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## FORESTRY EXPORTS DYNAMICS IN THE PROVINCE OF MISIONES

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#### SUMMARY

This article evaluates the dynamics of external forestry products sales of the Province of Misiones, and its behavior facing some macroeconomy variables that impact on the competitiveness of Industrial Forestry sector.

The performance of this productive sector has demonstrated very significant results in extending its capacity of offer to the external markets; in less than a decade, it multiplied by 157 % the annual value of its exports, representing 62.7% of the total exports.

The exit from convertibility meant favorable conditions for the forestry exporting sector of Misiones, generating an expansion in the period 2001-2004. The drop of the international demand, of Misiones' forestry product exports, worsened by consequence of the subprime crisis in the United States of North America (the U.S.A.), causing a recession of the exported amounts and generated less international rents.

The exporting dynamism of the forestry activity of Misiones shows signs of having reached a plateau, not only due to the the retraction of the international market, but also, as a result of the loss of competitiveness by the appreciation of the real kind of exchange, and the acceleration of internal costs.

**KEY WORDS:** Forestry Industrial Sector, Competitiveness, Exports.

## INTRODUCTION

This article evaluates the dynamics and the behavior of the forestry products exports of the Province of Misiones, based on the evolution of some of the macroeconomy variables that impact on the economy agents and the competitiveness of the sector, to generate key information that serves as support in decision making.

The exports are an indicator of the product sales of national origin to the foreigner, and represent the availability of production and supply to the world-wide market, the competitiveness and the capacity of internationalization of certain sector.

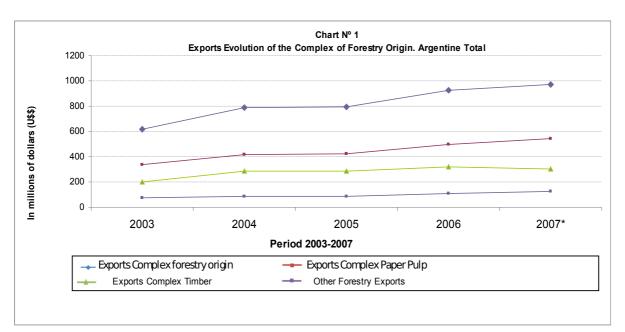
The opportune information and transparency generates a reduction of the uncertainty, a minimización of transaction costs and an increase of the confidence in the commercial interchanges and operations.

According to the National Institute of Statistics and Census (INDEC), Argentina reached 55,779 million dollars of foreign sales in 2007. Of that total, two thirds, 36,509 million dollars, are originated in Manufacturs; of which, a total of approximately 17,321 million dollars come of Manufacturs of Industrial Origin.

The degree of the opening of the domestic economy, indicating the weight of the exports in relation to the country global economy activity, is 21.4% with respect to National Gross Product (NGP), data from the Internacional Economy Center (IEC).

The exporting complex of forestry origin in Argentina<sup>1</sup>, constituted by products of the paper pulp complex, timber and other forestry exports, represent 2% of the total of the productive complexes of Argentina, meaning a currency contribution in 2007, in the order of the 971.9 million dollars, according to INDEC (2008).

<sup>&</sup>lt;sup>1</sup> Argentine exports complexes, done by the INDEC, vinculates the contry's productive structure, with the exports. Made up of 27 complexes, oils, oil-petrochemicals, vehicles, cereals, bovine, steel, fruit, tobacco, fishing, cotton, forestry and others.



Source: Own elaboration based on the INDEC'S export complex statistics

The exports of the paper pulp complex (timber pulp, Paper and cardboard) represent 55.9%; those of the timber complex (timber and Timber manufacturs, excluding firetimber and carbon and selected sets of Furniture and other timber manufacturs) a 31% and other 13.1 %.

As far as forestry foreign product purchases, the value ascends, for the same year, to 1,366.1 millon dollars, on the basis of information from the Secretary of Environment and Sustainable Development (2008). Reason why the commercial balance is negative, in 400 million dollars, for each dollar that enters the country for forestry product exports one pays 1.40 dollars in purchases of the foreigner forestry products.

In the Province of Misiones, the specific information generated by the Direction of Foreign trade, of the Undersecretary's office of Foreign trade and Integration, (SUCEI), as a result of the Customs' statistics, allows to evaluate the performance of the exports on objective and scientific bases.

The exports of local products reached 438 million dollars, according to SUCEI (2007), representing less than 1% of the national sales to the world-wide market, in 2007. The manufactured products constitute 82.20% of the sales to the outside, mainly timber and its manufacturs, paper pulp, tea and yerba mate (ilex paraguayensis), among others. Misiones

presents a structure of the exports, with greater manufactured product participation, compared in relative values with the structure of the national average (65.4%).

How much do the exports of the local production contribute in the economy of Misiones? In 2007, the exports represented 16 % of the total wealth of Misiones<sup>22</sup>, indicator of the degree of aperture of the economy.

The forestry industry is the sector of greater gravitation in the Province exports; therefore the timber and its manufacturs, the paper pulp products and furniture constitute 62.70% of the total Province exports, generating sales to the outside in the range of 274 million dollars.

A significant data is that the Province of Misiones, contributes with 28.32% in the total exports of the complex of forestry origin of Argentina, and in the timber exports complex paper pulp Misiones participates with 24.28%, and in the timber complex with 47,42%. This reveals the importance of the forestry exporting activity of the Province within the national context.

One of the main determinants of the exports is the international demand of timber and its manufacturs, particularly from the United States, the main product importer. The crisis of the subprimes which began in mid 2005 in that country, impacted strongly on pine timber products, contracting the consumption for construction, affecting to the foreign sales of the Misiones forestry production and initiating a deceleration of the production levels This fact, can be considered as the previous step of the present international financial crisis that worsened towards the end of 2008, characterized on one hand, by the recession of the liquidity and of world-wide economy activity and, on the other, by the raise of interest rates, and, mainly, the drop in confidence, vital inputs for credits.

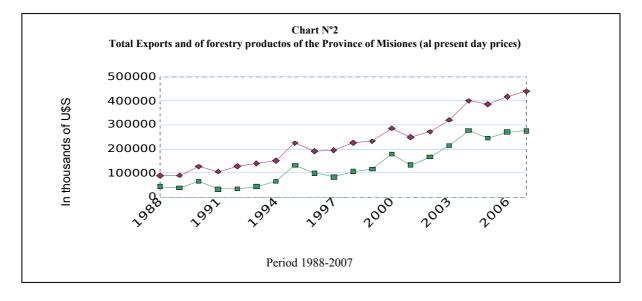
Within this framework, the present analysis contributes to value and to evaluate some indicators of competitiveness of the export forestry sector that impacted on the expansion of the economy activity of the Province.

<sup>&</sup>lt;sup>2</sup>Own elaboration based on data of Misiones' GDP, registered in the 2007 Annual Report of Car Agencies in Argentina. (ACARA)

## DEVELOPMENT

## The structure of the forestry exports in Misiones

The forestry products exports constitute the main export item in the Province of Misiones. In the last 10 years, as an average, it represents 60.30% of the total exports of the Province.



Source: Own elaboration based on data of the Department of Foreign trade. Misiones

The expansion of the forestry activity within the exporting activity is reflected in the behavior that it had in the last decade, increasing the participation of 48% as to the present 62.7%.

Under this same context, there is a high degree of dependency of the total exports of the Province of Misiones with respect to the forestry product exports. Not only based on its specific weight but also in the high degree of positive linear dependency of the values of total forestry exports for the period 1998-2007, that measured based on the correlation of these values by Pearson's coefficient, according to Walpol and Myers (1999), directly denotes a proportional relationship of 98.77%.

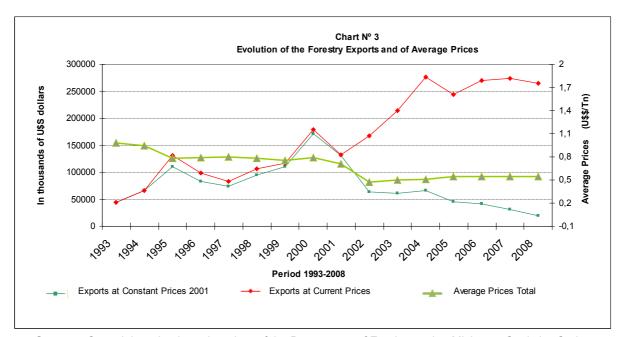
The performance of this productive sector has demonstrated very significant profits in extending its offer capacity to the foreign markets; in less than one decade it multiplied by

157 % the annual value of its exports. From this behavior, the forestry product exports become a very dynamic activity with increasing weight on the economy.

The sector presents attractive characteristics: two decades ago the exports were little significant since the accelerated growth takes place by the comparative advantages as from promotion and expansion of plantations, the production of paper pulp mills and paper and the growth of the timber mechanical industry; and later the improvement of the genetics of the plantations, the incorporation of technology and the differentiation of the product. There is an important role from the local enterprises, sawmills, in the expansion of the activity.

The growth of the product exports is reflected in the increase of the value of production that is the consequence of the increase of prices or volumes of production. To consider its impact via prices or production is gravitant for the economy sector as it allows knowing and identifying conyunctural or structural facts as to its economy growth. The increases of the prices act as positive signals for investment but due to the nature of such, and being affected by conditions of supply and demand, these usually vary in short periods of time. However, prolonged increases of the external demand usually are structural because the factors that explain it usually are lasting and persistent in time. Examples of structural factors that explain the demand of goods is: tastes, preferences, increase of the population; and of conjunctural factors: changes in the prices relative of complementary goods, substitutes, expected income.

When one talks about current exports, the increase of these could be via increase of prices or increase of exported amounts. However, the real exports, at constant prices, leave the prices effect inalterable, and the net behavior of the exported amounts is known.



Source: Own elaboration based on data of the Department of Foreign trade. Misiones, Statistics Series

The export values, at current prices of the main forestry products, (timber and its manufacturs, paper pulp, paper, and furniture), increased in 2002-2007, a 64.28%. The real exports (at constant prices for 2001) dropped a 52.62%, in the period 2002-2007.

Although the exports at constant prices diminished, the increase of exports at current prices is explained by the sustained increase of the prices, that in period 2002-2007, a maintained significant rise of 15.4%.

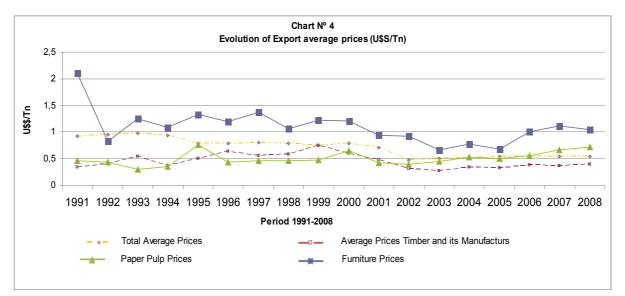
The exit from convertibility meant conditions of the favorable type of exchange for the Misiones' forestry exporting sector, generating a significant expansion of the external sales in the 2001-2004 period, of 107% at current prices, where the international averages prices influenced remarkably, since at constant prices, there was only a growth of 2%. As from 2004, the tendency of the prices modified, since they began to decelerate, i.e., the growth rate was reduced and, already in 2007, this rate remained around zero. In the period 2004-2007, the exports decreased a -.74%, and the exports at constant prices, decreased a -.31.42%, although the prices grew a 7.1%. This means that in period 2004-2007, the prices effect could not compensate in its totality the amount effect.

As a synthesis, it is possible to emphasize that the price effect contributed more than favorably, at first, to let grow in a very significant way the exports at current prices, although

the exports at constant prices had a slight or almost null growth. As from 2005, the exports, at current values, had a decreasing behavior. The drop of the international demand for Misiones' forestry product exports, worsened as consequence of the subprime crisis of the U.S.A. and caused a strong recession of the exported amounts (measured at constant prices), and generated less international rents.

If one makes a price total average pondered by the respective exported amounts of Paper pulp, Furniture and Timber and their manufacturs, we observe that it presents a growth of 15.4% for the period 2002-2007.

As to the export prices averages (total Amount exported/Quantity in exported tons) the greater growth is represented by Paper pulp, with an increase of 67.5% in the period 2002-2007. On the other hand, Timber and its manufacturs and Furniture, display an increase of 20%.



Source: Own elaboration on the basis of data of the Direction of Foreign trade. Misiones.

When analyzing the exports by great items, considering the economy origin of products, one sees that the forestry sector in Misiones contributes more than three fourths (77%) of manufacturs of the external sales from Misiones, and from Manufacturs of Industrial Origin (MOI), the total comes from the forestry sector. In this case, they are industrial productions

that are characterized in general for making greater degrees of transformation of raw materials and therefore add greater value than the production industries of Manufacturs of Agropecuarian Origen (MOA).

The forestry exports represent 61% of MOA, in 2007: composed by sawn or chipped timber, with a value of 132 million dollars; and 100% of MOI: paper pulp, paper, manufacturs with greater degree of added value (pieces of carpentry, floor boards, tools and other industrial manufacturs with timber), and furniture.

The forestry sector presents a high degree of solidity to the configuration of the Province exports, and therefore its participation in the external markets, it creates a virtuous circle of currency entrance, greater production and idomestic consumption (by the multiplying effect of the income), and, in generation of jobs. Also it has a considerable weight in the collection of taxes, contributing to finance the activities of the public sector.

The participation of the sector in the exports, not only generates income to the Province but also it generates conditions favorable for innovation and development of products facing international demands.

The performance of the forestry exports of Misiones depends on the development of the rest of the sector that deals in the domestic market and other sectors of the Province economy, as it directly weighs on 10% of Geographic Gross Product (PBG) and 62.7% of the total exports.

#### Behavior of the forestry-industry exports

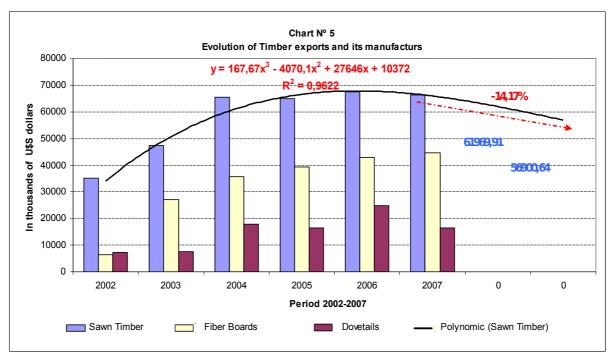
The timber exports and their manufacturs are integrated by 46.44 % of sawn timber, 31.32% of fiber timber, 11.61% of dovetail, and the rest 10.63%. Its behavior, like the rest of the sector, showed a very significant an increasing tendency, from the implementation of the new economy model, characterized by a kind of high exchange.

In 2002-2005, the current exports of sawn timber, fiber timber and dovetailed, showed a growth of 85.1%, 517% and 129% respectively.

Nevertheless, the crisis of the mortgages in the United States hit on the pine timber product exports, and therefore, the external sales were restricted. In period 2005-2007 the sawn Timber sales decreased a 6.53%, the Dovetailed a 4.2% and the Fiber Boards an 11%

Analyzing the first 10 months of 2007 with the first 10 months of 2008, the supply of sawn Timber decreased an 11%.

From a statistical analysis, it is possible to calculate the course or tendency of the sawn timber exports, with the intention of foretelling their values for 2009. From the tracing of a polinomyc function, described by Walpol and Myers (1999), and under the condition ceteris paribus one estimates a drop of 14.7% as to 2007<sup>3</sup>.

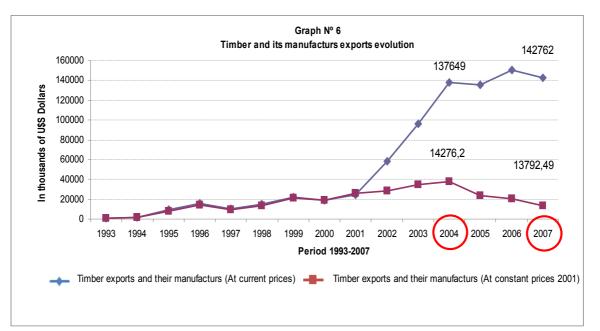


Source: Own elaboration based on data of the Department of Foreign trade. Misiones

The Timber sales and their manufacturs 2004-2007, displayed an increase of 3.71%, of which 90.6% of this increase come from the favorable variations to the rise of the prices of products, and only 9.4% correspond to the diminution of the exported amount.

<sup>&</sup>lt;sup>3</sup> The tendency is simply the direction of a variable in time. A polinomyc is a curved line used when the data fluctuate. When drawing a tendency line of the exports data of sawn wood, the polinomyc function of order 3, is the one which results most appropriate when having an inset R of .9622. This means that 96.22 % of the data are explained by said function trend.

The main export destination for sawn timber and its pine manufacturs, including furniture, is the United States that shares together with Brazil 54% of the external sales, in 2007.

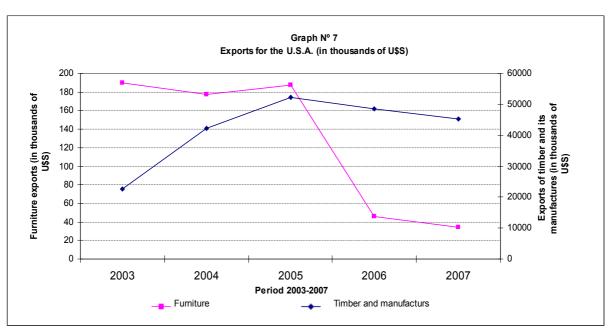


Source: Own elaboration on the basis of data of the Direction of Foreign trade. Misiones.

According to the report of the Direction of Foreign trade of Misiones SUCEI (2008), in the first 10 months of 2008, the timber exports and their manufacturs displayed decreasing values, continuing with a tendency of smaller exportable supply towards the United States, but with higher prices averages with respect to Brazil. In this aspect, this report emphasizes the access to incipient markets in exportable offers, such as South Africa, and Asiatic countries such as Korea, China and Taiwan.

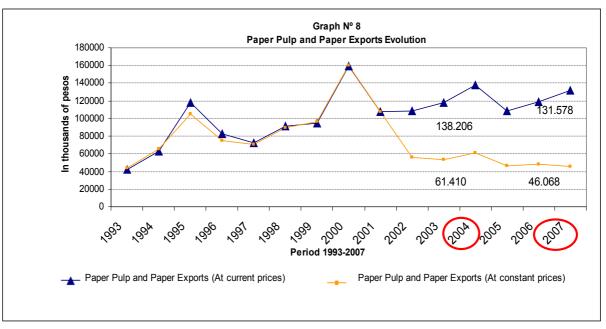
The impact of the recent economy and financial crisis of the U.S.A., main importer of pine lumber products of Misiones, was perceived by the local market in mid 2006, when commercial operations with this country diminished. Thus, Timber exports and their manufacturs, in 2005-2007, registered a fall of 14%, and in production (tons) a 22%.

In 2004-2007, the value of furniture exports diminished by 81.90%, attributable to lower prices and smaller amounts. 69.65% come from the variations of the lowering of the prices of products, and 30.35% of the diminution of the exported volume.



Source: Own elaboration in based on SuCei data Misiones

Mainly, as a result of the aim of the phenomenon of substitution of imports, arisen after the exit of the convertibility, due particularly by the appreciation of the kind of real exchange, the increase of the costs and domestic prices of the inputs, and the deflation of forestry products due to international financial crisis and the decrease of the economy activity.



Source: Own elaboration on the basis of data from the Direction of Foreign trade. Misiones.

In 2004-2007, the value of paper pulp and paper exports, diminished in U\$S 6,628,000. 100% correspond to amount effect. The price effect has a neutral result. When drawing up a tendency line of the evolution of the prices of the paper pulp, one observes that it maintains a cuasilineal behavior, without great irregularities or fluctuations. This means that in average the prices do not have great changes, because they fluctuate above or under the straight tendency line.

#### Analysis of the sector competitiveness

In order to analyze the competitiveness it is necessary to protect onself in some approach of the manifold present day Literature offers. Study sustains in diagnosing the forestry industrial sector on base of the concept of Messner's (1993), Systematic Competitiveness which maintains that the competitiveness requires to include the macro, micro, mesa and meta<sup>4</sup> analytical levels, that affect to the enterprises in the local, regional, national and supranational level. The macroeconomy level is evaluated, making emphasis in the competitiveness influence called "spurious" by [Fajnzylber F., 1988, p. 25] (1) or " by under " [Coriat B., 1997, p. 10 ] (2) that consists of gaining competitiveness by means of increases of the type of nominal exchange (devaluations), productive reduction of costs (capital, work and inputs) and an internal inflation relatively smaller than the international one. Opposed to this, the genuine competitiveness or by the high, is reached as from the increase of the labor productivity and in the use of the capital and the inputs.

The following variables are analyzed: the Kind of Nominal Exchange and the Kind of Real bilateral Exchange, costs and salaries and of sector inputs, and the internal inflation, measured as from from the wholesale prices.

According to the economy theory, an important element to consider for the analysis of the exports is the Kind of Real bilateral Exchange (TCR)<sup>5</sup>, concept vinculated to the competitiveness of the transables sectors, according to Krugman and Obstfeld (2006). It is called real and bilateral because it takes into account the evolution from the spending power

<sup>&</sup>lt;sup>4</sup> In this model, industrial competitiveness does not appear spontaneously, when modifying the macro context, neither is it generated according to the capacities and resourses exclusively of the enterprise, at micro level. There exists a complex and dynamic interaction between the State, the enterprises, the intermediate institutions and society's organizational capacity.

<sup>&</sup>lt;sup>5</sup>The real kind of exchange is defined as the relative price between the tradable and non tradable goods. The prices in pesos of the tradable articles (Pt) tend to have their prices in the World Markets, in dollars, e.g. Pt , multiplying the exchange rate, E. Pt=E Pt . So that the relative price of the tradable goods in relation to the non-tredables would be: Pt/Pnt=EPt= real kind of exchange

in the currencies used in the commercial interchange by two countries, and is formulated like an index that calculates the quotient between the devaluation rate of the domestic currency with respect to the considered foreign currency, the American dollar in this case, and the rate of variation of the indexes of consumer prices of each country (Argentina and the United States).

The type of real Exchange is an important determinant in the allocation of resorses, especially between the production of transable goods and services, where its price comes basically determined by considerations of the world-wide markets. The nontransable goods are those that depend basically on internal or domestic considerations of the economy. The relation between both determines the level of exports and imports of a country.

The exports basically, are the demand on the part of the rest of the world of the national goods. Like any demand, it will depend on the price and the income<sup>6</sup>. According to Mankiw (2000), if the price of the national goods lowers, the world will demand more of them; when the kind of real exchange raises, fewer units are needed of the foreign goods, to acquire a national one. An individual from the rest of the world must sacrifice fewer goods to be able to acquire a national good, so the consequence is that the demands, for the national goods increases, i.e., the exports increase. If the level of income of the world (Y \*) raises, the world will demand more of the national goods. The main determinants of the exports, X, is shaped in the following equation: X=X (q, Y \*).

Following Appleyard and Field's (2005), theoretical argumentation a depreciation (or a devaluation, as it happened in Argentina in 2002) of the national currency, diminishes the price of the comercializable goods in the domestic market. This generates that the costs of the national productive factors, expressed in foreign currency, diminish, and generate more yield, the production of the marketable or exportable goods.

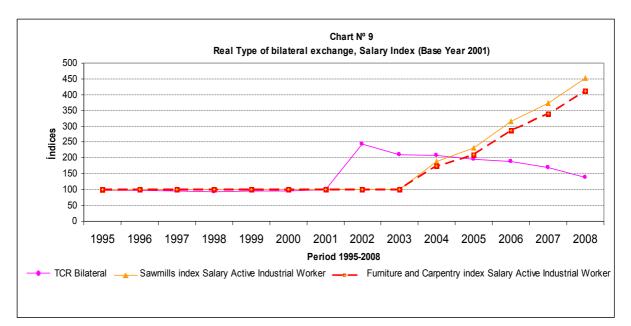
<sup>&</sup>lt;sup>6</sup> There are other export determinants, but they are not considered in this report, such as export susidies to exports, business obstacles (tariffs, import quotas,) GDP, interest taxes, productivity, amongst others.

The type of exchange is influenced by the inflation of the sector, generated mainly, by the weight of the imports that it carries out that in the case of the forestry sector, is given by the purchase of the inputs, equipment and machineries.

Comparing the evolution of the exports to current and constant prices of forestry products exported by the Province of Misiones, with ten los gráficos he evolution of the Real Type of bilateral exchange, one can observe that a certain shift or retardation between the impacts of the last one exists, with respect to first one. This is due mainly to the nature of operating that generates a delay, between the appreciation and the taking of information on behalf of the exporting economy agent and the commercialization action.

The behavior of the Real Type of bilateral exchange, during 2002-2008, registered an increase of 144% in 2002, by the abandonment of the convertibility, and in October 2008 it descended 45.08%. Although the type of nominal exchange remained high, in area of \$3.10 - 3.20, the increase of the internal and imported prices of the work sector, brought along with it the loss of competitiveness generated by the appreciation (or lowering) of the type of real exchange, main indicator used in this article.

The average Internal Index of Wholesaler Prices - of the Forestry Sector (IPIM), that measures the evolution of the internal and imported prices of the main inputs of the sector, increased a 193.45% in 2001 to October 2008 \*. The wage cost, according to the collective agreements of work wages of the industrial laborer of the Timber Union of Workers of the Industry of Posadas (2008), increased in pesos a 332% in the same period.

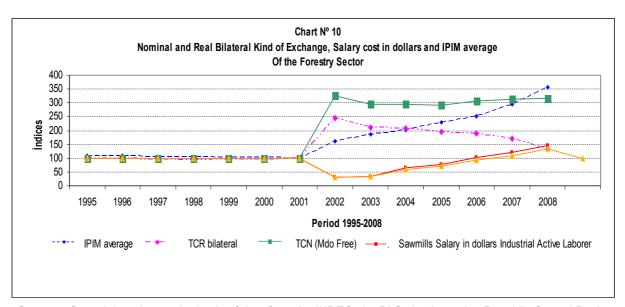


Source: Own elaboration on the basis of data from the INDEC and Timber Labor union Industry

Considering period 2002-2008 \*, i.e., from the implementation of the model of type of high nominal exchange and an expensive dollar, the inputs increased a 123.15 %. This means that the prices of such external inputs, followed with their increasing tendency, without considering the structural change that represented the change of model.

Also it is possible to emphasize the acceleration of the costs in 2008 with respect to 2007, because if one analyzes the period October 2007- October 2008, the inputs and the wages were increased 21.86% and 21.38% respectively.

When analyzing an exporting sector, and therefore to have its income in dollars, it turn out useful to consider the costs, measured in the same unit of the commercial currency. The evolution of the wage cost in dollars in average indicates that for 2008, the wages in dollars are a 40.42% superior to the values of 2001 (last year of the convertibility). For 2007, the wages were at a 16.35%, which demonstrates a tendency in the increase of prices and costs.

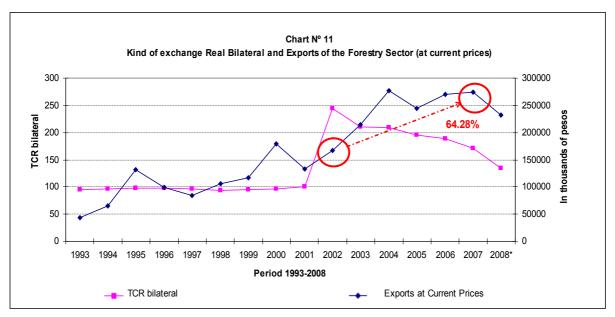


Source: Own elaboration on the basis of data from the INDEC, the BLS, the Argentine Republic Central Bank, and Techint Bulletin

The previous analysis suggests that by consequence of the increase of the costs, and, therefore appreciation of the Type of Real exchange, the forestry product exports should have diminished, by the more and more accentuated, competitiveness lack.

The exports at current values grew a 64.28%, in spite of the loss of the type of real exchange of 29.92%, all analyzed in 2002-2007. This goes in the opposite direction of what is predicted by the economy logic, of the theory of the spending power or to purchase parity. However, the 2001exports at constant values, indicate a diminution of 52.62%.

Confirming that the exports at current prices remained in positive terms, by influence of the high prices, which contained the negative effects of the increase of the internal costs and diminution of the advantages that the type of real exchange generates, as a factor of macroeconomy competitiveness.



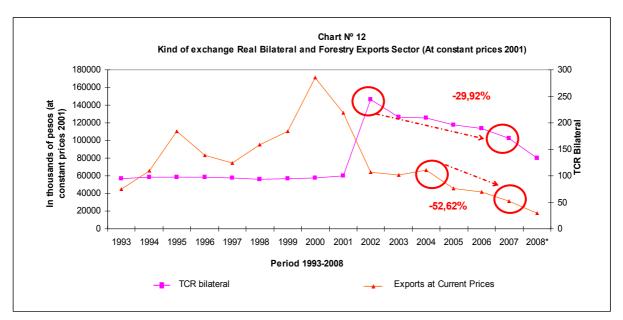
**Source**: Own elaboration on the basis of data of the Undersecretary's office of Commerce and Integration. Misiones. At current prices.

The nominal wages between 2007 and 2008 grew a 20% and the inflation, measured by the Index of Implicit Prices (IPI), was of 24% reason why the real wages maintain a delay, result of the inflation.

Then the competitiveness of the forestry sector is weakened by the appreciation of the real kind of exchange, and the increase of the salary and inputs costs, national and imported, direct or indirect.

For many years, this loss of competitiveness was compensated by the sustained increase of the international prices and the constant external demand. At present, within a framework of international financial crisis, with retraction of world-wide economy activity, with signs of recession, lack of liquidity and increases of interest rates; and the economy scene of the sector: with an acceleration of prices of inputs (reflected in the increase of 21.86% IPIM average of the sector for 2007-2008), the complaints of sectorial wage improvements, as consequence of the diminution of the real wages due to inflation (an interannual 24% 2007-2008), measured by the Index of Implicit Prices or product deflaction (IPI) and the devaluation of the type of exchange of the main competitors, such as Brazil, that devaluated a 27.2%, in the period July 2008-January 2009. It becomes a high-priority to consider the aspects that generate a genuine, competitiveness resisting to the exogenous and creative

attacks of greater value added by means of the incorporation of knowledge and technology, under a framework of productivity and productive efficiency.



**Source:** Own elaboration on the basis of data of the Undersecretary's office of Commerce and Integration. Misiones, at current prices

## CONCLUSIONS

The external surroundings are decisive in an activity as the forestry one closely bound to foreign trade and for that reason the uncertainties considered repercute in the economy of the sector.

The Misiones' forestry exporting sector represents 28% in the total exports of the complex of forestry origin of Argentina, participating with a 24% in the exports of the complex paper pulp - paper, and in the timber complex with 47%. This reveals the importance of the forestry exporting activity of the Province within the national context.

Approximately two thirds of the total exports of Misiones come from the forestry sector, constituted by 61% of timber and its manufacturs; and 100% of Manufacturs of industrial origin: paper pulp, paper, manufacturs with greater degree of added value (carpentry, floor boards, tools and other industrial manufacturs with timber) and furniture.

The devaluation of the currency, the increase of international prices and a market in expansion as the United States at the beginning of 2002 injected additional rents, with expansion of the production. For that reason, the growth of the exports during the post convertibility period, finds its origin in the increase of the competitiveness derived from the depreciation of the type of real exchange and a favorable international context, in terms of prices as of demand.

The real estate crisis of the United States diminished the growth tempo of the external sales, within the sector of the manufacturs and the increase of internal costs liquefied the exchange advantage. As from 2008 the world-wide financial crisis that restricts the credit, hits on the set of economy agents of the sector, enterprises, workers, suppliers.

The exporting dynamism of Misiones' forestry activity shows signs of having reached a plateau, to October 2008, not only by the retraction of the international market, but also, as a result of the loss of competitiveness by the appreciation of the type of real exchange and the acceleration of the internal costs. Nevertheless, the type of real Exchange is a 37% above the levels of 2001.

The behavior of the exports anticipates a retraction, facing a reduction of the income due to external sales due to the lower level of world-wide activity. Which, would be foreseeable, that the exportable production in 2009 diminishes, and this production, compete in the internal market, acting on the total the domestic sales of the agents, who deal in the internal market.

At this stage of retraction of the international demand, it would be necessary to reinforce the attention, from the institutional level, of those factors that affect the production costs and productivity, generating new forms of public intervention to innovate in new designs of product and destinations of exports, i.e., acting on the demand. Also, the contribution of studies on industry productivity, would contribute to identify the competitiveness factors that generate sustentables advantages in the sector.

The Misiones' forestry industry, on the base of its natural potentiality and productive and technological capacity of human resourses, is a sector with resourses to capture international rentabilities.

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Please refer to articles Spanish bibliography.