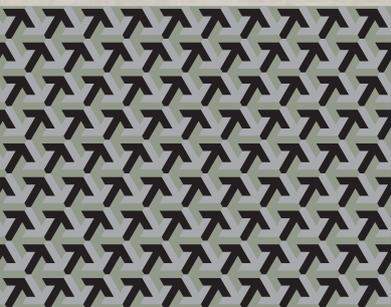


REFORMS, GROWTH AND INFORMAL EMPLOYMENT

Policy Brief

NORBERTO E. GARCÍA



PONTIFICIA
UNIVERSIDAD
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CIES
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IEP Instituto de Estudios Peruanos

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Reforms, Growth and Informal Employment¹

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Foreword

The International Development Research Centre (IDRC) is a public corporation created by Canada's Parliament in 1970 to help developing countries use of science and technology to find practical and long term solutions to the social, economic and environmental problems they face.

Since its foundation forty years ago, IDRC has worked in close cooperation with Latin American researchers. IDRC has financed approximately three thousand research activities, coordinated and developed by institutions and researchers from the Latin America region, in many subjects such as health, management of natural resources, innovation systems and employment – which is the focus of this paper.

The present paper, “Reforms, Growth and Informal Employment”, written by Norberto E. García, a CIES²/ consultant, discusses an economic policy framework dealing with the main employment problems affecting both the formal and informal economy of Peru, based on the diagnosis developed in the book “Labor Challenges in Latin America after two decades of structural reforms”. This paper invites us to think about and debate the public policies that affect Peru's labor markets. IDRC is pleased to have given support to this initiative. It is not an accident that CIES has also been involved in this task. CIES is an institution that has devoted its efforts towards building bridges between the academy and the policy decision making levels and that IDRC has supported.

The previously quoted book “Labor Challenges in Latin America after Two Decades of Structural Reforms”, also supported by IDRC, summarizes more than two years work from research teams in Peru, Bolivia and Paraguay. Professor Albert Berry (University of Toronto) has led this work and together with Professor Jose Rodríguez (Catholic University of Peru) are the editors of the book. It has been an honor for IDRC to support all these researchers in the journey that has culminated in the quoted book.

From IDRC we hope that Norberto E. Garcia's paper will both stimulate the reading of the book and contribute to a fruitful debate on the design of public policies oriented towards more inclusive labor market for all Peruvian people.

Carolina Robino, Ph.D.

Program Officer

International Development Research Center

2 Economic and Social Research Consortium (CIES for its acronym in Spanish).

1. Introduction

The purpose of this paper is the discussion of a policy proposal oriented towards both accelerating the creation of formal protected employment and improving productivity, incomes and labor protection of urban and rural informal employment in Peru. The proposal is based upon the diagnosis on informality and employment elaborated by Morales, Rodríguez, Higa y Montes (2010); Rodríguez e Higa (2010) and Díaz, Saldaña y Trivelli (2010).

The previously quoted diagnosis, similarly to those developed for other Latin American experiences, analyses the behavior of the informal sectors –urban and rural– during the economic growth acceleration allowed by the commodities external boom of 2002-08. Following such diagnosis, this paper develops policy proposals focused on accelerating the growth of formal employment and suggests policies for enhancing productivity and living standards of people working in the informal sector –both urban and rural.

The International Labor Conference of 2002, following recommendations of labor statistical agencies of the ILO country members, established two different concepts. The first one is the so called “Informal Sector” that corresponds to the production units that are informal and of very low productivity. Consequently, it covers all persons that are occupied in them. It includes, for example, informal microenterprises and self-employed workers that function as an informal micro-unit.

The second concept is that of “Informal Employment” without labor protection. It includes all workers from the informal sector and those in the formal and household sectors employed without labor and social protection. This second concept, defined by the lack or insufficient labor and social protection, is wider than the one of Informal Sector, since it includes the situation of occupations without protection both in the formal and household sectors. It is closer to the definition of unprotected labor.

In this paper both concepts will be used depending on the subject under analysis.

The paper includes, besides this Introduction, Section 2 where it is presented the behavior of the informal sectors in Peru during the economic growth acceleration period. Section 3 analyses the empirical evidence in Morales, Rodríguez, Higa y Montes (2010), Rodríguez e Higa (2010) and Díaz, Saldaña y Trivelli (2010), focusing on the effect of the economic reforms on the rate of informality in Peru. Section 4 introduces the subject of labor reforms and informality. Section 5 suggests some of the policies that could contribute towards accelerating formal employment growth. Section 6 points out some of the policy options for increasing productivity and living standards within the urban informal sector. Section 7 does the same for the segment of very small scale traditional agricultural producers. Finally section 8 summarizes the main conclusions.

2. Economic growth and informal employment

How did the 2002-08 economic growth acceleration influence the evolution of informal employment –urban and rural– in that period? Generally speaking, the share of informal employment in total employment declined slightly along the six years of such period. Besides, the increase of productivity, incomes and employment in the informal production units (IPU) in the not agriculture informal sector differed from those that took place in the small scale traditional agriculture.

GDP grows fast but the share of informal employment decreases slowly. In 2002-08 the

Peruvian economy exhibits a rapid acceleration of economic growth, from 2.2 percent in 2002 up to 9.9 percent in 2008, reaching an annual average growth rate of 6.8 percent. This acceleration is a product of: i) a sound macroeconomic policy that allows the country to benefit from the external markets boom of 2002-08; ii) the structural reforms started in the early 90’s that enlarge the role of the markets and make more room for private sector initiatives; iii) the increasing confidence of private investment decisions –private investment grew at an even a faster pace than GDP.

The GDP acceleration takes place during a period when the annual Urban EAP growth rate (2.5%) and Total EAP growth rate (2.0%) remains high as compared with other Latin American countries. This fact explained a rapidly increasing labor supply searching for new jobs.

The GDP acceleration starts and continues during a period when the share of urban (not agriculture) informal employment and of the agricultural informal or traditional employment in total employment are very high. The employment in the urban informal sector represented 69 percent of total urban employment in 2002 and has decreased slowly to 67 percent in 2008. The share of the informal or traditional agricultural sector in total rural employment slightly diminished in the same period from 82.6 percent to 81.6 percent. Both trends explain why the informal national employment diminishes very little: from 77.9 to 76.4 percent in 2002-08. This can be seen as a very small reduction in relation to the high economic growth of those years. Moreover, to the previous figures it should be added the increase of not protected informal employment generated in formal activities.

Economic growth and productivity increase in the informal sector. Growth of output, employment and productivity accelerates during periods of expansion of aggregate demand, particularly if such trend is accompanied by appropriate policies or exogenous positive shocks, such as it occurred in Peru in 2002-08. In such scenario, there is also an expansion in the demand for products and

“The share of the urban informal sector in urban employment slowly decreases from 69 to 67 percent in 2002-08 while the share of the rural informal sector in rural employment slightly diminishes from 82.6 to 81.6 percent in the same period”



Between 2004 and 2008 the urban informal production units recorded a fast economic growth but this growth did not significantly reduced the rates of informal employment in them.

services supplied by informal activities. Hence, in such scenario it is possible that these trends provoke an increase in output, employment and productivity in the informal production units (IPU)

The empirical evidence obtained by Morales, Rodríguez, Higa y Montes (2010), Rodríguez e Higa (2010) and Díaz, Saldaña y Trivelli (2010), allows us to quantify precisely up to what extent it is true that in Peru an acceleration of economic growth induces such a positive response in informal activities.

Thus, Rodríguez e Higa (2010) found that in the informal segment of the *not agricultural* IPU's value added grew in 2002-08 at a pace of 9,3 percent per year, a figure even higher than the rapid growth of GDP. Employment also grew fast at a rate of 5 percent per year and output per worker –a proxy of productivity– increased in 4 percent annually. Hence, the urban informal sector response to the acceleration of economic growth was very dynamic. The previously quoted authors pointed out that the contribution of the not agricultural IPUs to GDP averages an important 9 percent during the period 2004-08.

The results found by Rodríguez e Higa (2010) are in line with the findings of numerous empirical studies done by PREALC/U.N.^{3/} in 1974-93 in many Latin American countries, which established that the urban informal sector output, employment and productivity grew with the GDP acceleration. But when the GDP decelerates, informal output and

3 PREALC/UN: United Nations Regional Employment Program for Latin America and the Caribbean – the regional component of the United Nations World Employment Program.

productivity growth suffered a contraction while informal employment kept growing.

On the other hand, the empirical evidence of the study of Díaz, Saldaña y Trivelli (2010) suggests that the segment of informal or traditional very small scale agricultural production does not show any significant change in output, employment and productivity as a consequence of GDP acceleration in 2002-08.

Hence the recent evidence for the Peruvian experience seems to point towards a double conclusion: i) a high elasticity of response of the not agricultural informal sector to economic growth acceleration; ii) a relative impermeability of the small scale traditional agricultural sector to the same changes.

Productivity gaps between formal and informal sectors. Rodríguez e Higa (2010) also present evidence on the large differentials between the formal and informal output per worker⁴/. Using information of the IPU's for 2008 (and treating separately the Agriculture and Forestry sector) if the average index for the national economy is 100, they found that the output per worker in the formal sector is equivalent to 163, in the informal sector is 22.2 and that of the agriculture and forestry sector is 26. These estimates suggest a 1 to 7 relationship between the average output per worker of the informal and formal sector.

When the previous analysis is disaggregated those differentials tend to grow wider. Focusing on not

agriculture formal activities the output per worker index increases to 483 in Extractive Activities, to 187 in the Construction sector and to 185 in the Manufacture sector. The opposite is found for informal activities: the output per worker index decreases to 17.8 in Manufacture, 20 in Commerce and 26 in Services. Hence these empirical findings suggest a relationship of 24 to 1 between the output per worker of high productivity formal activities and that of informal activities with a larger share in urban employment such as informal Commerce and Services.

A similar relationship of 24 to 1 is found by the previously quoted authors between the formal extractive activities and the agriculture and forestry sector. This gap would be larger if only the informal traditional agriculture is taken into account.

One key feature of the analysis is that the larger proportion of Peru's employment is found in low productivity jobs of the urban informal and traditional agriculture sectors.

As a matter of fact, high productivity differentials and a large share of employment in low productivity jobs is a stylized fact in many Latin American experiences when they are compared with those of other regions.

A second result underlined by the authors is that output per urban informal worker grew faster in 2004-08 than the one of the formal worker.

There is a large gap between the productivity of the formal extractive sector and that of the informal traditional agriculture one. Informal traditional agriculture still represents a large share of Peru's total employment – approximately 24 percent.



Foto OIES

4 The output per worker estimates assumes a standard 40 hours working week.

Although their analysis is not focused in the informal sector, Chacaltana y Yamada (2009) found very large productivity differentials in the range of 1 as an average index for the agriculture sector and 22 in Mining and Electricity, Gas and

Water. When they disaggregate the analysis the productivity gaps grow larger. The relationship of output per worker between the less productive jobs and the high productivity ones reaches 1 to 40.

3. Economic Reforms and Informal Employment

In the first half of the 1990's several economic reforms were implemented in Peru changing the prevailing high state intervention model into one based on promoting private investment. Which was the effect of such deep change on informality?

Economic reforms and informal employment.

The pro-market reforms in Latin America were designed and implemented assuming that the economies were fully integrated and with low productivity differentials and their labor markets were homogenous and not segmented. The main economic reforms took place in Peru in 1990-96 and were implemented rapidly affecting large shares of the economy deeply. They were not synchronized with the prevailing macro, mezzo and microeconomic policies. However, since Peru has suffered an excessive state intervention, the reforms were successful in three key areas: they were able to establish more favorable rules for private activities; they induced a higher attention on exportable supply and external markets and they promoted more sound macroeconomic policies.

The new economic rules, a sound macroeconomic policy, the boom in external markets and the promotion of private investment allowed the Peruvian economy to reach a faster economic growth rate in 2002-08, at a level never registered before. This process was also explained by the increase in entrepreneur's confidence and expectations towards the future.

The acceleration of economic growth in 2002-08 generated a significant increase in employment. Thus, there was an acceleration of the rate of growth of employment in urban formal establishments with 10 or more persons occupied in them. But the pressure of an increasing competitiveness, the effect of labor reforms and the propensity towards precarious jobs, caused a simultaneous expansion

of informal employment in formal enterprises –explained by the rise of unprotected (social and labor) occupations. At the same time there was a slow reduction of the share in employment of the informal sector while the share in employment of traditional low productivity agriculture remained almost constant – representing the latter the bulk of rural informality.

The relevant issue is if economic and labor reforms contributed in the medium term to the strengthening of formal employment creation and to the reduction of the informal employment rates. What happened in Peru suggests that although they paved the way for a higher economic growth from 2002 onwards, their incidence on the rates of urban and rural informality was much weaker than it was expected. This occurred because: i) a significant proportion of the new jobs created in the formal sector were in fact non protected informal jobs - since they did not include adequate labor and social protection; ii) the high rates of economic growth did not transform the urban and rural informal sectors. As has already been mentioned, the share of the urban informal sector in total employment diminished very slowly while the rates of rural informality remained almost constant. Thus, it took place a very slight reduction of the share of all kinds of informal employment in total employment. As it is suggested by Morales, Rodríguez, Higa and Montes (2010), in Peru the reforms have not played a significant role in the reduction of the rates of informality.

A significant economic growth in the urban informal sector. However the trend towards almost rigid informal employment rates should not be confused with an absence of economic growth in the informal sector. As it was explained previously, Rodríguez and Higa (2010) found that in 2004-08 the rate of growth of value added in not agriculture IPU's reached a 9.3 percent annual



During the years of faster growth, 2002-08, the high rates of economic growth mobilized a dynamic demand for informal activities in commerce and services.

average and the growth in output per worker of the same sector was 4 percent per year. This suggests that in the quoted period the average income in the not agriculture informal sector grew faster than real wages in establishments with 10 or more employees. (Real wages in that segment grew slightly under 1.5 percent per year in that period, measured by the Ministry of Labor Wage Index).

Hence, economic growth acceleration generated a significant expansion in the not agriculture IPU's, showing that the demand and supply interrelationships between the informal and formal sector are important. But the IPU's maintain their informal feature.

The previous results must be assessed in their own context since empirical evidence shows that the great majority of not agriculture IPU's are Commerce and Service units –and to a very much less extent Manufacture or Construction units. Hence, one possible conclusion is that the economic growth acceleration of the Peruvian economy mobilized the informal commerce and services– where it is verified the fastest productivity growth within the informal sector.

Precarious employment and unprotected jobs.
An important proportion of present informality

is explained by the well known trend of a labor surplus economy towards digesting very slowly a large informal employment sector. But another significant part is caused by external and internal shocks and public reforms and private policies that contributed to transform formal jobs into informal occupations through the rise of precarious non protected employment.

Chacaltana y Yamada (2009) estimated that in 2002-08 the unprotected informal employment grew at a very fast rate even in formal enterprises in a background where the employment registered in the Ministry of Labor electronic payrolls increased at a very fast pace⁵. For the first time in many decades in 2002-08 the employment created by large and medium size enterprises grew faster than the one generated in small scale and microenterprises. Using Household Surveys information, Chacaltana y Yamada (2009) estimated that for each new formal job created in that period by large and medium size enterprises, they created at least another informal employment. In the small scale and microenterprises sector, the creation of informal jobs per unit of formal employment was even higher

The previously quoted trends explain why the share of urban informal employment in total urban employment decreases slowly from 69 to 67 percent

5 The statistical information of the Ministry of Labor based on electronic payroll information tends to be concentrated in the employment of enterprises that fulfill labor and social regulations.

in 2002-08, while the one of the traditional rural employment in total rural employment diminishes slightly from 82.6 to 81.6 percent. To those figures it should be added the significant magnitude of informal employment created by formal enterprises, which was significant. Tokman (2010) findings corroborated the previous results: in his study the urban informal employment rate of Peru was higher than the 64 percent of the Latin American average, which give us an idea of the serious problem faced by Peru.

The changes among occupational states are known as transitions. For example the change from a formal job towards unemployment or to an informal occupation is a transition. The transitional analysis done by Morales, Rodríguez, Higa y Montes (2010) adds new information:

- i) The statistical probability that an informal occupied person remains in an informal job is very high (79.7 percent) and quite bigger to that of a formal occupied person remaining in a formal job (69.3 percent)
- ii) The probability of obtaining a formal employment been an informal occupied person is extremely low (6.6 percent). Once a person loses a formal job and gets into an informal occupation, the

probability of obtaining again a formal job is extremely low.

- iii) Significant labor income increases are only associated with the transitions from informal to formal employment.
- iv) Unemployment is not a frequent situation and the transition from occupied towards unemployed is the least relevant one. Much more important is the transition from occupied to inactivity, confirming numerous previous studies that pointed out that unemployment is not the main employment problem in Peru.
- v) The analysis of transitions in the occupied population suggests that the employment in Peru is not becoming more formal, which is consistent with the medium term relatively rigidity of the rate of informality even in periods of growth acceleration.
- vi) The previous conclusions suggest that labor vulnerability, defined as the probability of losing a formal job, does not show a significant improvement between 1998-2008 as it would have been expected by the deepness and wide coverage of the economic reforms in 1990-96 –although it would be necessary the analysis of a longer period in order to reach more conclusive results.

4. Labor reforms and informal employment

One issue that contributes to explain what has been underlined in the previous paragraphs is the approach of the successive labor reforms en 1992-2008. These reforms focused on attaining a more flexible labor market of the formal sector, eliminated the employment absolute stability, reduced the hiring and laid off costs and the not salary labor costs. Since the hyperinflation of 1989-90 had reduced wages to extreme low levels it was not necessary for the reforms to reduce salary costs. Hence, the emphasis was on a more flexible formal labor market with relative employment stability and the reduction of not salary costs.

Reduction of labor rights. The 1990's labor reform created a new Labor General Law, with higher flexibility and lower labor rights. However the main issue is that most jobs have less labor protection than the one included in the new Labor General Law.

This fact is explained by several reasons. One of them is that in Peru were created several special labor regimes that seeking the reduction of labor costs cut down even more the labor rights. Among them it is the Labor Regime for Exports; the Agrarian Regime; the Regime for Household Employees; quite a number of Youth Training Contracts; The Public Sector Hiring Regime; and afterwards the first 2003 law for the small scale and micro enterprises (Ley MYPE I) and the second 2008 law for small scale and microenterprises (Ley MYPE II). Hence, a significant proportion of the increase in unprotected informal employment in formal enterprises is introduced by these special regimes that are quite more intense in the reduction of labor rights than the new Labor General Law introduced by the labor reform.

Another important proportion of the increase in informal employment in formal enterprises is

The labor reform of the 1990's established a special regime for exports from agriculture and agro-industry, which seeking a higher competitiveness restricted labor rights and reduced labor costs.



explained by the drive of private firms towards creating precarious employment in their efforts for reducing labor costs.

It is useful to remember that between 1990 and 1996 the explicit government labor policy included two major relevant messages:

- i) It was important to reduce labor cost for competitiveness reasons.
- ii) Fiscal control against the evasion of labor regulations was deactivated –it took place through a huge reduction of labor regulation inspectors.

A first result of these two messages was an increase of unprotected informal employment. The small scale and micro enterprises saw the convenience

“Competitiveness is based upon total productivity growth, which it is translated into a permanent reduction of total costs per unit of production. Competitiveness is not based on one shot labor cost reduction or a sequential reduction along time of such costs”.

of increasing the share of informal workers in their payrolls (workers with no labor contracts was one way to attain this goal) for reducing labor costs and improving competitiveness. The large and medium size establishments expanded the use of temporary contracts that were renewed once and again and of type of contracts that reduced labor and social protection.

A second result, even more serious, was to convince the private sector that competitiveness depended from the reduction of labor costs, as it was directly stated in the successive labor reforms explicitly oriented towards such goal.

Reduction of average labor costs versus an increase in productivity. Competitiveness is based on the constant increase in total productivity, which is translated into a permanent reduction of total costs per unit of production, since total productivity growth means a systematic decrease in the use of all inputs per unit of output. Hence, competitiveness is not based on a one shot decrease or a sequential reduction of average labor costs. Moreover competitiveness is a *relative* concept: it is important to increase productivity at a faster pace than the one registered in the countries with which we compete if our target is to improve competitiveness.

The main flaw of focusing on competitiveness as a process of reduction of average labor costs, as it occurred in Peru in 1990-2003 is that it moves

away the attention of enterprises from what should be their main target: the increase in productivity. This fact orientates the private sector towards a very conflictive course of action. This course is also unsustainable, since it is impossible to reduce year after year the average labor costs –besides been questionable from the point of view of social justice. On the opposite side, focusing year after year on the policies and actions that generate productivity increases will give us sharp reductions in total costs per unit of production which will improve our competitiveness continuously and avoid labor conflicts.

“The main flaw of focusing competitiveness as a process of labor costs reductions is that it moves away the enterprises attention from the main subject, the increase in productivity, and orients the private sector towards a very conflictive course which cannot be sustained”.

5. Policies for accelerating growth of formal employment

The acceleration of the growth rate of formal employment is essentially determined by two factors: i) the type of economic growth strategy adopted for the promotion of growth; ii) the institutional changes that gradually enlarge labor and social protection seeking to transform informal into formal jobs within the formal sector. In the following paragraphs we shall see in some detail both issues.

5.1. The acceleration of economic growth

The main constraints that have to be overcome in Peru in order to maintain very high growth rates for the future have to do with how to attain a constant improvement in global and micro competitiveness in several areas, such as productive infrastructure, improvement of the quality of education and labor training and strengthening the adoption of innovations. But other issues can also have a serious impact on economic growth and the creation of formal employment. They will be addressed in the following lines.

a) Specialization and clusters. The first issue is the strengthening of the diversification of external markets and more emphasis in the specialization of the country in several export lines which enable the capture of external niches

and require an internal increase in the scales of production with higher returns to scale.

This approach requires the promotion of private investment in particularly the export lines with larger scales of production that can ensure increasing returns to scale. The increasing returns to scale are translated into higher productivity growth. This approach is coherent with the present international trade patterns and consistent with the more recent theoretical and empirical analysis of the foundations of economic growth⁶. This approach generates a systematic trend towards productivity growth. As a matter of fact Peru started moving in such direction since the mid 2000's. The issue then is persisting and disseminating this approach among the entrepreneurs.

Larger scales of production can be attained in a small country like Peru through clusters, enterprise networks, subcontracting or productive chains that induce a greater articulation between small and large firms.

The specialization in external markets with this type of articulations allows a more robust and sustainable growth in the export lines that are the spearhead in many export markets. It

6. See on this subject Krugman (1979); Jorgenson and Vu (2010a, 2010b); Jorgenson, Weldeau, Kuroda and Motohashi (2007); Jorgenson (2002); Jorgenson (2000); Jorgenson, Gollop y Fraumeni (1999) and Jorgenson (1995).

also allows for a higher rate of growth in formal employment, since the previous approach has significant indirect effects that disseminate the growth of the export spearhead lines over the rest of the formal economy.

An economy such as the Peruvian, that presents a high proportion of small scale low productivity firms and a relatively low number of large and medium high productivity enterprises, can transform this weakness into its strength, through a greater articulation between large and medium enterprises with the smaller ones. This articulation of small scale firms reduces the costs of the larger ones and at the same time it promotes the improvement in productivity and quality in the small scale businesses and the labor incomes of those employed by them.

b) Importing and adapting new technology.

A second issue is the strengthening of the country capacity for the adoption and adapting of new technologies already available in more developed countries in order to attain a faster growth in total productivity. This faster growth will depend much more from importing technology that can be adapted than of investing in research and development (R&D). Even emergent economies larger and much more advanced than Peru took the previously mentioned path. That was and it is the case, for example, of the Asian experiences: Japan (1952-75); South Korea, Taiwan, Hong Kong, Singapore, Thailand, Indonesia, Malaysia and the Philippines (1960-2010) and China (1980-2010). China was able to sustain a very high economic growth with increasing productivity growth in 1980-2010 but its expenditure in R&D remained in low levels: 0.7 percent of GDP in 1990 and 1.3 percent of GDP in 2005, figures that are one half of those registered in the advanced economies of the West – OECD (2007). The same OECD report points out that high technology industries in China are less R&D intensive than the same ones in advanced countries. The Chinese experience –as all the Asian ones– relied much more in adapting new

technology already available in the West than in generating innovations inside the country.

The former does not mean to abandon the efforts towards the improvement in R&D, but to consider that in the future productivity growth in Peru will depend much more from the importing and adapting of innovations. In order to have such results depending only in R&D, Peru would need a much larger and solid base of scientific knowledge and a greater number of engineers. Both things are today unavailable and it will take many years to change this availability.

c). Disseminating productivity growth towards micro and small firms.

The third issue is the dissemination of productivity increases from larger firms towards smaller ones, in order to accelerate growth of the latter ones. This is a key issue for attaining a more rapid growth of formal employment and the main way to reach it is promoting both a faster product diversification and the articulation among enterprises of different sizes and the clusters of small scale enterprises.

d). Alignment of relative incentives.

A fourth issue is the need to establish a flexible incentives system and guidelines for the medium term in order to build up stable signals and predictable information for the profitability calculations of future private investment. In extractive tradeables^{7/} the key factors influencing the rate of return to private investment are the law of the minerals or quality of natural resources that are exploited, the evolution of external markets and the security and confidence that the country can give to private investors.

The key factors affecting the rate of return in not extractive tradeables are different from the previous ones. In a market economy the issue is to establish relative prices and incentives able to generate, in not extractive tradeables, higher rate of returns than in non tradeables. This will stimulate private investment growth in tradeables and induce a constant shift of resources towards the activities

7. Tradeables: defined as the internally produced goods and services that can be exported plus those that compete with imports. In both cases, they are produced by activities exposed to external competition.

exposed to external competition – which is what is needed in a small open economy to foster growth.

The previous approach demands a certain degree of convergence from different policies: sharing agendas between private and public sector for the search of new external markets; new trade agreements; a competitive exchange rate; the cost of credit for exports; access to productive infrastructure at competitive costs; access to incentives for the adoption of innovations; incentives for labor training particularly within the enterprise^{8/} and other policy issues that are important for competitiveness.

The previous scheme is not necessary when it is established in a somehow gross fashion, as it happened in the recent past in Peru, an across the board trend towards a reduction in labor costs –through legal reforms, multiple labor regimes and firms private policies.

But as the country starts to enter the path of competitiveness improvements based in total productivity increases, it becomes necessary a more efficient and selective criterion. This criterion can be obtained from a relative price and incentive system able to induce a permanent resource transfer towards non extractive tradeables. This is consistent with the goals of increasing productivity in that sector, a more competitive and diversified tradeables production and the achievement of greater external specialization with larger scales and higher return to scales.

5.2. Growth and labor institutions in the formal sector

What happened in Peru in 1990-2008 suggests the need of paying attention to the institutional framework in the formal labor market, to how the

“It is possible to integrate the present CTS into an unemployment insurance that emphasizes labor retraining of laid off formal workers for making easier their reincorporation to a formal job”.

enforcement of these labor regulations is done and to the labor and social protection established by the country General Labor Law, if the goal is faster economic growth translated into a higher share of formal employment. This approach is developed in the following paragraphs.

a) Relative stability in employment with flexible security. The experience of 1990-2008 shows that there are economic and not only social reasons that justified the goal of reducing the share of formal employment without labor contracts or with short term contracts that are constantly renewed, or with atypical or irregular contracts, that do not offer enough labor and social protection. To that reduction it should be added the attainment of lower labor costs per unit of production^{9/}, in entry and exit from occupations.

This can be attained through: i) lowering entry labor costs through higher job productivity that diminishes the labor unit costs; ii) reducing the laid off costs and integrating the present CTS^{10/} into an unemployment insurance system within a flexible security scheme. This scheme should give emphasis to retraining so it would be easier to the unemployed formal worker to get a new formal job. The latter is very important since the transition analysis –see Morales,

8. The incentives for the adoption of innovations and for in house labor training are justified because there are negative externalities that affect such investments. The enterprises that invest in training run the risk of losing it to other firms. Those that invest in innovations run the risk of stimulating other firms to introduce similar innovations. In both cases the original return to investment is significantly reduced as a consequence of these negative externalities. Hence the incentives are needed to compensate the losses provoked by such externalities.

9. Labor costs per unit of production are different from average labor costs. Labor costs per unit of production are equal to average labor costs divided by output per worker.

10. CTS: “Compensación por tiempo de Servicio”, is an accumulated compensation that the worker has a right to receive when suffering a laid off.



In the past fifteen years the absence of job's labor protection has been the cause of a great number of claims from trade unions and even from workers without an organization that represented their interests.

Rodríguez, Higa and Montes (2010)– points out that without this retraining, once a formal job is lost is highly probable that the worker will join the informal sector.

This approach includes a higher relative stability in employment, but with easier entry and exit and lower hiring and laid off costs^{11/}, which maintains a high degree of formal labor market flexibility. For workers there is a clear advantage in this proposal, since it offers more stability and a greater protection during an exit episode. Given that the advance of globalization means a greater probability of a number of laid off episodes during the worker active life, the permanent access to retraining ensures better employability. For the enterprises, they will benefit with lower entry and exit costs and the more stable employment will enable the implementation of productivity incentives systems for their workers. Hence, through both channels the enterprises would be able to maintain a higher adaptive flexibility.

Hence there is an economic reason for moving in this direction: it allows greater coherence of labor institutions with the goal of increasing

total productivity. The high share in formal employment of occupied workers without labor contracts, the large number of contracts with lower labor rights and the short duration and contractual instability, which are all features of the present formal labor market of Peru, are in fact obstacles for establishing productivity incentives regimes at the micro level. The absence of productivity incentives scheme in most Peruvian enterprises of the type usually found in more advance economies, is a negative stimulus for enterprise investment in training and a handicap for productivity growth.

The arguments previously stated suggest a criterion for promoting new institutional changes in the labor market. The set of institutional changes that took place in 1990-2008 had the goal of reducing labor costs assuming that such reduction was the base for the increase in competitiveness. This criterion was accepted by enterprises and applied by them, so it is not recommendable to promote the proposed institutional changes without first a wide dissemination of the new criterion among Peruvian firms emphasizing that competitiveness depends of the increase of productivity in every enterprise and making sure

11. The lower entry cost is measured in this approach by the lower labor cost per unit of production, due to the bias towards productivity growth and not by the average labor cost per worker. This assumes that the new institutional setting will contribute more to productivity increases through the improved relative stability and training and productivity incentives. This reduces the labor costs per unit of production.

that the major part of entrepreneurs understand and know how to implement this new criterion. In order to attain both actions, a clear message from government explaining the importance of productivity growth for competitiveness, persistently and widely disseminated, will be needed –in the same way that in the 1990’s the Government emphasized the importance of labor costs reductions for competitiveness. If the labor institutions are changed towards productivity growth but the entrepreneurs continue believing in labor costs reductions, then the results will be counterproductive.

b) Wage readjustment and productivity increase. A second issue that should be remember is that the formal labor market functions more efficiently with proper signals for wage setting. One of these signals is the nominal minimum wage readjustment. The nominal minimum wage readjustment should include an expected price increase component and a productivity increase component

–Garcia (2008). This constitutes a signal for enterprises on how can they proceed in their wage formation in a formal labor market whose main features are frictions, search problems, uncertainty and incomplete and asymmetric information.

But it is not possible to apply the same minimum wage to different size enterprises with very different productivity levels. Hence it is convenient to establish two or three minimum wages, with the differences that the empirical data recommends. In this way, even low productivity micro enterprises can have an accessible minimum wage regulation –Garcia (2008). Since the share of urban microenterprises in total microenterprises and total wage employment is higher in the urban areas out of Lima, where the standard of living cost is lower, the criteria of several minimum wages could be adapted to regional differences in enterprise sizes, productivity differentials and cost of living.

6. Policies towards urban informal employment

The empirical evidence found by Morales, Rodríguez, Higa y Montes (2010) and Rodríguez e Higa (2010) on the reaction of not agricultural informal employment to the acceleration of economic growth, suggests several policies towards informal activities that can generate results in a not very extended period. The key issue is that public policy should not hurt the elasticity of response of the urban informal sector, so the aggregated demand growth acceleration that pulls the formal sector economic growth can also pull up the output, employment and productivity of urban IPU’s.

One relevant issue for policy proposals is the high heterogeneity of urban informal employment in Peru. Four large groups are detected regarding their insertion in the informal sector:

- i) The wage earners and leaders of informal microenterprises;
- ii) The wage earners in formal firms without labor and social protection.
- iii) The wage earners in household domestic jobs.

- iv) The self- employed independent workers with very low skills.

The informal employment tends also to predominate in commerce and services and to a lower extent in in manufacture, construction and other activities. All this heterogeneous features demand from a policy perspective common principles but different policy measures.

6.1. Gradual formalization with a phase of pre-formalization

The present approach towards formalization in Peru and other Latin American countries is a relatively short and fast process with an “all or nothing” option. The option faced by the small informal producer is to formalize his micro-business in months or remain as an informal. But the relevant issue here is exactly the opposite: time is needed for a process of learning and practice. The greater majority of informal units, particularly



Although positive changes took place in the recent past, the State institutions do not have a decision making system able to understand and solve the informal employment problems.

the family microenterprises and many independent informal people, do not have conditions for a rapid transition.

An obstacle that makes difficult the implementation of proposals is that decision making system in Ministries and public entities is oriented in practice towards the issues of the formal sector. It is not easy to shift their attention and modify their views towards the informal sector issues. What this fact means is that in practice the formalization process will take time, much more time than it was expected by those that thought that with three or four measures they could accomplish rapid results. The formalization process will advance faster if the regulatory framework and public policies adapt itself to the real world of the informal activities instead of developing coercive approaches forcing the informal activities to adapt themselves to that framework.

With the previous argument in mind, it is useful to remember some of the features of the not agriculture IPU's found by Rodríguez e Higa (2010):

- i) A large proportion of family microenterprises are low productivity units and employ only the manager and family workers with no monetary remuneration.
- ii) On average this family microenterprises have one manager and one family worker.

- iii) In a large proportion of those family microenterprises the income level of the manager and the worker is below the minimum wage.
- iv) The managers have a very low educational level and that of the workers is even lower.
- v) A high percentage of those employed in those microenterprises declared that their main occupation is the informal activity.

The features quoted previously suggest that the policies proposed below will be more successful in those segments where a more prepared and educated informal labor have a greater chance to overcome their present limitations. This means that only a fraction of informal microenterprises, those with more competitiveness potential or that can acquire a higher competitiveness potential, will be able to face successfully a transformation process.

6.2. Adapting regulations for a gradual formalization

Although there have been positive changes in regulations in Peru for starting new businesses and formalize informal microenterprises, still now the regulatory framework is not appropriate for a gradual process of formalization with a previous phase enabling the learning by doing of the advantages of becoming a formal. Tokman (2010)

points out this stylized fact for most of Latin American countries.

- a) **The tax laws for small and microenterprises MYPE's.** A first example of the issue raised above is the tax regulations contemplated for MYPE's. Although it includes an advance with the Simplified Direct Tax Regime with low tax contributions for microenterprises and independent workers that fulfill certain conditions, it also establishes that microenterprises becoming formal under the second MYPE Law must pay in advance the 19 percent of their sales as Value Added Tax, before collecting their invoices –normally issued to be cashed in 30 or 60 days. This obligation, for a microenterprise with a very small working capital, has a serious implication. All IPU's that try to fulfill it can lose their working capital in a matter of months.

The same MYPE law establishes the right to “factoring” through which all invoices issued can be discounted in a bank. So the microenterprise can obtain cash before the invoice deadline. Unfortunately, this idea assumes that these recently formalized firms have access to the Banks –which is not true in practice. Moreover, it assumes that informal microenterprise managers can spend a day in public transportation and in a bank's queue in order to negotiate the invoices issued by them the previous days –which is also not true. Informal managers depend of their daily work which they cannot abandon.

For small and microenterprises that do not agree to formalize, the second MYPE law face them with an even harder situation: tax regulations stated that they have no right to issue an invoice, so unregistered microenterprises cannot discharge the Value Added Tax included in the inputs they buy. This is of course an enormous disincentive for entering in subcontracting processes as suppliers of medium or large firms, because they must pay the Value Added Tax when they buy their inputs but they cannot discharged that tax value through their sales because they are not allowed to issue invoices. Generally speaking, the Peruvian tax system has been

designed with only one goal in mind: a system that it is easy to administrate. But this is not a legitimate objective of a tax system from the point of view of development.

- b) **Labor regulations.** A second example is found in labor regulations. The highest labor cost components of an informal microenterprises are not the not salary costs, but wages and hence the level of the minimum wage. Changes in law MYPE I and MYPE II kept reducing the not salary costs, but did nothing regarding the minimum wage for microenterprises. The present minimum wage level exceeds the possibilities of low productivity informal microenterprises, particularly those outside Lima that are the larger proportion of total number of microenterprises – Garcia (2008a). As it was already mentioned, an approach including two or three different minimum wages would be very useful during the process of formalization of the Peruvian economy.
- c) **Municipal regulations.** A third example is found among the municipal regulatory framework. They ignore the possibility of using public spaces for informal commerce or sales of informal services, but establish punitive measures against the exercise of informal commerce or informal service services in the streets, without any positive result in decades.
- d) **Property rights.** A fourth example is found in property rights regulations. For many informal units, the proof of the property of their small assets should be simplified. In the case of land and house property, the historical process of appropriation and following subdivision of no owner lands, the flaws in the public registry for land and house properties and the absence of juridical acts of property transactions duly registered in public registries, make more difficult to exhibit a legal property title. Hence this should be simplified. Otherwise informal units cannot use those assets as collateral for obtaining credits, without which is difficult for them to grow.

Many other examples can be found beyond the four ones quoted previously, which act as an obstacle for the adaptation of legal frameworks to a process of gradual formalization.

6.3. Associativity, clusters, networks and subcontracting

For public policies to be effective it is necessary to get together in large groups the numerous informal units, so they can achieve the critical mass required by public policies to be effective. This means the promotion of associativity in very diverse ways.

The key subject is then promoting clusters of microenterprises, networks with larger enterprises and subcontracting processes through which a great number of informal microenterprises can be integrated with larger firms. This subject, as well as the access to credit, managerial training, innovations and technical assistance, promotion of larger scales through fairs and service centers and a health insurance, are the key for achieving productivity growth in at least a fraction of urban informal units.

It is possible that the suitable instrument for promoting associativity could be credit. Peru's experience in microfinance as well as that of many other countries, suggests that it is possible to establish credit contracts for a group of informal microenterprises which involve a close follow up of the different stages of a project: organization, market access, adoption of innovations, product standardization and quality measures, culminating in sales strategies and collection.

6.4. Access to credit

By definition, informal units have a very low level of capital. Hence, the access to credit is vital for

“Credit can be an adequate instrument for promoting associativity in the informal sector. The microfinance experiences of different countries suggest that it is possible to establish credit contracts with a number of micro-entrepreneurs, which are conditioned to the advance stages of a project strategy”

these units. The scarce capital they own is wholly absorbed as working capital for financing inputs, labor, production and sales. Consequently they faced a binding constraint in capital formation for equipment, machines and innovations and in human resource training.

Thus credit is important for these units in two senses. First, it is the only way towards systematically expanding sales and production. Second, it is the necessary mean for increasing productivity through new equipment, machines and innovations.

The microfinance experience of Peru –like the ones of Brazil, Colombia, Chile, México, Ecuador, Bolivia and Costa Rica– is extremely positive and has generated good results, with low rates of slow payments. However, the cost of credit for microenterprises remains very high in Peru: the interest rate for micro enterprises is approximately four times the one paid by large firms in a commercial credit line. There is also an access problem: the resources of the microfinance sector and those committed to microcredit lines by commercial banks are still very low when they are compared with the demand for credits from the microenterprise sector. This is an expression of a more general problem: i) the banking coefficient of Peru is only 25 percent, one of the lowest of Latin America; ii) the high degree of bank concentration explains why although the banks operate with diversified products, there is not important for them the credit for microenterprises, a type of credit that requires a very special financial technology. Hence a policy for expanding credit towards microenterprises does not seem to be independent of an expansion of the micro-financial banking market.

6.5. Access to managerial training, technology and technical assistance

Together with access to credit, another constraint that is an obstacle for the growth and modernization of informal units is their little access to management training, new technologies and technical assistance. The low education and bad quality of education received by the informal units' managers explain why the first of those constraints is essential. And why it is so necessary to complement it with improvements in the access to innovations

“The low schooling rates or the bad quality of the education received by the microenterprise managers is a key issue to understand their low productivity and hence how relevant is to give them access to managerial training and technical assistance”

and technical assistance. In the recent past, the promotion of entrepreneurship development service programs –among them the “Mi Empresa” Labor Ministry program or “PROMPYME” from the Ministry of Production– had a positive experience with bonds that allowed informal units to pay and have access to those services. The issue here is that due to the complexities of the tax system for micro-entrepreneurs, a high proportion of those bonds were used to pay for accounting services and tax advisers.

The approach of issuing bonds for promoting access to training, knowledge of innovations and technical assistance is still valid both for promotion agencies and for the use of credits as an incidence channel in that direction. In the past, such approach has functioned in diverse realities, such as the Chilean scheme of small scale industry production; the fund for MIPYME in Mexico, the Pro Intec of Guatemala or the FOSEDEH in Honduras.

For industrial, agro-industrial and construction informal units it is possible to devise a small number of basic technologies that could be disseminated through private and public channels at low costs. This will enabled them to increase their productivity. The same can be done for independent informal workers with some specific appropriate skills.

There are advances in this subject that are worth mentioning. The Ministry of Production –CITE– (Centros de Innovación Tecnológica) created for the technical advance and innovations adoption in small scale and microenterprises, as well as the large private institutions for labor training, have

been collaborating in the design of small packages of a reduced number of new technologies that can be afterwards be disseminated at the local level.

6.6. Commercial fairs and service centers

A very high percentage of independent informal workers are street vendors and service workers –such as electricians, gasfitters, repairers of household machines, key copiers, watch repairers, window cleaners, shoe shiners, etc.

The situation of these street vendors could improve if the public can have a better access to their business. This can be obtained through commercial fairs located in key spots of each district. The same can be said for service workers through the installation of service centers.

The installation cost of fairs and service centers is low and the results in term of facilitating progress for vendors and service workers very high. Rodríguez e Higa (2010) point out that a large proportion of the IPU’s function with their own small assets. The installation of fairs and service centers would help to separate the family capital from the informal business capital, which is the first step that allows informal units to use the second one as collateral for obtaining credit –Tokman (2010).

The same can be said regarding the installation of service centers where quite a number of personal

“For industrial, agro-industrial and construction informal microenterprises and also for skilled informal independent workers it is possible to devise a small number of basic technologies, make them accessible at a low cost and establish public and private channels for their dissemination. This will enable a faster rise in productivity among these informal units”.



The installation cost of fairs for street vendors is relatively low and quite high its return in terms of better organization and progress for those small traders

household and firms services can be grouped at a low cost since they share common utilities. This also implies that people of each district will know that contacting these centers will allow them to have access to a wide variety of services. This is already happening with the very old and small malls or shopping centers that are in the process of been transformed into service centers and fairs for street vendors. Hence the issue is that public policies should take advantage of these trends in order to expand them.

6.7. Labor protection for informal jobs

The labor protection improvement for informal workers is one of the most important challenges. It implies different measures depending if we are dealing with informal wage earners in formal firms or workers in informal units.

In the case of wage earners in informal units the improvement of labor protection is part of the general strategy of formalizing those units with a previous learning period. It includes the gradual enforcement of labor regulations at the rhythm that productivity growth allows it.

With regard to informal wage earners working in household Jobs, the main issue is the enforcement

of labor regulations, with particular emphasis in wage regulations and access to health insurance.

For those in informal jobs in formal enterprises law enforcement is the essential issue. The adoption of a productivity criterion by formal enterprises, as it was explained previously, could help a lot through replacing informal labor contracts by formal ones and establishing more relatively stable jobs with lower entry and exit costs. The flexi-security scheme would also contribute in this direction.

6.8. Social protection for informal workers

The improvement of social protection in health and pensions for informal workers of formal firms and for

“For informal jobs in formal enterprises the key issue is control and labor law enforcement. It should be added to them the gradual dissemination of a competitiveness criterion based upon productivity growth, replacing the lower labor costs criterion”.

household workers is essentially an issue of control and law enforcement.

The case is different for informal unit workers, since they face the obstacle of very low incomes. However they have something in favor: the law of large numbers. Access to health services is one of the more valuable factors for informal workers and it has an objective impact on their productivity. From an actuarial point of view it is possible to reduce the cost of health insurance, if one can add a massive incorporation of large number of informal workers to the basic coverage layers

of such insurance. Afterwards it is possible to increase gradually the number of layers improving the quality of the insurance coverage –as it has been done in Colombia and Chile and other countries in the region. As a matter of fact this was the original scheme built into the second MYPE Law of 2008, both for managers and workers of informal and formal microenterprises, including their families with a mixed approach based on improving access to ESSALUD –the national health insurance system– and to the Sistema Integral de Salud (SIS) which is the basic layers health system of the country.

7. Policies towards the small traditional agricultural producer

Rural not agricultural activities show higher labor incomes than the small traditional agricultural productions and it absorbs a lower share of total rural employment. Hence, following Díaz, Saldaña y Trivelli (2010), we will focus the analysis on the small scale traditional agriculture.

a) Context. Opposite to what has happened in the not agriculture informal sector, the high rates of economic growth in 2002-08 had little incidence on production and productivity growth of the small scale agriculture producers except for the valleys of the coast of Peru where small scale commercial agriculture benefit from the demand pull from exports. The evidence showed by Díaz, Saldaña y Trivelli (2010) suggests that economic growth acceleration did not transform this segment. Its structural features of very low access to resources and disconnection from markets explain why the large segment of small scale traditional producers particularly that of the Sierra and Selva remained practically untransformed.

Following the previously quoted study, between 2001 and 2007, there is a relatively high growth of the economic active population of the rural sector. Such growth reaches rates between 2 and 3 percent per year, explained by the steady increase in women rates of activity. This trend explains why towards 2008, the share of economic active rural population was

still a high percentage of total national active population –approximately 30 percent which is among the higher ones of Latin America. This indicator shows that Peru will need many years to attain a more integrated development, which requires a much higher share of urban active population.

Approximately two thirds of rural agriculture active population is located in the Sierra region, where the higher rates of poverty and extreme poverty are found. A large proportion of these agriculture workers are older than 45 years. The unemployment rate among them is extremely low, approximately 1 percent –as it is usually the case in traditional small scale agriculture in other Latin American countries.

b) Low incomes. Díaz, Saldaña y Trivelli (2010) point out that opposite from what has been registered in the urban informal sector, the already low average income in the small agricultural production decreased in real terms en 2001-07. The exception was the leaders or small managers, whose average income increased 25 percent in that period. The monthly labor income of rural workers in traditional agriculture were in 2007 extremely low: approximately US\$110 dollars of 2007 for men and US\$80 dollars for women. Underemployment measured by income or productivity standards is very high, particularly at the Sierra region, where it reaches between 75

and 92 percent depending of the measurement methodology^{12/}.

- c) Productivity.** The main goal for the segment of small scale traditional agriculture producers should be the systematic increase in productivity. Numerous emergent countries experiences show that starting from very low productivity levels, annual increases may be very high even adopting simple technologies with a low compromise of resources.

A key issue for understanding the obstacles to productivity increase is the large geographical dispersion of small producers, which makes much higher the cost of any attempt of transforming their situation. The common pattern faced by the small agriculture producer is a very weak access to markets and resources –with the exception of small producers located in the valleys of the Coast region and integrated to commercial agriculture. The constraints of size of the land, education and labor skills, access to capital, credit and markets are particularly binding. Hence the proposals will concentrate in them.

7.1. Property and land exploitation

The first issue is that, in average, only 17 percent of those owning the lands have a legal title duly registered in the Public Register Office. Díaz, Saldaña y Trivelli (2010) found that this percentage is higher in the Coast but it is much lower in the Sierra and the Selva regions. It is also lower for the more poor small producers. Hence the first proposal is to update the land title and registration process using more practical criteria which are more accessible for the small agriculture producers. Becoming a legal owner can induce a larger number of productive efforts and allow the use of the new legal land titles as collateral for credit.

7.2. Education and labor skills

The schooling rates in primary and secondary education are quite lower in rural areas and even

more lowers for the people linked to small scale agriculture production –see Jaramillo (2004).

The quality of that education is worst to that received in urban areas, which has a direct incidence on the small scale producer capacity to absorb new knowledge, techniques and processes. There is no easy answer since it means to increase educational resources in areas of great geographical dispersion. On the other hand, it is quite possible that a proposal of offering a small package of simple accessible technologies in languages that are understandable for these producers may overcome the previously quoted barriers, particularly if such proposal does not need an increase of formal education.

7.3. Access to credit

The access to credit of the small agriculture producers is even weaker than the one of urban IPU's. This is a result of the very low presence of banks and microfinance institutions in rural areas and to the very high geographical dispersion of small scale producers. A higher specialization of microfinance institutions, associative credits and the reproduction of schemes and financial technologies already proven in other experiences could help to fill this gap.

7.4. Inputs, production and technical assistance

Díaz, Saldaña y Trivelli (2010) found that the average annual expenditure in inputs is equivalent to US\$170 dollars of 2007. The expenditure in technical assistance is even lower: the equivalent of US\$47 dollars of 2007. Those estimates are for the fraction of small scale producers that could afford such expenditures, which is approximately 1 percent of total small scale producers. Those figures are associated to a gross annual production per production unit equivalent to US\$958 dollars of 2007. Only 31 percent of the previous figure goes to the markets.

12. The minimum income used for the estimates of underemployment is calculated from the income line linked with the poverty line by statistical domain and number of income earners by household.

The figures suggest that output per worker in the small scale agriculture sector is close to an average of US\$400 to US\$500 dollars of 2007 per year (approximately US\$43 dollars per month). For poorer peasants total output per unit of production is even lower than the previous average productivity of US\$400 to 500 dollars per annum, while it is higher for not poor peasants. Similarly the percentage of that production that goes to the markets is higher than the average 31 percent for not poor peasants and lower than such average for poor peasants. This figures point out that advances in this sector will not be achieved through punctual actions. Massive gradual efforts will be required from the national, regional and local governments and from the private sector.

7.5. Irrigation and new technologies

The small agriculture production is in Peru very sensitive to the rains regime and to the access to irrigation. The rains regime and its seasonality explain why the great part of the agriculture work is needed only six months per year –Díaz, Saldaña y Trivelli (2010). Hence introducing efficient techniques that multiply access to irrigation will contribute to a significant increase of productivity. The conventional answer of large investments in

infrastructure for accumulating water and irrigation, given the high geographical dispersion of small producers, implies an extremely high cost/ benefit ratio. Consequently there is a need for exploring not conventional answers.

One of such not conventional proposals came from a private institution, the program “Sierra Productiva” from the Institute for an Agrarian Alternative, started 15 years ago in the Cuzco region and today disseminated into many districts and provinces of the country. This program emphasizes a small number of simple and accessible technologies, of a very low cost (between US\$250 and US\$350 dollars) that can be gradually implemented so the small producer can pay for them gradually. These technologies are taught by indigenous leaders, the “yacchachis,” who are the depositary of ancient indigenous knowledge and hence do not require an increase in formal education. The key issue of that technological package is a simple low cost water retaining and irrigation system.

No impact assessments are available for this program, which would be a very useful step before recommending a massive implementation. The program Sierra Productiva claims that approximately 40 thousand peasant families have registered a great advance in their standard of

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The Program Sierra Productiva has an enormous potential for promoting a package of simple technologies in the informal rural activities, although there are no studies yet that can confirm its real impact.

living, based on productivity and income increases and health improvements. It also underlines a greater connection to local markets. Although there are no formal studies on this program, the approach has been disseminated and today several regional governments are promoting and financing its implementation. Moreover, the CEPLAN, the state institution responsible for long term planning, has incorporated this program as one of their priorities.

Since the Peruvian State has given priority in the struggle against poverty to the social programs that transfer money or ease the access to nutrition, health, education, etc. and not to the productive ones, the approach of Sierra Productiva of focusing in increasing productivity of the poor peasants is not incompatible with the Government programs against poverty. There is evidence that part of the money transfers to poor peasant families of the government program “Juntos” are been used by these families to gradually acquire the set of simple technologies offered by Sierra Productiva.

This type of program could have a significant effect on peasant productivity and on the returns of the small producer properties. It is then worthwhile to evaluate its impact in order to have better information on its results. The reports issued by

the program “Sierra Productiva” sustain that it has a significant effect on peasant families because the improved nutrition, the use of filtered water, the availability of hot water for winter, the use of dry bathrooms and the surplus of production generated by the increased productivity, allows these families a better health and living standards.

7.6. Communications, roads and access to markets

It is important to emphasize that given the geographical dispersion of the small producers and the high cost of building roads and communications infrastructure in the Sierra and the Selva region, it is probable that a gradual process of production diversification and productivity growth will induce demands for better access to markets. The answers to this challenge should not come only from the state, but also from the peasants interested in this advance and above all from the private enterprises that could benefit from these increases in production looking for new markets or from the creation of production chains that can absorb the peasant’s surplus and add value to the new agriculture production. This process has already started looking both to internal and external markets, so the challenge is how to reinforce this trend and disseminate it.

8. Conclusions

The emphasis of the proposal presented in this paper is in two simultaneous medium term sets of policies: i) those oriented towards promoting a rapid and sustainable economic growth with greater formal employment creation and ii) those that are focused in increasing productivity and incomes in the informal segments. Rapid growth is a key feature because it will allow greater formal employment creation and at the same time generates the resources needed to improve productivity of backward informal sectors. The first set implies measures towards accelerating formal employment creation and promoting labor institutions that are both productivity growth friendly and more protective such as:

8.1. Accelerating economic growth and formal employment creation

1. **Strengthening of specialization in external markets.** This includes measures oriented to capture new external niches which can allow inside the country the dissemination of larger production scales with increasing returns to scale and decreasing average costs. This is the most powerful way to increase productivity. This trend towards larger scales is already demanded by the present international trade patterns and it is a stylize fact of all successful rapid growth experiences of emergent economies.

2. Productive chains and firm networks. In a small country such as Peru, it is possible to get access to larger scales through firm networks, clusters, productive chains, subcontracting processes and diverse ways for articulating small scale businesses to large ones. This transforms into an advantage the disadvantage of been a country with a great number of small scale and micro enterprises, since this articulation reduces costs for larger firms and stimulate productivity growth in the smaller ones. The process towards larger scales has already begun in Peru since the mid 2000's and the issue is then the removal of the obstacles for the dissemination of this process, particularly in the not traditional export sector. A greater articulation between small scale and large firms and a more diversified production contributes to increases in productivity and a grater dissemination of such increases towards the smaller business –which makes easier their growth and that of their employment.

3. Convergence of the incentives system. A shift towards the previously explained directions means a greater convergence of the system of incentives and relative prices towards upgrading the rate of return of private investment in not extractive tradeables compared with that of non tradeables. It is the diversification and specialization in extractive and not extractive tradeables that will be the foundation for rapid and sustainable future economic growth because those activities are the ones that define the insertion of Peru in globalized markets and must face external competition. Hence, there is a need for promoting private

“Once productivity increases and product diversification starts gradually to improve, it will be indispensable the access to communications and road infrastructure for integrating to markets the small scale informal agriculture units”.

“A higher articulation among large and small enterprises plus product diversification contribute to disseminate productivity increases toward small scale firms, which in turn makes it easier for them a higher economic growth and that of their employment”.

investment in those sectors and make easier a fast deployment of resources towards them.

8.2. Improvement of labor protection

The evidence about what has happened in 2002-08 suggests that a significant proportion of the increase in registered employment in formal enterprises was informal (not protected) employment. A number of reasons contribute to explain this trend: multiple labor regimes with lower protection than that included in the newly reformed General Labor Law, the private sector trend towards using personnel with no labor contracts or with no protection contracts and the drive towards turning informal many jobs in the effort towards reducing labor costs. It is also explained by the conviction of the private sector that competitiveness depends essentially of lowering labor costs –convincement originated in the Government widely disseminated opinion of 1991-99 that was unfortunately adopted by the following administrations. Consequently if labor protection is to be improved it is relevant to induce some changes in both legal and “*de facto*” labor institutions:

1. It will be needed that the Government explains and disseminates a basic criterion: the improvement of competitiveness essentially depends of total productivity growth that reduces total costs per unit of production and not from lower labor costs that decreases average labor costs per worker.
2. Once the previous message is delivered and gradually adopted by the great proportion of

Peru's enterprises, it will be possible to move towards labor institutions that are more coherent with the goal of increasing productivity.

3. Labor institutional change should aim at a greater labor relative stability which will allow the adoption of productivity growth incentives. The more relatively stable formal employment should include a more easy entry and exit with lower costs, that is to say, a lower labor cost per unit of production both when contracting new personnel and in laid offs. In this way, the productivity biased labor institutions retained the labor market flexibility required by enterprises in a more globalized context.
4. The latter includes a flexible–security scheme that could integrate the CTS as unemployment insurance and provide labor retraining and job searching for those affected by unemployment.
5. This scheme should be complemented by a diversified system of minimum wages: two or three minimum wages that respond empirically to the high productivity differentials per size of establishment and regional differences. The nominal minimum wage adjustment should pay attention to the expected rate of inflation and to productivity growth. In that way minimum wage adjustments may act as a signal and reference towards the link between wage increases and productivity growth in private enterprises. Hence the labor institutions would shift towards greater coherence with the goal of promoting productivity increases.

8.3. Policies for increasing productivity and incomes in informal sectors

The reforms, sound policies and external boom registered within 1992-2008 were important to explain the fast increase of private investment and GDP in 2002-08 with a higher involvement of the private sector. However, as it is pointed out in Morales, Rodríguez, Higa y Montes (2010); Rodríguez e Higa (2010) and Díaz, Saldaña y Trivelli (2010), those changes had little effect on the rates of informality of the Peruvian economy, which remained until today among the higher ones of Latin America. This is explained by the

very low decrease of the share of urban informal employment in total urban employment and to the fact that the very high share of traditional informal agriculture employment in rural employment remained unchanged.

However, it should not be confused the relatively rigid high rate of informality along time with the fact that there has been no changes within the informal sectors. The evidence shown in Rodríguez e Higa (2010) aims at one important phenomenon. Within not agriculture informal activities, between 2002 and 2008 takes place a very fast growth of output and productivity. Value added grew in that sector at a 9 percent per year rate between 2004 and 2008 and represented as average for that period 10 percent of national GDP. This explains why both employment and labor incomes grew in those activities very fast. This growth tends to be concentrated in urban informal commerce and services and much less in manufacture and construction.

Díaz, Saldaña y Trivelli (2010) showed that the opposite takes place in the agriculture informal traditional small scale sector, particularly those in the Sierra and Selva regions. There are very little advances in that sector except for the small scale production in the valleys of the Coast region that are integrated through the demand pull for commercial agriculture and exports.

Hence the aggregate behavior of informal sectors is an average of very different trends in the urban informal and the agriculture informal sector.

With regard to policies towards the urban informal sector, it is convenient to pay attention to what happens in reality and understand that such policies will have an impact in only a fraction of the IPU's: those with greater competitive potential towards the future. Hence, the essential issue is not to adopt policies that could harm their significant capacity for adapting and growing and promote measures aimed at:

1. Establishing that the transit towards formality is a voluntary one and that it involves a phase of learning by doing to avoid damaging their productive capacity.
2. Adoption of changes in several regulatory frameworks aimed at recognizing the informal

“A higher specialization of microfinance institutions, associative credit to groups of small scale agriculture producers and the reproduction of schemes and microfinance technologies already tested in many experiences, can contribute to ease the credit access constraint suffered by small scale rural informal units”.

reality of the country, easing the growth of informal units and allowing for a gradual transition towards formality.

3. Promoting among informal units the associativity in clusters and subcontracting with larger enterprises so policies can effectively reached them.
4. Strengthening access to credit, an essential step for productivity growth in informal units.
5. Strengthening access to managerial training, technical assistance and acquisition of new technologies.
6. For street vendors and service workers, which are the bulk of urban employment, the installation of commercial fairs and service centers.
7. Developing viable steps towards the improvement of labor and social protection.

In the case of the small traditional informal agriculture sector, the main goals are improving productivity and establishing stronger links with the markets in order to integrate this sector to economic growth. For this purpose the proposal includes:

1. Promotion of land titles and registration as a step to a stronger incentive and to the

use of land property as collateral for credit access.

2. Associativity of small producers for gaining access to new technologies that require higher economic sizes of land exploitation.
3. Strengthening access to rural education, both in coverage and quality and training in new simple technologies for small producers.
4. “Start a process of access to credit practically not existent for this segment due to the very low banking coefficient of the country and the absence of microfinance institutions with experience in the sector of small producer informal agriculture”.
5. Better access to technical assistance and inputs today not existent.
6. Once it is available an impact assessment of the program “Sierra Productiva” and if positive results are validated, it seems convenient the replication of such program at a larger scale in many rural districts of the provinces of the country, aiming at implementing a package of simple low cost technologies in order to raise productivity and incomes of peasant families.
7. Once a more diversified production and higher productivity are achieved, it will be needed joint private and public actions for the improvement of communications and road infrastructure in order improve the links with the markets and integrate the small scale agriculture sector to economic growth.

As it becomes clear from the previous paragraphs, public policies can not only focus on the formal sector development in a country where the informal sectors represent the bulk of employment. They must pay attention to issues that are essential for integrating the urban and rural informal sectors to economic growth. This is a necessary step if the goal is the gradual inclusion of the employment today located in the urban informal and agriculture informal sectors, which is the largest share of the country employment.

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