of workers towards low quality self-employment, that is, to have contributed to increased segmentation.

In this scenario of increasing number and importance of rigidities, the labor market became less flexible to adjust to macroeconomic fluctuations in recent years. Thus, when economic growth declines, an increasing part of the adjustment is made by growing unemployment or lower salaried employment.

Poor performance of productivity growth at the aggregate level, on the other hand, is related to a slow and unbalanced pace of educational accumulation (particularly at the university and technical levels), high and binding firing costs, increasing participation of the state in the economy and the intensification of the armed conflict. A higher level of exposure to international markets has impacted productivity growth positively. At the sectoral level (within manufacturing), the most important determinants of productivity growth are the level and evolution of non-wage costs (negative) and the degree of technological adoption (positive). Importantly, poor performance of productivity growth is highly correlated with sluggish growth of salaried employment and wages.

Regarding the 2002 labor reform, the key findings of the report suggest that it:

- substantially increased the employment of young workers through internships that can lead to formal employment opportunities. This happened mainly because of the reforms introduced to the apprenticeship contract;
- reduced the level of informality, especially among the least skilled. The measures that contributed to this result were the extension of the diurnal shift and the apprenticeship contract;
- had a positive effect on wages, also more marked among the least skilled;
- increased overall employment, although moderately, suggested by the low positive response of employers to the question of whether the reform was a major determinant to increase employment. The impact on employment appears to be related also to the longer diurnal shift and the apprenticeship contract, plus the reduction of firing costs. However, the moderate size of the impact is related to the fact that the costs reductions brought about by these measures were not particularly large (see Table 1, below);
- reduced underemployment for insufficient hours due, especially, to the increased diurnal shift;
- however, no evidence of a positive impact on actual hours worked was found; and
- the provisions that waive payroll taxes seem to have had little or no impact.

The creation of the system of unemployment assistance was a major innovation of the reform. However, most of the beneficiaries are unemployed who come from the formal sector (the least vulnerable). Yet, most of the unemployment comes from the informal sector.

**Table 1: Main Changes Introduced by the Labor Reform,
Comparison with LAC Countries**

	Dismissal Costs (monthly wages)	Diurnal Shift	AC*	premium for work on holidays
Argentina	3.0	6 am - 9 pm	no	100%
Brazil	12.9	5 am - 10 pm	yes	100%
Chile	3.4	na	yes	na
Ecuador	13.7	na	na	100%
Mexico	3.2	6 am - 8 pm	no	100%
Peru	13.6	6 am - 10 pm	yes	100%
Uruguay	2.2	6 am - 8 pm	yes	150%
Venezuela	6.9	5 am - 7 pm	yes	150%
Colombia Before	13.4	6 am - 6 pm	no	200%
Colombia After	10.1	6 am - 10 pm	yes	175%
Average Before	8.0			125%

* = refers to the possibility of hiring apprentices at salaries lower than the minimum wage and with no contractual relationship

Source: Heckman and Pagés (2001) and country labor codes.

However, it is important to interpret these results with caution. In effect, trying to evaluate and isolate the impact of a policy change of the magnitude of a labor reform, which affects large portions of the labor market in diverse ways, is an extremely difficult task, and even more so when the trends of aggregate economic activity shifted at the same time as it was introduced. In this sense, methodological and data constraints were encountered when trying to separate the effects of the reform on the main outcomes from other factors that may influence them. The fact that less than two years have passed since the reform does not help either (the reform went into full effect in April 2003). Thus, the reader is referred to Volume II of this Report for a very detailed description of the methodological choices and the data used for the evaluation, and presents their caveats and critiques objectively.

Policy Recommendations

Given the three broad objectives identified above, namely, making the labor market more efficient, increasing productivity growth and providing a more inclusive and effective system of social protection, the following are the five key areas for policy attention proposed here.

The current debate about the labor reform should focus on the necessary improvements and not on the convenience or inconvenience of the reform as a whole. Additionally, this debate should be more inclusive, bringing in, for example, the unemployed, the self-employed and those that do not belong to organized groups. Indeed, given that the reform had positive effects on some outcomes but mixed in other areas, it would be inappropriate to center the debate on whether the reform should be reversed or not. Rather, **the issue should be dealt with using a results management approach in which tailored adjustments are introduced if needed.**

In this context, the reform should be viewed only as an initial step towards a more inclusive, efficient and productive labor market. However, there are still areas that call for action, some within labor regulations per se, and others related to broader labor or social protection “institutions”. Many of them are discussed below.

Minimum wage growth needs to be constrained. This report and other studies provide evidence that the current pace of minimum wage growth cannot be maintained without productivity expansion that makes it sustainable in the long run. The objective of providing a minimum standard of living should be viewed in a broader fashion, by realizing that excessive increases of the minimum wage jeopardize directly the standard of living of those who become unemployed or informal, who, according to the findings of the Report, are concentrated on the least and intermediate skilled and the young (i.e. the most vulnerable). Therefore, the minimum wage must be set at a level that balances income goals with the market responses to the instrument, which is clearly not the case right now in Colombia. It suffices to note that the country has the second highest minimum to average wage ratio in the LAC region. A minimum wage that is set this high actually *increases* poverty and income inequality, so social justice guidelines should be implemented in a way that the different effects of the instrument are taken into account. Until now, these guidelines have been interpreted only considering the supposed increase of labor incomes for low earning workers brought about by generous adjustments of the minimum wage. However, the other half of the story has been missing: those workers are precisely the ones who become unemployed or informal because of the unsustainable growth of minimum wages.

Therefore, and taking into account that in 1998 a substantial “overshoot” took place (the minimum wage grew by more than 8 percentage points in real terms), from now on minimum wage setting should be based on productivity increases and conservative estimates of future inflation, recognizing explicitly the costs in terms of unemployment and informality. That is, the final goal should be to bring back the real minimum wage to pre-crisis levels in the near future, ensuring that it maintains a close link with the evolution of productivity. While recognizing that this is a very sensitive issue, some actions may be taken in the short run to confront it, starting with wide dissemination efforts of the negative impacts of unwarranted increases of the minimum wage on the employment opportunities of the most vulnerable and, therefore, on the welfare of those workers and their families.

This last point is crucial. Until now, but particularly in the last six years, minimum wage setting in Colombia has favored the interests of only a portion of the labor force that is very well represented by the unions and exerts substantial influence on the decisions related to the minimum wage. Unemployed and informal workers, on the other hand and despite being the most affected, have had little or no voice in these decisions, partly because they do not have objective evidence on the impact of the minimum wage on their welfare, and partly because they lack organization to be able to effectively participate in the decision instances or voice their concerns to the relevant authorities (e.g. constitutional court).

Finally, since the pressure from increased female and teenage participation on the labor market is likely to continue, especially in future downturns of the cycle, a particularly efficient policy would be to **establish lower minimum wages for the young**. This would help in overcoming the obstacles they face to access the labor market, which become more binding due to the relative higher sensitivity to participate, as a response to movements of the cycle, observed among these workers. This policy has been used in other countries and, in the case of Colombia, the effectiveness of the apprenticeship contract provides support for its adoption.

Wage taxes cannot be increased further and, in the longer run, they should be reduced. The Colombian payroll is already heavily burdened with taxes. The prospects for reducing wage taxes, however, are not particularly positive given the tight fiscal situation, and the expectation of future needs for pension financing. Two alternatives could be analyzed. First, reduce directly some components of non-wage benefits by, for example, allowing individual negotiation of contracts and reducing the minimum legal mandates. Second, de-linking social security and protection from the labor market. The parafiscales, which amount to almost 1% of GDP, should be reviewed carefully to gauge if the services provided are valued by the society that much. Also, careful evaluation of the programs financed by them is needed to make difficult decisions about their permanence. An ample debate on the convenience of the parafiscales, including the government, Congress and civil society, is long overdue. Note that the evidence provided by the report indicates that taking actions related to non-wage costs is also important for the evolution of productivity growth and to foster innovation.

Given these considerations, at this point it is fundamental to highlight the following: the results presented in the report related to minimum wages and non-wage costs clearly point out the fact that the Colombian labor market moved to a more inflexible stance since 1998. This is key because it means that, increasingly, the labor market adjusts to the cycle through quantities (i.e. generating unemployment) rather than wages. In this context, urban unemployment appears to have stabilized at a higher level in the latest years, showing remarkable resilience to fall. Thus, if no actions are taken to tackle the issues of minimum wages and non-wage costs, the country will inevitably be faced with costly, and possibly inefficient, alternatives to deal with this situation. One of them is, for example, the introduction of a more inclusive system of unemployment protection, revamped to extend coverage to the informal sector. This, however, will be complex given the present tight fiscal situation and the institutional difficulty of designing and administering such a system (see below).

As always, the macroeconomic environment is extremely important, not only in terms of growth and employment creation, but also through the effect of public spending and the volatility of the exchange rate on the evolution of employment, segmentation and

productivity. Thus, strengthening macroeconomic stability and containing public spending becomes even more essential. In this respect, the CEM produced by the Bank highlights the importance of acting on items such as transfers to sub-national governments, pensions and the many inefficiencies of the tax system. More broadly, the goal is not only to maintain a stable macro environment, but also to reduce the government burden on the development of the private sector (including taxes and regulations), which has become a real constraint for higher productivity growth. In this context, issues of regulation, financial sector development and the efficiency of the judiciary, also analyzed in the CEM, should be confronted as soon as possible.

Developing a more effective, coordinated and inclusive system of social protection, which provides protection to the self-employed and informal workers, who in the current system are almost completely unprotected. Including them, however, is not an easy task, given the already high burden of non wage costs. Also, providing social protection to self-employed and informal workers constitutes a challenge from the fiscal point of view because, in the end, somebody pays for the services they have access to, even if they are of low quality. Key policy questions, which call for difficult trade-offs, are:

- how to reshuffle spending among the wide variety and dispersion of programs existing today, action which calls for a clear identification of priorities and bottlenecks. It would also entail a redirection and reshuffling of resources among the current programs;
- should some sort of assistance to the unemployed from the informal sector (at least the poorest) be provided? This group, besides including the majority of the unemployed, comprises the most vulnerable workers. However, they do not have any sort of protection against unemployment, while formal workers have the *Cesantía* and, in some cases, additional severance payments. This is an issue that still requires more thought and, in any case, it would entail a more even distribution of the funding destined now to the unemployment protection system, plus a redirection of resources used in other programs (e.g. SENA and CCFs). It may be also necessary to differentiate unemployment insurance from unemployment assistance. Insurance, by definition, is a system where people pay in, pool risk, and withdraw if they are negatively affected by the shock. The distinction is important because benefits to workers who have not contributed may be lower than those obtained by workers that contributed, allowing higher coverage among informal workers.
- how to de-link social protection and insurance from the labor market. This would serve two purposes: removing from the labor market one of the major constraints for formal employment creation, and helping in the simplification of the tax system. Without doubt, this is an issue that, in any event, will surface soon taking into account the fact that labor markets are not structured as they were when the social protection systems were originally conceived, meaning that the de-linking is crucial so that services can be provided to those who are not formal. This question, however, needs to address other important issues, such as the following: (i) should the de-linking only cover some services within the general umbrella of social protection? And (ii) can social protection and insurance services be unbundled to favor choice by the worker according to family needs?
- given the heterogeneous nature of self-employment in Colombia, in which segmentation has risen, the design of social insurance mechanisms gains special relevance. Attempts to expand coverage of benefits to the self-employed without any cost or link to other dimensions of salaried employment may simply shift the labor market towards that occupation even more. Thus, the design of any social protection system in the future has

to have a comprehensive view that takes into account the incentive effects throughout the entire labor market;

- an important component of this system would be a well-designed training program for the unemployed that takes advantage of the existing network of training institutions, and uses flexible arrangements that favor choice. Thus, the reform of SENA, currently underway, should be given priority within the government;
- an issue that also requires attention is whether the CCFs should continue playing such an important role in the social protection system of the country, especially if a more coordinated one, which addresses the needs of most vulnerable, is indeed the final goal posed by the government;
- what to do with the program “Familias en Acción” in the near future, in terms of long term financing and administrative placement.

Additional policy options include:

Designing more specific interventions to facilitate access to the labor market by women and the young. Given the findings of their difficult access to the labor market and their sensitivity to the cycle, this action would ensure an efficient use of the resources and a greater impact on outcomes. These interventions can be designed both to contain participation and promote formal employment. Examples include targeted active labor market policies to facilitate the flow of information, for which the Mexican experience can be valuable; training programs for the young within a more decentralized and competitive system in which the supply of programs matches market needs more closely; and support for job search, also targeted. Note, though, that the best way to enhance the possibilities of these groups (especially the young) of finding good quality jobs would be to align the minimum wage to market realities.

The program that fosters access to undergraduate studies to poor and middle income students, currently underway, is an important component of this strategy (both on the participation and employment sides), which also will have longer term effects, both on employment and productivity. This program should be given continued support. This is especially important because (i) most of the labor market outcomes (employment and wages) have deteriorated the most for high school graduates; and (ii) one of the main determinants of poor productivity performance was the unbalanced enrollment and completion rates observed for tertiary schooling.

More thought should be given to the apprenticeship contract (AC) in order to slightly adjust the instrument. It may be useful to analyze the issue of the compulsory quota of apprentices more thoroughly to answer questions such as: do firms get additional information about potential workers and thus decrease the expected cost of hiring new workers? Do the apprentices have a higher likelihood of getting a job, and thus is this a kind of job-training, which should be subsidized by SENA? Could the cost of “buying-out” of the apprenticeships be adjusted? Are firms taking advantage of other cost-saving regulations which could lower their overall tax bill? A review of these issues could better help the Government determine how and to what extent to revise the apprenticeship quotas.

Regarding the 2002 labor reform and related to the first recommendation, things that could be subject to some refinement include the following:

- flexibilize hiring regulations. Schemes like the contract by the hour, the reduction of the threshold to apply the *salario integral*, or an extension of the probation period constitute sound alternatives;
- extra costs related to Sunday or holiday work are still the highest in the LAC region;
- extend the “regular shift” to sectors other than commerce and services; and
- given the poor results obtained with the exemption of Parafiscales and the slow start of the PADE program, it is recommended that the government carries out a rigorous analysis of why the entrepreneurs are not using these subsidies. Is it a problem of information or rather that the amount of the subsidy is still too low? Could there be other problems?

Completely revising public labor market regulations, especially those related to remunerations. The impact of the public-private wage premium appears detrimental for the poorer segments of the population due to the rigidity that is transmitted to the overall wage structure. Wages of public employees should be more closely linked to market wages and employee performance, more so when taking into account the significant discrepancies found within the public sector in high skilled jobs (executive vs. legislative and judiciary). This, however, needs to be part of a broader civil service reform.

The issue of protection to the agricultural sector again surfaced in this report. It seems to be time to seriously address it, beyond political considerations, and weigh its benefits and costs, especially those related to productivity growth.

Finally, the evidence suggests an agenda for labor reform beyond the usual focus on rigidities: eliminating the inefficiencies in the provision of medical benefits, pensions or biases in promotion systems not based on merit will reduce the incentive to informality and increase the supply to the formal sector. More fundamentally, informal employment in firms of relatively low technology and capital intensity can only be attractive if the overall level of productivity in the formal sector is low, as is the case in Colombia. To the extent that regulations hinder investment in physical or human capital, or prevent the efficient organization of firms, they perpetuate low levels of productivity and, thus, segmentation, low wages and informality. This is of particular importance when realizing that the Colombian labor market shifted away from manufacturing and towards commerce and services, sectors characterized by higher informality and self-employment due to their nature.

LABOR MARKET ADJUSTMENT, REFORM AND PRODUCTIVITY IN COLOMBIA:

What are the Factors that Matter?

I. BACKGROUND AND PURPOSE

As many countries in the developing world, Colombia went through a period of transformation since 1990. After years of a largely stable economic environment, characterized by isolation from world markets and moderate intervention by the State in the economy, the country engaged in a series of structural reforms. These included opening to international competition and foreign investment, liberalization of the capital market, two labor reforms (1990 and 2002), a reform of the social security system and opening of public utilities to private competition. There was also an increase in tax revenues as a share of GDP and an even sharper rise in government spending. In addition, a new Constitution, issued in 1991, brought with it decentralization of social services and an independent Central Bank, as well as mandates to increase social spending and make increasing transfers to sub-national governments since 1993.

These reforms sought to increase growth by providing an environment amenable to private investment and innovation, increasing the efficiency of resource allocation and by facilitating human capital accumulation. Initially, these goals were fulfilled as the growth rate averaged more than 5% during 1992-95. However, problems began to arise from the mid 1990s. The volatility of the business cycle increased, making it shorter but more profound. Further, external shocks in the 1990s (Russian, Asian and Tequila crises) impacted the economy adversely, and with the expansion of government spending and the ensuing fiscal deficit, private investment fell sharply and the financial sector became fragile. Increasing levels of violence further inhibited private investment. As a result, the economy began to show signs of recession in 1996 and low economic growth lasted until 2002. Indeed, 1999 was the worst year since the 1930s as growth plummeted to -4.3% and only averaged 1% per annum during this seven year period. There is some evidence of recovery in 2003 and 2004, however, as growth has been around 4% in both years.

These events all impacted severely on the functioning of the labor market. Structural reforms required an industrial and occupational restructuring of the labor force that affected wages and the composition of employment. Labor and social security reforms affected the cost of labor and the terms of employment. Yet, the functioning of the labor market remains a key determinant of sustained future growth and of the welfare of the population. In 2002, a reform to the labor code was introduced to increase the ability of the labor market to provide “good jobs” to the population and to begin to reconfigure the social protection system. The effects of this reform have been the subject of an intense debate, as many argue that they were badly needed for the labor market to be more effective in providing a decent living for a larger share of the population. Yet, others argue that it was simply an instrument to favor employers by increasing their profits. Taking into account these considerations, the main objectives of this report are to:

- analyze the structural changes that occurred in the labor market;
- evaluate recent labor market interventions as rigorously as possible;
- analyze the main factors that hinder formal employment creation. That is, investigate why adjustment of the labor market has been so painful since the recession;

- examine the path of productivity growth, both labor and overall; and
- based on the above, suggest policy options that raise labor market efficiency, provide better alternatives of social protection for the most vulnerable and help accelerate growth.

This report, conducted jointly by researchers in various countries, the Government and the World Bank, aims to address these questions not by focusing on labor market functioning, but on its outcomes. After all, the really important questions are not whether the labor market is overly informal or excessively rigid. What is central are labor market outcomes, such as adequate employment growth so that people can find gainful employment, acceptable worker productivity levels that are fairly compensated, and reasonable protection against shocks for workers and their families. This shift in focus, however, complicates the work. While one can study labor market functioning without paying too much attention to non-labor factors (e.g. payroll taxes), such approach is impossible when the subject of study is outcomes. Employment growth depends on macroeconomic factors at least as much as on labor regulations; productivity levels depend as much on investments in physical and human capital, as they do on labor market interventions; and protection against shocks depends as much on factors such as safety nets as it does on labor regulations. But this added complexity is necessary for a better understanding of the labor market. To simplify matters, the focus is on the most relevant relationships, between labor market institutions, its functioning, and outcomes. The report is structured accordingly.

The rest of the report is divided into four sections. Section II looks at the evolution of the main outcomes over the past 20-odd years, which are taken to be employment (and its composition), unemployment, wages and the occupational distribution of workers. Most of the key outcomes point to a deterioration of labor market functioning. This is followed by an analysis (Section III) of the causes of this deterioration, focusing mainly on high unemployment and increased segmentation. Section IV studies the effects of changes in labor regulations (2002) on the main outcomes. Section V looks at trends in productivity and competitiveness, which is treated separately due to its conceptual complexity and somewhat different determinants. However, an explicit link is made between labor regulations and productivity outcomes. Finally, Section VI presents some concluding comments and policy alternatives, emphasizing five that are considered top priority. This Volume summarizes the main findings and seeks to offer a simpler view of the labor market, its outcomes, what influenced their behavior and what can be done to improve the functioning of the labor market. The second volume contains detailed technical analyses, which constitute the basis of what is contained in Volume I.

Box 1.1: this Report's Main Innovations: this report adds a series of novel features (and methodologies) to the existing understanding of labor markets in Colombia, and is produced at an opportune moment in light of the intense debate taking place in the country with regards to the 2002 labor reform, presently under heavy scrutiny. The main innovations of the report are the following:

- **It is the result of a truly collaborative effort between the Bank and the Government.** The key objectives from the Government side are to evaluate the labor reform of 2002, to understand the reasons for chronic high unemployment, and to look at issues of competitiveness in view of the free trade negotiations with the US. Thus, the subjects included were discussed extensively with the government (and Congress and Academics) from the very beginning and constant interaction has been the norm all along the implementation of the Project. In this context, for example, workshops were held in Bogotá in 2004 to discuss the main findings and to sharpen the messages. Additionally, some of the analyses were carried out directly by the government using their own resources. Finally, intense interaction existed also with some members of Congress and with other Bank teams working in Colombia to ensure consistency in the messages and feasibility of the proposals.
- **Characterizes the Colombian labor market, and describes its evolution in the last decades.** It addresses the most relevant aspects of the public debate in Colombia today. Within this general context, it traces in a detailed way the links between outcomes (employment, wages, informality and productivity) to the factors that affect them and that are generally perceived as being key (non-wage costs, minimum wages, participation, public sector issues --analyzed in a rigorous way for the first time here-- and public interventions). The goal is to arrive at policy options to improve outcomes.
- **Identifies the links and the channels through which “exogenous” factors affect outcomes.** We use rigorous methodologies that allow confidence in the results. Also, and importantly, to identify the links, determinants are analyzed in a compact framework, which controls for the seemingly greater difficulty of the urban labor market to adjust to shocks, generating a higher level of unemployment recently.
- **Analyzes self-employment and informality in detail, vis-à-vis salaried employment.** This analysis is novel in the country and proved very useful in understanding key characteristics of the labor market, especially on issues related to segmentation and previously unidentified channels through which determinants affect outcomes. This is complemented with a thorough study of how employment behaves along the business cycle for different sub-groups of the population.
- **Provides the first clues of the impact of the 2002 labor reform on labor market outcomes.** This is one of the main innovations introduced by the report since it is bound to importantly influence the debate in the country. These analyses were carried out in the most rigorous way possible and using many alternative sources of information. Furthermore, the different analyses supported by this task have already had a profound impact on the debate within the country and have created sound discussion among many actors, including government, academics, congress and unions.
- **Incorporates productivity into the labor market analysis.** This is both to understand the role it has played in the recent evolution of the labor market and investigate the link between productivity related outcomes and labor market regulations.
- **Examines the implications of labor market functioning for the most vulnerable.** The report explicitly addresses this issue, approximating the most vulnerable population by the least skilled in terms of education and age. In particular, it examines how, in most of the cases, Colombia's poor are the most disadvantaged by labor regulations, supposedly designed to help them, resulting in their (partial) exclusion from the labor market in terms of employment, formality and wages.

II. The Key Outcomes

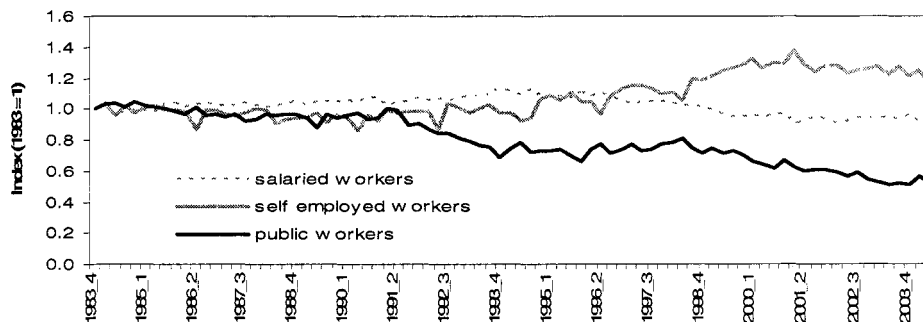
This section analyzes the evolution of employment and its composition, unemployment, hours worked, occupation-- formal salaried worker (FS), informal salaried (IS), and Self-employed (SE)--, productivity and wages. These are the outcomes that, by and large, determine the welfare of workers and the profits of firms, which are the issues that concern policy makers.

Box 2.1: National Household Survey (ENH): the report relies on the Encuesta Nacional (continua from 2001) de Hogares (ENH) for urban areas. This survey is collected by the National Administrative Department of Statistics (DANE) since 1976. It compiles changes in employment indicators, as well as socio-demographic data (gender, age, marital status, migration and education) for the entire population. It was carried out quarterly until 2000 and continuously since 2001. Nevertheless, the periodicity used here is quarterly by aggregating the monthly data provided by DANE. Also, the questions used to measure employment and unemployment changed and thus, all the exercises adjust the series for this methodological change. The survey collects the information on 13 metropolitan areas. For consistency, the report uses data for the seven main cities, which are loosely called “Urban Colombia”: Barranquilla, Bogotá, Bucaramanga, Cali, Manizales, Medellín and Pasto.

Employment has become more female, has shifted towards services and commerce and self-employment gained importance...

Since 1984, there have been important structural shifts in the composition of employment. The share of employment in manufacturing declined from 25% to less than 20%. Wholesale and retail trade increased from 23 to 30% and services from 30 to almost 34%. Another major change occurred in the financial sector, where employment was reduced by half (although it was never more than 8% of the total labor force).

Figure 2.1: Shares of Employment by Occupation (Indices), 1980-2004



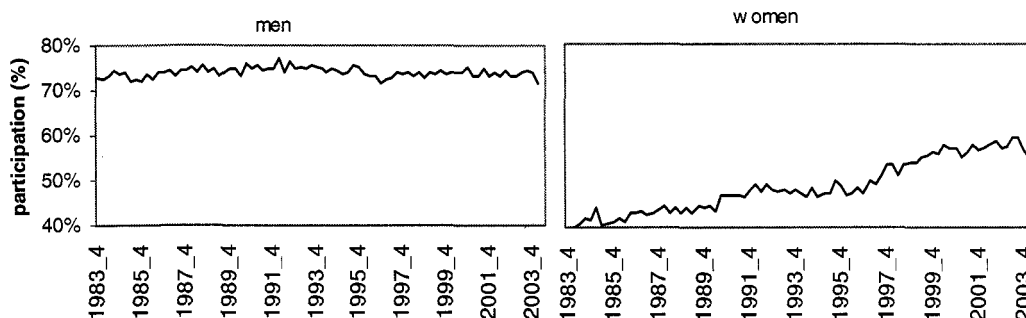
Source: ENH- DANE, Author calculations

A more important shift, however, is the growth of self-employment observed since 1994 (Figure 2.1). It increased by about 20% over the period, reaching a peak in 2001. Private salaried employment, on the other hand, fell by approximately 10% with the decline starting simultaneously. Thus, both roughly coincide with two important events: the introduction of the reform of the social security system (Ley 100 de 1993) and the worst period of the recession. Public employment also lost share in total employment, reflecting policies directed at reducing public employment as a means of containing the deficit and increasing the efficiency of the public sector. The decline was of the order of 50% and consistent all along. The working population also became older and more educated. For instance, workers with higher education (university) rose from 13 to 29%, while those with high school went from 39 to 44%.

Participation increased markedly due to the behavior of women. In a related fashion, unemployment grew and remained high, while hours worked declined...

One of the most important changes that occurred in this period was the increased participation of women in the labor market. While male participation rates remained virtually unchanged (around 72%), female participation grew from 44% in 1984 to almost 60% in 2004 (Figure 2.2). Female participation growth accelerated in the period 1996-2001, which coincides with the recession. This last fact may imply that many women began to join the labor market as a response to declining household incomes. As a result of the increase in female participation, their employment rate rose from 32 to 46%. Male employment declined to stabilize at around 62%, down from 70% in the mid 1990s. Thus, it would seem that the labor market has been able to provide jobs to partially accommodate the ever increasing number of women entering the labor force, maybe at the expense of men (Figure 2.3).

Figure 2.2: Participation Rates by Gender, 1983-2004



Source: ENH-DANE, Author Calculations

Figures 2.3: Employment Rates by Gender, 1983-2004

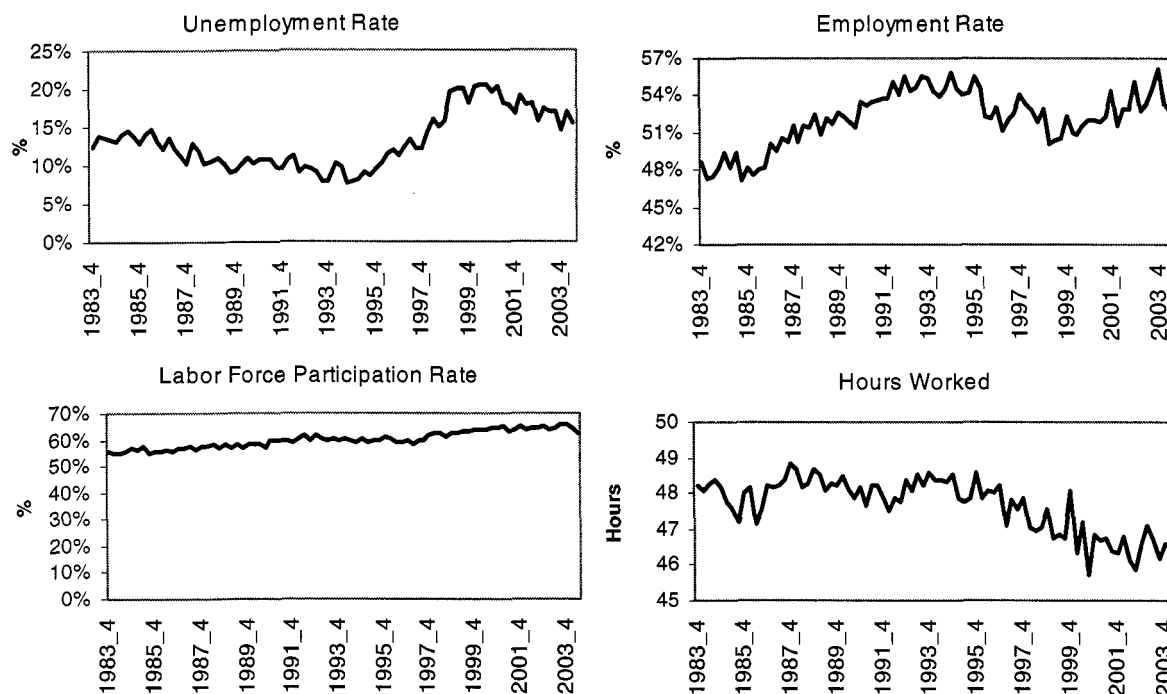


Source: ENH-DANE, Author Calculations

Unemployment continued to be a chronic problem all during this period, despite growth in output. During 1983-95 unemployment averaged around 10-11%. The lowest point occurred in 1985 (7%), but then it grew continuously with the slowdown of the economy. A peak of 20% was reached in 2000, and though unemployment has declined after 2001, it remains higher when compared to the initial period, despite renewed economic growth in 2003-04. Part of the reason for the rise in unemployment can be traced to the increase of the participation rate (from 50 to 65%), which was partially reflected in a combination of rising employment rates, declining hours worked (especially among women), and rising unemployment (see Figure 2.4). In terms of

unemployment rates by education, all levels display a similar behavior following the general trends. However, the intermediate groups (high school or incomplete university) consistently show the highest rates, while the lowest belong to the most educated. Unemployment rates for women have always been higher than those of men. The ratio of male to female unemployment fell between 1984 and 1995, at which point it rose to almost double by 2004, which is important because it indicates that the labor market has been able to provide jobs for the increasing participation of women in the labor market.

Figure 2.4: Trends in Unemployment, Employment, Participation and Hours



Source: ENH- DANE, Author calculations

The accommodation of more women in the labor force occurred at the same time that their hours worked declined, reflecting the fact that many of the new jobs created were of lower quality (e.g. part time). In fact, the general decline in hours worked (Figure 2.4) is almost entirely accounted for by changes in the hours of women (Figure 2.5). While men experienced no change in hours all during the period, women endured a sharp drop that started around 1995 and became steeper in the recession. Weekly hours for women fell from 46 to 42 over the period.

Figure 2.5: Weekly Hours Worked by Gender, 1983-2004



Source: ENH – DANE, Authors' calculations

Wages have only increased for salaried workers with high education...

Both men and women's wages followed a similar evolution: no change until 1993, impressive growth during the remainder of the 1990s, sharp decline during the recession and a timid recuperation starting in 2001 (Figure 2.6). As a result, sluggish growth (around 0.5% per year) was observed over the entire period. Women's wages grew more than men's during the expansion (40 vs. 30%) and the decline during the recession was similar for both (around 20%). Women's wages, unadjusted for experience and education, remain about 30% lower than men's. There are important differences between salaried workers and the self-employed, however. Wages of private salaried workers increased markedly during the expansion but did not fall as much during the recession, reflecting more inflexibility of wages in this occupation. However, wages of the self-employed fell continuously since 1996 until 2002, indicating greater ability in this occupation to adjust to changing economic conditions. The increase in wages observed for the entire period, however, is due to the increased education of the labor force and not to increases in remunerations for each education level.

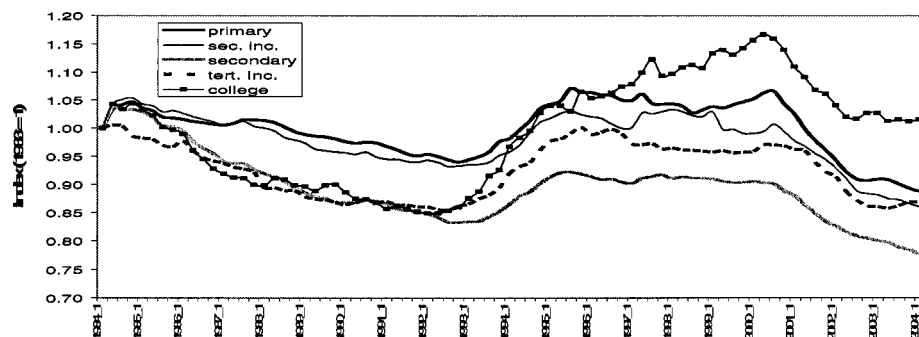
Figure 2.6: Real Wages by Gender, 1984-2004



Source: ENH – DANE, Authors' Calculations

Finally, wages of all educational groups moved with the economic cycle. Since the early 1990s, however, wages of college educated workers increase faster during booms and fall slowly in recessions. As a consequence, earnings gaps and wage inequality across groups increased. Figure 2.7, which shows the evolution of wages of salaried workers by education level, confirms this assertion. In fact, wages of college workers were the only ones that increased (by 3%). All the other groups experienced falls in their wages, the largest being observed among the intermediately educated (especially completed secondary), for which wages fell by 23%.

Figures 2.7: Wages of Private Salaried Workers by Education, 1983-2004



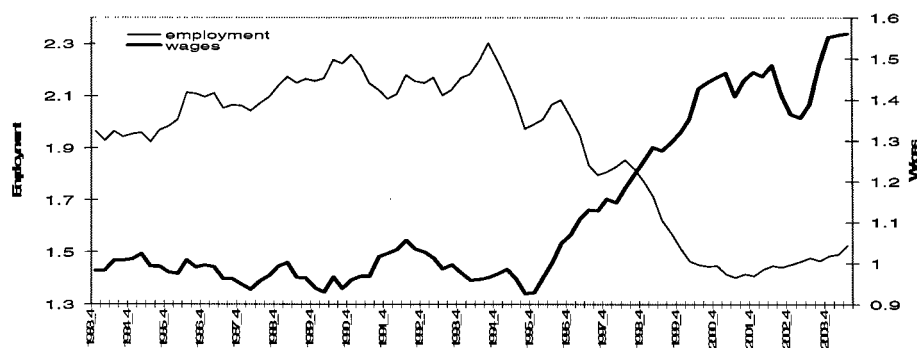
Source: ENH– DANE, Author's Calculations

Self-employment is on the rise and, importantly, the labor market seems to have become increasingly segmented...

The discussion about salaried employment, self-employment and informality is important to the extent that this split causes a loss of welfare for the workers and/or negatively affects the development prospects of the country (e.g. productivity is negatively affected). That is, if the split is forced by some external factor and workers are, for example, self-employed as the only choice available to them (and one that entails lower wages and less protection), or firms choose to work in informality to avoid regulations and remain small and unproductive, there could be an improvement by removing the constraints that cause this segmentation.

In a labor market without rigidities, salaried employment and self-employment, and relative wages between the two, should move in the same direction over time. The self-employment sector, in this case, is viewed as consisting largely of small entrepreneurs who choose that occupation as a rational decision, possibly because of misalignment of social security benefits and contributions, high costs of registration or for personal reasons (the desire to be one's own boss, not having to comply with schedules, etc). In the reverse case, when relative sector sizes and wages move in opposite directions, the labor market faces constraints that ration out some workers from salaried employment, even though they would prefer to be there. In this case, self-employment is seen as an undesirable outcome. This distinction is important because the policy implications for the design of social security and insurance systems may vary substantially. Additionally, it sheds light on the appropriateness of labor market related regulations, notably non-wage costs and minimum wages. Figure 2.8 plots relative sector sizes (salaried/self) and relative wages for the period 1984-2004.

Figure 2.8: Evolution of Relative Sector Sizes and Wages (salaried/self), 1983-2004



Source: ENH- DANE, Author Calculations

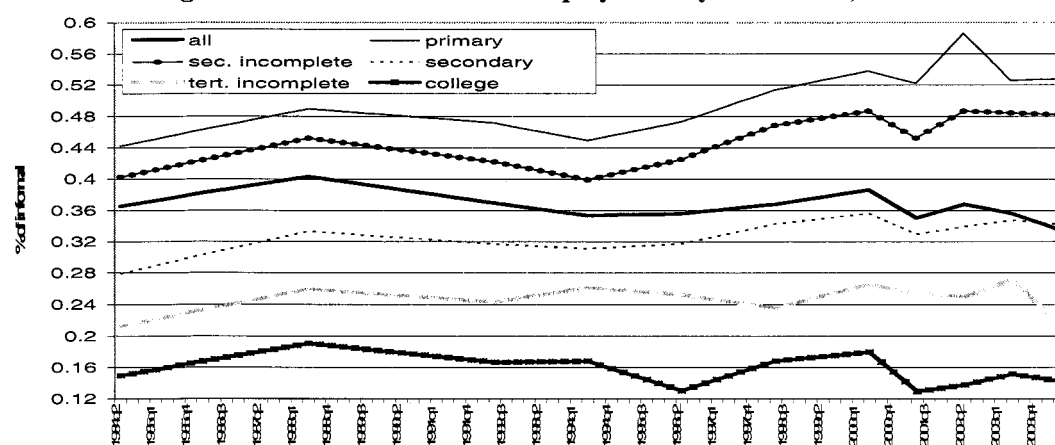
After 1995 and until 2001/02 the series move in opposite directions, indicating that at that time some factor(s) turned the labor market into a more segmented one. It was precisely then that the reform to the social security system went into effect (Ley 100 de 1993). This reform substantially raised payroll contributions to finance health and pensions, and thus increased the cost of being a salaried worker. The decline of salaried employment continued during the recession (1996-01), but the ratio of wages did not decline in that period, demonstrating the inflexibility of salaried wages (since the majority of salaried workers are in the formal sector). Additional statistical analysis (see Volume II) leads to three very important conclusions:

- the Colombian labor market has become more segmented since 1995/6, which coincides with the full enforcement of the social security reform enacted at the end of 1993;
- the recession may have also played a role in this shift, by restricting labor demand, particularly among the most skilled;
- those with the lowest skills were the most affected by this move towards more segmentation, in that they appear to have been rationed out of salaried employment in a larger proportion than other groups.

Thus, the move towards an increasingly segmented labor market appears to be a function of the amount of payroll taxes (which affects both the decision to become self-employed and the demand for salaried employment) and the state of the economy. The minimum wage is also suspect due to its impressive growth after 1998. These determinants will be formally studied in the next section.

Informal salaried employment and self-employment: Figure 2.9 shows the evolution of salaried informal employment for the five skill groups generally used in this report (primary, secondary incomplete, secondary, tertiary incomplete and college), and for the whole sample of workers¹.

Figure 2.9: Informal Salaried Employment by Skill Level, 1984-2004



Source: ENH- DANE

The graph clearly shows some important facts:

- informality is higher for the lowest skill levels;
- in most of the groups there is an important decline in informality since 2003, which appears to be especially large for the least skilled groups; and
- the period 1994-2000 was characterized by a substantial increase in informal employment in the three lower groups.

In terms of wages, average wages of the self-employed were significantly higher than those of informal salaried workers until 1999. After 1999, the differences disappeared, suggesting that self-employment became more of a residual activity in a more segmented labor market. This conclusion was confirmed by an exercise that compared the characteristics of the

¹ The analysis of IS employment can only be carried out in 11 quarters (the second quarter of 1984, 88, 92, 94, 96, 98 and 00-04).

workers who are either self-employed or informal salaried at two points in time: 1994 and 2004 (see detail in Volume II). The messages from this exercise can be summarized as follows. First and very importantly, in 1994 workers in self-employment conformed to a pattern in which people move to this occupation when they have accumulated work experience and capital to start a business. In effect, the young were the least likely to be self-employed while those between 30 and 49 years of age displayed the highest likelihood. However, in 2004 there were no differences among the various age groups. IS workers, on the other hand, were concentrated among the young. The second message is related to education. In particular, while in 1994 the most likely to be found in SE were the unskilled (primary and secondary incomplete) and the most skilled (college), by 2004 the situation changed to one in which a negative relationship between education and self-employment was observed. That is, in 2004 the most likely to be found in SE were the least skilled, whereas the least likely were the most educated, pattern identical to that found in the IS occupation. These facts clearly point to a shift of SE, which turned it into an occupation very similar to IS employment. That is, the move towards increased self-employment seems to be dominated by low quality jobs in this occupation.

Main Messages

The main messages from this chapter can be concisely stated as follows:

- **The Colombian urban labor market seems to have “stabilized” at a higher level of unemployment and labor participation has increased markedly.** Hours worked declined in the last ten years.
- **The labor market is increasingly female and commerce and service oriented.** While in 1984 four out of ten women were in the labor force, today this figure is six.
- **In terms of occupations, the composition of the urban labor market became more self-employed oriented.** The important things about this move are that these new self-employment jobs appear to be of low quality; and that the labor market shifted toward a higher level of segmentation in the period 1995-2002. That is, self-employment now seems to be increasingly populated by individuals that would prefer to be in a salaried job but cannot find one.
- **The labor market has a stable share of informal salaried employment,** despite an important increase during the 1990s. Indeed, the share of informal salaried workers remained stable at around 35%, after reaching a peak of 40% in 1998.
- **Wages, which are related to productivity, show sluggish growth if the entire period is analyzed.** Indeed, they increased by some 9% between 1984 and 2004 (i.e. less than 0.5% per year). However, wage growth was impressive during the expansive period 1991-98, which also coincided with a period of high productivity growth.
- **All outcomes tend to be worse for the least and intermediate skilled, especially the latter,** when compared to the rest of workers.

III. What Lies Behind These Shifts in the Main Outcomes?

The purpose of this chapter is to investigate the determinants of the trends observed in the main outcomes, discussed above. Special emphasis will be placed on the persistence of high unemployment in the last few years and on the increased degree of segmentation. The chapter will analyze why labor market adjustment has been so slow after the late 1990s recession, once economic growth resumed. The analysis is presented in terms of misalignments caused by labor demand and labor supply factors that were introduced over the 1990s. For instance, labor demand has been affected by minimum wages and other rigidities, as well as by labor and non-labor costs, particularly those introduced by the reform to the social security system that affected firm and individual decisions. On the other hand, labor supply suffered structural changes in recent years, mainly due to an increase in female labor participation. Thus, this chapter addresses the following questions: (i) what is the impact of the business cycle on employment, its composition and wages? (ii) how did the minimum wage affect unemployment and occupational choice? (iii) what are the mechanisms through which Ley 100 influenced the labor market and what was its impact? (iv) have wage rigidities changed over the 1990s? (v) how did the increasing labor participation put pressure on unemployment? and (vi) what impact did public wage policies have on the functioning of the entire labor market?

1. Employment and Unemployment

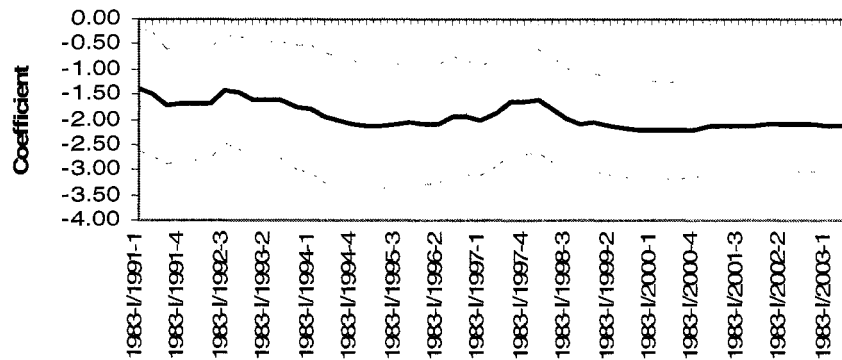
The Labor Market is increasingly more prone to adjust by quantities (unemployment) than by prices (wages)...

Output fluctuations can affect unemployment in two ways. First, GDP contractions (expansions) reduce (increase) the demand for labor. Second, reductions in wages can induce labor supply to increase as people who were not participating decide to join to compensate for lower household income. In Colombia, evidence suggests that the relationship between unemployment and output became asymmetric, as unemployment seems to increase more during downturns than it shrinks during upturns. Thus, unemployment tends to persist even once economic growth resumes.

Figure 3.1 confirms that, as expected, GDP growth has a larger than proportional effect on unemployment², i.e. a reduction of one percentage point in economic growth increases unemployment by about two points since 1998. The most important detail, however, is that unemployment has become more sensitive to changes in output since the last recession, shown by the increasingly positive relationship between the two variables (in absolute value). When this relationship was studied for the usual skill groups, it became apparent that GDP movements have greater effects on less educated workers. For the earlier years, unemployment of highly educated workers seemed to not be sensitive to the economic cycle, but after the recession, their unemployment rate became very sensitive. Also, since for all groups cyclical variations in output affect the unemployment rate more since 1998, the adjustment has relied increasingly on quantities.

² The coefficients are higher than one in absolute value

Figure 3.1: Unemployment and GDP Growth (Okun's equations)
Coefficients and confidence intervals

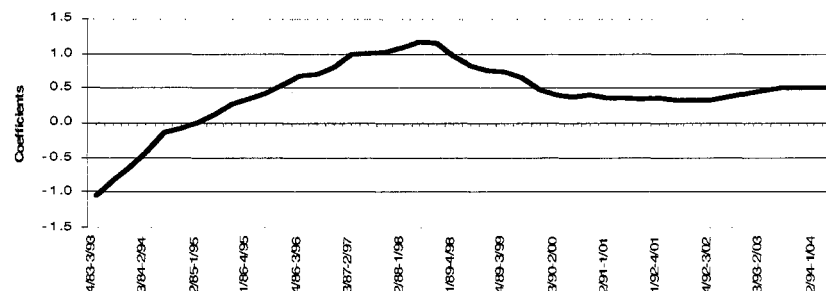


Source: Author Calculations

Note: the graph shows 10-year moving windows. Dotted lines are 5% confidence intervals

Of course, the other side of the coin is given by the relationship between wages and the cycle, which is shown in Figure 3.2. It is clear that the impact of GDP movements on wages was larger in the mid 1990s, indicating a fairly direct adjustment of wages in response to output changes. Towards the end of the period, however, the sensitivity of wages to changes in aggregate output declines to about half of its previous value, coinciding with the implementation of the social security reform and the increase of the minimum wage.

Figure 3.2: Wages and GDP growth (Okun's equations)



Source: Authors Calculations.

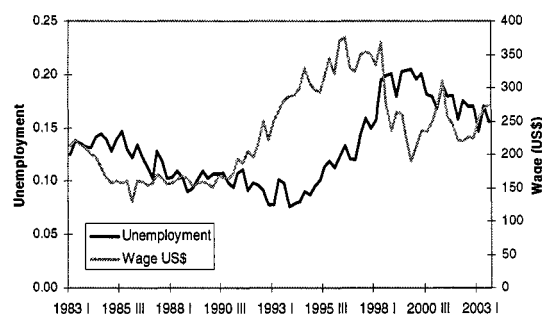
Note: the graph shows 10-year moving windows (up to 3/96 coefficients are not significant).

Thus, despite the increase in the volatility of output, it seems to be a fact that the labor market adjusts now more through quantities rather than wages. Factors such as the minimum wage, non-wage costs and public wages appear to have introduced more rigidity to wages, at least in the salaried sector. This situation is in sharp contrast with what happens, for instance, in Mexico where, despite larger volatility, unemployment remains low and less variable. The Colombian case seems much closer to the Argentinean one and to others in LAC that have moved toward a more inflexible stance (Saavedra, 2001).

Box 3.1: Output Shocks and Labor Market Adjustment, a comparison between Argentina, Colombia, and Mexico: after inflation stabilization programs were implemented in LAC during the 1990s, labor markets became more prone to adjust to real shocks through employment rather than wages. This was certainly the case in Argentina, where the hard-peg-based Convertibility Plan, which relied on the exchange rate as a major policy instrument and an anchor for inflation expectations, was implemented in 1991. During that period, adjustments to the real exchange rate could only occur through deflation of nominal wages and prices, because the nominal exchange rate could not be adjusted and inflation could not be used to reduce wages. When the country's recession moved into an escalating crisis, nominal wages did not fall, and the labor market adjusted through increasing unemployment. Between 1998 and 2001, unemployment jumped from 13% to 18%, peaking at 22% in 2002. This sharp increase in unemployment hit the formal sector hard. In effect, it accounted for almost 90% of the jobs lost at the height of the crisis. With a resumption of inflation in the post-convertibility period, real wages increasingly absorbed the adjustment, helping to ease the impact of the crisis on employment, as evidenced by the fact that, despite an 11% output contraction in 2002, employment only fell only 1.1%. Real and nominal wages for formal sector employees, which were the most stable between 1995 and 2001, suffered a dramatic contraction in 2002. Informal workers' wages were more flexible throughout the period, though this was not sufficient to restore full employment. Real labor costs in the private sector also fell, and by mid 2002 they were 30% lower than at the peak of the crisis. All of this indicates that, while during the earlier phase of the crisis the labor market adjusted mainly through unemployment, once the devaluation took place, wages costs became the main adjustment mechanism, triggering a deceleration of unemployment growth.

Mexico poses a different case, as a distinctive characteristic of its labor market was the wage response to changes in economic activity, which helped to cushion their effect on employment. The country's swift recovery from the large slump of 1995 was attributed to Mexico's flexible wages, which absorbed most of the adjustment. Mexico's unemployment rate during the 1990s was surprisingly low, especially when compared to those observed in other Latin American countries, including Colombia and Argentina. Despite constant increases in labor participation, Mexico's unemployment rate never reached a two-digit figure and, with the exception of the Tequila crisis, it was never above 5%. This resulted from the stagnation of remunerations, with 2003 wages around pre-1995 levels. Recent evidence suggests that the ability of Mexican labor markets to adjust to shocks through wages may have been declining since the late 1990s, in line with the rest of the continent.

Colombia's adjustment to the crisis of the late 1990s seems very similar to that of Argentina. The high level of inflexibility of the Colombian labor market, combined with increasing labor force participation lead to a jump in unemployment that reached 20% in 2000. The formal and informal sectors adjusted to the contraction in output in very different ways, though. Due to wage rigidities caused by a binding minimum wage and high non-wage costs, the formal sector had to resort to cutting jobs on an enormous scale. The self-employed, on the other hand, did not register such large increases in unemployment, but actually increased their job share, absorbing a third of previously wage-earning workers. They did face, however considerable reductions in earnings of up to 20 %, in clear contrast with salaried workers. Some additional adjustment in wages was obtained through reductions in the gender gap and higher female participation. As in the case of Argentina, the devaluation of the peso prompted a deceleration of unemployment growth. The evolution of unemployment and wages in dollars, below, suggests that after the devaluation, wages absorbed a larger share of the adjustment, preventing unemployment from further increases.



Source: ENH- DANE-Banco de La República

Women of all ages, teenagers and the unskilled are the groups that suffer the most during contractions of aggregate economic activity...

Despite the strong influence of the cycle on the labor market, it is not clear how this impact is distributed on the population, information which is essential for the design of appropriate policies. A simple methodology allows the disentangling of the response of various groups to the cycle. It reveals that cyclical changes in aggregate economic activity are associated with dramatic changes in the gender composition of employment. Lower aggregate demand is associated with a decline in the proportion of males employed in most age categories and an increase in the proportion of women. The most important source of this change is the increased participation of women as a consequence of reduced household income. Importantly, the sensitivity of labor participation for women is usually greater than the change in employment, suggesting that the entry of women contributes to the increase in the overall rate of unemployment. An examination of the response of males reveals a different picture. Participation of adult males displays a very small sensitivity to cyclical fluctuations. The labor participation of young teenagers (12-19), on the other hand, appears to be highly sensitive. A decrease in aggregate demand of one percentage point leads to a 4.3 point increase in the labor participation of 12-15 males and of 1.5 for those 16-19 years old. Also, the proportion of the teenage boy population employed appears to increase only for the 12-15 group, but the increase is smaller than the growth of participation, meaning that many of them go to increase unemployment. For the 16-19 group, almost all the increase in participation goes to unemployment.

The overall results (see Volume II) indicate that young workers (20-24) and adult women are the groups that move the aggregate unemployment rate the most in response to the cycle. Fewer adult men and 16-24 year olds enter employment, while more adult females and younger teenagers enter employment. Thus, in Colombia secondary workers, such as women and teenagers, who are not strongly attached to the labor force, join the labor market when economic conditions deteriorate. Finally, these exercises also revealed striking numbers about the main drivers of the overall unemployment rate during downturns: teenagers (15-19 year olds) and young adults (20-24 year olds) account for 30% of the increase of the unemployment rate when GDP growth declines, while adult women are responsible for more than 20%. Adult men are responsible for only about 17% of the increase. This is the result of adult females (25-64) accounting for almost 30% of the increase in labor force participation. The youngest group of teenagers (12-15) is the group that contributes the most with almost 40%.

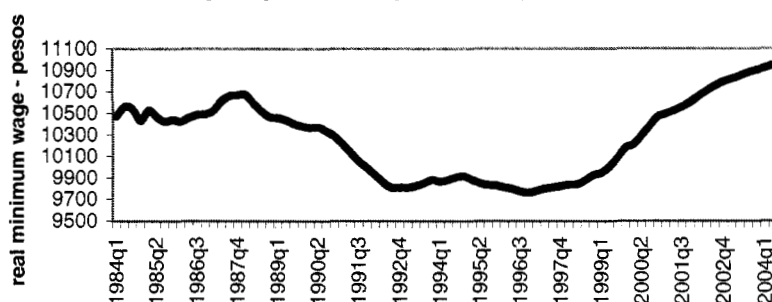
Box 3.2: Comparison with Other Countries: the labor markets in urban areas of Argentina, Brazil, Mexico and Colombia are very similar to the US. In each of these countries young workers and teenagers accounted for the largest share of the short-term variation in employment. The response of the youngest group, however, is striking in Colombia. As in the United States, teenagers up to 24 years of age are only 25% of the population and yet they comprise almost 40% of the cyclical variation in employment. In contrast, adult men account for a smaller share of the cyclical variation in employment than their share in the population. The important difference with the US is that in this country women do not appear to be as sensitive to the cycle. Also, Mexico is the country where the least sensitivity of the different groups is found.

The impact of increasing minimum wages since the mid 1990s on unemployment appears to be substantial, being particularly pervasive since 1998...

Mandated minimum wages can cause misalignments in the labor market in numerous ways, increasing unemployment and the share of informal workers. Minimum wages, while nominally only relevant for the formal sector, may also influence wage setting in the informal

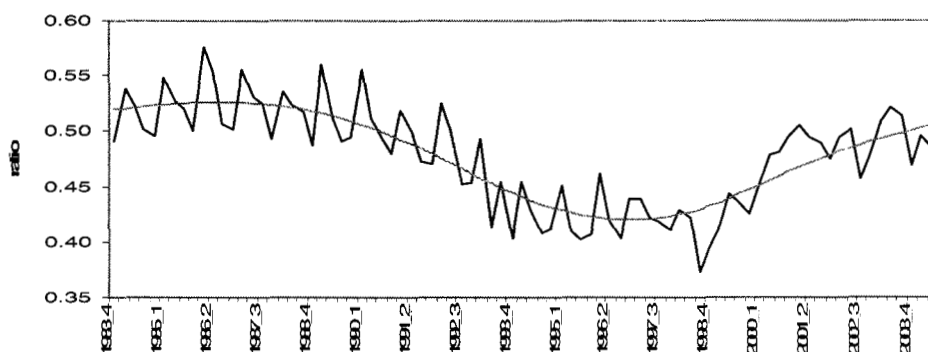
sector. The minimum wage in Colombia declined between 1984 and 1994, and then rose sharply (Figure 3.3). By 2003, it was about 4% higher than in 1984. The country has the second highest minimum to average wage ratio in Latin America, only below Honduras. This ratio declined until 1998, to rise significantly since then, as a result of a real increase of about 8% in the minimum wage in 1998 (Figure 3.4). The present value of the ratio is in line with its 1984 level, after reaching its lowest in 1997, when it was almost 25% lower. As a result, the proportion of people earning less than the minimum wage increased in recent years, especially among the self-employed (Figure 3.5). This indicates that the minimum wage has become more binding. It is important to note that this happened at the same time that the economy was undergoing its worst recession in history, which probably augmented its negative impact.

Figure 3.3: Minimum Wages, 1984-2003
(real pesos per month, 8 quarter moving average)



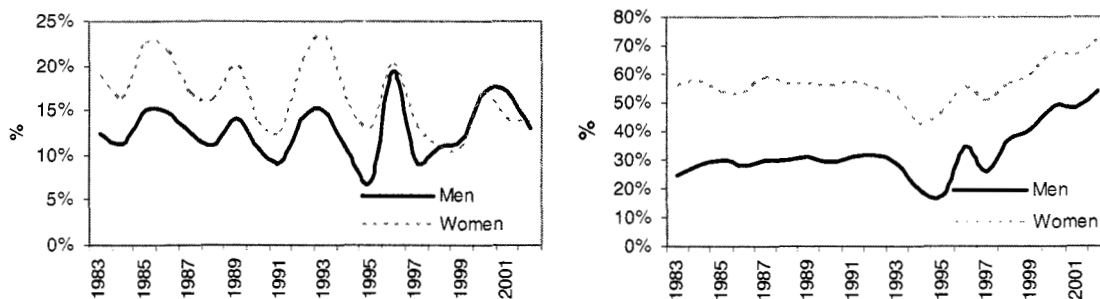
Source: Banco de La República

Figure 3.4: Minimum to Average Wage Ratio



Source: Salas (2004)

Figure 3.5: Workers Earning less than the Minimum Wage, Salaried Workers (left) and SE (Right)



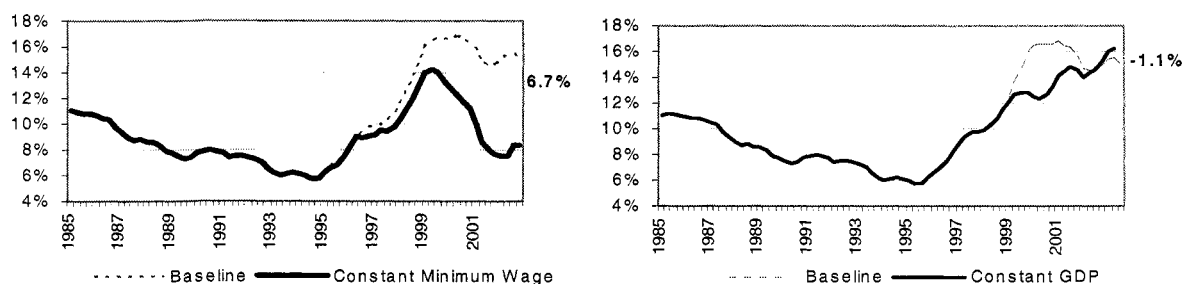
Source: Salas (2004)

To isolate the impact of the minimum wage on wages and employment, diverse statistical analyses were undertaken, separately for the whole labor force and for each skill group (see Volume II). These exercises showed that:

- growth of the minimum wage causes the entire working population's wage to increase. Its effects are not restricted to the lowest earners, but it acts as kind of a "lighthouse" throughout the distribution, causing wage increases until the 75th percentile. This is surely related to the practice of indexing wage setting to multiples of the minimum wage;
- women's wages are more sensitive to changes in the minimum wage than men's;
- the minimum wage is negatively related to employment. An increase of 10% of the minimum wage causes the employment rate to fall 3.6% for men and 2% for women;
- this negative effect on employment is present for all educational levels but the highest one. It is greater for men than for women, for those with primary or intermediate education and for younger workers;
- this negative impact became especially large since 1998. The response of unemployment to increases of the minimum wage was fairly stable until that year and, from then on, it increased sharply.

Simulations – Minimum Wages and the Recession: to assess the effect of the minimum wage and the cycle on employment, two simulation exercises were carried out. The first assumes that the minimum wage remained at its September 1995 level, while in the second, GDP growth for the recession period is kept equal to the average growth for the 1990s. Figure 3.6 present the results for men. If the minimum wage had remained at September 1995 levels, the male unemployment rate would have been 6.7 percentage points lower than it actually was in 2003 (unemployment would have been around 8%, instead of 14.7%). If economic growth in the late 1990s had been equal to the decade's average, men's unemployment would have actually been one point higher, although in the worst years of the recession it was about 2 points lower.

Figure 3.6: Male Unemployment Rate - Simulations

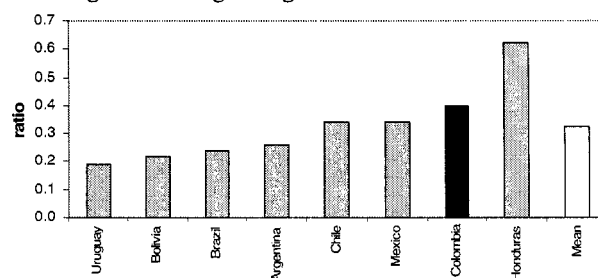


Source: Salas (2004)

The female unemployment rate, on the other hand, would have been 3.9 percentage points lower under a constant minimum wage scenario. Under the sustained growth scenario, female unemployment would have been nearly 2 points lower in 2003. Simulations for the unemployment rate across education levels show that the unemployment rate for unskilled workers (primary level) would have been 2 points lower with a constant minimum wage and 2.5 percent lower with sustained growth. Overall, it would seem that the high unemployment rate of the late 1990s was, to a large extent, a product of both the rapid and sustained growth of the minimum wage, as well as the fall of growth rates of GDP.

Box 3.3: Minimum Wages – Other Evidence and International Comparisons: Cunningham et. al. (World Bank, 2005) found that the minimum wage appears to have a strong effect on both formal and informal sector workers' salaries. The minimum wage is more binding in the informal than in the formal sector because of lower average wage in the former. The study also shows how the minimum wage can be a tool for poverty and inequality reduction. Although generally the minimum wage is less than the poverty line, it can serve to increase the incomes of the poorest workers. It also reduces income inequality because the positive impacts shrink to zero in higher earning households. Nevertheless, in countries with relatively high minimum wages, the minimum wage can also lead to non-wage effects, increased unemployment among the poor, and thus greater poverty and an increase in household income inequality. Neumark et. al. (2003) analyzed the effect of minimum wages in Brazil on the distribution of family incomes, using cross section time series data. The estimations provide no evidence that, in the lower-wage metropolitan areas, where their effects should be apparent, minimum wages lift family incomes at the lower segments. Maloney and Núñez (2003) estimated Kernel density plots for 20 Latin American and Caribbean countries to identify the redistributive effect of the minimum wage on formal and informal sector wages. In addition, their study provides evidence on who earns the minimum wage and how it compares to the poverty line. As the following figure depicts, Colombia has the second highest minimum to average wage ratio within the Latin America Region, confirming the conclusions about how it became a binding constraint recently.

Minimum Wage to Average Wage Ratio for Selected Countries, 2000

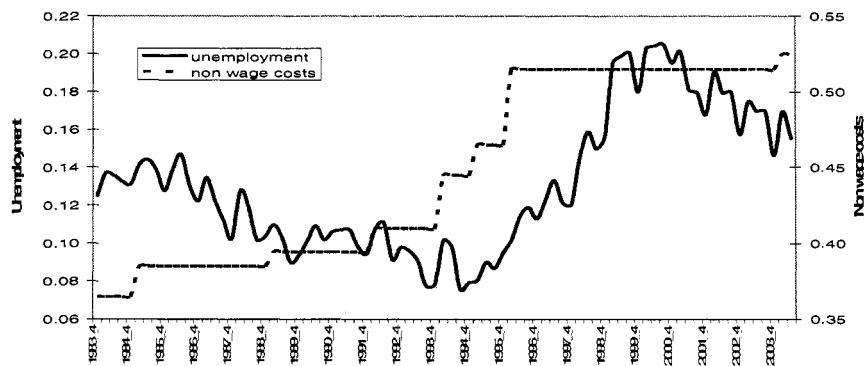


Source: Maloney and Núñez (2003)

The impact of rising non-wage costs on unemployment was sizable as well, although lower than that of the minimum wage...

Rising non-wage costs and unemployment seem to go together, both growing significantly after 1995 (Figure 3.7). These costs cover such items as health insurance, pensions, severance payments, and other mandated benefits and taxes (Box 3.4). During 1990-1994 two important changes to labor related legislation were introduced. The first was the labor reform of 1990 (Ley 50), whose main objective was to make the labor market more flexible by facilitating hiring and firing. The second one was the social security reform (Ley 100 de 1993), which reformed the system of health and pensions. The reform determined the amount and distribution of the payroll contributions between the contributory and subsidized regimes in health. The affiliation to one of these regimes depends on the income of the worker: those who have the ability to pay are affiliated to the contributory regime, paying through the payroll, while the lower-income population is enrolled in the subsidized regime. Under the contributory regime, individuals must make payments equaling 12% of their earnings, split between the employer (2/3) and the worker. The pension system reform introduced a fully funded system with individual accounts. Contributions increased to 13.5% (14.5% for high earners).

Figure 3.7: Trends in Unemployment and Non-Wage Costs

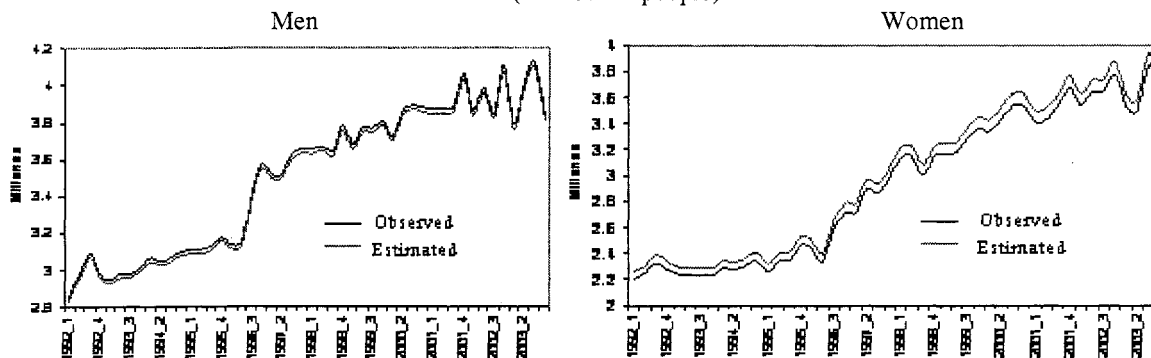


Source: DANE-ECH and Kugler (2000)

Box 3.4: Non-Wage Costs in Colombia: non-wage costs in Colombia are composed, first, by contributions to finance health, pensions and professional risks. Additionally, there are (i) “Cesantías” (individual accounts funded by the employer in the amount of one month’s wage per year that act as a kind of unemployment insurance); (ii) paid vacations (half a month wages per year); (iii) Parafiscales, which are taxes to fund a variety of social protection services provided by SENA (training), ICBF (family and child welfare) and the “*Cajas de Compensación Familiar* (CCFs)”, which provide services for formal workers, ranging from cash subsidies to recreation. They amount to 9%; (iv) mandatory bonuses (4.2% of the payroll); (v) severance payments for unjust dismissals (around 5.2% of the payroll after the 2002 reform). The 1993 social security reform increased health contributions from 7 to 12%, while contributions for pensions grew from 4.5 to 13.5% (14.5% for high earners) and the 2002 pension reform increased them further by 2%. The only component that has gone down among these is (v), which decreased from about 12% in 1989 to the 5.2% mentioned. Most of the reduction came about from the 1990 labor reform, which reduced it to 7%. In fact, total non-wage costs have increased from some 47% of the payroll in the 1980s to 60% in 2004. If item (v) is not counted, the increase is from 35 to 55%.

These reforms have two potential effects: first, they could make employment more attractive, thus raising participation rates. With no change in labor demand, this would then add to unemployment. Second, by raising labor costs the impact could directly cause additional unemployment. In terms of labor supply, Figure 3.8 shows observed and estimated participation rates for men and women. The estimated male participation is slightly lower than the observed. The opposite result is found for women, implying that the reform decreased female participation.

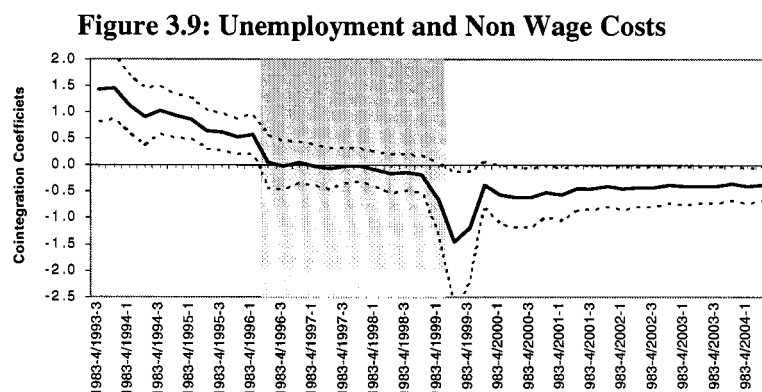
Figure 3.8: Estimated Impact of Non-Wage Costs on Labor Force Participation
(Number of people)



Source: ENH 1992-2003, Prada (2004)

As economic theory predicts, the response of labor demand to the increase in non-wage costs was negative. As a result, employment rates would have been higher if the increase in non-wage costs had not occurred (see detail in Volume II). Thus, if both the supply and demand effects are considered together, it is found that, on average, the unemployment rate would have been almost one point lower than the one observed between 1996 and 2003. Note, however, that these results depend critically on the estimate of the elasticity of labor demand to labor costs. Taking into account that the ones used here are in the low range, it is safer to say that the effect on the unemployment rate is in the range of 1.2 and 1.8 percentage points³.

Figure 3.9 presents the results of an analysis of how the relationship between unemployment and (total) non-wage costs evolved over time. Three different periods can be identified. Until the mid 1990s, the relation was negative. Between the time of the implementation of Ley 100 and the end of 1998 (gray area) the relationship seems to be neutral. Finally, towards the end of the period, which coincides with the recession, the relationship becomes positive, indicating that the increases in non-wage costs induced by Ley 100, combined with the reduction of labor demand were a key part of the jump in unemployment that followed.



Source: Author calculations

Public sector wages also seem to negatively affect the adjustment of the labor market, probably by introducing additional rigidities to overall wages...

A salient feature of the Colombian labor market is the small share of public employment. When compared to both Latin American and developed countries, Colombia's public employment is clearly among the smallest. For instance, public employment in Colombia was 8.7% in 1999, compared to 10.9% in Chile, 13% in Brazil, and 15.6% in Argentina. However, in Colombia, public employees earn substantially higher wages than private workers and the difference, on average, seems to have widened recently. Table 3.2 presents a comparison of relative wages across employment types, where public employees' high wages clearly stand out. Public wages were 47% higher than private wages in 1991, and rose to a point of being twice as high in 2002. When the comparisons are made among "similar" workers (i.e. controlling for personal characteristics) the premium becomes higher⁴. This wage premium is highest for low and intermediate skilled workers and was on the rise between 1995 and 2000. Only among the

³ Estimates of the impact of non-wage costs on labor demand range from -0.25 to -0.4.

⁴ Volume II contains a detailed analysis of the public-private wage premium, which takes into account not only the characteristics of the workers, but the selection bias introduced by the choice of sector.

highly skilled the premium fell in the later years. Regarding this last point, it is important to note that there are also large differences between workers within the public sector, with highly educated workers in the executive branch earning substantially less (about half) than their peers in the legislative or judicial branches. The public sector's disproportionately high wages, which represent a transfer of the Colombian society to a very limited group of workers through taxes, may be introducing rigidities in the aggregate labor market if they act as a "lighthouse", influencing wages and employment in the private sector.

Table 3.7: Relative Wages Across Sectors, 1991-2003 (Compared to Private Salaried)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Private	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Public	1.47	1.54	1.66	1.48	1.49	1.64	1.71	1.47	1.87	1.91	2.03	1.92	2.00
Domestic empl.	0.34	0.33	0.34	0.33	0.37	0.37	0.39	0.35	0.40	0.39	0.38	0.35	0.40
Self employed	0.86	0.85	1.01	0.97	1.12	0.91	0.90	0.77	0.65	0.76	0.57	0.69	0.61
Entrepreneur	2.27	2.14	4.32	3.18	3.38	2.38	2.13	2.42	1.85	2.08	1.76	1.75	1.60

Source: ECH, Author Calculations

How does this impact on the overall labor market? The analysis in Volume II looks at the effect of public sector pay policies, allowing for the different characteristics of public and private sector employees, and adjusting for the choice of sector. In general terms, the results indicate that men are negatively affected by the public-private wage gap, in terms of having a lower overall employment rate than the one that would exist if such a premium were not present. Men older than fifty and adult men (40-49) with primary schooling are more severely affected. Women, however, do not seem to be as impacted by this wage gap.

The impressive growth of female participation has severely impacted unemployment...

Labor force participation in Colombia has grown uninterruptedly since the mid 1980s. Much of this can be explained by the continuous increase of female participation, which, as Figure 3.10 shows, has been rising steadily as a consequence of both short-term and structural influences. Short-term changes relate primarily to the business cycle. Structural shifts, on the other hand, are associated with deep social changes, such as greater and more egalitarian educational access, as well as fertility rate declines.

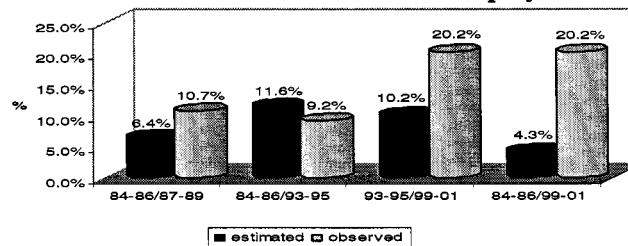
Figure 3.10: Unemployment and Labor Force Participation by Gender



Source: ENH- DANE

There are differences in the determinants for men and women for entering the labor market. For example, unmarried men participate less than married men, while unmarried women participate more. Further, the presence of children under seven years has a negative impact on female participation, but a positive impact on men's. Female participation has grown continuously from 1984, experiencing an increase of 16 percentage points. The increase was especially marked during the recession. This behavior can be explained by increases in education attainment (48%), increases in the proportion of women as heads of household (13%), changes within the family structure (17%) and changes in fertility rates (2%). Women's decisions to participate in the labor market seem to be related also to the business cycle: rising when the economy is weakening, and falling when the economy is strengthening. Based on an analysis of the probability of participation (Volume II), it is possible to undertake simulations of the impact of changes in participation on unemployment. They show that changes in labor participation have a considerable effect on unemployment (Figure 3.11). During the recession period (1999-01) unemployment reached its highest level, 20.2%. However, had the participation rate remained at 93-95 levels, the unemployment rate would have been around 10.2%.

Figure 3.11: Observed and Estimated Unemployment Rate



Source: Díaz (2004)

Importantly, the impact of labor participation on unemployment is particularly strong for the least and most skilled workers. This result is related, again, to the behavior of women. In the lower education groups female sensitivity to the cycle is very high (women in these groups joined the labor market in a higher proportion due to the recession), while in the highest group is where the largest increase of female participation due to “structural” factors is found.

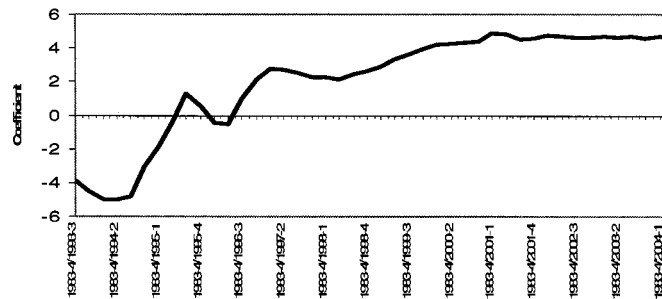
2. Segmentation

The increased level of segmentation (i.e. the move towards low quality self-employment), on the other hand, is associated with the increase of non-wage costs, the recession and, to a lesser extent, with the late 1990s rise of the minimum wage...

Detailed statistical analyses (Volume II) about the main determinants of the move of the Colombian labor market to a more segmented stance clearly provided the following results:

- there exists a positive long term relationship between the size of the self-employment sector and non-wage costs that became larger during 1996-2001 and then stabilized at a high level, as Figure 3.12, below, shows. That is, as the regulations introduced by Ley 100 entered in full force (1996) the size of the self-employment sector grew continuously, with an increasing pace after 1998 when the recession was at it worst. After 2001, the relationship stabilized at a high level;
- the economic cycle played a chief role in increasing segmentation, especially among the most skilled segments of the labor force (incomplete and complete college);

Figure 3.12: Long-Run Relationship between Self-Employment and Non-Wage Costs, 1984-2004



Source: Author's Calculations

- the minimum wage was also a determining factor in this move. Its effect was particularly strong among the intermediate skilled. Additionally, it was apparent that minimum wages became a more binding constraint affecting the decision of becoming self-employed since 1998, when its effect increased by more than 30%;
- firing costs were also found to have a large impact on the degree of segmentation, but only among the skill groups of secondary complete and tertiary incomplete; and
- the large devaluation of the period 1998-02 contributed to higher segmentation.

Therefore, the main messages from this chapter may be summarized as follows:

- **Increasing participation rates, especially female and young, have had an important impact on unemployment, particularly during the recession.** Participation, in turn, has been driven by structural changes and by fluctuations of GDP.
- **The corollary of this is that women of all ages, teenagers of both genders and the unskilled are the groups that suffer the most during contractions of aggregate economic activity** and, despite their lower share of the population, are the groups that cause the larger movements of the overall unemployment rate.
- **Minimum wages and non-wage costs appeared as key determinants, not only of unemployment, but of self-employment, informality and segmentation.** Their effect became particularly pervasive since 1998 for minimum wages and 1995 for non-wage costs. Minimum wages seem to be particularly relevant for the determination of employment, while non-wage costs affect more the split between occupations.
- **Wages seem to have become less sensitive to the cycle, fact that is also partially explained by the behavior of minimum wages and non-wage costs in the last ten years.** However, public wages, which may be acting as a “lighthouse”, at least for workers with intermediate or low education, are also affecting overall wages.
- **Thus, the labor market has become less flexible to adjust to macroeconomic fluctuations in recent years.** That is, when economic growth declines an increasing part of the adjustment is reached by increasing unemployment. Therefore, the importance of maintaining macroeconomic stability cannot be sufficiently stressed. Also, the effect of the cycle on unemployment has two channels: through a decline in employment generation and also through an increase in labor participation rates, particularly among women and the young.
- **Poor performance of productivity growth (see chapter V),** is highly correlated with sluggish growth of salaried employment and wages.

IV. The Labor Reform of 2002 – Gauging its Impact⁵

The 2002 labor reform (Ley 789 de 2002) attempted to formalize employment and increase the pace of employment generation by removing some of the obstacles reviewed above, which became especially binding during the recession. The reforms included reducing extra-payments for nocturnal and holiday work, bringing down firing costs and introducing flexibilization to non-wage costs. At the same time, measures were included to favor employment and formality of HEG including women, young workers and the disabled. The most important of these was the reform of the apprenticeship contract (AC). Finally, a set of social protection measures was included in order to begin to create a more effective social protection system, including the introduction of an unemployment insurance system (see Box 4.1).

Box 4.1: The Labor Reform – Law 789 of December 27, 2002:

Measures to create and formalize employment. The labor reform extended the diurnal shift, defining it as being from 6 am to 10 pm (before it was from 6 am to 6 pm). This measure reduced premia paid for nocturnal work (40% over the regular wage). Likewise, the law allowed flexible working hours for the commerce and service sectors, which might vary between 4 and 10 hours a day without going over 48 hours per week; those working hours can be at any time of the day and any day of the week. On the other hand, extra-payments for work on Sundays and holidays were slightly reduced. The law reforms the apprenticeship contract (AC) by, first, removing the contractual obligations between employers and apprentices (“deslaboralización”), so, in practice severance payments are eliminated. Second, the ACs are exempted from paying *parafiscales*. Third, the new regulation allowed remuneration lower than the minimum wage: 50% in the learning phase, and 75% in the practical. The law enacted the obligation to contract apprentices in firms that have 15 or more employees, according to the number of workers. In addition, firing costs were reduced, in higher proportion to workers with 10 years of tenure or more. Differential severance payments for unjustified separations, according to the wage rank, were established. Finally, the reform allowed refunding of *parafiscales* to those firms that carry out on-site training. The previous labor reform (Ley 50 de 1990) had significantly reduced severance payments and established the *salario integral*, which allows employers to convert non-wage costs into wages, provided that the worker proves that s/he is making pension and health contributions.

Social Protection Measures. An unemployment insurance (UI) scheme was established, with resources coming from the redirection of one point of *parafiscales*, in particular those administrated by the CCFs. The regulation establishes that the subsidies must be focused on both unemployed who were members of the CCFs at any time during the last three years (in a higher share) and the unemployed who have not made contributions (i.e. were informal workers).

Employment of HEG. Incentives were included to increase employment among vulnerable groups, through the exemption of *parafiscales* to the firms that employ (i) poor heads of household; (ii) ex-guerrillas under a state program (*reinsertados*); (iii) handicapped; (iv) people between 16 and 25 years and older than 50; and (v) ex-convicts. Of course, the AC serves also the purpose of favoring employment of a particular HEG, the young.

Since the reform (2002), some important changes occurred in the labor market:

- employment grew importantly, especially in 2003, but the growth rate declined in 2004;
- participation rates decreased in 2004;
- as a result, unemployment fell since 2001, but more markedly in 2003-2004;
- salaried employment increased and informality fell, especially in 2003-2004; and
- wages of salaried workers increased (some 22% for women and 13% for men) in 2003-2004, while those of the self employed remained stable over 2001-2004.

The question is to what extent were these changes related to the reform. To answer it, diverse analyses were undertaken using recently collected firm and household data (see box 4.2).

⁵ This section is based on four studies commissioned especially for this Report: Amarante and Arim (2005a), Díaz and Santamaría (forthcoming), Gaviria (2005) and Núñez (2005). Other materials, such as, López (2004) and Ministerio de la Protección Social (2005) were also used.

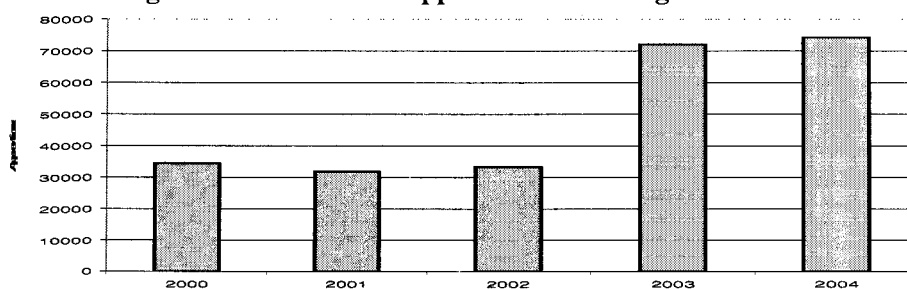
Box 4.2: Data and Methodology: the evaluation of the labor reform was based on (i) a special survey of firms that included questions that specifically asked about the use of the new regulations by entrepreneurs (labeled FSu from now on); (ii) the analysis of administrative data; and, more importantly (iii) the use of household survey data (ECH) for the period 2001-2004 to isolate the impact of the reform on key labor market outcomes, such as employment, formality, hours worked and wages. Analyses using the ECH were based on “differences in differences (DID)” estimators, which allow the isolation of the effects of certain events based on comparisons of a “treatment” group (exposed to the event, in this case the reform) with a “control” group (not exposed to the reform). As it is well known, the main criticism of this methodology is precisely the choice of treatment and control groups. For a description of how they were identified, see Volume II. The FSu, on the other hand, consisted of 1,021 firms located in Bogotá in all sectors, including 25% in manufacturing, 41% in commerce, and 18% in personal services. The share of firms with fewer than 10 workers was 41%. For a detailed description, including the questionnaire, see Gaviria (2005).

Of course, trying to evaluate and isolate the impact of a policy change of the magnitude of a labor reform, which affects large portions of the labor market in diverse ways, is an extremely difficult task, and even more when the trends of aggregate economic activity shifted at the same time as it was introduced (i.e. growth picked up in 2003, after years of being stagnated). The fact that less than two years have passed since the reform does not help either (the reform went into full effect in April 2003). However, the law itself (in its Article 46) included a mandate to evaluate its impact two years after its enactment, in order to introduce adjustments to those regulations deemed as ineffective or counter-productive⁶. In what follows the main results are presented. For clarity and, given that in some areas there are mixed results, the exposition will start with the aspects that seem to leave no doubt, to present at the end those in which there is mixed evidence. Also, the results related directly to labor market outcomes will be presented first, to then finish with a brief evaluation of the social protection related provisions.⁷

The impact on employment of young workers seems large and significant...

During the pre-reform period (2000-02) the number of apprentices showed practically no change, as if an equilibrium level, given regulations and market conditions, had been reached (Figure 4.1). After the introduction of the reform, however, the number more than doubled (from 33,000 in 2002 to 72,000 in 2003) and seemed to remain stable in 2004. This increase represents more than 4% of all the employed between the ages of 18 and 25 years in June 2004 and they are almost 6.5% of those working as private salaried workers, which is a sizeable share.

Figure 4.1: Number of Apprentices Working under AC



Source: MPS (2005)

⁶ Control and treatment groups should be composed of “similar” individuals and be subject to the same shocks, except the event being analyzed. Many alternatives were used for treatment and control due to the conceptual difficulty of finding similar groups of workers that are or are not affected by the reform. Hence, the results should be interpreted with this caveat in mind. Volume II explains the DID methodology in detail and contains analyses of the choices. A second caveat relates to the FSu. Many of the questions on the reform are more of a qualitative nature. As such, the responses represent opinions.

⁷ No attempt will be made to estimate how many jobs were created, because this is an impossible task, and the results are weak

The firm survey showed that 35% of firms increased the use of apprentices in 2003 (compared to 17% in 2002). Larger firms and firms engaged in export were more likely to use apprentices. Econometric analysis (Volume II) confirms that the reform increased the probability of employment by one percentage point for workers aged 14-24 years as a direct result of the AC reform, this effect being larger for men than for women within this age range.

However, two points should be kept in mind about this result:

- it is impossible to know if this result reflects only a response by the firms to the reduced costs and increased flexibility to hire apprentices, or if it is due in part to the obligation imposed by the law, which is especially relevant among large firms; and
- in relation to this, some firm managers expressed that they sometimes perceive the AC as another payroll tax due to the obligation to hire a pre-determined number of apprentices;

Formality seems to have been positively affected by the reform...

Four specific measures of the reform were expected to reduce informality. The cost reduction brought about by the increase of the diurnal shift, the greater flexibility in setting shift times without causing extra payments, the decline in firing costs, especially for workers with more than ten years of tenure, and the introduction of the AC. Most of evidence in this respect points to a favorable impact of these measures on the level of formality. As initial evidence, not tied yet to the reform, Table 4.2 shows flows between formality and informality in 2001 and 2004. The percentage of workers who left informality and became formal increased substantially (from 18 to 22%), while the proportion of people who did the opposite movement decreased from 45 to 43%. The percentage of people who switched jobs within the informal sector declined as well, while the flows within formality grew.

Table 4.2: Flows Between Formality and Informality (%), 2001 and 2004

Current (>) Previous (v)	Informal		Formal	
	2001	2004	2001	2004
Informal	82.0	78.4	18.0	21.7
Formal	45.0	42.7	55.0	57.3

Source: Gaviria (2005)

Likewise, econometric evidence (Volume II) shows that, due to the reform, the probability of going from unemployment to employment as a formal salaried worker increased by 5.8%. The results also indicate a sizable effect of the reform in reducing informality in highly informal sectors, such as commerce and services. This effect is particularly strong among the least skilled, who experienced a reduction of the probability of being informal of 13-25%. However, no significant results were found when the data were analyzed by firm size.

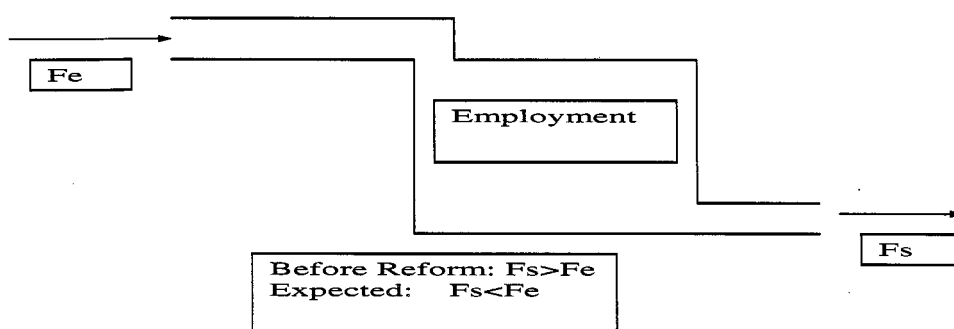
The impact on employment creation appears positive as well, although of moderate size...

The employment impact of the reform is one of the aspects that has generated the most controversy. It was said above that the pace of employment creation increased since 2003, although it lost momentum in 2004. The timing of this event constitutes an indication that the impact of the reform may have been positive. However, making this link is not an easy task. Thus, several exercises were conducted to establish if there is actually a causal relationship between the two. Statistical analyses show a positive and significant relationship between the

reform and employment creation. The results indicate that, as result of the reform, the likelihood of being employed increased by 0.6 percentage points, while this figure is 0.8 for the least skilled and 0.3 for those with unfinished tertiary education (no impact was found among the most skilled). The exercise was also performed for age groups and for each gender, showing that the effect of the reform was larger for men than for women and that it was concentrated on young workers (18-29) and on those in the 40-49 years group. It is important to note that the largest effect is found for workers between 18-24 years of age (almost 0.8 percentage points of increase in the probability of being employed), which is consistent with the results found above and highlights, once more, the importance of the AC to reactivate employment among the young.

Also, the time people stay in unemployment fell, while employment duration increased as a result of the reform. In particular, there is a reduction of the likelihood of an individual losing his/her job of 29% in the services sector, 7% in manufacturing and 23% in financial services. Thus, it is expected that the reform increased employment because the stock of employed workers is higher after the reform. That is, in terms of Figure 4.2, F_e increased, while F_s declined, increasing the stock of employment at each point in time.

Figure 5.2: Labor Market Flows and the Expected Outcome of the Reform



However, the firm survey shows that among the 27% of firms that increased employment in 2003, only 4.5% cited the labor reform as a determinant. This would indicate a smaller impact. Therefore, it can be concluded that most of the econometric evidence points to a positive impact of the reform on employment generation of moderate size, which is consistent with observed trends. However, the fact that only 4.5% of the firms which increased employment cite the reform as a determinant for this introduces some uncertainty about the true impact. It is difficult to reconcile these two pieces of evidence. It might be suggestive, on one hand, of the difficulty of identification on the part of the entrepreneurs of the impact of the reform, since the timing of the resuming of economic growth coincided with the reform's implementation. On the other hand, it may be indicating that, given the many and significant constraints faced by the labor market to increase the pace of employment generation, the room to affect employment through the type of measures included in the labor reform may have declined considerably.

Underemployment because of insufficient hours (UIH) declined due to the reform but the impact on actual hours worked is not certain...

Another of the main objectives of the reform was to increase the number of hours worked, especially in sectors such as commerce and services. This objective was explicitly stated in the statement of purpose and the instrument intended to achieve it was the extension of the

diurnal shift. Analysis was undertaken using data on hours worked, and on the workers that report that they are underemployed because of insufficient hours (UIH). The results indicate an impact of the reform on reducing UIH in the services and commerce sectors relative to manufacturing, which coincided precisely with the expected outcome. However, the evidence regarding the actual number of hours worked was mixed and depended heavily on the choice of treatment and control groups, indicating lack of robustness. Therefore, from the available data, it is concluded that there was no discernible impact of the reform on this variable.

The reform appears to have had a positive and sizeable impact on the wages of salaried workers when compared to the self-employed...

It is possible that lower labor costs to the entrepreneur are passed on to the worker, at least in part, in the form of higher wages. However, the changes in the regulations that permit longer days and more flexible shifts without paying penalties could reduce total compensation. Analysis indicates, though, a positive and sizeable impact of the reform on wages. The estimated relationship seems to point to a more marked impact on the less skilled workers (all the way from primary school to completed high school). Additionally, wages increased more in manufacturing than in other sectors. It also appears that the reform had a negative impact on the wages of workers employed in small and medium firms, vis-à-vis those employed in large ones.

The introduction of the unemployment insurance (UI) was one of the most important innovations of the reform. However, it faces operational and design problems...

The establishment of an UI scheme per se, for the first time in history, seems to be an appropriate measure, especially taking into account the many constraints faced by the labor market to reduce unemployment among the least skilled. The new instrument offers 1.5 minimum wages divided in six equal payments to people who lost their employment. Eligible individuals are concentrated in household heads with children under 18 who do not have other sources of income. The UI is financed through an additional one percent payroll tax that is managed by the CCFs. In fact, these institutions are also in charge of administering the system and actually providing the benefit. The reform gives preference to unemployed individuals with previous affiliation to the CCFs, i.e. to formal workers, with only a small portion of the resources going to people without previous affiliation.

In the period October 2003-December 2004, 83,700 grants were given, totaling about \$13.6 million. This number of subsidies represents about 7% of the unemployed in December 2003 in the seven main cities and about 3.4% of the total pool of unemployed in the country. Among unskilled workers these figures increase to 18 and 9.5%, respectively. These take-up rates compare favorably to the initial execution of similar programs in other countries, such as Brazil. However, the program has faced some operational problems, related mainly to an excessive number and difficulty of requirements for the unemployed to be able to benefit and the constraints imposed by insufficient data sources to avoid fraudulent use of the instrument. However, a deeper problem arises from the very design. Since the enactment of the system, demand for UI benefits has been substantially higher from individuals with no previous affiliation to the CCFs (informal workers). The number of requests coming from informal workers was double that of workers coming from the formal sector, but they received only 26% of the benefits. Thus, it seems that there is in effect a substantial rationing precisely to the group that needs it the most and from which the majority of the unemployed come from (83% in 2004).

The results obtained with the waivers of “parafiscales” have been disappointing...

The new provisions cover the exemption of parafiscales for firms that hire HEG and a refund of half of the SENA contributions if firms provide training to unskilled workers on-site. However, both the administrative data and the FSu indicate that the results have been substantially below expectations. With regards to the parafiscales exemption, only 120 jobs were created as a result of the measure. In the firm survey, only two firms report having used the instrument to hire workers aged 18-25. When asked why, the majority answered either that they did not know about it, or that the subsidy is too small for the hassle, which includes having to hire special types of people who are perhaps unnecessary. However, it is likely that there is a deeper reason behind this, related to a conflict of interest faced by the CCFs, which are in charge of managing the system. In particular, since they are funded with parafiscales, granting the subsidy reduces their income. In order to overcome the problems, the government recently introduced the PADE program, which provides direct subsidies to firms. This program, financed by the Bank, will eventually provide 40,000 subsidies but has been slow in starting.

The parafiscales refund for on-site training also shows poor results. The firm survey indicated that almost 60% of the firms carried out some sort of training in 2003, but only 7% financed it through the refund. When the firms were asked why they had not used the benefit, most answered that they were unaware of the possibility or that SENA did not approve the refund. There would appear to be a need here also for greater dissemination. There seems to be a conflict of interest again on the part of SENA that is in charge of approving the refunds, which take resources away from them. In this context, the government took a positive step with the issuing of the CONPES document 081, in which a clear separation of functions in the national training system was defined. Within the new structure, the regulation responsibilities go to the MPS and SENA becomes a provider and financer of training services. Also, the CONPES re-assigns the function of accreditation of training institutions to the MSP. This accreditation is a pre-requisite to participation in the program established in the new regulation, thus removing the potential conflict of interest under the current implementation arrangements.

To conclude, **the evaluation of the 2002 labor reform indicates that its impact appears to have been positive in many respects**, especially in reducing informality, underemployment (due to insufficient hours), increasing the pace of employment generation, especially for the young and reducing unemployment duration. Also, the introduction of the unemployment insurance system was a step of the utmost importance, which, in any case, needs refinements. However, other instruments, mainly related to employment opportunities for HEG, have not functioned appropriately and should be revised. It is important to note that there are different views on the effectiveness of the reform among researchers in Colombia, including the ones who provided input for this report. In Volume II there is a much more complete account of the evaluation of the reform that explicitly or indirectly addresses these diverse views.

V. Productivity and Competitiveness: an Important Link

Taking into account that productivity is the most important determinant of differences in GDP per-capita across countries, the way that existing labor regulations affect the evolution of productivity becomes an important issue. That is, the preoccupation with productivity, and its link with the labor market, is perhaps at least as important as the other metrics for measuring labor market performance and, also, provides important clues about the functioning of the labor market and the behavior of employment and wages.

Box 5.1: productivity, an important but difficult concept: the two most common concepts of productivity are labor and total factor productivity (TFP). Labor productivity is calculated by dividing value added by employment. Because value added figures are often not available outside of manufacturing, labor productivity statistics are usually available for a small part of the workforce. Labor productivity can go up for many reasons, such as improvements in the efficiency of labor use. Others are higher human or physical capital per worker, increased use of natural resources, and technical progress. TFP is the productivity of all factors (labor, capital and other inputs) combined. Increases in TFP can be viewed as technological change. Productivity may go up in the event of “jobless growth” i.e., if output increases but employment does not (World Bank, 2002a).

Now, what is the link between labor market functioning and productivity growth? Inflexible and burdensome labor legislation, especially in the contracting and end of employment stages, may hinder productivity growth because it makes it very difficult for the firm to adopt (or develop) new technologies. There are a number of channels through which labor market regulations can affect productivity. The following are particularly important:

- the difficulties that strict hiring and firing regulations impose on the efficient use of the labor input along the business cycle;
- stringent hiring and firing restrictions raise the cost of labor adjustments, which is often required after innovation occurs. That is, those regulations negatively affect technological upgrade because they increase the unavoidable cost of adjusting the labor force once a new technology is adopted in the production process;
- the lack of incentives to be productive that those regulations introduce for workers; and
- the fact that those regulations may discourage training.

Some evidence corroborates this hypothesis. Hopenhayn and Rogerson (1993) find that policies that interfere with the process of job creation and destruction at the firm level are quite costly in terms of productivity and welfare. One of such policies is the imposition of legislated costs to dismissals through severance payments. This tax creates a distortion that encourages firms to use resources less efficiently, with the result that productivity falls. Thus, they stress the importance of these distortions and claim that focusing only on their employment effects is a mistake. Others argue that “institutional taxes”, including firing costs, is the factor that matters in explaining differences in income per capita across countries. This is because these taxes affect the individual return on investments, especially the one on technological adoption. Also, it has been found that firing costs increase the power of inside labor to resist adoption of new technologies. More recent analyses investigate the impact of firing costs on productivity in a large sample of countries, finding that the differences in productivity growth across countries (and industries) are explained by institutions and country-specific regulations, via their impact on the incentives to innovate and adopt new technologies. One of the most important among these is the cost of hiring and firing workers.

In the case of Colombia, it has been shown that slow growth of output is a major cause of rising unemployment, segmentation and stagnant wages. However, labor conditions themselves influence the pace of innovation and productivity growth. Until the 1980s, Colombia's GDP evolved similarly to the region's average. During the 1980s, it was one of the few LAC countries registering positive growth (Table 5.1). However, in the 1990s Colombia's growth rates decreased, in sharp contrast with the rest of the region. What is more, the country also registered an increase in cyclical volatility. What lies behind this disappointing evolution of growth? Considering that productivity largely determines GDP growth, can changes in productivity components explain the fact that growth trends during the 1980s and 1990s were so different from those observed in the rest of the region and during previous decades?

Table 5.1. Per Capita GDP Growth in Colombia, LAC and World, 1961-1999

	1961-70	1971-80	1981-90	1991-99
Colombia	2.2%	3.1%	1.3%	0.7%
Andean Region	1.5%	2.1%	-1.2%	0.8%
LAC	2.7%	3.4%	-0.7%	2.1%
World	4.2%	2.7%	2.3%	1.7%

Source: Loayza, Fajnzylber, Calderon (2002)

The trends related to labor and total factor productivity have been very disappointing, especially in the 1990s...

TFP growth is measured as the increase of output beyond what can be attributed to increases in labor and capital and it reflects technical change, economies of scale, or variations in capacity utilization. The average LAC country TFP declined during the period 1961-1990 and in particular during the 1980s (Table 5.2). The trend changed during the 1990s, when most countries experienced a significant recovery. Colombia's TFP growth was slightly higher than the median during the 1960s and 1970s. Though Colombia's TFP growth also declined during the 1980s, the country was one of only two not to have negative TFP rates, performing better than most of LAC. This solid performance did not continue during the 1990s, when, despite recovery across the region, Colombia's TFP actually shrank, contracting almost 0.3% per year, which reflects the second part of the decade (in the first, TFP growth was positive).

**Table 5.2: TFP Contribution to Growth for Selected LAC Countries
(average yearly rate)**

	1961-70	1971-80	1981-90	91-2000
Argentina	1.0	0.2	-2.4	3.1
Brazil	1.9	3.1	-1.4	0.4
Chile	1.2	1.1	1.6	2.8
Colombia	1.8	1.7	0.0	-0.3
Honduras	1.0	1.0	-1.0	-0.9
Mexico	1.7	1.3	-1.8	0.4
Paraguay	1.9	5.3	-0.5	-1.1
Peru	1.7	0.0	-3.4	1.6
Uruguay	0.8	1.8	-0.5	1.9
Venezuela	2.0	-2.6	-1.6	-0.2
Mean	1.5	1.3	-1.1	0.9

Source: Loayza, Fajnzylber, Calderon (2002)

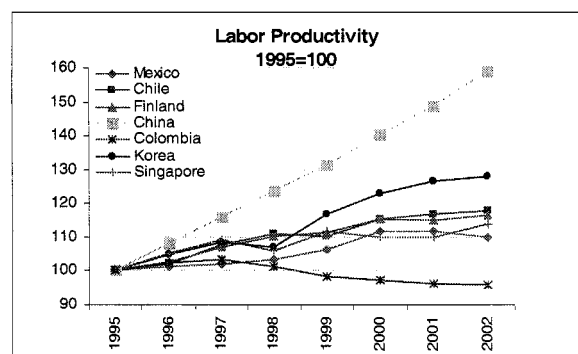
Labor productivity trends are not more encouraging. Within the sample of countries of Figure 5.1 Colombia displays the worst performance. Table 5.3 compares labor productivity growth for some Latin American countries along with Korea, Singapore and Canada for 1990-96 and 1990-99. At the aggregate level Colombia is by far the worst performer, being the only one to register declining labor productivity during the 1990s. In terms of industrial productivity, the country outperforms only Brazil and Canada, but is still considerably below the LAC average. The fact that industrial labor productivity grew at 1.8%, while the aggregate contracted by 1.4% during the 1990s highlights sluggish productivity growth in other sectors. Additional calculations show that the situation in the period 1999-2003 did not improve, with the exception of 2000.

Table 5.3: Labor Productivity Growth during the 1990s

	Aggregate		Industrial	
	90-96	90-99	90-96	90-99
Singapore	5.6%	4.5%	8.6%	7.5%
Korea	5.0%	4.6%	7.1%	7.8%
Chile	5.1%	4.4%	4.0%	4.2%
Argentina	4.4%	3.2%	8.0%	5.4%
Uruguay	2.7%	2.4%	3.0%	3.1%
Colombia	-2.1%	-1.4%	0.4%	1.8%
Peru	0.6%	0.4%	4.5%	4.6%
Brazil	0.2%	0.3%	2.0%	1.5%
Mexico	-0.3%	0.6%	2.8%	2.0%
U.S.			4.7%	5.8%
Canada			1.6%	1.7%
Mean-all	2.6%	1.9%	4.2%	4.0%

Source: WDI and U.S. D. of Labor in Gracia and Santamaría (2005)

Figure 5.1: Labor Productivity



Source: WDI and GRECO Colombia Gracia and Santamaría (2005)

And, indeed, firing and non-wage costs were found to be important determinants of this disappointing evolution of total and labor productivity...

The relevant question is what determined this poor performance, and especially the shift in trends observed since the mid 1980s. Results from a statistical analysis of the factors influencing TFP growth at the aggregate level (for the entire economy), show that the substantial reduction of firing costs that occurred in 1990 in Colombia (brought about by the 1990 labor reform) had a positive effect on the evolution of productivity growth, which actually prevented the fall of the 1990s from being larger. In addition, both trade openness and education, particularly increases in university attainment, were robust and positively contributed to TFP growth. The increased government burden observed since the mid 1990s, measured by the ratio of public spending to GDP, and the increase of the intensity of the armed conflict, measured by the rate of increase in crimes against liberty, most clearly contributed to the changing tendency towards contraction of TFP (analyses for labor productivity show similar results).

Results at the sectoral level for the determinants of manufacturing productivity also show important things, as well as some surprising ones. First and importantly, when controlling for education, the business cycle, export orientation and industrial concentration, non-wage costs, measured as the ratio of all non-wage payments to total remuneration, have a negative and sizeable influence on TFP growth. Two things are important about this result. First, non-wage costs act as an approximation to the level and strictness of labor regulations faced by each industry due to the lack of more direct information. Second, the increase of non-wage costs after 1995 is responsible for this negative impact. Thus, it would appear that the increasing level of non-wage costs is constraining the adjustment of the labor force, which is important in a time

when the economy opened up to more international competition. The next result, highlighted for its importance, is that the level of technology adoption by industry, measured as the percentage of firms that innovate by sector, has a positive impact on TFP growth. On the negative side, the share of innovators by sector is low and, in a survey conducted with employers, around 40% answered that the difficulty of adjusting employment is a major constraint to adopting or developing new technologies. The highest ranked constraint, with 65% of the responses was the scarcity of skilled workers (Volume II). Also, the business cycle is responsible for a high share of TFP variation. Surprisingly, while plant level exercises have found that improvements in TFP can be explained by the trade reform⁸, the results of this report do not find significant impacts of trade-related variables on the variation of TFP growth across industries.

Unfortunately, TFP is positively related to employment and wages, reason for which the poor performance in terms of unemployment and wages highlighted in the previous chapters may be strongly related to the recent behavior of productivity growth...

Exercises at the sectoral level confirmed that those sectors in which TFP growth was stronger and more consistent, were also the highest performers in terms of employment creation and wage growth. Therefore, the discussion of this report related to high and persistent unemployment and stagnant wages, especially for intermediate skilled workers, may be a reflection of sluggish productivity growth, compounded by increasing constraints in terms of minimum wages (which do not reflect the evolution of productivity), high non-wage costs and rising participation. Further, it would not be surprising that the large move towards low quality self-employment and higher segmentation is also related to the poor growth of productivity.

More aggregate and qualitative measures of “competitiveness”, on the other hand, do not show such a poor trend, although their level is far from satisfactory...

Volume II contains analyses of various indices that measure “competitiveness” in Colombia compared to other countries, including the Index of Total Competitiveness, the World Economic Forum’s Index and the World Bank’s index based on the WBES. In general they show an improvement since about 1998, although the ranking of the country continues to be not very satisfactory. Factors that have contributed to improving the relative standing of the country include government efficiency and the state of its infrastructure. Additionally, macroeconomic performance and technology show a remarkable improvement in the period studied. Surprisingly, it is macroeconomic performance which seems to have the most positive impact on the country’s competitiveness level. In terms of factors determining the business’ competitiveness, the levels of business operational and strategic advancement, as well as the quality of the environment in which they operate, appear to be the crucial determinants. Labor market conditions and labor costs seem to be important aspects undermining competitiveness, despite improvements brought about by the recent reforms.

Qualitative work carried out with four of the main productivity chains showed that an area requiring immediate attention to improve their competitiveness is the reduction of tariffs on agricultural products, particularly those on which the industrial sectors depend ...

⁸ See, for example, Meléndez et. al. (2003)

Indeed, in all four chains, the link constituted by raw material is the weakest and most unproductive one, imposing serious limitations to the ability of the other links of the chain to be cost-effective and competitive. The limited productivity of raw material producers, as well as their poor quality, forces national industries to rely on imported raw material. However, since agriculture producers enjoy high levels of protection, Colombian industries have to purchase the entire supply of agricultural products before being able to access international markets. Such high levels of commercial protection of the first link are probably motivated by the level of influence this link enjoys in the legislative power. Another common problem mentioned is the unfavorable geographic location of the plants where the final product is manufactured. All chains, except Textiles, are located near the end market but far from ports and main suppliers, legacy from the imports substitution model.

The position of the chains with respect to the free trade agreement (FTA) with the US very much depends on the link from which it is observed. For producers of raw materials, the FTA is clearly a threat, because it represents not only the potential loss of the commercial protection currently enjoyed, but actually increased competition with US agricultural products. For the intermediate and final link, conversely, it represents the opportunity to access raw materials of greater quality and considerably lower cost. Finally, it is not clear the extent to which productivity chains in Colombia are indeed constituted to optimize productivity. Instead, the exercise revealed that linking different stages of the chain may be a way to make non-competitive sectors viable, in which case they can introduce internal rigidities that threaten innovation. The two labor reforms of the 1990s were viewed as positive by the firms, although they stated that the cost reduction brought about by the 2002 reform was not particularly impressive. They mentioned, however, that the reduction of firing costs has been instrumental in enabling the industry to confront increasing competition from abroad and that the Colombian labor legislation is still out of date in terms of hiring modalities.

Thus, **poor performance of productivity growth**, at the aggregate level, seems to be related to high and binding firing costs, increasing participation of the state in the economy (approximated by the level of public spending) and by the intensification of the armed conflict. Also, it was found that a higher level of exposure to international markets has impacted productivity growth positively. Within manufacturing, the most important determinants are related to the level and evolution of non-wage costs (negative) and to the degree of technological adoption (positive). Surprisingly, external trade related variables turned out to be not particularly important. Qualitative work with the productive sector confirmed some of the main findings and, additionally, identified two important facts: that the productive chains may be negatively affected by excessive protection of the first link and, given this, that they may be serving the purpose of hiding unproductive links.

VI. Final Comments and Main Policy Alternatives

This review illustrated key problems faced by Colombia: slow growth reflecting poor TFP performance, high and persistent unemployment, and labor market rigidities that help keep unemployment high. Binding minimum wages, high non-wage costs, and rigid wages prevent a swift return to low unemployment. Additionally, increased participation of women and other groups in the labor market will add to the pressure on employment. Past reforms have had a mixed impact, in some cases encouraging a move to the informal sector and unemployment (Ley 100), and in other cases lowering non-wage costs and easing hiring and firing (labor reforms of 1990 and 2002). Thus, Colombia today is faced with three broad objectives: first, making the labor market as efficient as possible, favoring formal employment and wage growth; second, increasing TFP and labor productivity growth as a precondition for stronger economic performance and employment and wage growth; and third, providing an effective and more inclusive system of social protection. This last assertion is based on the observation that unemployment increased substantially and that it is highly unlikely that it will decline to levels below 10% soon. In effect, it seems that Colombia, as a society, has chosen a path in which binding minimum wages, high non-wage costs and rigid wages are preferred to low unemployment, which is a choice in sharp contrast with that made by other countries, for example, Mexico. Thus, the following are the five key areas proposed for policy attention.

The current debate about the Labor Reform should focus on the necessary improvements and not in the convenience or inconvenience of the reform as a whole. The 2002 labor reform showed positive results in important areas and, thus, the debate should focus on ways to improve those aspects that can be improved, rather than on the convenience or not of the reform as a whole. Even thinking of reversing the reform, and thus sending the signal to the market, would have negative consequences for the investment climate and, more importantly, could generate reactions on the part of employers that would ultimately hurt workers. For example, employers may fire workers with more than ten years of tenure because they know that, with the reversal, an increase of firing costs for these workers would ensue. Additionally, this debate should be more inclusive, bringing in, for example, the unemployed, the self-employed and those not belonging to organized groups. Indeed, those that do belong to such groups have usually had excessive influence on the design of this type of intervention. Given the facts expounded above relating to minimum wages, non-wage costs and other wage rigidities, measures of flexibilization, such as the ones introduced by the reform are good alternatives to generate more employment opportunities for the most vulnerable (for whom these rigidities tend to be more binding).

Minimum wage growth needs to be constrained. This report and other studies provide evidence that the current pace of minimum wage growth cannot be maintained without productivity expansion that makes it sustainable in the long run. The objective of providing a minimum standard of living should be viewed in a broader fashion, by realizing that excessive increases of the minimum wage jeopardize directly the standard of living of those who become unemployed or informal, who, according to the findings of the Report, are concentrated on the least and intermediately skilled and the young (the most vulnerable). Therefore, the minimum wage must be set at a level that balances income goals with the market responses to the instrument, which is clearly not the case right now in Colombia. It suffices to note that the country has the second highest minimum to average wage ratio in the LAC region. A minimum wage that is set this high actually *increases* poverty and income inequality, so social justice

guidelines should be implemented in a way that the different effects of the instrument are taken into account. Until now, these guidelines have been interpreted only considering the supposed increase of labor incomes for low earning workers brought about by generous adjustments of the minimum wage. However, the other half of the story has been missing: those workers are precisely the ones who become unemployed or informal because of the unsustainable growth of minimum wages.

Therefore, and taking into account that in 1998 a substantial “overshoot” took place (the minimum wage grew by more than 8 percentage points in real terms), from now on minimum wage setting should be based on productivity increases and conservative estimates of future inflation, recognizing explicitly the costs in terms of unemployment and informality. That is, the final goal should be to bring back the real minimum wage to pre-crisis levels in the near future, ensuring that it maintains a close link with the evolution of productivity. While recognizing that this is a very sensitive issue, some actions may be taken in the short run to confront it, starting with wide dissemination efforts of the negative impacts of unwarranted increases of the minimum wage on the employment opportunities of the most vulnerable and, therefore, on the welfare of those workers and their families. Dissemination efforts to make the public (especially the unemployed) aware of the negative effects of “unwarranted” increases of the minimum wage have never been undertaken, and could be an effective instrument to gain support for reforms to the minimum wage setting mechanism, which very well could start with a policy CONPES document that lays out the main findings of the literature and sets the base for reform.

This last point is crucial. Until now, but particularly in the last six years, minimum wage setting in Colombia has favored the interests of only a portion of the labor force that is very well represented by the unions and exerts substantial influence on the decisions related to the minimum wage. Unemployed and informal workers, on the other hand and despite being the most affected, have had little or no voice in these decisions, partly because they do not have objective evidence on the impact of the minimum wage on their welfare, and partly because they lack organization to be able to effectively participate in the decision instances or voice their concerns to the relevant authorities (e.g. constitutional court).

Finally, since the pressure from increased female and teenage participation on the labor market is likely to continue, especially in future downturns of the cycle, a particularly efficient policy would be to **establish lower minimum wages for the young**. This would help in overcoming the obstacles they face to access the labor market, which become more binding due to the relative higher sensitivity to participate, as a response to movements of the cycle, observed among these workers. This policy has been used in other countries and, in the case of Colombia, the effectiveness of the “Empleo en Acción”, “Programa de Jóvenes en Acción”, and the apprenticeship contract provides support for its adoption.

Wage taxes cannot be increased further and, in the longer run, they should be reduced. That is, the Colombian payroll is already heavily burdened with taxes. The prospects for reducing wage taxes are not bright given the current fiscal situation, and the expectation of future needs for pension financing. Therefore, two alternatives exist to deal with this predicament. First, reduce some components of non-wage benefits, such minimum legal mandates on paid vacations, parafiscales or other benefits. This could be accomplished, for example, by allowing individual negotiation of contracts and reducing the minimum legal mandates. The second alternative has to do with beginning to think about the possibility of de-

linking social security and (at least in part) social protection from the labor market, which is a very current debate in most of Latin America. In any case, this will be the outcome in the future, which reinforces the importance of starting to think about the issue early. A careful look should be given to the parafiscales, which amount to almost 0.5% of GDP, to gauge if the services provided are valued by society by that much. Second, the source of this financing should be re-examined. For example, is it appropriate that employers alone pay for a wide variety of social protection needs or should the burden also be allocated also to other members of society? Also, careful evaluation of the programs financed by these taxes is badly needed to be able to make difficult decisions about their permanence. In any case, an ample debate on the convenience of the parafiscales, including the government, Congress and civil society, is long overdue. Note that, given the results of the last chapter, taking actions related to non-wage costs is also essential for the evolution of productivity growth and to foster innovation and adoption of new technologies and, thus, for the prospects of economic growth in the country.

Given these considerations, at this point it is fundamental to highlight the following: the results presented in the Report related to minimum wages and non-wage costs clearly point out the fact that the Colombian labor market moved to a more inflexible stance since 1998. This is key because it means that, increasingly, the labor market adjusts to the cycle through quantities (i.e. generating unemployment) rather than wages. In this context, urban unemployment appears to have stabilized at a higher level in the latest years, showing remarkable resilience to fall. Thus, if no actions are taken to tackle the issues of minimum wages and non-wage costs, the country will be faced, inevitably, with costly, and possibly inefficient, alternatives to deal with this situation. One of them is, for example, the introduction of a more inclusive system of unemployment protection system, revamped to extend coverage to the informal sector. This, however, will be complex given the present tight fiscal situation and the institutional difficulty of designing and administering such a system.

As always, the macroeconomic environment is extremely important, but not only in terms of growth and employment creation. Public spending and the volatility of the exchange rate were shown to importantly influence the evolution of employment, segmentation and productivity. Thus, the importance of strengthening macroeconomic stability and containing public spending becomes even more essential. In this respect, the CEM produced by the Bank highlights the importance of acting on items such as transfers to sub-national governments, pensions and the many inefficiencies of the tax system. More broadly, the goal is not only to maintain a stable macro environment, but also to reduce the government burden on the development of the private sector (including taxes and regulations), which has become a constraint for higher productivity growth. In this context, issues of regulation, financial sector development and the quality and efficiency of the judiciary, also analyzed in detail in the CEM, should be confronted as soon as possible.

Developing a more effective, coordinated and inclusive system of social protection, which provides protection to the self-employed and informal workers, who in the current system are almost completely unprotected. Including them, however, is not an easy task, given the already high burden of non wage costs. Also, providing social protection to self-employed and informal workers constitutes a challenge from the fiscal point of view because, in the end, somebody pays for the services they have access to, even if they are of low quality. Key policy questions, which call for difficult trade-offs, are:

- how to reshuffle spending among the wide variety and dispersion of programs existing today, action which calls for a clear identification of priorities and bottlenecks. It would also entail a redirection and reshuffling of resources among the current programs;
- should some sort of assistance to the unemployed who come from the informal sector (at least the poorest) be provided? This group, besides including the majority of the unemployed, comprises the most vulnerable workers. However, a more even distribution of the funding destined now to the unemployment protection system created by the labor reform, plus a redirection of resources used in other programs (e.g. SENA and CCFs) will be required to do this. It may be also necessary to differentiate unemployment insurance from unemployment assistance. Insurance, by definition, is a system where people pay in, pool risk, and withdraw if they are negatively affected by the shock. The distinction is important because benefits to workers who have not contributed may be lower than those obtained by workers that contributed, allowing higher coverage among informal workers.
- how to de-link social protection and insurance from the labor market. This would serve two purposes: removing from the labor market one of the major constraints for formal employment creation, and helping in the simplification of the tax system. Without doubt, this is an issue that, in any event, will surface soon taking into account the fact that labor markets are not structured as they were when the social protection systems were originally conceived, meaning that the de-linking is crucial so that services can be provided to those who are not formal. This question, however, needs to address other important issues, such as the following: (i) should the de-linking only cover some services within the general umbrella of social protection? (ii) can social protection and insurance services be unbundled to favor choice by the worker according to family needs?
- given the heterogeneous nature of self-employment in Colombia, in which segmentation has risen, the design of social insurance mechanisms gains special relevance. Attempts to expand coverage of benefits to the self-employed without any cost or link to other dimensions of salaried employment may simply shift the labor market towards that occupation even more. Thus, the design of any social protection system in the future has to have a comprehensive view that takes into account the incentive effects throughout the entire labor market;
- an important component of this system would be a well-designed training program for the unemployed that takes advantage of the existing network of training institutions, and uses flexible arrangements that favor choice. Thus, **the reform of SENA, currently underway, should be given priority within the government.**
- what to do with the program “Familias en Acción” in the near future, in terms of long term financing and administrative placement.

Additional policy options include:

Designing more specific interventions to facilitate access to the labor market by women and the young. Given the findings of their difficult access to the labor market and their sensitivity to the cycle, this action would ensure an efficient use of the resources and a greater impact on outcomes. These interventions can be designed both to contain participation and promote formal employment. Examples include targeted active labor market policies to facilitate the flow of information, for which the Mexican experience can be valuable; training programs for the young within a more decentralized and competitive system in which the supply of programs matches market needs more closely; and support for job search, also targeted. Note,

though, that the best way to enhance the possibilities of these groups (especially the young) of finding good quality jobs would be to align the minimum wage to market realities.

The program that fosters access to undergraduate studies to poor and middle income students, currently underway, is an important component of this strategy (both on the participation and employment sides), which also will have longer term effects, both on employment and productivity. This program should be given continued support. This is especially important when thinking that most of the labor market outcomes (employment and wages) have deteriorated the most for high school graduates.

More thought and analysis should be given to the apprenticeship contract in order to slightly adjust the instrument. Given the evidence, it would seem that the benefits arising from this instrument are higher than the costs. Thus, it may be useful to analyze the issue of the compulsory quota of apprentices more thoroughly to answer some questions, such as the following: do firms get additional information about potential workers and thus decrease the expected cost of hiring new workers? Do the apprentices have a higher likelihood of getting a job, and thus this is a kind of job-training, which should be subsidized by SENA? Could the cost of "buying-out" of the apprenticeships be adjusted? Are firms taking advantage of other cost-saving regulations which could lower their overall tax bill? A review of these issues could better help the Government determine how and to what extent to revise the apprenticeship quotas.

Regarding the 2002 labor reform and related to the first recommendation, things that could be subject to some refinement include the following (besides the UI, the parafiscales exemption and the AC, already analyzed):

- an area in which there is still room to act and the payoff in terms of formalization could be sizeable, but the political space at this point is very limited, is hiring regulations. None of the labor reforms of the last few years really addressed this issue (the "salario integral" was an important step but its threshold is so high that it is mostly non-operational and only favors high earners). Schemes like the contract by the hour, the reduction of the threshold to apply the salario integral, or an extension and flexibilization of the "período de prueba" (probation period) constitute sound alternatives;
- extra costs related to work on Sundays or holidays are still very high (the highest in the LAC region) and, therefore, there is still room to act on those;
- the "regular shift" in commerce and services should be fostered more forcefully;
- the dissemination efforts of the main provisions of the law need to go further and utilize all available means to reach their targets; and
- given the poor results obtained with the exemption of Parafiscales and the slow start of the PADE program, it is recommended that the government carries out a rigorous analysis of why the entrepreneurs are not using these subsidies. Is it a problem of information or rather that the amount of the subsidy is still too low? May there be other problems?

Completely revising public labor market regulations, especially those related to remunerations and hiring and firing clauses. The impact of the public-private wage premium appears detrimental for the poorer segments of the population due to the rigidity that is transmitted to the overall wage structure. The wage structure of public employees should be more closely linked to the market wages and employee performance, more so when taking into

account the significant discrepancies found within the public sector (executive vs. legislative and judiciary). This, however, needs to be part of a broader civil service reform initiative oriented at offering clearer incentives to public employees, on which the government is already working.

The collection of information to evaluate and carry out cost benefit analysis of many labor market interventions, including the labor reform, now seems key, especially taking into account the important decisions that are approaching.

Finally, some philosophical considerations that link many of the most important findings of the report. The analyses carried out suggest an important agenda for labor reform beyond the usual focus on wage rigidities driving segmentation and unemployment: eliminating the inefficiencies in the provision of medical benefits or pensions or biases in promotion systems not based on merit will reduce the incentive to informality and increase the supply of labor to the formal sector. More fundamentally, informal employment in firms of relatively low technology and capital intensity (usually small firms in the SE sector) can only be attractive if the overall level of labor productivity in the formal sector is low, as seems to be the case in Colombia. To the extent that regulations hinder investment in physical or human capital, or prevent the efficient organization and operation of firms, it perpetuates the low levels of productivity throughout the formal economy and, thus, the levels of segmentation, low wages and informality. Thus, increasing the size and productivity of the formal sector probably offers the largest hope for raising the standard of living of workers throughout the economy over the longer term. While it is true that micro-firms that participate in business associations, credit institutions, and training institutions are more prosperous, the evidence suggests that the differences are not dramatic. This means that, among other things, programs such as credit targeted to small firms and promotion to participation in formal institutions, while useful to marginally raise productivity and labor incomes, should be viewed as transitional instruments.

