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RESTRUCTURING IN MANUFACTURING: CASE STUDIES IN CHILE, MEXICO AND VENEZUELA

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CONTENTS

ABSTRACT

This paper presents the results of an investigation of manufacturing firm strategies and changes in these strategies as a result of trade liberalization, globalization and transformations in the economic environment in which companies operate. The research concluded that these changes have brought about substantial changes in firms' behaviour. However, in spite of the importance of the influence of the economic environment on firms, the research also led to the conclusion that there is a margin for company strategy.

Innovative firms have adopted flexible behaviour and are upgrading their production and marketing capabilities. They have introduced significant changes in vertical integration, input procurement, technological innovations, incentive pay systems and management techniques, training and subcontracting distribution and retailing.

The transformation that has taken place at the core of the manufacturing business was one of the most interesting findings of the research. At least for the most innovative consumer-goods manufacturing firms, this core has shifted from being mainly concerned with production to combining manufacturing goods with distributing these goods, and often other domestic and imported goods as well, thereby providing such firms with a greater chance of simultaneously increasing their profits and defending their market share.

Finally, the investigation also showed that uncertainty surrounding economic policy leads to a substantial decrease in investment by firms. Such uncertainty explains why more firms do not change, or why they often do not change faster. Uncertainty about what they should do, as well as in respect to the sustainability of the economic policy has a twofold negative effect on entrepreneurs' decisions to transform their firms.

This suggests that there is a role for policy in terms of programmes that seek to encourage firms to upgrade. At the same time, it must be stressed that the most important role for policy is that of creating a stable economic environment in which firms can plan long-term investment.

RESUMEN

En el presente documento se dan a conocer los resultados de una investigación sobre las estrategias aplicadas por empresas manufactureras y los cambios que han sufrido a consecuencia de la liberalización del comercio, la globalización y la transformación del entorno económico en el que operan las empresas. En la investigación se concluyó que esos cambios habían modificado sustancialmente el comportamiento de las empresas que, si bien se ven muy influenciadas por las condiciones económicas, también tienen cierto margen de libertad para determinar las estrategias que aplicarán.

Las empresas innovadoras han adoptado una actitud de flexibilidad, y están ampliando su capacidad productiva y de comercialización. Asimismo, han introducido importantes cambios en la integración vertical, la adquisición de insumos, la adopción de innovaciones tecnológicas, los sistemas de incentivos salariales y las técnicas de gestión, la capacitación y subcontratación, la distribución y las ventas al por menor.

Una de las conclusiones más interesantes de la investigación es la referida a la transformación que se ha producido en lo que respecta la tipo de actividades que realizan las empresas manufactureras. Al menos en el caso de las industrias productoras de bienes de consumo más innovadoras, el predominio de las actividades productivas ha sido sustituido por una combinación de manufactura y distribución de productos de fabricación propia, y en muchos casos también de distribución de otros productos nacionales e importados, lo que ofrece a las empresas mejores posibilidades de incrementar sus ganancias y proteger su participación en el mercado.

Por último, la investigación también demuestra que la incertidumbre con respecto a la política económica redunda en una marcada disminución de las inversiones de las empresas. Esa incertidumbre explica el hecho de que no haya más empresas dispuestas a introducir cambios o a hacerlo más rápidamente. La incertidumbre con respecto a lo que deben hacer y a la sustentabilidad de la política económica tiene dos efectos negativos en lo que respecta a la decisión de los empresarios de introducir modificaciones en sus firmas.

Esto indica que las políticas pueden cumplir una función en este ámbito, en lo que respecta a la formulación de programas que alienten el perfeccionamiento empresarial. A la vez, cabe señalar que la función más importante de las políticas es la creación de un entorno económico estable en el que las empresas puedan planificar inversiones a largo plazo.

INTRODUCTION[1]

The countries of Latin America have undergone important transformations in the past few years. There have been radical changes in macroeconomic and trade policies and in the general economic environment, such as in matters relating to state intervention and the regulatory framework. These changes have been accompanied by increased globalization of world markets. As a result, there have been important changes at the macroeconomic level and in the way the economies of the region relate to the world economy. There have also been significant transformations in the behaviour of firms.

While there have been many studies on the macroeconomic changes that have taken place in Latin America, studies on the microeconomic changes are relatively scarce. One of the first of these studies examined how Chilean firms adapted to such changes during the 1970s and early 1980s (Corbo and Sánchez, 1984). In recent years, along with a consensus in most countries on what macroeconomic policies should be adopted to achieve long-term stability, there has been a growing interest in doing research on changes in manufacturing companies' behaviour and the way they are adapting to the new economic environment.[2]

This paper presents the results of an investigation into manufacturing firm strategies and changes in these strategies as a result of trade liberalization, globalization and transformations in the economic environment companies are operating in. The main questions this research set out to answer were the following. Are Latin American firms in traditional consumer-goods manufacturing sectors changing their strategies or are they for the most part functioning as they did 20 years ago? How determinant is the influence of macroeconomic events on microeconomic ones and what is the margin that companies have for individual behaviour? If traditional consumer-goods manufacturing firms' behaviour is changing, what are the most important areas in which these changes are taking place? What are the strategies of the firms in these industries that are most advanced in the modernizing process in the region?

This investigation was carried out in medium-sized and large traditional consumer-goods manufacturing firms in Chile, Mexico and Venezuela. From the onset, it was decided to focus mainly on traditional consumer-goods manufacturing firms, since it was assumed that they were among the most representative of the medium-sized and large manufacturing firms that could be found in all three countries. The sectors included covered a wide range of industries, but strongly emphasized garment firms, as a way of comparing the behaviour of firms across countries in comparable industries. Garment firms were chosen because they belong to an industry that was established several decades ago, not only in the countries included in the research, but in most other Latin American countries as well. It was also interesting to study this industry

[1] The author wishes to thank Ricardo Bielschowsky, Jorge Katz and Joseph Ramos for many valuable comments that led to this paper.

[2] Baumann, 1994; Bielschowsky, 1994; Castillo, Dini and Maggi, 1994; Katz, 1997.

because it has been strongly exposed to import competition. The impact of globalization on the garment sector world-wide also contributed to making it an interesting sector to study.

Over 40 garment firms were included, in the study, although comparable data were only available for 38 of them.[3] Hence, the conclusions presented in this article are inferred mainly from garment firms.[4] Interviews with firm executives through open-ended questionnaires were complemented with plant visits, as well as with meetings with trade-association representatives, industry experts and government officials. Firms were chosen so as to have a diversity of companies, but they do not make up a representative sample. Most of the interviews took place in 1993, but some were conducted in 1994 and 1995. In some cases, initial interviews were supplemented by follow-up visits, so as to obtain a better perspective of changes in company strategy over time. The investigation was carried out within the framework of the ECLAC/UNDP Project on Innovation and Competitiveness.[5]

This paper is structured in the following way: the first section describes the main characteristics of the behaviour of a traditional consumer-goods manufacturing firm under import substitution. This section is partly based on the same interviews, with firm executives, who were questioned about the history of their firm. The second section presents the main findings of the research concerning the behaviour of a traditional consumer-goods manufacturing firm that is in the process of modernizing. The last section presents the main conclusions.

Finally, a warning: while there are many different definitions of and indicators used to measure competitiveness, in this paper the term “competitive” is used as a synonym of “modernizer”: when a firm is described as being competitive, this should be understood as meaning that it is an innovative firm, that is one that is striving for survival and change, trying to find the most appropriate ways to adapt to a new environment and, as a result, gaining a relative market share.

1. Company behaviour under import substitution

What are the main strategies of a firm manufacturing consumer goods under import substitution? This section tries to answer this question by describing the main features of the evolution of a representative firm.

The typical firm interviewed in this survey is a family company that was initially set up in a small workshop in sectors such as the garment or shoe sectors, or in a small metal-casting plant. This small workshop slowly expanded, buying new equipment, moving to new premises and becoming a manufacturing firm.

The transition from small workshop to manufacturing plant was often quite difficult and risky, in the face of competition from many other similar workshops. Financial assistance for small firms was generally unavailable, so that one of the critical

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[3] See appendix.

[4] However, they appear to be valid for other traditional consumer-goods manufacturing firms, such as those of the footwear and leather industries (Carla Macario, “Economies of scale and learning while exporting in firms exporting non-traditional goods in Chile, Colombia and Mexico”, ECLAC, forthcoming (1998).

[5] ECLAC/UNDP RLA/88/039 Project on Innovation and Competitiveness. The interviews were carried out by ECLAC staff members Mr. Wilson Peres, Ms. Martine Guerguil and the author.

factors in the transition was the ability to accumulate enough financial resources to expand. Hence, very few workshops were able to be become manufacturing firms unless the entrepreneurs were successful in obtaining sufficient funds, often thanks to family support or to sheer luck.

Production was generally initially organized along the same lines as in the workshop and slowly evolved into a pattern broadly based on the organization of work in plants in developing countries.

Plant lay-out was often designed by the entrepreneur himself. The firm manufactured a wide variety of products with unsophisticated design and quality standards. This was appropriate for a growing body of consumers who were just beginning to have access to manufactured goods and were therefore not very demanding.

Management was generally the responsibility of family members and did not follow professional criteria. Production workers were paid fixed wages or, in some cases, on a piece-work basis, without strict quality requirements. Firms did not provide training.

Most production operations were carried out internally by the firm. Subcontracting was very rare and only used for very specific operations that it was difficult to carry out in the plant itself, or to satisfy unexpected surges in demand.

In general, inputs were manufactured domestically, given import-substitution policies, as well as the costs and delays involved in importing them from abroad. Larger firms tended to be vertically integrated, manufacturing inputs for their own use, as well as to sell to other domestic firms. There was a powerful incentive for firms to become as integrated as possible since companies selling intermediate goods were often rivals in the finished product market.

Most goods produced were sold on the domestic market. It was generally difficult for consumer-goods manufacturers to export on a regular basis owing to a combination of factors, such as the anti-export bias resulting from high tariffs or from non-tariff barriers; the relatively low level of the exchange rate in most countries throughout nearly all of the import-substitution period; and the very high, transportation costs within the region.

Tariff and non-tariff barriers in other Latin American countries, which would have been among the most attractive markets, also contributed to making exporting less appealing. Protectionism and transport costs made it difficult to export to the industrialized countries.

For the most part, firms tended to export occasionally to neighbouring countries, particularly those with a lower degree of industrial development. Exports were countercyclical, increasing when there was a drop in domestic demand or a depreciation of the exchange rate. The products that were exported were the same ones that the firms sold on the domestic market. Incentives were set up in such a way that most consumer-goods firms specialized in manufacturing for the domestic market, protected from external competitive pressures.

By the time they had been able to overcome the initial financial constraints and had reached a certain production threshold, companies generally had relatively easy access to financial support from the Government, provided credit at low and often subsidized interest rates. This allowed the companies to continue expanding. Once companies reached this stage, the pressures to increase productivity were not as strong as when the financing was private.

In addition, by the time the firm had established a manufacturing plant of an adequate scale for the dimensions of the domestic market, competitive pressures from similar domestic companies were considerably reduced. The small dimensions of the domestic market often allowed it to be controlled by a limited number of firms that engaged in collaborative behaviour, dividing it up into market shares which remained quite stable as time went by. Consumers were just beginning to acquire industrial goods and they were not very demanding.

So, once the firm had achieved a minimum production scale and a given share of the domestic market, the typical consumer-goods manufacturer would reach a plateau. It was perfectly possible for the firm to continue operating in this way, with family-style management: there were no strong pressures pushing the firm to continue evolving. Its environment became quite stable and safe.

The lack of strong competitive pressures, once the firm had passed a certain threshold, had repercussions on the way production was organized. Productivity increases, quality improvements and cost reductions were not compulsory. Hence, while production was broadly organized following the guidelines used in industrialized countries, firms were not required to continue introducing the changes that would have led to improvements in productivity and quality.

The import-substitution development model allowed the countries in the region to create a manufacturing sector. Without it, most countries would at present have a substantially smaller number of industrial firms. This model provided for the learning and evolution that make it possible to turn a workshop into a manufacturing firm. It also contributed to adapting several generations of rural migrants into industrial production workers. Furthermore, an important proportion of the manufactured goods the region exports nowadays comes from firms that exist thanks to import-substitution industrialization policies. However, by the 1960s, this model had become a constraint on the development of Latin American countries (ECLAC, 1994).

Between the mid-1970s and the late 1980s, most of the countries in the region substantially transformed their macroeconomic and trade policies, as well as most of the regulatory environment. These changes had a considerable impact on firms in the region, altering the framework they were used to operating in and submitting them to strong import-competition pressures. The desire to know more about the behaviour of manufacturing firms today was the driving force behind the research being presented in this paper.

2. Main findings

2.1 Influence of macroeconomic and trade policies

What is the influence of macroeconomic and trade policies on firms' behaviour? An examination of differences in behaviour between firms in Chile, Mexico and Venezuela, and of the evolution within a given country as time goes by is useful in assessing the importance of this influence.

Most Chilean firms had maintained their production levels or increased them in the year that preceded the interviews. This was due to the general macroeconomic stability and to sustained growth in Chile. It was also due to the fact that the firms that had managed to survive the shock of the industrial restructuring that took place at the end of the 1970s and the beginning of the 1980s were relatively strong, even under the pressure of increased import competition.

Mexican firms had a two-tier behaviour. Most of them had had a sharp drop of up to 30% in their output in response to the slow rate of growth of the Mexican economy up to 1993 and to increased import penetration. However, several firms that had invested heavily in upgrading and/or that exported had increased their output.

In contrast, most Venezuelan firms had had a sharp drop in output owing to the considerable decrease in demand that resulted from the political uncertainty in the latter part of 1992 and very strong competition from imports.

Macroeconomic changes appear to have become even more relevant for manufacturing firms after trade liberalization. For example, an appreciation of the exchange rate results in substantial increase in import-competition, in a very short period of time.

Further evidence of the impact of macroeconomic trends on firms' behaviour is the evolution of exports by Chilean firms. While in 1990, several of the companies surveyed in this country belonged to a category that could be classified as having "moderate exports", regularly exporting between 5% and 10% of their output, by 1992 there were no firms in this category in Chile. Firms had either opted out of the export market completely or had substantially increased their export efforts and the percentage of output they exported. The growth of domestic demand combined with an appreciation of the exchange rate polarized the firms' export behaviour, pushing most of them to focus exclusively on the domestic market, while those which wished to continue exporting had to become increasingly specialized in the export market. This is illustrated by the fact that while, among Chilean firms interviewed in given sectors, the number of firms exporting decreased as the exchange rate appreciated, average exports for those that exported regularly increased from 15.6% of their output in 1990 to 44% in 1992.

The fact that the evolution of the firms' output was heavily influenced by macroeconomic events in the three countries shows the importance of the macroeconomic environment for company behaviour.

Similarly, there is a clear link between exporting behaviour and the degree of openness of the economy: none of the Venezuelan firms were exporting at the time of the interviews (March 1993), while there were several exporting firms in Chile and even more in Mexico. These two countries had liberalized trade before Venezuela and it was clear that there would be no policy reversal. Venezuela, on the other hand, had liberalized trade late in the 1980s but, at the time of the interviews, there were serious doubts that this policy would be sustained. The events that have taken place in Venezuela since then have proved that this was a correct assessment of the situation.

The strong influence of macroeconomic and trade policies on firms' behaviour means that the implications of these policies must be carefully evaluated. This is particularly important at times when several countries in the region are undergoing strong currency appreciation. Similarly, the effects on firms' behaviour of uncertainty in respect to policy must also be taken into account. An example of this is what took place in Venezuela from 1993 on. Another example is what has been happening in Mexico since December 1994, although further research needs to be carried out to evaluate the implications of these recent events for manufacturing firms' behaviour.

2.2 Margin for microeconomic behaviour

However, in spite of the important influence of the economic environment on firms, the research also leads to the conclusion that there is a margin for company strategy: not all the Chilean firms were modernizers, not all the Venezuelan firms were going under.

Some firms can manage to be competitive in spite of an adverse environment and of being in a subsector where there is very strong import competition. One example of this are two Venezuelan firms that were willing to continue investing, training their personnel and to search for new survival strategies while most firms in that country were seeing their output drop and their market share dwindle owing to the recession and to import competition. These modernizing firms had gambled that they would survive and were following an active upgrading strategy in order to be competitive.

Another example can be seen in several Mexican industries characterized by particularly strong import penetration, such as the garment and shoe industries. While many firms in these industries had closed down, several surviving firms were doing remarkably well, thanks to their efforts to adapt to the new environment.

More research should be carried out on individual firm strategies and the capability that some firms have to learn and adapt to a new environment. There is much to be learnt from these firms and knowing more about their strategy would be useful for policy design. Efforts should also be made to provide economic theory with a more solid theoretical framework for analysing the scope for microeconomic behaviour (Nelson 1991).

2.3 Changes in firms' behaviour

The general behaviour of a manufacturing firm under import-substitution, as described above, is still an accurate description of the behaviour of some firms today. However, the research led to the conclusion that the behaviour of many firms in the region is undergoing substantial change.

The interviews with firm executives and private-sector representatives carried out during the investigation showed that the entrepreneurial environment is very dynamic and that changes are taking place. It is possible that many more transformations are occurring than can be perceived at an aggregate level, partly because some are still incipient and also because many of the changes are in conflicting directions.

In order to survive, manufacturing firms have been forced to adapt to their new environment. This has required substantial investments, which can be very costly given the limited availability of long-term financing, as well as the high interest rates that have prevailed in the region, particularly under stabilization policies.

From the information gathered during this investigation, what are the changes in consumer-goods manufacturing firms in Chile, Mexico and Venezuela, today? The present section addresses this issue, first by describing the behaviour of most modernizing firms and then by concentrating on some specific areas where there have been major changes.

Modernizing firms are specializing, decreasing the number of production lines, while increasing the variety of goods manufactured within the production lines they maintain. They are decreasing the size of lots and the time that it takes to produce them. They are also decreasing inventories, particularly those of final goods.

To achieve this, companies are changing their lay-out, following the advice of external consultants that they hire themselves or that are contacted through foreign firms, such as clients or companies they have a licence from. The changes in lay-out are no longer conceived as something that will remain in place for a long time, but rather are implemented with flexibility and the willingness to adapt it regularly as changes in demand require.

The changes in lay-out are carried out with the purpose of easing the production flow and improving quality control. The introduction of automated control of the production flow also enables the firm to have precise information on individual worker productivity and to detect bottlenecks quickly.

The plants that are modernizing most successfully are those that have been able systematically to apply production standards and efficiency goals following Fordist practices. This has enabled them to increase productivity substantially. Production routines have also been modified to introduce more quality check-points and, in the most advanced plants, to increase individual worker responsibility for quality standards. In respect to whether flexible specialization and greater worker autonomy are replacing Fordist practices, the research confirms the findings of a previous case study in the Brazilian shoe industry that "suggests that more important than the boundaries are the connections between Fordism and flexible specialization" (Schmitz, 1995).

Quality has also improved thanks to substantial upgrading of design capability as professional personnel are hired and automated equipment is put in place.

The desire to improve quality and to attain efficiency goals have led firms to modify pay systems. The changes implemented for this purpose, described below, indicate that firms are seeking pay systems that fit their need to upgrade productivity and quality standards.

The changes in the organization of production and in pay systems are accompanied by changes in management practices, as firms pass from a family-based management style to one following professional guidelines. These changes are in response to an increasingly competitive environment, but often coincide with a generational transition within ownership.

The following are the areas in which the most important changes are taking place.

(a) Vertical integration

An illustration of the changes in the macroeconomic and trade policies resulting in changes at the microeconomic level is the degree of vertical integration within firms. High degrees of vertical integration were advantageous under import-substitution policies because firms selling intermediate goods had considerable market power, particularly when they sold to firms that were rivals in the finished-product market. However, this is no longer the case given the increased options for input procurement outside the country resulting from trade liberalization.

In effect, the interviews in vertically-integrated plants, provided evidence that often nowadays a high degree of vertical integration has gone from being an asset to being a liability for firms, as it restricts their flexibility for input procurement. On several occasions, managers in charge of producing final goods complained about having to use inputs made within the same firm, an obligation that restricted their possibilities of purchasing a variety of inputs at low cost, in a reasonable period of time. In most cases, it was not only cheaper for them to buy inputs outside the firm, but the delays involved were also reduced. Every one of the vertically-integrated firms said that they were using increasingly lower proportions of inputs produced within the same firm.

Plants manufacturing non-competitive intermediate goods have been particularly severely affected, since not only has there been a decrease in the inputs they manufacture for plants within the same firm, but the demand for their goods from other firms within the country has plummeted. Quite often, unless they provide a very competitive input, vertically-integrated plants are an obstacle to the flexibility with which firms now need to operate in order to be able to respond quickly to changes in demand.

Some companies have begun to address this issue by setting up different firms within a conglomerate and decreasing the obligations of firms to buy inputs from related plants. In several cases, the move towards vertical disintegration has gone even further as firms that were formerly integrated have separated into different firms, with separate ownership. This allows firms to specialize in separate segments of the production sequence, gaining economies of scale.

(b) Utilization of imported outputs

Along with the decrease in vertical integration there has been a significant change in input procurement, as firms in the three countries use increasing amounts of imported inputs. This was something that could have been expected after trade liberalization processes combined with currency appreciation. There was evidence of it in the three countries, as all firms had increased their use of imported inputs in the previous three years.

Chilean firms used higher percentages of imported inputs than their Mexican and Venezuelan counterparts. This is due to the fact that trade liberalization started earlier in Chile than in the other two countries. It also results from the small size of the economy, which limits the variety of inputs manufactured domestically.

For firms that were not vertically integrated, trade liberalization was an opportunity to buy a greater variety of inputs, often of better quality and at lower cost. The use of imported inputs has played an important role in firms' strategy to become more competitive.

(c) Technology

A rough estimation of the technological level of the firms was made by comparing equipment during the interviews with firm executives and visits to the plants.

The first finding is that when the technological level of firms in the same industry is compared across countries, the differences, surprisingly, are much smaller than would have been expected given the differences in the sizes of the economies. While it is true that some of the firms with the most advanced technologies were Mexican, the average gap between similar industries in the three countries does not seem to be very wide.

In contrast, there is a wide range of technological levels between firms in the same industry within a same country. This was the case for Chile, Mexico and Venezuela. This range is evidence of the heterogeneity of Latin American industry. At least in traditional consumer-goods manufacturing sectors, different technological levels seem to be able to exist side by side. This dispersion appeared to be greater in Mexico than in the other two countries.

It was also surprising to find that, for large and medium-sized companies, there is no systematic correlation between the size of the firm and its technological level. Several of the largest firms interviewed had quite low technological levels, while some medium-sized firms had better equipment, as well as more modern management practices. This may be due to the fact that some large firms that are older and accustomed to operating in an import-substitution environment are addressing other issues, such as increasing flexibility and subcontracting, before introducing technological innovations.

Similarly, there also appears to be a lack of systematic correlation between investment in hard technology and firm competitiveness. Several firms had relatively sophisticated equipment, without being very competitive. For example, some firms, particularly in Venezuela, had relatively advanced equipment that they often did not use.

However, while a relatively high technological level does not imply that the firm is competitive, the reverse does seem to be true. More than the technological level they had attained, what seemed to characterize modernizing firms was the search for ways of increasing their technological level by acquiring the specific equipment that would allow them to solve particular problems.

In other words, more than expenditure on capital goods for the whole plant, what characterized modernizing firms was their efforts to, in a way, fine tune the incorporation of technology in the plant, and to do so systematically, on a permanent basis.

(d) Incentive pay systems and management techniques

In most firms in the region production workers are still paid on the basis of fixed wages that are a function of the time spent at the workplace and are often linked to the evolution of the minimum wage. Some firms also have piecework.

However, the goal of improving productivity and quality has led many firms to explore new pay systems. A growing number of firms interviewed in the course of the research are trying out new ways to pay production workers that would result in productivity increases. For example, most of the highly exporting firms were using new schemes to pay their production workers, schemes that are innovative, at least in respect to current practices in the region. Such schemes include incentives for attendance and achieving quality, as well as productivity goals based on international industrial standards.

Efforts in this direction were most frequent in Mexico. Half of the firms interviewed in that country had innovative pay schemes in which attendance and quality incentives could amount to up to half the workers' monthly wage. The purpose was clearly to find the pay system that would best enable the firms to improve their productivity, as well as the quality of their products. There are even a few firms in Mexico that are paying an extra bonus in function of the worker's capability and willingness to work in different positions within the plant. Similarly, follow-up visits to Venezuelan firms at the beginning of 1995 showed that the most modernizing firms in that country were also training workers to carry out multipurpose tasks.

The companies that were introducing new ways to pay their workers were also among the most dynamic, as well as the most innovative in other areas, such as in the introduction of new management techniques. In fact, this last characteristic is almost a prerequisite for incentive pay, since setting up more sophisticated pay systems than those most frequently used in Latin America requires procedures that allow careful monitoring of the productivity and quality of the work of individual workers.[6] The managers of these modernizing firms say that one of their most important competitive advantages is precisely their human-resources practice. While it is not yet apparent which are the most efficient systems, companies are clearly aware that improving productivity and quality requires innovations in incentive pay systems.

(e) Training

Most of the firms in Chile and Venezuela provided very little training for their workers. This was particularly surprising in the case of the former country since Chilean firms can obtain a tax credit to cover the cost of some training activities and entrepreneurs in that country stated that deficiencies in human capital were among the greatest competitive disadvantages they faced (Macario, 1995).

Mexican firms, on the other hand, appeared to be much more willing to spend resources on training their personnel, although, on average, the amount spent is quite small. Some of the companies interviewed even had small schools in the plant, where not only training but also general education programmes were provided.

Mexican companies' greater disposition to train their workers is due partly to a combination of the lower average educational level of the workforce and the various training programmes being offered by the governments (Federal and regional).

However, the main explanation for Mexican firms' greater training efforts is their wish to achieve a substantial increase in productivity to counter the competitive pressures to which they are being submitted. The firms that are investing more resources and energy in training are precisely those that are trying to overhaul their entire organization.

(f) Subcontracting

When import-substitution policies were predominant, there were firms in the region that subcontracted part of their production, but this tended to be the exception rather than a frequent practice. Most large firms were not under great pressure to decrease costs and they had a relatively stable market share. If new operations had to be carried out on a regular basis, they ended up being undertaken internally in the firm. Subcontracting was generally carried out for very specialized tasks or for unexpected surges in demand.

The situation now appears to have altered radically. One of the most relevant changes observed during the interviews was the remarkable increase in subcontracting by firms in the region. This increase results from changes that are occurring both at the global level and within the region.

In the first place, there has been a considerable surge of international subcontracting as firms establish dynamic networks on a worldwide basis, thanks to the decrease in transportation costs and improvements in telecommunications (Dicken, 1992).

Meanwhile, in Latin America, trade liberalization processes combined with an appreciation of the exchange rate have exposed firms to very strong competitive

[6] One of the innovations most frequently observed was the introduction of computerized systems that allow the control that permit the monitoring of production flow and of inventories.

pressures. Many companies have been forced to downsize and decrease costs. Subcontracting plays a key role in firms' survival strategies, allowing them to decrease fixed costs and to respond more quickly to changes in demand.

Most of the firms interviewed had increased the manufacturing operations they subcontracted in recent years. Moreover, most of them expected subcontracting to increase substantially during the years to come. Some of them subcontracted the manufacturing of products they had previously produced internally in the firm, but for which production lines had been closed down. In other cases, firms had decided to centralize product design and subcontract most of the manufacturing process.

While an increase in subcontracting could have been reasonably foreseen at the beginning of the investigation, the extent to which it is practiced in Chile, Mexico and Venezuela is quite surprising. Not only has subcontracting within the country itself become prevalent, but many firms were subcontracting abroad. In some cases, the principal firm subcontracted to a firm in a neighbouring country that had a cheaper and better trained workforce, as was the case for the Venezuelan firms that subcontracted operations in Colombia. In other cases, the companies had decided to gain a competitive edge by going to the region that produces the goods that are taking market share from them, that is, they subcontracted directly in Asia.

This practice, which is being carried out in a large variety of sectors, is particularly widespread in garment and footwear manufacturing. Rather that letting themselves be displaced from Latin American markets by Asian products, firms have decided to subcontract at least some production lines directly in Asia.

While some firms have gone all the way, practically shutting down domestic production and concentrating instead on distribution, most firms have reacted in a way that will allow them much more flexibility in the long run: they subcontract production in those lines in which they are less competitive, while trying to become very competitive in the production-lines they retain. In this way, if there are changes, such as a depreciation of the exchange rate, they will still have manufacturing capabilities and can then increase domestic production. Meanwhile, this strategy allows them to defend their market share in the domestic market, particularly given exchange-rate appreciation and the remarkable surge of Asian exports, at low costs and of ever-increasing quality.

This practice is much more widespread than is publicly perceived. Entrepreneurs are reluctant to mention it, more so in Mexico and Venezuela than in Chile. This is because they fear a negative reaction; another reason is that many trade associations are demanding government protection against what they perceive to be unfair competition from Asian products. The entrepreneurs are also reluctant to reveal what is one of the key elements of their competitive strategy. But the fact is that the most competitive firms in the region are following this strategy and it is a very sensible one, allowing the company to survive and concentrate on manufacturing the products in which it is competitive.

(g) Distribution and retailing

For most manufacturing industries, distribution and retailing did not play a key role when import-substitution policies aimed at creating a domestic industrial sector were prevalent. Productive activities were favoured over distribution and it was much easier to obtain subsidized credit to set up an industrial plant than for outlets. Furthermore, industrial manufacturers had substantial market power over retailers, who did not have much choice in purchasing their merchandise. Hence, production was emphasized rather than retailing; even if manufacturers often distributed their own goods directly to consumers, the core of the manufacturing business was the plant.

Circumstances have changed dramatically for most of the traditional consumer-goods manufacturing industries. By opening up their economies, Latin American countries have enabled their consumers to choose among a wide variety of goods. Import penetration is very strong. Retailers are no longer restricted to goods produced domestically. This has produced a shift in manufacturers' activities.

This shift became obvious in the course of the investigation in Chile, Mexico and Venezuela. Most of the executives of modernizing firms said that their main concern was to become competitive in distribution and to achieve name recognition for their brand. They said that this was the single most important factor for the survival of their manufacturing activities, as the market was flooded with goods from other countries.

Because of this goal, at the same time as the decrease in the degree of backward vertical integration, there has been a substantial increase in investment to increase forward integration: for many manufacturing companies, ensuring the presence of their brand in the domestic market and a strong retail structure allows them to ensure that they will survive as a firm.

While this situation was noted in all three countries it was most evident in Chile. Almost all of the company executives interviewed in that country said that ensuring a good retailing system was of the uppermost importance to them. Sometimes the company itself owned the retail stores, sometimes it did not; but in any case, retailing is a crucial aspect of firm strategy.

The fact that while this situation was also observed in Mexico and Venezuela, it was not as prevalent there as in Chile, due to the relatively small size of the Chilean domestic market, so that capturing market share is more important. It also results from the fact that foreign trade before Mexico and Venezuela, and that many firms in Chile were forerunners in recognizing the importance of retailing for manufacturing firm strategy.

Whatever is the main reason, the fact is that while the trend was much more significant in Chile, the importance of establishing solid distribution networks was also a key element of the strategies of the most competitive firms interviewed in Mexico and Venezuela. One Venezuelan firm executive who runs a very interesting, innovative firm stated the following: "If I had any investment resources available, I would open new stores". Similarly, the chief executive officer of the Mexican firm that was among the best organized manufacturing plants visited believes that his greatest competitive disadvantage is his lack of forward integration.

Another indication of the importance of this trend is the fact that many companies that were investing were actually concentrating most of the resources on improving the distribution of the firm's products, rather than in manufacturing itself. In fact, technological innovations, such as on-line sales and inventories, were often introduced with the same purpose. Similarly, firms frequently tend to focus training efforts on marketing employees, rather than on production workers.

A strong distribution network also allows manufacturers to distribute imported goods, thus defending the market share of their own brand as this provides them with the opportunity to have some control over the prices at which competing imports are sold, as well as of making profits on their sales. This strategy appears to be very sound from the manufacturer's point of view, as it allows firms to benefit from import surges and to continue manufacturing the production lines in which they are still competitive, while simultaneously retaining their market share.

(h) Exporting firms

What were the differences between modernizing firms in general and those that regularly exported a significant proportion of their output (over 15% or 20%)?

In respect to sales and employment, the exporting firms included in the investigation were quite similar to those that exported only occasionally, those that regularly exported a small percentage of their output and those that did not export at all. While exporting firms tended to have slightly higher employment and sales levels than non-exporting firms, the differences were not significant between the two groups, for a given industry.

There does appear to be a minimum sales threshold beneath which it is difficult to find firms that export regularly. This is probably due to the fixed costs involved in exporting, such as purchasing equipment that enables the firm to achieve better quality, and in acquiring clients abroad, as well as the paperwork required to export. However, above a certain level, there no longer seems to be a systematic correlation between firm size and export activity: while in a given industry most exporting is effectively carried out by large firms, there are medium-sized firms that export and many large firms that do not export at all. The growing number of Latin American medium-sized firms that are exporting is an interesting phenomenon that deserves further study.

However, the one significant difference between exporting and non-exporting firms was the greater concern that the former have for quality improvement. Exporting firms are increasingly exporting goods manufactured according to export-market specifications, instead of simply exporting goods that are identical to the products they sell on the domestic market. The importance of quality for exporting firms has implications for lay-out specifications, as well as for training and incentive pay systems. Exporting firms provided training more frequently than non-exporters and tended to have introduced more innovations in pay systems.

Exporting selling in the domestic market should not necessarily be viewed as involving a trade-off. In fact they can often be interrelated choices, particularly in small economies such as the Chilean one. It may be that a firm needs to export in order to attain the scale that allows it to be competitive in the domestic market. Exporting also provides learning opportunities for firms, as they learn how to satisfy requirements in more demanding markets. This learning has a positive spill over in the domestic market. Simultaneously, a solid standing in the domestic market allows the firm to bear the cost of going into new export activities.

The investigation leads to the conclusion that in traditional consumer-goods industries, there are no significant differences between large and medium-sized modernizing firms that focus mainly on the domestic market and exporting firms. The only exceptions are the importance of quality for exporting firms and the learning opportunities provided by exporting. It may be said that in general exporters are modernizers, but that not all modernizers export.

2.4 Flexibility

The previous sections have described how the most innovative consumer-goods manufacturing firms in Chile, Mexico and Venezuela are undergoing important changes in the way production is organized, in vertical integration and input procurement, as well as in management style and in pay systems, among other features. Companies are adapting and learning how to be competitive in the new economic environment prevailing in the Latin American countries.

However, more than a massive overhaul of the firm that is carried out once and for all, the most relevant characteristic of these innovating companies is the flexibility they have continuously to improve their performance, for example thanks to the ability to pinpoint the areas where bottlenecks are most severe. Transformations are now carried out on a permanent basis sometimes by small changes at a time. These transformations end up leading in the long run to a massive overhaul of production practices, but of a different nature than can be achieved in a once-and-for-all effort.

The importance of such flexibility should not be underestimated: firms that have the highest success rate (and the highest survival rate in the face of very adverse shocks, such as companies in Venezuela) are those that are able to react quite rapidly and adapt to new circumstances. This flexibility plays a role both in production and in distribution.

For example, one of the areas where there is evidence that flexibility is important is in enabling firms to have more adaptable production systems that allow them to react to changes in consumer demand and to produce a wide variety of goods within a reduced number of production lines. Changes in production are increasingly demand-led. The time it takes for firms to introduce changes in response to changes in demand has decreased.

Another area in which this flexibility is critical is the ability firms have to react to changes in the exchange rate, retaining a minimum production capability that enables them to cover their market share, while being willing rapidly to become themselves distributors of some lines of imported goods when there is a substantial appreciation of the exchange rate.

The strategy of becoming the main importers of goods competing with their own products and distributing them through their own distribution channels was one of the strategies hesitantly adopted by a few firms in Chile in the late 1970s and early 1980s in retrospect, this strategy was to become very successful.

Entrepreneurs have learnt from this past experience, and the most successful and resilient firms in the three countries are those that have the flexibility to rapidly become importers and distributors of competing imported goods. They have realized that it is the best way to be able to manage prices and to set prices of imported versus domestically produced goods according to their production capabilities. This strategy allows the firm, while continuing the production of its most competitive goods, to use its own distribution channels. Behind this strategy is the idea that if the firm does not do this, another firm will seize the opportunity and displace it.

However, while becoming distributors of imported goods is a strategy that is increasingly being put in practice by enterprising Mexican and Venezuelan manufacturers, and continues to be practiced by the Chilean ones, it is not always readily acknowledged by them, since they are reluctant to admit that they are becoming strong importers of competing goods.

Summary table: Manufacturing firm strategies in the 1990s

	Modernizing firms	Non-modernizing firms
Areas in which differences are highly significant	Flexibility in the continuous introduction of changes in production and distribution in response to changes in demand and in the macroeconomic environment (such as the exchange rate); Hiring of external consultants for upgrading; Productivity is measured; Innovative incentive-pay systems; Professional management; Production changes are demand-led; Large increases in subcontracting based on long-term relationships; Strong interaction between production and distribution; Whenever possible, closer ties with retailers or significant increases in retailing carried out by the firm itself;	Rigid passive behaviour; Exclusive reliance on in-house expertise; Productivity data is unavailable; Traditional pay systems; Family-based management; Limited changes in response to production concerns; Subcontracting is non-existent or quite limited; Firm focuses exclusively on production; Loose ties with retailers;
Areas in which differences are significant	Substantial decrease in vertical integration: related plants become independent firms; Significant increase in the utilization of imported inputs; Efforts to improve design capability; Decreases in inventories; Regular changes in lay-out; Reduction in the number of production lines; Increased product diversity within production lines; Quality is important; Individual worker responsibility for quality; Technological innovations are introduced at key points, after thorough assessment of existing bottlenecks; Technological innovations are introduced regularly on a continuous basis; The firm provides training for its workers.	Decrease in vertical integration; Increase in utilization of imported inputs; Limited design capability; Large inventories maintained; Rigid lay-out; Number of production lines maintained; Limited product diversity within production lines; Quality is not a priority; Quality control at a few points of the assembly line; If introduced, technological innovations are bought in a package, not in response to a careful assessment of the plant's strengths and weaknesses; Technological innovations are introduced on a once-and-for-all basis; The firm does not train its workers.

2.5 The shift in the core of the manufacturing business

In addition to the importance of flexibility for firms' strategy, another relevant feature of the changes that are occurring in firms' behaviour is the shift in what constitutes the core of the strategy.

Under import-substitution, manufacturing firms had a relatively advantageous position in respect to distributors and retailing firms: they could obtain credit at preferential rates and special permits to import inputs, and could lobby to stop imports of competing goods once they had set up local production facilities, among many other advantages. Even if some manufacturing firms were also retailers, the core of the manufacturing business was production.

Today, the situation for Latin American manufacturing firms is radically different. They face vigorous competition in the domestic market, both from imports and from other domestic firms that are trying to defend their market share. Consumers have also grown more demanding as they have had access to a wider variety of goods, not only as a result of trade liberalization, but also of the appreciation in the exchange rate.

A competitive manufacturing firm today not only has to upgrade the organization of production, but must have an active and aggressive retailing strategy. Trade liberalization, particularly in a context of currency appreciation, has significantly increased the importance of distribution and retailing. The most innovative manufacturing firms studied in the survey were those that had a network of retailing outlets, with the goal of preserving market share in the domestic market and benefiting from selling imported goods. Retailing also allows manufacturing firms to increase their profit margins since it is in essence a non-tradable activity, in which profit margins have soared in recent years. It also allows firms to manage flexibly a product mix of goods manufactured in their own plants and imported goods, depending on the evolution of the exchange rate.

The follow-up interviews carried out in Venezuelan firms in 1995 showed that the most competitive firms were putting into practice a strategy of decreasing the amount of goods they sold to intermediaries and increasing the proportion of goods they retailed themselves. Executives of these firms said that the key survival strategy for their firms was to improve the distribution network and retail most of the products themselves.

The transformations in the way the Latin American economies integrate into world markets have had significant consequences for manufacturing firms' behaviour. Manufacturing firms need to upgrade their supply capabilities by responding to changes in demand. This upgrading is crucial for their survival. However, in order to be able to do that, manufacturing firms first have to be able to defend their presence in the market. What has changed with trade liberalization, globalization and the transformations in the firms' economic environment is precisely the core of the manufacturing business: to survive and become competitive, manufacturing firms must improve their marketing capabilities and, in order to do so, they must transform their supply capabilities.

2.6 Uncertainty

Macroeconomic stability and certainty that economic policy would be sustained were among the most important positive characteristics of the economic environment mentioned by Chilean and Mexican entrepreneurs during the interviews. These were carried out in 1993, before the Mexican crisis that began with the devaluation of December 1994.

In contrast, one of the main obstacles to investing in upgrading and in export-oriented projects for Venezuelan firms interviewed in 1993 was uncertainty surrounding economic policies. This was confirmed by the follow-up interviews in Venezuelan firms in 1995, which showed that firms that had pursued active upgrading policies were either in an extremely vulnerable position or bankrupt, while those that had adopted a passive attitude had benefited from their decision not to upgrade.

The specific cases of the two largest garment manufacturers interviewed in Venezuela, hereafter called firm A and firm B, illustrate this. When the first interviews took place (March 1993), these two firms had decided to adopt two distinctly different strategies: firm A had decided that it would continue operating largely the same way it had operated under import-substitution and that it would not invest in upgrading production capability, nor in improving the quality of the goods it manufactured. This conservative strategy was also adopted for exports, in which the firm decided it would not invest any resources.

Firm B, on the other hand, had decided to invest a substantial amount of resources in a complete upgrading of the firm's production capability, both in terms of quality of the goods produced and the volume of production. To achieve this, it hired international consultants who redesigned the plant and trained the employees. Simultaneously, technological innovations were introduced as new equipment was purchased and production procedures were transformed. The company's goal was to cope with the strong import competition in the domestic market and then continue to expand its markets by exporting.

At the time of the initial interviews, it seemed that firm A would slowly die owing to increased import competition and to its inability (or the lack of interest of its owners) to react to the change from an import-substitution model to that of an open economy, whereas, the strategy of firm B would allow it to become competitive in the new prevailing environment, to survive import competition in the domestic market and to export regularly.

When the follow-up interviews were carried out two years later, in 1995, circumstances were strikingly different. The new Government of Venezuela had decided to reverse several of the policy reforms carried out at the end of the 1980s and the beginning of the 1990s. While the trade liberalization policy was not formally reversed, it was so in practice by exchange controls that made it quite difficult for firms to have access to hard currency for imports, including inputs. Import competition had thus been slashed. Furthermore, the pegging of the exchange rate at a time of high inflation made it extremely difficult for manufacturing firms to export.

Given these circumstances, firm A had been relatively successful thanks to its decision not to invest in upgrading the plant. This strategy had allowed the firm to have a solid financial position without incurring debts. It had proved successful because changes in economic policy, such as the introduction of exchange control, had resulted in a substantial decrease in import competition, while there was a simultaneous increase in interest rates. Hence, firms that had adopted a passive attitude and had decided not to change their strategy and not to upgrade benefited from the decreased import competition in the domestic market and from a sound financial position.

Meanwhile, firms that had invested in upgrading production capability were hurt by the increase in interest rates. For example, firm B was in severe financial difficulties, having incurred debts to finance the upgrading. Although it was still able to export, exports had been curtailed by the obstacles to importing good quality competitive inputs, such as exchange control, as well as by the appreciation of the exchange rate. Complex and discretionary administrative procedures also made importing and exporting very difficult. So, firms that had invested in upgrading and had tried to become competitive were in the end losers compared to those that had adopted a passive attitude.

It is clear that in the long run this situation will not last. Venezuela cannot support an artificial exchange rate forever. Neither will it always be able to sustain policies that tend to limit import competition. Venezuelan firms will eventually find themselves in a competitive environment once again. Under those circumstances, firm A will clearly be forced to change or it will lose a substantial amount of market share, while firm B will reap benefits from its investments.

In the meantime, firm B will undoubtedly gain market share even if the economy does not open up, thanks to its upgrading efforts. When interviewed in 1995, this company was also gaining market share because so many domestic firms were failing. The question is whether firms that invested in upgrading will still be operating in the long run or whether they will go under because of the financial burden of upgrading and the reversal of economic policy.

Furthermore, the firms that had believed the Government's claims that trade liberalization would be sustained and that they should invest in export-oriented projects were those that were the most damaged by the policy reversal. The appreciation of the exchange rate that resulted from the exchange control and the pegging of the currency in an inflationary process made their exports less competitive on foreign markets. The obstacles to importing inputs presented by the exchange control and customs red tape were an additional difficulty for those firms that had increased the use of imported inputs as one of their upgrading strategies.

The interviews carried out throughout the investigation showed that uncertainty surrounding economic policy leads to a substantial decrease in investment by firms. There is no incentive for firms to invest in long-term projects when policy reversals and macroeconomic instability render the rate of return unpredictable.

The comparison of firms' behaviour in the three countries included in the research shows that uncertainty explains why more firms do not change and why those that do often do not change faster. Uncertainty has a twofold negatively affects entrepreneurs' decisions to transform their firms: there is uncertainty about what they should do and uncertainty in respect to the sustainability of the economic policy.

In the first place, entrepreneurs are often aware that they must alter the way their firms operate, but are not certain what changes should be carried out or how. This implies that there is a role to be played in providing them with technical support on best practices through public/private sector networks.

However, the uncertainty that probably has the most negative impact on firms' decisions concerning upgrading is whether trade liberalization will be sustained or not. If this policy is not completely credible, many firms will be reluctant to change their behaviour. This lag can result in many more firms going under than would reasonably have been be expected. The strong deindustrialization process that took place in Chile in the late 1970s is an example of this.

The conclusion that can be drawn from this is that it is of the utmost importance that major policy changes are credible in order for firms to change their behaviour and try to become more competitive. But it is also possible to conclude that, if there is uncertainty, it makes sense that more firms do not change or that they do not change faster. Upgrading requires that the firm is disposed to change its behaviour and to invest heavily, as well as certainty that the new policies are there to stay.

3. Conclusions

Manufacturing firms in Latin America are undergoing substantial transformations in order to be competitive in the new conditions that are characterized by trade liberalization, globalization and, in general, by transformations in the economic environment. Many firms still have a passive or reactive attitude with behaviour quite similar to that described in section 1. However, the overwhelming majority of entrepreneurs in the region are aware that they must change the way they operate and have already begun to do so: the behaviour of most firms is completely different now than it was 10 or 15 years ago.

These changes in firms' behaviour are strongly influenced by the transformations in macroeconomic and trade policies, as well as in the general economic environment. Evidence of that can be seen in the differences in firms' behaviour across countries.

However, there were firms in the three countries that were changing their behaviour irrespective of the economic environment, adopting particularly innovative and aggressive strategies. While Venezuelan firms on average tended to be more passive and reluctant to change than their Chilean and Mexican counterparts, the most competitive Venezuelan firms had strategies that were surprisingly similar to those of the most aggressive firms in Chile and Mexico. Much is to be learnt from the behaviour of these firms, particularly for policy recommendations.

In general, there were no differences between exporting firms and modernizing firms that sell mostly on the domestic market. The exceptions seemed to be that exporting firms had a much greater concern for quality upgrading and had greater learning opportunities than non-exporting ones. However, the investigation showed that modernizing the firm was a condition for sustained export activity.

The transformation that has taken place in the core of the manufacturing business was one of the most significant results of the research. At least for the most innovative consumer-goods manufacturing firms, this core has shifted from concentrating mainly on production matters to a point that combines manufacturing of goods with distributing these goods, and often other domestic and imported goods as well. This is the point of the production/distribution segment where manufacturing firms have greater chances of simultaneously increasing their profits and defending their market share. Whatever strategy allows firms to be successful at this crucial point plays a key role in determining the competitive of Latin American manufacturing firms in the years to come.

The changes that are taking place in the countries of the region have had significant consequences for Latin American manufacturing companies and have brought about substantial changes in their behaviour. Finding out more about these changes is a prerequisite for understanding trends, as well as for making policy recommendations aimed at improving the competitiveness of firms in the region.

Innovative firms have adopted flexible behaviour and are upgrading their production and marketing capabilities. They have introduced significant changes in vertical integration, input procurement, technological innovations, incentive-pay systems, management techniques, training and subcontracting, as well as in distribution and retailing.

However, even modernizing entrepreneurs frequently felt that they needed to make more effort to upgrade their firms. The cost of doing so and, more importantly, the difficulties in obtaining appropriate information as to what was the best practice in a given industry were constraints to the introduction of large-scale transformations in a short period of time.

Of course, these constraints were even greater for non-modernizing firms, which knew they had to change the way they operated, but were uncertain about what needed to be done and how. While some firms in the region will remain passive and will continue operating as they did under import-substitution as long as they can, there are many firms which would like to upgrade, but lack the appropriate information to do so.

This suggests that there is a role for government support for programmes providing firms with information on best practices, particularly in matters relating to changes in lay-out, quality improvement, incentive pay systems, training and so forth. A key activity that yields many positive externalities is providing firms with information on export markets.

An effective way of supplementing inadequate information is through setting up industry-specific technological centres to promote the upgrading of firms' supply capability. These centres should cover the areas in which innovation is crucial, such as those described above. Governments should sponsor such centres, but they should be created jointly with the private sector, particularly with entrepreneurial associations. These centres could also foster associations in which firms could organize to obtain better conditions of input procurement, technical assistance and distribution, than they would individually. A good example of such a centre is the one established in Colombia by the Asociación Colombiana de Industrias Plásticas (ACOPLÁSTICOS), or the Centro de Productividad Industrial (CEPRI), recently set up in Chile by the private sector with government support.

Finally, there are several important criteria that must be taken into account when considering policies:

(a) The most important role for policy is that of creating a stable economic environment in which firms can plan long-term investments. As was mentioned earlier, uncertainty promotes non-productive behaviour;

(b) Policies should be designed for effective implementation and be submitted to regular evaluation. If not, they are ineffective and they create distrust in the private sector with respect to the Government;

c) Policies should explicitly seek to promote the upgrading of firms and not be a disguise for a return to protectionism;

(d) To be effective, policies should be designed and implemented in close coordination with the private sector.

The new economic framework prevalent in most Latin American countries today, as well as the increase of globalization world-wide, provide a challenge and an opportunity for most manufacturing firms in the region. Many firms have already completely transformed their behaviour. Others will not change, irrespective of the policy environment they are in. There is a third group, made up of the vast majority of manufacturing firms, that is willing to change and has begun to introduce some changes. This is the group that economic policy should target if the goal is for the region to have the capacity to grow at reasonably fast rates.

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APPENDIX

GARMENT FIRMS: SALES AND EMPLOYMENT

Country	Firm	Sales (Thousands of dollars)	Employment
Chile	A_c	6 000	300
Chile	B_c	17 000	280
Chile	C_c	36 000	1 100
Chile	D_c	7 000	415
Chile	E_c	12 000	108
Chile	F_c	12 000	550
Chile	G_c	7 000	180
Chile	H_c	18 000	360
Chile	I_c	11 000	280
Chile	J_c	6 000	180
Chile	K_c	14 000	600
Chile	L_c	24 000	600
Mexico	A_m	23 000	1 200
Mexico	B_m	30 000	750
Mexico	C_m	14 000	150
Mexico	D_m	13 000	270
Mexico	E_m	4 000	65
Mexico	F_m	2 000	90
Mexico	G_m	8 000	250
Mexico	H_m	2 500	160
Mexico	I_m	1 000	1 000
Mexico	J_m	13 300	1 100
Mexico	K_m	15 000	750
Mexico	L_m	13 000	400
Mexico	M_m	40 000	1 200
Mexico	N_m	7 000	105
Mexico	O_m	50 000	924
Venezuela	A_v	6 860	85
Venezuela	B_v	1 600	108
Venezuela	C_v	14 600	500
Venezuela	D_v	1 760	97
Venezuela	E_v	3 700	240
Venezuela	F_v	10 000	70
Venezuela	G_v	1 700	80
Venezuela	H_v	6 800	400
Venezuela	I_v	6 800	818
Venezuela	J_v	7 900	100
Venezuela	K_v	2 200	600

Desarrollo Productivo series [*]

No.	Title
16	"Reestructuración y competitividad: bibliografía comentada" (LC/G.1840), Restructuring and competitiveness, November 1994
17	"Síntesis del planteamiento de la CEPAL sobre la equidad y transformación productiva" (LC/G.1841), Restructuring and competitiveness, December 1994
18	"Two studies on transnational corporations in the Brazilian manufacturing sector: the 1980s and early 1990s" (LC/G.1842), Transnational corporations and foreign investment, December 1994
19	"Tendencias recientes de la inversión extranjera directa en América Latina y el Caribe: elementos de políticas y resultados" (LC/G.1851), Transnational corporations and foreign investment, December 1994
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