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Artículo original

## Recursos turísticos e intensidad de los factores: Factor dominante contenido en el comercio turístico. El caso de las municipalidades de Buenos Aires, Argentina.

*Touristic resources and factor intensity: Dominant factor content of trade in tourism. The case of the municipalities of Buenos Aires, Argentina.*

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**Abstract.** The aim of this paper is to quantify one of the characteristics of the production function of the tourism sector in the province of Buenos Aires: the dominant factor content of their touristic resources, one simplified concept which shows the factors of production incorporated in goods. For its estimation and the touristic characterization of the different municipalities of the province, the following elements are used: the inventory of touristic resources of 134 municipalities of the province; their classification into the five categories listed by OEA; and the factor intensity of each category. One interesting result is that most municipalities with high touristic GDP show a dominant factor content of capital, the implication being that comparative advantage in the Province of Buenos Aires in Argentina is based on contemporary technical, scientific and artistic work. It may be concluded that there is place to exploit tourism in Argentina, what points to the need to accompany them with a correct design of public policies.

**Keywords:** Dominant Factor Content, Touristic Resources, Touristic Trade

**Resumen.** El objetivo de este artículo es cuantificar una de las características de la función de producción del sector de turismo en la provincia de Buenos Aires: el factor dominante contenido de sus recursos turísticos, un concepto simplificado que muestra los factores de producción incorporados en los bienes. Por su estimación y la caracterización turística de las diferentes municipalidades de la provincia, se usan los siguientes elementos: el inventario de recursos turísticos de 134 municipalidades de la provincia, su clasificación en las cinco categorías enlistadas por la OEA; y la intensidad de los factores de cada categoría. Un resultado interesante es que la mayoría de municipalidades con alto PIB turístico muestran un factor dominante de capital, siendo la implicación que la ventaja comparativa en la provincia de Buenos Aires en Argentina está basado en trabajos contemporáneos técnicos, científicos y artísticos. Puede concluirse que hay espacio para explotar el turismo en Argentina, lo cual apunta a la necesidad de acompañarlo con un correcto diseño de políticas públicas.

**Palabras clave:** Factor dominante contenido, Recursos turísticos, Comercio turístico

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## 1. Introduction

The travel and tourism industry is one of the most important activities and with the highest rate of growth in the world and in Argentina. It is the world's largest employer: one in every ten jobs belongs to it. During 2013, tourism international receipts amounted to over 4.400 million dollars in Argentina, representing approximately 5,30% of total exports. This sector is also one of the most vulnerable to external effects of political or economic kind. The following examples are prototypical of this type of effects: at the world level, the different strokes that have affected the travel and tourism industry as a consequence of the new international order imposed by terrorism; at the local and economic level, for example, the change in the behavior of demand (domestic and foreign) after the devaluation of Argentinean peso at the beginning of 2002. At the same time, it is one of the activities which has significant opportunities to generate touristic products involving new scenarios and taking into account different characteristics of demand. Ecotourism, rural tourism, and green tourism are some of the answers to social consciousness about environment and sustainable growth; regional products were born as a mechanism to diversify regional economies and satisfy visitors' wishes.

Both from the viewpoint of factors affecting tourism production as well as from that affecting tourism consumption- tourism is a sector that experiences important and dynamic changes and mutations. From a perspective based on the theory of international trade, these changes in tourism production and consumption imply changes in the structure of factors of production that are embodied in them. The aim of this paper is to quantify, in a preliminary way, one of the characteristics of the tourism production function of the municipalities of the Province of Buenos Aires. It is the dominant factor content of their touristic resources. In particular, we analyze the relationship between factors of production and touristic resources through the touristic characterization of the municipalities of Buenos Aires. The dominant factor content and this characterization use the inventory of touristic resources of the municipalities of the province of Buenos Aires, their classification into the five categories of resources embraced by OEA, and the factor intensity assigned to each category.

Although tourism is a sector to which basic economic principles are applied, it presents some peculiarities and different features that distinguish it from the other sectors of the economy. Tourism transforms and exploits resources and touristic attractions. Tourism generates goods and services' consumption. Tourism implies movements from places of origin to touristic destinations (Lanquar, 1991). These facts make the trade of tourism possible and allow for the transformation of this activity

–which was traditionally considered as belonging to services` economy and characterized as non-tradable- into a tradable good. In this way, tourism is considered a non-traditional export, an invisible export that –different from industrial goods- is consumed in the country or region to which touristic demand arrives, with the movement of foreign consumers to the country or region of destination (Gibson en Barkley, 1993; Sessa, 1983; Pedreño Muñoz y Monfort Mir, 1996; Copeland, 1991). In this paper we refer to the endowments of touristic resources for each municipality of the Province of Buenos Aires, which are crucially responsible for the consumers` movements from other regions or countries towards the touristic destination. Having in mind the peculiarities related with tourism definitions, some difficulties arise when one attempts to define tourism factor intensity. Not only could factor intensity of tourism production be different between countries, but also between regions within a country, or through time, depending on the stage in the cycle of tourism of the considered destination. In this paper the approach is different from the usual ones and we follow a particular definition of factor intensity of touristic resources in order to quantify their dominant factor content for each municipality of the Province of Buenos Aires. We then look for a relationship between this diagnosis and different measures of the relative importance of tourism as an economic activity.

The structure of this paper is the following. In section II we define the factor content of trade and the dominant factor content of trade presenting a brief literature review in those topics. In section III we identify and classify the touristic resources of the municipalities of the Province of Buenos Aires. After defining their factor intensity, we calculate the dominant factor content of those touristic resources for each of the municipalities of the province. We also present a relationship between dominant factor content and touristic GDP of each municipality. Finally, section IV presents the conclusions.

## 2. The factor content of trade and the dominant factor content of trade

### 2.1. The factor content of trade

#### 2.1.1. From the Heckscher-Ohlin theorem to Heckscher-Ohlin-Vanek theorem

The traditional model in the theory of international trade that explains the pattern of trade between countries based on differences in factor endowments is the Heckscher-Ohlin Model (Heckscher en Ellis & Mezler, 1950; Ohlin, 1933). According to this theory, there exists a relationship between factor endowments between countries (relative factor abundance) and the way in which production technologies combine factors of production to produce different goods (relative factor intensity). Considering two countries, two goods and two factors, the Heckscher-Ohlin theorem says that each country has a comparative advantage and exports those goods that use relatively intensively the factor that the country is relatively well-endowed with. The idea is that identical technologies and identical factor prices<sup>1</sup> imply identical proportions of factors used in each industry in each country. Full employment of factors of production requires that the relatively abundant country in a particular factor employs relatively more of its resources in the industry relatively intensive in that factor. With homothetic preferences, which mean that if countries faced the same relative prices of goods they consume them in the same proportion, the country relatively abundant in a particular factor exports the good that uses the factor relatively intensively.

Vanek (1968) expands these results and generalizes them. In particular, the Heckscher-Ohlin-Vanek theorem says that there exists a relationship between relative factor abundance and the services of the factors of production which can be seen through the factor content of trade. This concept shows that trade in goods indirectly represents trade on the services of the factors of production embodied in the production and consumption of those goods. The prediction of the theorem is that each country exports the services of those factors in which the country is relatively well endowed.<sup>2 3</sup>

<sup>1</sup> Identical factor prices are obtained as a result of the factor equalization theorem. It says that under Heckscher-Ohlin assumptions, when free trade leads to complete goods prices equalization and incomplete specialization in production in both countries, then both absolute factor prices as well as relative factor prices are completely equalized between countries.

<sup>2</sup> The factor content of trade involves the factor content of production (services of factors of production embodied in the production of goods) and the factor content of consumption (services of factors of production embodied in the consumption of goods).

### 2.1.2. The factor content of trade. Definition

Denoting the technology matrix by  $A(w)$  (which depends on the vector of factor prices  $w$ ), the output vector of country  $j$  by  $X_j$ , the consumption vector of country  $j$  by  $C_j$ , and the net exports vector of country  $j$  by  $T_j = (X_j - C_j)$ , we define the factor content of trade of country  $j$  as the difference between  $A(w) \cdot X_j$  –the factor content of production- and  $A(w) \cdot C_j$  –the factor content of consumption–

$$A(w)X_j - A(w)C_j = A(w)(X_j - C_j) = A(w)T_j \quad (1)$$

At the same time, the factor content of trade can be expressed using the vector of factor endowments. Denoting the vector of factor endowments of country  $j$  by  $V_j$ , the full employment conditions of factors of production can be written in the following way

$$A(w)X_j = V_j \quad (2)$$

Let  $s_j$  be the share of country  $j$  in world consumption (or in world income) and  $X_w$  be the world output vector, the consumption vector of country  $j$  ( $C_j$ ) could be expressed as

$$X_j = s_j X_w \quad (3)$$

Premultiplying (3) by matrix  $A(w)$  we get

$$A(w)C_j = A(w)s_j X_w = s_j A(w)X_w = s_j V_w \quad (4)$$

The factor content of trade of country  $j$  can be written as

$$A(w)X_j - A(w)C_j = (V_j - s_j V_w) \quad (5)$$

### 2.1.3. The factor content of trade and the pattern of trade on goods

In this section we describe the relationship between the factor content of trade and the pattern of trade in goods. The vector of net exports of country  $j$  ( $T_j$ ) –which is defined as the difference between the vector of production  $X_j$  and the vector of consumption  $C_j$ – is  $A^{-1}(w)$  times the vector of excess factor supplies ( $V_j - s_j V_w$ ) of country  $j$

<sup>3</sup> Additional aspects referred to factor content of trade can be seen in Dixit and Norman (1980), Helpman (1984), and Helpman and Krugman (1985), among others.

$$T_j = X_j - C_j = A^{-1}(w)V_j - s_j A^{-1}(w)V_w = A^{-1}(w)(V_j - s_j V_w) \quad (6)$$

In the case of two countries (country j and country k), two goods (X and Y) and two factors (L and K), the elements of the vector of excess factor supplies can be expressed as

$$\begin{aligned} K_w(K_j/K_w - s_j) \\ L_w(L_j/L_w - s_j) \end{aligned}$$

It can be demonstrated that if a country is relatively capital abundant (which implies that  $K_j/K_w > s_j$ ),<sup>4</sup> then the elements of the vector of excess factor supplies of country j has signs

$$\begin{aligned} K_w(K_j/K_w - s_j) &> 0 \\ L_w(L_j/L_w - s_j) &< 0 \end{aligned}$$

To determine the sign of the net exports vector of a capital abundant country, we need to determine the effects of premultiplying a vector with signs (+ -) by the inverse of matrix  $A^{-1}(w)$  (which signs depends on the assumption on factor intensity). Then we obtain the signs of the elements of the vector of net exports of country j ( $T_j$ ) and define the pattern of trade. For example, if the element corresponding to good X has a positive sign and the element corresponding to good Y has element has a negative sign, the pattern of trade which arises is that X is exported and Y is imported

$$\begin{aligned} (Q_x - C_x) &> 0 \\ (Q_y - C_y) &> 0 \end{aligned}$$

This also implies that if the first element of the vector of excess factor supplies is positive, services of capital will be exported and, having in mind the negative sign of the other element, services of labor will be imported.

<sup>4</sup> Note that  $s_j$  is a weighed average between  $K_j/K_w$  and  $L_j/L_w$ . In the case below,  $K_j/K_w > s_j$  implies  $K_j/K_w > s_j > L_j/L_w$ . This helps us to define the signs of the elements of the vector of excess factor supplies. Note also that in the case of two countries (country j and country k), two goods (X and Y), and two factors (L and K), ( $K_j/K_w > L_j/L_w$ ) implies that the country j is relatively well-endowed with capital, as we can see below

$$K_j/K_w = K_j/(K_j+K_k) > L_j/L_w = L_j/(L_j+L_k)$$

$$K_j(L_j+L_k) > L_j(K_j+K_k)$$

$$K_j/L_j > K_k/L_k$$

#### *2.1.4. The factor content of trade in a multidimensional context*

The problem arises when our aim is to generalize these results. When the analysis exceeds the case of two goods and two factors, it is no longer possible to always reach definite and general results for the vector  $T_j$ . At this junction, the concept of factor content of trade is very useful.

Premultiplying (6) by the matrix  $A(w)$ , we get the vector  $A(w)T_j$  defined as the vector of factors embodied in the net exports of country  $j$  which is equal to the vector of excess factor supplies of country  $j$

$$A(w)T_j = (V_j - s_j V_w)$$

A positive element of the vector of factors embodied in net exports  $A(w)T_j$  means that services of these factors (embodied in goods) are exported and –using the vector of excess factor supplies ( $V_j - s_j V_w$ )- that the country is relatively well-endowed with that factor. In the same way, a negative element of the vector of factors embodied in net exports  $A(w)T_j$  means that services of these factors (embodied in goods) are imported and –using the vector of excess factor supplies ( $V_j - s_j V_w$ )- that the country is relatively poorly-endowed with that factor.<sup>5</sup>

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<sup>5</sup> In a multidimensional context, a country is defined as relatively abundant on factor  $V_i$  if its share on world factor endowment ( $V_i/V_{iw}$ ) is mayor than its share in consumption ( $s_j$ ).

## **2.2. The dominant factor content**

### **2.2.1. Definition**

The complexity of empirical calculations related with the factor content of trade has led to a simplification of this concept. Following Berlinsky (1989:5), "la noción de contenido factorial dominante es sólo un intento de realizar un corto circuito en la complejidad informativa requerida para un test formal de ventajas comparativas". In the case of the estimation of dominant factor content on exports, Berlinsky (1989: 7) considers that "la noción de contenido factorial dominante es, entonces, simple e intuitiva, consiste en partir del juicio de expertos sobre dicho contenido revelado por las exportaciones realizadas en base a las distintas partidas de la Clasificación Uniforme del Comercio Internacional (CUCI)".

### **2.2.2. Some literature review on the estimation of the dominant factor content of trade**

The empirical evidence of the Heckscher-Ohlin theorem and its generalizations are wide. The first work is the Leontieff's (1985) empirical confrontation of the theorem which is later transformed into his famous paradox. Since then, many authors and research studies have tried to explain this paradox, making alternative estimations and presenting the results in a multidimensional context. Deardorff (en Jones & Kenen, 1984), Leamer (1984), Leamer (en Greenaway & Winters, 1995), and Leamer and Levinson (en Grossman & Rogoff, 1995) are only some impressive examples of the literature on related empirical evidence.

Directly related with the estimation of dominant factor content of trade on exports, Berlinsky (1989) constitutes a turning point with antecedents in Krause (1984), Hufbauer (1970), Hirsch (1974) and Balassa (1977) (in Berlinsky, 1989). In particular, Krause (1984; in Berlinsky, 1989) carries out a similar job for Australia presenting a greater degree of separation of the available information (four digits of the Standard International Trade Classification).

Berlinsky (1989) calculates the dominant factor content of exports of 23 developing countries with different orientation towards international markets for two periods of time (1969-1971 and 1976-1978) and of the Argentinean exports for the period 1967-1985. After that, he investigates the

associations between the factor content of exports, the external commercial policy, and some characteristics of the countries. The methodology of his work is as follows:

- i. natural resources, non-qualified labor, technology, and qualified labor are defined as the factors of production to use in the analysis;
- ii. each item of the Standard International Trade Classification is assigned to each of the factors of production mentioned with different judgments;<sup>6</sup>
- iii. finally, the proportion of the content of each factor on exports (dominant factor content) is calculated taking into account the share of the value of exports assigned to each category in relation with the total.

Some interesting results are obtained in this paper. For the 23 countries, there exists a positive correlation (for open and close countries) between the factor content of technological origin and qualified labor. Both factors also have a positive association with growth (per capita GDP). At the same time, Berlinsky (1989) concludes that only the exports embodied in qualified labor (in most of the countries) have a positive association with the share of those exports on world exports. He also finds an association between a greater diversification of exports (measured by a decrease of their content of natural resources) and a commercial policy with minor antiexport bias. In relation with results for Argentina, estimations suggest that the relative stability of the dominant content of natural resources in the 1967-1985 period could be considered as a sign of the difficulty to diversify the exports under a context where the commercial policy had a strong antiexport bias, the incentives were instable, and the terms of trade were subject to important fluctuations.

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<sup>6</sup> In the first place, they assigned the items belonging to natural resources. Then, to assign the items to non-qualified labor, they follow the estimations of value-added per worker of Garnaut and Anderson (1980) based on Balassa's (1977) estimations, considering the lowest values. The items that are assigned to technology are those sectors with the greater value of spending in research and development in relation with their value-added in the United States. Finally, the items belonging to qualified-labor are those with minor relative importance of research and development (Krause, 1984; in Berlinsky, 1989).

### **3. Estimation of the dominant factor content of touristic resources of the municipalities of the Province of Buenos Aires**

The aim of this section is to analyze the dominant factor content of tourism based on a first approximation of the touristic resources that characterize the municipalities of the Province of Buenos Aires. On one side, we identify the touristic resources belonging to the municipalities following the methodology of inventory of touristic resources embraced by OEA. On the other side, we define the factors of production to be considered in this analysis and also the factor intensity of each category where we include the previously identified touristic resources. Finally, we determine the dominant factor content of the touristic resources for each of the jurisdictions of the province.

#### ***3.1. Identification of the touristic resources of the municipalities of the Province of Buenos Aires***

In this section we identify the touristic resources of the municipalities of the Province of Buenos Aires.

##### ***3.1.1. Identification of touristic resources***

The identification of touristic attractions is one of the most important aspects in the touristic policy of a region or of a country. In general, it is supposed that it is a necessary element in the stage of diagnosis in a process of development and projection to the future of the sector. The instrument/mechanism which summarizes this identification is the inventory of touristic resources, which consists of the elaboration of a list of resources, attractions and places with the potential or possibility of touristic exploitation. Following OEA, the inventory of touristic resources is defined as a catalogue of the places, objects or establishments of touristic interest of a particular area, with their classification and description.

There are a lot of methods to elaborate inventories of touristic resources (Clawson y Knetsch, 1966; Pellegrini, 1976; Gunn, 1988; Defert, 1972; in Leno Cerro, 1993). In this paper we identify the places, objects or events of touristic interest of a particular region, zone or town following the

methodology embraced by OEA. We make an inventory of touristic resources in the municipalities of the Province of Buenos Aires presenting a general classification of touristic attractions into five categories. Each of these categories includes a subclassification of the resources by types and subtypes. Next we present the typology of touristic resources according to the categories mentioned below, and the types and subtypes which these categories include.

- Category 1: Natural Landscapes. It includes mountains (high mountain; hills; volcanoes; valleys and fields; snowy areas; glaciers); plains (deserts; salt mines; plateaus); shores (beaches; scarps; reefs; shoal; islands; fiords; canals; peninsulas; bays and small bays); lakes and lagoons; rivers; waterfalls; grottos and caverns; places of contemplation of flora and fauna; places of hunting and fishing; terms; and national parks and reserves of flora and fauna.
- Category 2: Museums, and Cultural and Historical Manifestations. It includes museums; works of art and technique; historic places; and archeological ruins and sites.
- Category 3: Folklore. It includes religious manifestations, religious and popular beliefs; markets and ferias; music and dances; crafts and arts; typical food and drinks; ethnic groups; and popular and spontaneous architecture.
- Category 4: Contemporary Technical, Scientific and Artistic Works. It includes mine exploitations; agricultural exploitations; industrial exploitations; works of art and technique; and technique and scientific centers.
- Category 5: Programmed Events. It includes artistic events; sports events; and others.

In this work we count 4983 touristic resources for all of the municipalities of the Province of Buenos Aires.

### **3.2. Factor intensity and dominant factor content of touristic resources of the municipalities of the Province of Buenos Aires**

#### **3.2.1. Factor intensity of touristic resources**

After the identification of the inventory of touristic resources for each municipality, the following step is to determine the factor intensity of each of the categories of touristic resources in order to assign the dominant factor content of them for municipalities. This approach is different from the usual one used in this type of measures: the dominant factor content in tourism is established based on the factor intensity of the endowments of places, objects, establishments, and attractions with potential or possibility of being exploit or with touristic interests. The factors of production that are considered are natural resources, historical resources, qualified labor, capital and non-qualified labor. Based on characteristics of the types and subtypes of touristic resources included in the five categories inventoried, we establish the relationship between categories of touristic resources and factor intensity in Table 1.

**Table 1. Factor intensity of the categories of touristic resources**

	Natural resources	Historical resources	Qualified labor	Capital	Non-qualified labor
<b>Category 1 (natural landscapes)</b>	X				
<b>Category 2 (museums, and cultural and historical manifestations)</b>		X			
<b>Category 3 (folklore)</b>			X		
<b>Category 4 (contemporary technical, scientific and artistic works)</b>				X	
<b>Category 5 (programmed events)</b>					X

### 3.2.2. Dominant factor content of touristic resources (municipalities of Buenos Aires)

Finally, we determine the dominant factor content of touristic resources of the municipalities of the Province of Buenos Aires. Based on the identification of touristic resources and taking into account the factor intensity established, we determine the dominant factor content of touristic resources of the municipalities from a simple calculus of their relative shares. In addition, we present the dominant factor content of touristic resources of the municipalities using a specific classification. We classify all the municipalities into six categories according to the main feature that characterizes each jurisdiction: Atlantic Coast, Ranges, Rivers and lagoons, Pueblos turísticos<sup>7</sup> (Touristic towns), Great Buenos Aires (GBA) and Others. The category "Atlantic Coast", "Ranges" and "Rivers and lagoons" are formed by the municipalities that have beaches, ranges and rivers and lagoons as the main characteristic, respectively. *Pueblos turísticos* is formed by the municipalities with towns where tourism is the main economic activity. "Great Buenos Aires" is formed by the municipalities placed in this area. Lastly, those municipalities which have not been classified anywhere else form part of the category "Others". A list with the municipalities and their categories has been included in the appendix.

Table 2 shows the dominant factor content of touristic resources of the municipalities of the province in percentages while Table 3 shows the dominant factor content of touristic resources of the municipalities grouped into the six categories previously mentioned.

**Table 2. Dominant factor content of touristic resources of the Province of Buenos Aires**

Municipalities	Natural resources	Historical resources	Qualified labor	Capital	Non-qualified labor
Adolfo Alsina	29,85	38,81	10,45	13,43	7,46
Adolfo González Chaves	28,57	57,14	0,00	14,29	0,00
Alberti	17,78	28,89	11,11	35,56	6,67
Almirante Brown	21,95	47,56	1,22	29,27	0,00
Arrecifes	26,67	46,67	0,00	20,00	6,67
Avellaneda	11,94	35,82	10,45	41,79	0,00
Ayacucho	17,11	27,63	14,47	14,47	26,32
Azul	33,70	35,87	5,43	20,65	4,35
Bahía Blanca	8,67	45,33	0,00	44,00	2,00

<sup>7</sup> "Pueblos Turísticos" is a program held by the Dirección Provincial de Turismo Social y Comunitario (Secretaría de Turismo) and established by the law N° 13.251 of the Province of Buenos Aires in 2004. It is aimed at promoting and encouraging the development of sustainable activities and touristic projects in small towns of the Province of Buenos Aires while helping to create identity, employment opportunities and genuine resources.

Balcarce	50,00	16,13	9,68	16,13	8,06
Baradero	36,11	33,33	8,33	11,11	11,11
Benito Juárez	32,73	21,82	12,73	17,27	15,45
Berazategui	8,11	37,84	0,00	43,24	10,81
Berisso	29,17	31,25	8,33	12,50	18,75
Bolívar	35,71	50,00	0,00	0,00	14,29
Bragado	11,61	22,32	11,61	43,75	10,71
BrandSEN	26,92	30,77	7,69	26,92	7,69
Campana	26,92	37,18	0,00	28,21	7,69
Cañuelas	36,36	45,45	3,03	9,09	6,06
Capitán Sarmiento	12,50	20,00	17,50	35,00	15,00
Carlos Casares	11,39	45,57	11,39	26,58	5,06
Carlos Tejedor	18,18	45,45	0,00	36,36	0,00
Carmen de Areco	34,48	41,38	10,34	0,00	13,79
Carmen de Patagones	36,36	57,58	0,00	6,06	0,00
Castelli	65,00	25,00	5,00	0,00	5,00
Chacabuco	21,43	42,86	0,00	21,43	14,29
Chascomús	50,85	30,51	1,69	15,25	1,69
Chivilcoy	42,11	50,00	2,63	5,26	0,00
Colón	23,53	52,94	0,00	23,53	0,00
Coronel Dorrego	58,33	29,17	0,00	4,17	8,33
Coronel Pringles	28,95	55,26	2,63	13,16	0,00
Coronel Rosales	25,00	70,00	0,00	5,00	0,00
Coronel Suarez	19,51	29,27	12,20	7,32	31,71
Daireaux	31,25	56,25	0,00	6,25	6,25
Dolores	19,35	51,61	3,23	19,35	6,45
Ensenada	27,42	38,71	1,61	29,03	3,23
Escobar	35,71	38,10	0,00	21,43	4,76
Esteban Echeverría	0,00	60,00	10,00	30,00	0,00
Exaltación de la Cruz	44,00	32,00	12,00	12,00	0,00
Ezeiza	12,50	50,00	12,50	25,00	0,00
Florencio Varela	24,49	53,06	10,20	6,12	6,12
Florentino Ameghino	0,00	50,00	50,00	0,00	0,00
General Alvarado	57,14	22,86	0,00	17,14	2,86
General Alvear	0,00	66,67	0,00	33,33	0,00
General Arenales	27,27	36,36	9,09	9,09	18,18
General Belgrano	50,00	27,78	8,33	2,78	11,11
General Guido	37,50	37,50	0,00	25,00	0,00
General Lamadrid	21,21	39,39	15,15	15,15	9,09
General Las Heras	0,00	55,56	11,11	22,22	11,11
General Lavalle	56,00	32,00	8,00	4,00	0,00
General Madariaga	30,95	28,57	13,10	16,67	10,71
General Paz	40,00	50,00	10,00	0,00	0,00
General Pinto	52,94	29,41	0,00	11,76	5,88
General Pueyrredón	43,22	30,40	1,10	20,88	4,40
General Rodriguez	0,00	100,00	0,00	0,00	0,00
General San Martín	10,00	70,00	5,00	10,00	5,00
General Viamonte	20,75	64,15	5,66	3,77	5,66
General Villegas	25,00	35,00	12,50	20,00	7,50
Guaminí	45,45	50,00	0,00	4,55	0,00

<b>Hipólito Yrigoyen</b>	0,00	100,00	0,00	0,00	0,00
<b>Hurlingham</b>	0,00	57,14	0,00	42,86	0,00
<b>Ituzaingó</b>	0,00	31,58	26,32	5,26	36,84
<b>José C. Paz</b>	0,00	57,14	42,86	0,00	0,00
<b>Junín</b>	40,00	28,57	2,86	5,71	22,86
<b>La Matanza</b>	7,50	57,50	10,00	17,50	7,50
<b>La Plata</b>	5,43	77,17	3,26	10,87	3,26
<b>Lanús</b>	0,00	95,24	0,00	4,76	0,00
<b>Laprida</b>	0,00	100,00	0,00	0,00	0,00
<b>Las Flores</b>	15,91	56,82	9,09	2,27	15,91
<b>Leandro Alem</b>	25,00	75,00	0,00	0,00	0,00
<b>Lincoln</b>	20,00	46,67	20,00	3,33	10,00
<b>Lobería</b>	38,46	38,46	15,38	0,00	7,69
<b>Lobos</b>	36,54	51,92	3,85	5,77	1,92
<b>Lomas de Zamora</b>	3,85	80,77	3,85	7,69	3,85
<b>Luján</b>	34,38	56,25	6,25	3,13	0,00
<b>Magdalena</b>	52,17	32,61	8,70	2,17	4,35
<b>Maipú</b>	20,00	60,00	0,00	0,00	20,00
<b>Malvinas Argentinas</b>	60,00	30,00	0,00	10,00	0,00
<b>Mar Chiquita</b>	55,06	24,72	3,37	3,37	13,48
<b>Marcos Paz</b>	58,33	33,33	0,00	8,33	0,00
<b>Mercedes</b>	21,28	53,19	2,13	4,26	19,15
<b>Merlo</b>	0,00	83,33	0,00	16,67	0,00
<b>Monte</b>	47,50	40,00	0,00	7,50	5,00
<b>Monte Hermoso</b>	55,88	26,47	2,94	8,82	5,88
<b>Moreno</b>	26,67	53,33	4,44	13,33	2,22
<b>Morón</b>	0,00	50,00	0,00	50,00	0,00
<b>Navarro</b>	57,14	42,86	0,00	0,00	0,00
<b>Necochea</b>	56,60	24,53	5,66	5,66	7,55
<b>Nueve de Julio</b>	36,36	45,45	0,00	18,18	0,00
<b>Olavarría</b>	29,31	47,41	3,45	13,79	6,03
<b>Partido de la Costa</b>	38,35	29,32	9,77	12,78	9,77
<b>Pehuajó</b>	30,00	40,00	10,00	0,00	20,00
<b>Pellegrini</b>	0,00	100,00	0,00	0,00	0,00
<b>Pergamino</b>	30,77	53,85	0,00	15,38	0,00
<b>Pila</b>	62,50	37,50	0,00	0,00	0,00
<b>Pilar</b>	16,13	58,06	0,00	25,81	0,00
<b>Pinamar</b>	59,18	16,33	2,04	14,29	8,16
<b>Presidente Perón</b>	14,29	57,14	0,00	28,57	0,00
<b>Puán</b>	39,02	26,83	2,44	19,51	12,20
<b>Punta Indio</b>	60,00	20,00	0,00	0,00	20,00
<b>Quilmes</b>	21,95	60,98	0,00	12,20	4,88
<b>Ramallo</b>	50,00	42,86	0,00	0,00	7,14
<b>Rauch</b>	13,64	50,00	9,09	22,73	4,55
<b>Rivadavia</b>	0,00	100,00	0,00	0,00	0,00
<b>Rojas</b>	56,25	25,00	0,00	12,50	6,25
<b>Roque Pérez</b>	64,71	29,41	0,00	0,00	5,88
<b>Saavedra</b>	57,89	28,95	5,26	2,63	5,26
<b>Saladillo</b>	21,43	57,14	0,00	21,43	0,00
<b>Salliqueló</b>	13,33	53,33	0,00	26,67	6,67

	Natural resources	Historical resources	Qualified labor	Capital	Non-qualified labor
<b>Salto</b>	30,00	40,00	10,00	5,00	15,00
<b>San Andrés de Giles</b>	31,25	43,75	6,25	12,50	6,25
<b>San Antonio de Areco</b>	26,09	54,35	8,70	6,52	4,35
<b>San Cayetano</b>	40,00	40,00	20,00	0,00	0,00
<b>San Fernando</b>	31,11	53,33	2,22	11,11	2,22
<b>San Isidro</b>	18,97	63,79	3,45	13,79	0,00
<b>San Miguel</b>	0,00	100,00	0,00	0,00	0,00
<b>San Nicolás</b>	25,00	55,00	5,00	10,00	5,00
<b>San Pedro</b>	25,81	38,71	6,45	12,90	16,13
<b>San Vicente</b>	30,77	53,85	7,69	0,00	7,69
<b>Suipacha</b>	0,00	100,00	0,00	0,00	0,00
<b>Tandil</b>	29,07	51,16	4,65	5,81	9,30
<b>Tapalqué</b>	50,00	33,33	8,33	8,33	0,00
<b>Tigre</b>	45,87	33,03	3,67	12,84	4,59
<b>Tordillo</b>	0,00	50,00	0,00	50,00	0,00
<b>Tornquist</b>	63,89	23,61	2,78	5,56	4,17
<b>Trenque Lauquen</b>	33,33	53,33	0,00	6,67	6,67
<b>Tres Arroyos</b>	54,90	37,25	0,00	3,92	3,92
<b>Tres de Febrero</b>	0,00	94,12	0,00	5,88	0,00
<b>Tres Lomas</b>	6,67	33,33	40,00	20,00	0,00
<b>Veinticinco de Mayo</b>	20,00	80,00	0,00	0,00	0,00
<b>Vicente López</b>	25,00	50,00	2,78	20,83	1,39
<b>Villa Gesell</b>	44,83	17,24	6,90	13,79	17,24
<b>Villarino</b>	33,33	54,17	0,00	8,33	4,17
<b>Zárate</b>	50,00	37,50	0,00	12,50	0,00

Source: Guías turísticas YPF 2000

**Table 3. Dominant factor content of touristic resources of the municipalities of the Province of Buenos Aires according to the 6 categories**

	Natural resources	Historical resources	Qualified labor	Capital	Non-qualified labor
<b>Atlantic Coast</b>	51,26	25,55	3,55	12,16	7,47
<b>GBA</b>	12,35	59,68	6,32	18,14	3,51
<b>Pueblos turísticos</b>	32,02	49,95	6,06	7,81	4,16
<b>Rivers and lagoons</b>	37,85	40,82	4,75	9,83	6,75
<b>Ranges</b>	39,04	35,96	5,76	10,63	8,61
<b>Others</b>	22,01	52,20	5,84	14,26	5,69

Source: Guías turísticas YPF 2000

Table 4 presents the ranking of factor intensity –the factor of production is valued “1” if it presents the higher percentage belonging to the dominant factor content, “2” for the next important percentage and so on for the six groups of municipalities.

**Table 4. Ranking of factor intensity for the municipalities of the Province of Buenos Aires according to the six categories**

Categories	Natural resources	Historical resources	Qualified labor	Capital	Non-qualified labor
Atlantic Coast	1	2	5	3	4
GBA	3	1	4	2	5
Pueblos turísticos	2	1	4	3	5
Rivers and lagoons	2	1	5	3	4
Ranges	1	2	5	3	4
Others	2	1	4	3	5

Some interesting conclusions can be derived from the information contained in these Tables:

- i. touristic resources of the municipalities of the province present a dominant factor content of historical resources, natural resources and capital;
- ii. in most municipalities, the dominant factor content of touristic resources amounted to over 50%. For example, Coronel Rosales, Esteban Echeverría, General Alvear, General Rodriguez, General Viamonte, Hipólito Yrigoyen, La Plata, Lanús, Laprida, Leandro Alem, Lomas de Zamora, Maipú, Merlo, Pellegrini, Quilmes, Rivadavia, San Isidro, San Miguel, Suipacha, Tres de Febrero y Veinticinco de Mayo have a share of more than 60% of dominant factor content of historical resources. In relation with natural resources, Castelli has a share of 65%, Pila of 62% approximately, Punta Indio of 60%, Roque Pérez of 65% approximately and Tornquist of 64%;
- iii. the third place is for the dominant factor content of capital with a share of around 40% for some municipalities (for example, Avellaneda, Bahía Blanca, Berazategui, Bragado, Hurlingham, Morón and Tordillo);

- iv. in some cases, there is no touristic resources intensive in particular factors (for example, General Rodriguez when we consider any factor but historical resources, or Veinticinco de Mayo when we consider labor –qualified or non-qualified- and capital);
- v. touristic resources of the municipalities included in the categories of “Atlantic Coast” and “Ranges” present a dominant factor content of natural resources (51,26% and 39,04%, respectively) and, in the second place, of historical resources (25,55% and 35,96%, respectively);
- vi. interestingly, the municipalities included in the category “Rivers and lagoons” present a dominant factor content of historical resources (40,82%), followed by natural resources (37,85%);
- vii. as for the categories “Pueblos turísticos” and “Others”, both present a dominant factor content of historical resources (49,95% and 52,20%, respectively) and, in the second place, of natural resources (32,02% and 22,01%, respectively);
- viii. the municipalities included in the “Great Buenos Aires” present a dominant factor content of historical resources (59,68%); however, unlike all the categories previously mentioned, the second dominant factor content is capital and the third, natural resources.

### ***3.3. Relationship between the dominant factor content of touristic resources and touristic GDP of the municipalities of the Province of Buenos Aires***

In this section we relate the results previously obtained with alternative measures of the most important activities which are considered to be part of the GDP of tourism sector of the municipalities of the Province of Buenos Aires. We work with a measure which considers the value-added of activities related with, for one side, accommodation and food, and transport, and for the other side, only the activities related with accommodation and food. We also use an alternative measure taking into account salaries paid in the accommodation and food, and transport sectors.

Table 5 presents the measurement of an index of touristic GDP for the municipalities in terms of value-added for the two available years: 1993 and 2003. Table 6 presents the same information for the 6 categories of municipalities already presented. The GDP (1) presents the GDP for 1993 and 2003

considering that food and accommodation have a share of 100%. GDP (2) presents the GDP for 1993 and 2003 considering a share of 75% for food and accommodation and 30% for transport. GDP (3) and GDP (4) show the GDP valued by the salaries of the workers. The first one considers that the salaries of the sector of food and accommodation have a share of 100% and the second one, considers a share of 75% for the salaries of the sector of food and accommodation and a share of 30% for the salaries of the sector of transport.

There are several municipalities that have GDP above the mean for all the measures considered. For example, Avellaneda, Bahía Blanca, Escobar, General Pueyrredón, La Plata, Lanús, Quilmes, San Fernando, San Isidro, Tigre, Tres de Febrero, Vicente López and Villa Gesell. Some municipalities show a GDP above the mean for the first four measures while a GDP below the mean for the last two measures, such as La Matanza, Lomas de Zamora, Merlo, Morón, Necochea and Tandil. On the other side, Laprida, Magdalena, Mar Chiquita, Monte, Navarro and Nueve de Julio have a GDP below the mean for the first four measures while a GDP above the mean for the last two measures. Note that some municipalities whose GDP was above the mean in 1993, considering GDP(1) and GDP(2), show a decrease in their index in 2003, such as Almirante Brown, Berazategui, Moreno, Partido de La Costa, Quilmes and Olavarría.

**Table 5. Touristic GDP for the municipalities of the Province**

<b>Municipalities</b>	<b>GDP (1)</b>	<b>GDP (1)</b>	<b>GDP (2)</b>	<b>GDP (2)</b>	<b>GDP (3)</b>	<b>GDP (4)</b>
	<b>1993</b>	<b>2003</b>	<b>1993</b>	<b>2003</b>	<b>2003</b>	<b>2003</b>
<b>Adolfo Alsina</b>	18,69	9,78	22,98	7,51	2,86	2,35
<b>Adolfo González Chaves</b>	9,63	4,21	15,38	3,12	0,89	1,35
<b>Alberti</b>	5,80	4,99	9,65	4,17	2,80	2,31
<b>Almirante Brown</b>	481,54	116,53	422,72	59,51	51,23	69,10
<b>Arrecifes</b>	22,34	12,33	29,61	7,39	4,97	5,57
<b>Avellaneda</b>	364,96	203,97	411,76	965,89	703,72	533,65
<b>Ayacucho</b>	16,28	10,78	21,44	6,48	3,26	3,34
<b>Azul</b>	62,21	37,33	75,26	32,93	27,65	30,05
<b>Bahía Blanca</b>	210,73	328,73	345,03	466,44	468,68	407,08
<b>Balcarce</b>	39,93	32,42	51,18	20,22	16,39	17,21
<b>Baradero</b>	22,03	15,54	25,23	9,08	5,30	6,09
<b>Benito Juárez</b>	16,29	6,93	25,36	3,49	2,60	3,41
<b>Berazategui</b>	284,31	63,90	245,57	88,38	65,25	59,36
<b>Berisso</b>	67,00	34,27	66,10	14,08	11,00	14,59

<b>Bolívar</b>	27,61	21,85	35,33	12,16	6,08	7,34
<b>Bragado</b>	26,61	20,58	36,69	28,26	20,39	17,05
<b>BrandSEN</b>	18,86	12,97	18,78	7,85	5,32	5,50
<b>Campana</b>	47,75	68,10	87,20	186,67	257,65	183,59
<b>Cañuelas</b>	25,19	51,56	24,88	18,48	14,61	21,26
<b>Capitán Sarmiento</b>	4,15	2,59	10,66	6,28	4,69	2,98
<b>Carlos Casares</b>	15,96	6,06	21,59	5,61	3,51	3,71
<b>Carlos Tejedor</b>	10,16	3,82	11,03	6,87	5,43	3,94
<b>Carmen de Areco</b>	10,10	6,51	10,94	9,52	5,31	4,07
<b>Carmen de Patagones</b>	23,27	18,67	27,47	11,10	7,59	7,91
<b>Castelli</b>	0,01	1,75	4,37	0,81	0,10	0,15
<b>Chacabuco</b>	48,33	46,08	54,36	23,76	12,58	12,29
<b>Chascomús</b>	50,62	64,70	42,91	25,49	25,21	36,71
<b>Chivilcoy</b>	43,29	48,36	64,86	25,71	23,31	28,22
<b>Colón</b>	15,24	7,33	22,57	3,52	1,86	2,04
<b>Coronel Dorrego</b>	15,87	10,14	24,66	10,74	2,94	2,88
<b>Coronel Pringles</b>	14,26	12,12	26,15	7,89	6,73	6,79
<b>Coronel Rosales</b>	43,71	24,39	46,17	322,62	95,79	65,18
<b>Coronel Suárez</b>	27,54	16,50	43,35	34,67	27,62	20,72
<b>Daireaux</b>	7,86	5,39	12,28	9,02	3,60	2,79
<b>Dolores</b>	33,86	12,70	29,62	8,04	5,63	7,75
<b>Ensenada</b>	52,67	20,49	80,14	137,09	200,57	126,04
<b>Escobar</b>	144,85	330,57	116,81	395,78	256,44	302,31
<b>Esteban Echeverría</b>	324,52	169,60	401,65	79,39	111,61	142,45
<b>Exaltación de la Cruz</b>	25,88	7,21	18,84	5,16	3,12	3,02
<b>Ezeiza</b>	0,00	722,69	0,00	922,88	1275,93	1189,04
<b>Florencio Varela</b>	356,52	47,04	251,40	42,15	31,51	36,33
<b>Florentino Ameghino</b>	5,55	4,50	3,25	3,89	1,23	0,89
<b>General Alvarado</b>	79,15	51,39	53,68	28,78	22,77	26,25
<b>General Alvear</b>	5,59	4,21	7,42	3,52	2,51	1,66
<b>General Arenales</b>	5,69	3,09	16,39	6,92	6,98	4,50
<b>General Belgrano</b>	15,04	6,66	15,82	3,53	1,89	1,44
<b>General Guido</b>	1,03	0,00	1,95	0,00	0,00	0,00
<b>General Lamadrid</b>	13,03	24,47	20,98	13,92	8,06	7,20
<b>General Las Heras</b>	8,38	2,09	10,24	2,90	1,43	1,10
<b>General Lavalle</b>	6,69	6,58	8,03	5,77	3,35	2,28
<b>General Madariaga</b>	2,04	0,00	4,37	9,00	9,03	5,48
<b>General Paz</b>	6,75	2,19	8,19	1,73	0,09	0,06
<b>General Pinto</b>	8,30	19,51	11,54	8,57	3,74	4,16
<b>General Pueyrredón</b>	1894,32	2424,05	1287,22	1136,44	1286,60	1701,04
<b>General Rodriguez</b>	49,75	10,41	45,09	242,48	484,66	296,40
<b>General San Martín</b>	312,03	178,31	415,77	124,35	95,00	109,46
<b>General Viamonte</b>	11,08	8,61	15,27	3,85	0,96	1,19
<b>General Villegas</b>	21,27	15,24	28,45	10,92	7,51	7,40

<b>Guaminí</b>	15,35	6,51	15,62	10,27	7,18	4,79
<b>Hipólito Yrigoyen</b>	7,05	2,32	9,47	1,04	0,26	0,39
<b>Hurlingham</b>	0,00	38,66	0,00	75,88	71,12	58,17
<b>Ituzaingó</b>	0,00	93,22	0,00	68,30	87,98	94,30
<b>José C. Paz</b>	0,00	41,28	0,00	22,95	15,13	17,54
<b>Junín</b>	73,08	95,86	89,13	90,73	70,32	71,28
<b>La Matanza</b>	839,33	331,02	941,75	773,43	42,57	49,79
<b>La Plata</b>	429,17	620,28	539,78	413,46	857,95	686,10
<b>Lanús</b>	410,68	149,87	477,53	107,84	505,51	576,50
<b>Laprida</b>	5,62	6,86	9,43	5,06	113,14	135,25
<b>Las Flores</b>	13,15	10,78	19,49	10,86	1,16	1,37
<b>Leandro Alem</b>	11,52	7,11	14,15	9,60	11,29	9,44
<b>Lincoln</b>	31,53	37,77	44,50	24,61	7,81	6,01
<b>Lobería</b>	9,29	4,84	19,23	3,48	14,09	16,41
<b>Lobos</b>	25,71	39,62	32,70	19,16	2,12	2,14
<b>Lomas de Zamora</b>	379,12	271,03	480,22	156,41	17,54	21,83
<b>Luján</b>	80,51	136,18	86,54	162,58	181,71	239,61
<b>Magdalena</b>	6,66	1,66	12,09	4,70	137,32	148,16
<b>Maipú</b>	13,26	4,31	12,03	5,71	3,83	2,57
<b>Malvinas Argentinas</b>	0,00	146,15	0,00	251,20	3,77	2,78
<b>Mar Chiquita</b>	27,87	8,42	19,82	8,81	251,66	243,04
<b>Marcos Paz</b>	18,07	4,52	16,11	4,05	8,54	5,43
<b>Mercedes</b>	46,65	28,41	57,75	12,23	1,00	1,04
<b>Merlo</b>	453,55	149,22	360,13	118,85	13,50	17,42
<b>Monte</b>	17,04	13,43	16,76	6,57	113,65	127,04
<b>Monte Hermoso</b>	41,01	14,34	19,98	13,18	3,83	4,70
<b>Moreno</b>	333,55	108,51	264,10	65,47	13,19	12,04
<b>Morón</b>	618,48	279,37	702,28	165,14	68,65	89,30
<b>Navarro</b>	7,61	14,11	11,81	7,20	194,88	245,62
<b>Necochea</b>	191,02	127,16	166,63	244,06	6,38	9,13
<b>Nueve de Julio</b>	22,77	26,13	41,73	24,31	209,68	167,86
<b>Olavarría</b>	74,24	56,25	123,83	77,56	14,14	14,11
<b>Partido de la Costa</b>	352,50	125,94	176,75	73,12	93,97	75,99
<b>Pehuajó</b>	24,12	36,00	35,58	20,52	20,73	22,95
<b>Pellegrini</b>	4,66	4,46	7,37	2,95	1,65	1,25
<b>Pergamino</b>	89,60	102,56	119,42	115,17	102,78	98,15
<b>Pila</b>	1,42	0,00	1,86	0,00	0,00	0,00
<b>Pilar</b>	99,15	382,09	100,90	240,90	326,28	384,32
<b>Pinamar</b>	171,59	485,08	83,11	215,09	168,55	198,05
<b>Presidente Perón</b>	0,00	6,38	0,00	3,38	3,13	4,16
<b>Puán</b>	12,23	6,88	17,44	6,13	2,29	1,56
<b>Punta Indio</b>	0,00	1,73	0,00	1,12	0,87	0,81
<b>Quilmes</b>	406,64	300,11	446,64	154,42	182,68	242,70
<b>Ramallo</b>	25,97	8,06	28,30	7,33	5,35	3,95
<b>Rauch</b>	8,76	10,38	13,46	5,25	3,57	3,79

<b>Rivadavia</b>	12,01	16,70	19,29	8,17	5,76	6,49
<b>Rojas</b>	17,56	14,03	25,03	54,60	41,91	28,24
<b>Roque Pérez</b>	5,35	4,92	9,39	2,54	1,21	1,27
<b>Saavedra</b>	13,26	19,27	14,82	40,26	12,93	11,40
<b>Saladillo</b>	23,59	18,30	27,03	11,52	7,74	8,63
<b>Salliqueló</b>	6,90	6,26	10,86	13,10	3,60	2,64
<b>Salto</b>	25,08	23,18	36,93	40,81	19,84	16,37
<b>San Andrés de Giles</b>	15,09	10,20	17,24	4,59	3,46	4,27
<b>San Antonio de Areco</b>	19,36	25,15	22,60	10,80	4,12	5,75
<b>San Cayetano</b>	7,49	6,40	11,54	5,55	3,66	2,76
<b>San Fernando</b>	167,73	141,12	168,48	133,28	173,63	163,42
<b>San Isidro</b>	297,74	1203,53	334,56	1265,15	1256,03	1290,25
<b>San Miguel</b>	0,00	121,38	0,00	124,73	121,08	125,07
<b>San Nicolás</b>	90,25	112,81	114,81	172,74	170,67	145,15
<b>San Pedro</b>	44,45	44,03	46,98	61,70	70,67	52,98
<b>San Vicente</b>	104,56	7,51	74,42	9,02	3,78	4,36
<b>Suipacha</b>	5,75	9,72	7,36	4,07	2,20	3,11
<b>Tandil</b>	117,29	154,26	132,57	100,05	91,25	99,41
<b>Tapalqué</b>	3,03	3,08	5,75	2,11	0,26	0,23
<b>Tigre</b>	277,44	147,60	251,83	294,23	399,54	315,06
<b>Tordillo</b>	1,03	0,00	1,00	0,00	0,00	0,00
<b>Tornquist</b>	22,64	30,65	21,84	14,01	9,24	11,47
<b>Trenque Lauquen</b>	29,50	32,73	35,06	15,37	14,61	18,43
<b>Tres Arroyos</b>	54,82	51,59	79,92	62,23	44,56	44,45
<b>Tres de Febrero</b>	363,43	412,28	384,32	213,72	258,16	360,21
<b>Tres Lomas</b>	4,20	4,81	3,08	4,36	1,78	1,18
<b>Veinticinco de Mayo</b>	15,29	16,54	24,90	23,37	21,05	16,68
<b>Vicente López</b>	483,84	634,38	424,03	851,72	663,16	689,64
<b>Villa Gesell</b>	199,23	248,26	100,31	148,54	137,51	136,99
<b>Villarino</b>	23,23	54,78	24,62	27,43	13,22	12,98
<b>Zárate</b>	67,19	76,82	88,38	227,34	163,10	134,21

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% salaries of workers of food and accommodation.

GDP (4): 75% salaries of workers of food and accommodation and 30% of transport

Source: Guías turísticas YPF (2000)

Table 6 shows touristic GDP according to the 6 categories of municipalities. "GBA" presented its GDP above the mean during the two years considering the four measures. The groups "Pueblos turísticos", "Rivers and lagoons", "Ranges" and "Others" presented GDPs below the mean for both

years and the four measures. Lastly, "Atlantic Coast" showed the GDP above the mean for all measures, except GDP (2) in 1993.

**Table 6. Touristic GDP for the municipalities of the Province**

Groups/Categories	GDP (1)	GDP (1)	GDP (2)	GDP (2)	GDP (3)	GDP (4)
	1993	2003	1993	2003	2003	2003
<b>Atlantic Coast</b>	133,60	157,96	88,10	109,42	132,98	104,62
<b>GBA</b>	307,97	265,22	319,38	292,65	311,17	311,05
<b>Pueblos turísticos</b>	6,28	9,99	6,77	9,18	9,41	8,03
<b>Rivers and lagoons</b>	62,92	62,73	69,96	83,20	53,37	67,22
<b>Ranges</b>	16,63	16,07	21,90	15,12	11,35	12,23
<b>Others</b>	72,61	88,03	93,89	90,43	81,72	96,86

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% salaries of workers of food and accommodation.

GDP (4): 75% salaries of workers of food and accommodation and 30% of transport

Source: Censo Nacional Económico (1994)

Table 7 and Table 8 present the relationship between touristic GDP (in terms of value-added and salaries) and the dominant factor content of touristic resources for municipalities and the groups previously mentioned, respectively, calculating a coefficient of correlation of ranks of Spearman.

The most interesting result is that the only significant correlation for the municipalities is found between any measure of value added and salaries and the dominant factor of capital. The value is approximately 0,24 when we consider the value added of 1993; 0,22 for the value added of 2003 and 0,17 for salaries of 2003.

In the case of the six groups or categories, the only significant correlation is found between any measure of value added and salaries and the dominant factor of capital. The value is approximately 0,89.

These results suggest a positive correlation between touristic GDP and resources intensive in capital; in other words, most municipalities or groups of municipalities with a high touristic GDP have touristic attractions specialized in capital.

**Table 7. Coefficient of correlation of Spearman for the municipalities  
of the Province of Buenos Aires**

	Natural resources	Historical resources	Qualified labor	Capital	Non-qualified labor
<b>GDP (1) 1993</b>	-0,0170 0,8458	0,0756 0,3850	-0,0595 0,4946	0,2308 0,0073***	0,0870 0,3176
<b>GDP (1) 2003</b>	-0,1122 0,1968	0,1294 0,1362	-0,0590 0,4983	0,2231 0,0096***	-0,0357 0,6823
<b>GDP (2) 1993</b>	-0,0499 0,5671	0,0952 0,2738	-0,0475 0,5858	0,2464 0,0041***	0,1016 0,2429
<b>GDP (2) 2003</b>	-0,1139 0,1900	0,1033 0,2349	-0,0736 0,3979	0,2205 0,0104**	-0,0226 0,7954
<b>GDP (3) 1993</b>	-0,0419 0,6308	0,0920 0,2907	-0,0507 0,5610	0,2437 0,0045***	0,1005 0,2477
<b>GDP (3) 2003</b>	-0,1139 0,1900	0,1033 0,2349	-0,0736 0,3979	0,2205 0,0104**	-0,0226 0,7954
<b>GDP (4) 2003</b>	-0,0843 0,3326	0,0918 0,2914	-0,1046 0,2289	0,1616 0,0621*	-0,0884 0,3097
<b>GDP (5) 2003</b>	-0,0880 0,3122	0,1056 0,2248	-0,1064 0,2209	0,1664 0,0547*	-0,0899 0,3016
<b>GDP (6) 2003</b>	-0,0884 0,3096	0,1113 0,2005	-0,1090 0,2101	0,1680 0,0524*	-0,0915 0,2932

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Source: Censo Nacional Económico (1994) & Guías turísticas YPF 2000

Additionally, we present the coefficient of correlation of ranks of Spearman for each group or category separately. Tables A3-A8 in the appendix show the results. In the case of "*Pueblos turísticos*", there is no significant correlation between any measure of GDP and any dominant factor. "Atlantic Coast" shows a significant and positive correlation between GDP (1) and GDP (2) in 1993

and the five dominant factors. GDP (1) and GDP (2) in 2003 show a significant and positive correlation with natural resources and qualified labor. GDP (3) in 1993 presents a positive and significant correlation with all the dominant factors, except historical resources and in 2003 with all the dominant factors, except historical resources and qualified labor. Finally, there is a positive and significant correlation between any measure of GDP in terms of salaries and capital and non qualified labor.

**Table 8. Coefficient of correlation of Spearman according to the six categories**

	Natural resources	Historical resources	Qualified labor	Capital	Non- qualified labor
<b>GDP (1) 1993</b>	-0,2571	0,2571	0,0286	0,8857	-0,2571
	0,6228	0,6228	0,9572	0,0188**	0,6228
<b>GDP (1) 2003</b>	-0,2571	0,2571	0,0286	0,8857	-0,2571
	0,6228	0,6228	0,9572	0,0188**	0,6228
<b>GDP (2) 1993</b>	-0,4857	0,4857	0,2000	0,9429	-0,3714
	0,3287	0,3287	0,7040	0,0048***	0,4685
<b>GDP (2) 2003</b>	-0,2571	0,2571	0,0286	0,8857	-0,2571
	0,6228	0,6228	0,9572	0,0188**	0,6228
<b>GDP (3) 1993</b>	-0,2571	0,2571	0,0286	0,8857	-0,2571
	0,6228	0,6228	0,9572	0,0188**	0,6228
<b>GDP (3) 2003</b>	-0,2571	0,2571	0,0286	0,8857	-0,2571
	0,6228	0,6228	0,9572	0,0188**	0,6228
<b>GDP (4) 2003</b>	-0,2571	0,2571	0,0286	0,8857	-0,2571
	0,6228	0,6228	0,9572	0,0188**	0,6228
<b>GDP (5) 2003</b>	-0,2571	0,2571	0,0286	0,8857	-0,2571
	0,6228	0,6228	0,9572	0,0188**	0,6228
<b>GDP (6) 2003</b>	-0,2571	0,2571	0,0286	0,8857	-0,2571
	0,6228	0,6228	0,9572	0,0188**	0,6228

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Source: Censo Nacional Económico (1994) & Guías turísticas YPF 2000

In the case of "GBA", six positive and significant correlations are found: between GDP (1), GDP (2) and GDP (3) in 1993 and historical resources and capital. When we consider "Ranges", a positive and significant correlation is found between GDP (1), GDP (2), GDP (3) in 1993 and GDP (4) and historical resources, capital and qualified labor. In addition, a positive and significant correlation is found between GDP (5) and GDP (6) and historical resources and capital. As for "Rivers and lagoons", positive and significant correlations are found between any measure of GDP and natural resources, historical resources and capital; GDP (1) in both years, GDP (2) and GDP (3) in 1993 are positively and significantly correlated with non qualified labor. No significant association is found between any measure of GDP and qualified labor. Lastly, in the case of "Others", a positive and significant correlation is found between any measure of GDP and natural resources, historical resources, capital and non qualified labor. No significant correlation is found between any measure of GDP and qualified labor.

Finally, we conduct an additional exercise. We calculate the coefficient of correlation of ranks of Spearmen between the dominant factors and the rate of growth of GDP (1), GDP (2) and GDP (3) between 1993 and 2003 for the municipalities and for the six groups or categories separately. In the case of the municipalities, no significant correlation is found. In the case of the six groups or categories, seven coefficients are found statistically significant: a positive correlation between GDP (1) and capital, GDP (2) and historical resources, GDP (2) and capital, GDP (3) and historical resources and GDP (3) and capital in the case of Rivers and lagoons and a negative correlation between GDP (1) and qualified labor and GDP (1) and capital in the case of Ranges. These results seem to indicate that the municipalities belonging to the group Rivers and lagoons that show a positive rate of growth of the GDP have touristic resources intensive in historical resources and capital and that the municipalities belonging to the group Ranges that show a negative rate of growth of the GDP have touristic resources intensive in qualified labor and capital. We do not include the results in the present document although they are available upon request.

### **3.4. Robustness checks**

In this section we present the dominant factor content of touristic resources and the coefficients of correlation of Spearman considering two alternative definitions of factor intensity. This exercise is

aimed at checking the robustness to different definitions of factor intensity and dominant factors of the results previously found.

The first definition considers that natural landscapes (category 1) is intensive in natural resources; museums, and cultural and historical manifestations (category 2) is intensive in historical resources; folklore (category 3) and programmed events (category 5) are intensive in qualified labor and contemporary technical, scientific and artistic works (category 4) is intensive in capital.

The second one considers that natural landscapes (category 1) and museums, and cultural and historical manifestations (category 2) are intensive in touristic resources; folklore (category 3) and programmed events (category 5) are intensive in qualified labor and contemporary technical, scientific and artistic works (category 4) is intensive in capital.

In Table 9 and Table 10 we present the dominant factor content of touristic resources according to the six categories or groups considering four and three dominant factor content respectively.

**Table 9. Dominant factor content of touristic resources according to the six categories or groups  
(considering four dominant factor content)**

Groups/Categories	Natural resources	Historical resources	Qualified labor	Capital
<b>Atlantic Coast</b>	46,79%	27,55%	10,64%	15,01%
<b>GBA</b>	16,53%	54,76%	8,40%	20,31%
<b>Pueblos turísticos</b>	31,50%	51,18%	10,24%	7,09%
<b>Rivers and lagoons</b>	35,67%	35,11%	13,95%	15,28%
<b>Ranges</b>	36,86%	36,69%	15,19%	11,26%
<b>Others</b>	22,54%	47,43%	13,25%	16,78%

Source: Guías turísticas YPF 2000

Table 9 shows that the dominant factor content of Atlantic Coast, Rivers and lagoons and Ranges is natural resources while historical resources is the dominant factor of GBA, *Pueblos turísticos* and others.

**Table 10. Dominant factor content of touristic resources according to the six categories or groups (considering three dominant factor content)**

Groups/Categories	Touristic resources	Qualified labor	Capital
<b>Atlantic Coast</b>	74,34%	10,64%	15,01%
<b>GBA</b>	71,29%	8,40%	20,31%
<b>Pueblos turísticos</b>	82,68%	10,24%	7,09%
<b>Rivers and lagoons</b>	70,78%	13,95%	15,28%
<b>Ranges</b>	73,55%	15,19%	11,26%
<b>Others</b>	69,97%	13,25%	16,78%

Source: Guías turísticas YPF 2000

Table 10 shows that touristic resources (natural and historical resources) is the dominant factor content for the six groups or categories when we consider only three dominant factor content. In the appendix we present the dominant factor content of touristic resources for each municipality considering four and three dominant factor content.

Table 11 and 12 present the coefficient of correlation of Spearman, considering four dominant factors, for the municipalities and for the six categories, respectively.

The most interesting result for the municipalities and for the six categories is that no matter which definition of GDP is considered, a positive and significant correlation is found between any of these measures and capital. Additionally, a negative and significant correlation is found between qualified labor and GDP(4), GDP(5) and GDP(6) for the municipalities.

**Table 11. Coefficient of correlation of Spearman for the municipalities  
considering four dominant factors**

	Natural resources	Historical resources	Qualified labor	Capital
<b>GDP (1) 1993</b>	-0,0167	0,0755	-0,0548	0,2310
	0,8480	0,3861	0,5292	0,0072***
<b>GDP (1) 2003</b>	-0,1119	0,1292	-0,1039	0,2233

<b>GDP (2) 1993</b>	0,1981 -0,0496 0,5692	0,1369 0,0951 0,2745	0,2322 -0,0446 0,6092	0,0095*** 0,2466 0,0041***
<b>GDP (2) 2003</b>	-0,1135 0,1915	0,1031 0,2357	-0,1074 0,2170	0,2208 0,0104**
<b>GDP (3) 1993</b>	-0,0416 0,6330	0,0918 0,2914	-0,0469 0,5905	0,2439 0,0045***
<b>GDP (3) 2003</b>	-0,1135 0,1915	0,1031 0,2357	-0,1074 0,2170	0,2208 0,0104**
<b>GDP (4) 2003</b>	-0,0840 0,3346	0,0916 0,2923	-0,1629 0,0600*	0,1619 0,0617*
<b>GDP (5) 2003</b>	-0,0876 0,3140	0,1054 0,2255	-0,1701 0,0495**	0,1666 0,0544*
<b>GDP (6) 2003</b>	-0,0881 0,3116	0,1111 0,2013	-0,1726 0,0462**	0,1682 0,0521*

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Category 1 (natural landscapes) is intensive in natural resources while category 2 (museums, and cultural and historical manifestations), in historical resources. Categories 3 (folklore) and 5 (programmed events) are intensive in qualified labor. Category 4 (contemporary technical, and scientific and artistic works) is intensive in capital.

Source: Censo Nacional Económico (1994 and 2004) & Guías turísticas YPF 2000

These results suggest a positive correlation between touristic GDP and resources intensive in capital; in other words, most municipalities or groups of municipalities with a high touristic GDP have touristic attractions specialized in capital. They also suggest a negative correlation between touristic GDP and resources intensive in capital for the municipalities, meaning that municipalities with low touristic GDP have touristic attractions specialized in qualified labor.

**Table 12. Coefficient of correlation of Spearman according to the six categories  
(considering four dominant factors)**

	Natural resources	Historical resources	Qualified labor	Capital
<b>GDP (1) 1993</b>	-0,2571 0,6228	0,0286 0,9572	-0,4286 0,3965	0,8286 0,0416**
<b>GDP (1) 2003</b>	-0,2571 0,6228	0,0286 0,9572	-0,4286 0,3965	0,8286 0,0416**
<b>GDP (2) 1993</b>	-0,4857 0,3287	0,2000 0,7040	-0,3714 0,4685	0,9429 0,0048***
<b>GDP (2) 2003</b>	-0,2571 0,6228	0,0286 0,9572	-0,4286 0,3965	0,8286 0,0416**
<b>GDP (3) 1993</b>	-0,2571 0,6228	0,0286 0,9572	-0,4286 0,3965	0,8286 0,0416**
<b>GDP (3) 2003</b>	-0,2571 0,6228	0,0286 0,9572	-0,4286 0,3965	0,8286 0,0416**
<b>GDP (4) 2003</b>	-0,2571 0,6228	0,0286 0,9572	-0,4286 0,3965	0,8286 0,0416**
<b>GDP (5) 2003</b>	-0,2571 0,6228	0,0286 0,9572	-0,4286 0,3965	0,8286 0,0416**
<b>GDP (6) 2003</b>	-0,2571 0,6228	0,0286 0,9572	-0,4286 0,3965	0,8286 0,0416**

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Category 1 (natural landscapes) is intensive in natural resources while category 2 (museums, and cultural and historical manifestations), in historical resources. Categories 3 (folklore) and 5 (programmed events) are intensive in qualified labor. Category 4 (contemporary technical, and scientific and artistic works) is intensive in capital.

Source: Censo Nacional Económico (1994 and 2004) & Guías turísticas YPF 2000

Table 13 and Table 14 present the coefficient of correlation of Spearman, in this case considering three dominant factors. The most interesting result for the municipalities and for the six categories is that no matter which definition of GDP is considered, a positive and significant

correlation is found between any of these measures and capital. In the case of the 6 categories, the value of the coefficient is notably high: 0,83 and 0,94 approximately. Additionally, a negative and significant correlation is found between qualified labor and GDP (4), GDP (5) and GDP (6) for the municipalities.

**Table 13. Coefficient of correlation of Spearman for the municipalities of Buenos Aires  
(considering three dominant factors)**

	Touristic resources	Qualified labor	Capital
<b>GDP (1) 1993</b>	-0,0343	-0,0548	0,2310
	0,6942	0,5292	0,0072***
<b>GDP (1) 2003</b>	-0,0484	-0,1039	0,2233
	0,5788	0,2322	0,0095***
<b>GDP (2) 1993</b>	-0,0553	-0,0446	0,2466
	0,5256	0,6092	0,0041***
<b>GDP (2) 2003</b>	-0,0579	-0,1074	0,2208
	0,5063	0,2170	0,0104**
<b>GDP (3) 1993</b>	-0,0495	-0,0469	0,2439
	0,5697	0,5905	0,0045***
<b>GDP (3) 2003</b>	-0,0579	-0,1074	0,2208
	0,5063	0,2170	0,0104**
<b>GDP (4) 2003</b>	-0,0032	-0,1629	0,1619
	0,9711	0,0600*	0,0617*
<b>GDP (5) 2003</b>	0,0038	-0,1701	0,1666
	0,9657	0,0495**	0,0544*
<b>GDP (6) 2003</b>	0,0066	-0,1726	0,1682
	0,9400	0,0462**	0,0521*

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Category 1 (natural landscapes) is intensive in natural resources while category 2 (museums, and cultural and historical manifestations), in historical resources. Categories 3 (folklore) and 5 (programmed events) are intensive in qualified labor. Category 4 (contemporary technical, and scientific and artistic works) is intensive in capital.

Source: Censo Nacional Económico (1994 and 2004) & Guías turísticas YPF 2000

These results suggest a positive correlation between touristic GDP and resources intensive in capital; in other words, most municipalities or groups of municipalities with a high touristic GDP have touristic attractions specialized in capital. They also suggest a negative correlation between touristic GDP and resources intensive in capital for the municipalities, meaning that municipalities with low touristic GDP have touristic attractions specialized in qualified labor.

**Table 14. Coefficient of correlation of Spearman according to the six categories  
(considering three dominant factors)**

	Touristic resources	Qualified labor	Capital
<b>GDP (1) 1993</b>	-0,3714	-0,4286	0,8286
	0,4685	0,3965	0,0416**
<b>GDP (1) 2003</b>	-0,3714	-0,4286	0,8286
	0,4685	0,3965	0,0416**
<b>GDP (2) 1993</b>	-0,6000	-0,3714	0,9429
	0,2080	0,4685	0,0048**
<b>GDP (2) 2003</b>	-0,3714	-0,4286	0,8286
	0,4685	0,3965	0,0416**
<b>GDP (3) 1993</b>	-0,3714	-0,4286	0,8286
	0,4685	0,3965	0,0416**
<b>GDP (3) 2003</b>	-0,3714	-0,4286	0,8286
	0,4685	0,3965	0,0416**
<b>GDP (4) 2003</b>	-0,3714	-0,4286	0,8286
	0,4685	0,3965	0,0416**
<b>GDP (5) 2003</b>	-0,3714	-0,4286	0,8286
	0,4685	0,3965	0,0416**
<b>GDP (6) 2003</b>	-0,3714	-0,4286	0,8286
	0,4685	0,3965	0,0416**

Notes: GDP (1): 100% food and accommodation. GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Category 1 (natural landscapes) is intensive in natural resources while category 2 (museums, and cultural and historical manifestations), in historical resources. Categories 3 (folklore) and 5 (programmed events) are intensive in qualified labor. Category 4 (contemporary technical, and scientific and artistic works) is intensive in capital.

Source: Censo Nacional Económico (1994 and 2004) & Guías turísticas YPF 2000

## 4. Conclusions

One of the most important results from Hecksher-Ohlin theory is related with the fact that trade on goods represents an indirect way to trade the services of factors of production that are embodied in these goods. Under the traditional case of two countries, two goods and two factors, an explicit pattern of trade which implies an implicit pattern of trade in the services of the factors of production embodied in them can be defined. Nevertheless, some difficulties arise when we want to generalize these results, and it is no longer possible, for example, to determine the explicit pattern of trade on goods. This fact gives the concept of factor content of trade a big utility. The factor content of trade reveals a relationship between relative factor abundance and trade of the services of factors of production. In particular, we can say that a country will export the services of the factors in which it is relatively abundant. At the same time, within the theory referred to as content factor of trade and as a consequence of its complexity when we want to make some estimations, the concept of dominant factor content of trade is an interesting simplification. One revised version of this concept is the one used in this paper to obtain an approximation to dominant factor content of touristic resources of the municipalities of the province of Buenos Aires.

The contribution of this paper lies in the new dimension suggested to get to know the structure of tourism sector through the quantification, in a preliminary way, of one of the characteristics of the production function of this sector: the dominant factor content of touristic resources. In particular, we determine the relationship between factors of production and touristic resources through the touristic characterization of the municipalities of the province of Buenos Aires. The dominant factor content – estimated, to a certain extent, in an ad-hoc way and the touristic characterization use the inventory of touristic resources of the municipalities, their classification into the five categories embraced by OEA and the factor intensity assigned to each category.

One of the main results is that no matter which measure or definition of dominant factor content is considered, a significant correlation is found between any measure of GDP and the factor content of capital. In the case of municipalities and the six categories previously mentioned, a positive correlation is found between capital and GDP in terms of value added, no matter which definition of dominant factor content is used. These results imply that municipalities or groups with high GDP (value added) have touristic attractions specialized in capital. When GDP in terms of salaries is

considered, the sign of the correlation is reversed, implying that municipalities with low GDP (salaries) have touristic attractions specialized in capital.

When each group is considered separately and the definition of five dominant factors content is employed, some interesting results emerge. A significant and positive correlation is found between GDP and natural resources in the case of "Atlantic Coast", "Rivers and lagoons" and "Others"; a significant and positive correlation is found between GDP and historical resources and capital in the case of all groups except "*Pueblos turísticos*". Lastly, a significant and positive correlation is found between some measures of GDP and qualified and non qualified labor in the case of "Atlantic Coast", "Rivers and lagoons", "Ranges" and "Others".

The factor content of capital appears to be significantly correlated with any measure of GDP and any definition of dominant factor content. These results point to the need to generate adequate public policies –related with human resources, infrastructure, communications, transport, law, order, security, and tourists' services, among others- which would make possible for Argentina to make the best of its contemporary technical, scientific and artistic works.

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## Appendix A

**Table A1. Dominant factor content of touristic resources of the municipalities of the Province of Buenos Aires considering four dominant factor content**

Municipalities	Natural resources	Historical resources	Qualified labor	Capital
Adolfo Alsina	29,85%	38,81%	17,91%	13,43%
Adolfo González Chaves	28,57%	57,14%	0,00%	14,29%
Alberti	17,78%	28,89%	17,78%	35,56%
Almirante Brown	21,95%	47,56%	1,22%	29,27%
Arrecifes	26,67%	46,67%	6,67%	20,00%
Avellaneda	11,94%	35,82%	10,45%	41,79%
Ayacucho	17,11%	27,63%	40,79%	14,47%
Azul	33,70%	35,87%	9,78%	20,65%
Bahía Blanca	8,67%	45,33%	2,00%	44,00%
Balcarce	50,00%	16,13%	17,74%	16,13%
Baradero	36,11%	33,33%	19,44%	11,11%
Benito Juárez	32,73%	21,82%	28,18%	17,27%
Berazategui	8,11%	37,84%	10,81%	43,24%
Berisso	29,17%	31,25%	27,08%	12,50%
Bolívar	35,71%	50,00%	14,29%	0,00%
Bragado	11,61%	22,32%	22,32%	43,75%
BrandSEN	26,92%	30,77%	15,38%	26,92%
Campana	27,27%	36,36%	7,79%	28,57%
Cañuelas	36,36%	45,45%	9,09%	9,09%
Capitán Sarmiento	12,50%	20,00%	32,50%	35,00%
Carlos Casares	11,39%	45,57%	16,46%	26,58%
Carlos Tejedor	18,18%	45,45%	0,00%	36,36%
Carmen de Areco	34,48%	41,38%	24,14%	0,00%
Carmen de Patagones	36,36%	57,58%	0,00%	6,06%
Castelli	65,00%	25,00%	10,00%	0,00%
Chacabuco	21,43%	42,86%	14,29%	21,43%
Chascomús	50,85%	30,51%	3,39%	15,25%
Chivilcoy	42,11%	50,00%	2,63%	5,26%
Colón	23,53%	52,94%	0,00%	23,53%
Coronel Dorrego	58,33%	29,17%	8,33%	4,17%
Coronel Pringles	28,95%	55,26%	2,63%	13,16%
Coronel Rosales	25,00%	70,00%	0,00%	5,00%
Coronel Suárez	19,51%	29,27%	43,90%	7,32%
Daireaux	31,25%	56,25%	6,25%	6,25%
Dolores	19,35%	51,61%	9,68%	19,35%
Ensenada	27,42%	38,71%	4,84%	29,03%
Escobar	35,71%	38,10%	4,76%	21,43%
Esteban Echeverría	0,00%	60,00%	10,00%	30,00%
Exaltación de la Cruz	44,00%	32,00%	12,00%	12,00%
Ezeiza	12,50%	50,00%	12,50%	25,00%
Florencio Varela	24,49%	53,06%	16,33%	6,12%
Florentino Ameghino	0,00%	50,00%	50,00%	0,00%

<b>General Alvarado</b>	57,14%	22,86%	2,86%	17,14%
<b>General Alvear</b>	0,00%	66,67%	0,00%	33,33%
<b>General Arenales</b>	27,27%	36,36%	27,27%	9,09%
<b>General Belgrano</b>	50,00%	27,78%	19,44%	2,78%
<b>General Guido</b>	37,50%	37,50%	0,00%	25,00%
<b>General Lamadrid</b>	21,21%	39,39%	24,24%	15,15%
<b>General Las Heras</b>	0,00%	55,56%	22,22%	22,22%
<b>General Lavalle</b>	56,00%	32,00%	8,00%	4,00%
<b>General Madariaga</b>	30,95%	28,57%	23,81%	16,67%
<b>General Paz</b>	40,00%	50,00%	10,00%	0,00%
<b>General Pinto</b>	52,94%	29,41%	5,88%	11,76%
<b>General Pueyrredón</b>	43,22%	30,40%	5,49%	20,88%
<b>General Rodriguez</b>	0,00%	100,00%	0,00%	0,00%
<b>General San Martín</b>	10,00%	70,00%	10,00%	10,00%
<b>General Viamonte</b>	20,75%	64,15%	11,32%	3,77%
<b>General Villegas</b>	25,00%	35,00%	20,00%	20,00%
<b>Guamini</b>	45,45%	50,00%	0,00%	4,55%
<b>Hipólito Yrigoyen</b>	0,00%	100,00%	0,00%	0,00%
<b>Hurlingham</b>	0,00%	57,14%	0,00%	42,86%
<b>Ituzaingó</b>	0,00%	31,58%	63,16%	5,26%
<b>José C. Paz</b>	0,00%	57,14%	42,86%	0,00%
<b>Junín</b>	40,00%	28,57%	25,71%	5,71%
<b>La Matanza</b>	7,50%	57,50%	17,50%	17,50%
<b>La Plata</b>	5,43%	77,17%	6,52%	10,87%
<b>Lanús</b>	0,00%	95,24%	0,00%	4,76%
<b>Laprida</b>	0,00%	100,00%	0,00%	0,00%
<b>Las Flores</b>	15,91%	56,82%	25,00%	2,27%
<b>Leandro Alem</b>	25,00%	75,00%	0,00%	0,00%
<b>Lincoln</b>	20,00%	46,67%	30,00%	3,33%
<b>Lobería</b>	38,46%	38,46%	23,08%	0,00%
<b>Lobos</b>	36,54%	51,92%	5,77%	5,77%
<b>Lomas de Zamora</b>	3,85%	80,77%	7,69%	7,69%
<b>Luján</b>	34,38%	56,25%	6,25%	3,13%
<b>Magdalena</b>	52,17%	32,61%	13,04%	2,17%
<b>Maipú</b>	20,00%	60,00%	20,00%	0,00%
<b>Malvinas Argentinas</b>	60,00%	30,00%	0,00%	10,00%
<b>Mar Chiquita</b>	55,06%	24,72%	16,85%	3,37%
<b>Marcos Paz</b>	58,33%	33,33%	0,00%	8,33%
<b>Mercedes</b>	21,28%	53,19%	21,28%	4,26%
<b>Merlo</b>	0,00%	83,33%	0,00%	16,67%
<b>Monte</b>	47,50%	40,00%	5,00%	7,50%
<b>Monte Hermoso</b>	55,88%	26,47%	8,82%	8,82%
<b>Moreno</b>	26,67%	53,33%	6,67%	13,33%
<b>Morón</b>	0,00%	50,00%	0,00%	50,00%
<b>Navarro</b>	57,14%	42,86%	0,00%	0,00%
<b>Necochea</b>	56,60%	24,53%	13,21%	5,66%
<b>Nueve de Julio</b>	36,36%	45,45%	0,00%	18,18%
<b>Olavarría</b>	29,31%	47,41%	9,48%	13,79%
<b>Partido de la Costa</b>	38,35%	29,32%	19,55%	12,78%
<b>Pehuajó</b>	30,00%	40,00%	30,00%	0,00%
<b>Pellegrini</b>	0,00%	100,00%	0,00%	0,00%
<b>Pergamino</b>	30,77%	53,85%	0,00%	15,38%
<b>Pila</b>	62,50%	37,50%	0,00%	0,00%

<b>Pilar</b>	16,13%	58,06%	0,00%	25,81%
<b>Pinamar</b>	59,18%	16,33%	10,20%	14,29%
<b>Presidente Perón</b>	14,29%	57,14%	0,00%	28,57%
<b>Puán</b>	39,02%	26,83%	14,63%	19,51%
<b>Punta Indio</b>	60,00%	20,00%	20,00%	0,00%
<b>Quilmes</b>	21,95%	60,98%	4,88%	12,20%
<b>Ramallo</b>	50,00%	42,86%	7,14%	0,00%
<b>Rauch</b>	13,64%	50,00%	13,64%	22,73%
<b>Rivadavia</b>	0,00%	100,00%	0,00%	0,00%
<b>Rojas</b>	56,25%	25,00%	6,25%	12,50%
<b>Roque Pérez</b>	64,71%	29,41%	5,88%	0,00%
<b>Saavedra</b>	57,89%	28,95%	10,53%	2,63%
<b>Saladillo</b>	21,43%	57,14%	0,00%	21,43%
<b>Salliqueló</b>	13,33%	53,33%	6,67%	26,67%
<b>Salto</b>	30,00%	40,00%	25,00%	5,00%
<b>San Andrés de Giles</b>	31,25%	43,75%	12,50%	12,50%
<b>San Antonio de Areco</b>	26,09%	54,35%	13,04%	6,52%
<b>San Cayetano</b>	40,00%	40,00%	20,00%	0,00%
<b>San Fernando</b>	31,11%	53,33%	4,44%	11,11%
<b>San Isidro</b>	18,97%	63,79%	3,45%	13,79%
<b>San Miguel</b>	0,00%	100,00%	0,00%	0,00%
<b>San Nicolás</b>	25,00%	55,00%	10,00%	10,00%
<b>San Pedro</b>	25,81%	38,71%	22,58%	12,90%
<b>San Vicente</b>	30,77%	53,85%	15,38%	0,00%
<b>Suipacha</b>	0,00%	100,00%	0,00%	0,00%
<b>Tandil</b>	29,07%	51,16%	13,95%	5,81%
<b>Tapalqué</b>	50,00%	33,33%	8,33%	8,33%
<b>Tigre</b>	45,87%	33,03%	8,26%	12,84%
<b>Tordillo</b>	0,00%	50,00%	0,00%	50,00%
<b>Tornquist</b>	63,89%	23,61%	6,94%	5,56%
<b>Trenque Lauquen</b>	33,33%	53,33%	6,67%	6,67%
<b>Tres Arroyos</b>	54,90%	37,25%	3,92%	3,92%
<b>Tres de Febrero</b>	0,00%	94,12%	0,00%	5,88%
<b>Tres Lomas</b>	6,67%	33,33%	40,00%	20,00%
<b>Veinticinco de Mayo</b>	20,00%	80,00%	0,00%	0,00%
<b>Vicente López</b>	25,00%	50,00%	4,17%	20,83%
<b>Villa Gesell</b>	44,83%	17,24%	24,14%	13,79%
<b>Villarino</b>	33,33%	54,17%	4,17%	8,33%
<b>Zárate</b>	50,00%	37,50%	0,00%	12,50%

Source: Guías turísticas YPF (2000)

**Table A2. Dominant factor content of touristic resources of the municipalities of the Province of Buenos Aires considering three dominant factor content**

Municipalities	Touristic resources	Qualified labor	Capital
Adolfo Alsina	68,66%	17,91%	13,43%
Adolfo González Chaves	85,71%	0,00%	14,29%
Alberti	46,67%	17,78%	35,56%
Almirante Brown	69,51%	1,22%	29,27%
Arrecifes	73,33%	6,67%	20,00%
Avellaneda	47,76%	10,45%	41,79%
Ayacucho	44,74%	40,79%	14,47%
Azul	69,57%	9,78%	20,65%
Bahía Blanca	54,00%	2,00%	44,00%
Balcarce	66,13%	17,74%	16,13%
Baradero	69,44%	19,44%	11,11%
Benito Juárez	54,55%	28,18%	17,27%
Berazategui	45,95%	10,81%	43,24%
Berisso	60,42%	27,08%	12,50%
Bolívar	85,71%	14,29%	0,00%
Bragado	33,93%	22,32%	43,75%
BrandSEN	57,69%	15,38%	26,92%
Campana	63,64%	7,79%	28,57%
Cañuelas	81,82%	9,09%	9,09%
Capitán Sarmiento	32,50%	32,50%	35,00%
Carlos Casares	56,96%	16,46%	26,58%
Carlos Tejedor	63,64%	0,00%	36,36%
Carmen de Areco	75,86%	24,14%	0,00%
Carmen de Patagones	93,94%	0,00%	6,06%
Castelli	90,00%	10,00%	0,00%
Chacabuco	64,29%	14,29%	21,43%
Chascomús	81,36%	3,39%	15,25%
Chivilcoy	92,11%	2,63%	5,26%
Colón	76,47%	0,00%	23,53%
Coronel Dorrego	87,50%	8,33%	4,17%
Coronel Pringles	84,21%	2,63%	13,16%
Coronel Rosales	95,00%	0,00%	5,00%
Coronel Suárez	48,78%	43,90%	7,32%
Daireaux	87,50%	6,25%	6,25%
Dolores	70,97%	9,68%	19,35%
Ensenada	66,13%	4,84%	29,03%
Escobar	73,81%	4,76%	21,43%
Esteban Echeverría	60,00%	10,00%	30,00%
Exaltación de la Cruz	76,00%	12,00%	12,00%
Ezeiza	62,50%	12,50%	25,00%
Florencio Varela	77,55%	16,33%	6,12%
Florentino Ameghino	50,00%	50,00%	0,00%
General Alvarado	80,00%	2,86%	17,14%
General Alvear	66,67%	0,00%	33,33%
General Arenales	63,64%	27,27%	9,09%
General Belgrano	77,78%	19,44%	2,78%

<b>General Guido</b>	75,00%	0,00%	25,00%
<b>General Lamadrid</b>	60,61%	24,24%	15,15%
<b>General Las Heras</b>	55,56%	22,22%	22,22%
<b>General Lavalle</b>	88,00%	8,00%	4,00%
<b>General Madariaga</b>	59,52%	23,81%	16,67%
<b>General Paz</b>	90,00%	10,00%	0,00%
<b>General Pinto</b>	82,35%	5,88%	11,76%
<b>General Pueyrredón</b>	73,63%	5,49%	20,88%
<b>General Rodriguez</b>	100,00%	0,00%	0,00%
<b>General San Martín</b>	80,00%	10,00%	10,00%
<b>General Viamonte</b>	84,91%	11,32%	3,77%
<b>General Villegas</b>	60,00%	20,00%	20,00%
<b>Guaminí</b>	95,45%	0,00%	4,55%
<b>Hipólito Yrigoyen</b>	100,00%	0,00%	0,00%
<b>Hurlingham</b>	57,14%	0,00%	42,86%
<b>Ituzaingó</b>	31,58%	63,16%	5,26%
<b>José C. Paz</b>	57,14%	42,86%	0,00%
<b>Junín</b>	68,57%	25,71%	5,71%
<b>La Matanza</b>	65,00%	17,50%	17,50%
<b>La Plata</b>	82,61%	6,52%	10,87%
<b>Lanús</b>	95,24%	0,00%	4,76%
<b>Laprida</b>	100,00%	0,00%	0,00%
<b>Las Flores</b>	72,73%	25,00%	2,27%
<b>Leandro Alem</b>	100,00%	0,00%	0,00%
<b>Lincoln</b>	66,67%	30,00%	3,33%
<b>Lobería</b>	76,92%	23,08%	0,00%
<b>Lobos</b>	88,46%	5,77%	5,77%
<b>Lomas de Zamora</b>	84,62%	7,69%	7,69%
<b>Luján</b>	90,63%	6,25%	3,13%
<b>Magdalena</b>	84,78%	13,04%	2,17%
<b>Maipú</b>	80,00%	20,00%	0,00%
<b>Malvinas Argentinas</b>	90,00%	0,00%	10,00%
<b>Mar Chiquita</b>	79,78%	16,85%	3,37%
<b>Marcos Paz</b>	91,67%	0,00%	8,33%
<b>Mercedes</b>	74,47%	21,28%	4,26%
<b>Merlo</b>	83,33%	0,00%	16,67%
<b>Monte</b>	87,50%	5,00%	7,50%
<b>Monte Hermoso</b>	82,35%	8,82%	8,82%
<b>Moreno</b>	80,00%	6,67%	13,33%
<b>Morón</b>	50,00%	0,00%	50,00%
<b>Navarro</b>	100,00%	0,00%	0,00%
<b>Necochea</b>	81,13%	13,21%	5,66%
<b>Nueve de Julio</b>	81,82%	0,00%	18,18%
<b>Olavarría</b>	76,72%	9,48%	13,79%
<b>Partido de la Costa</b>	67,67%	19,55%	12,78%
<b>Pehuajó</b>	70,00%	30,00%	0,00%
<b>Pellegrini</b>	100,00%	0,00%	0,00%
<b>Pergamino</b>	84,62%	0,00%	15,38%
<b>Pila</b>	100,00%	0,00%	0,00%
<b>Pilar</b>	74,19%	0,00%	25,81%
<b>Pinamar</b>	75,51%	10,20%	14,29%
<b>Presidente Perón</b>	71,43%	0,00%	28,57%
<b>Puán</b>	65,85%	14,63%	19,51%

Punta Indio	80,00%	20,00%	0,00%
Quilmes	82,93%	4,88%	12,20%
Ramallo	92,86%	7,14%	0,00%
Rauch	63,64%	13,64%	22,73%
Rivadavia	100,00%	0,00%	0,00%
Rojas	81,25%	6,25%	12,50%
Roque Pérez	94,12%	5,88%	0,00%
Saavedra	86,84%	10,53%	2,63%
Saladillo	78,57%	0,00%	21,43%
Salliqueló	66,67%	6,67%	26,67%
Salto	70,00%	25,00%	5,00%
San Andrés de Giles	75,00%	12,50%	12,50%
San Antonio de Areco	80,43%	13,04%	6,52%
San Cayetano	80,00%	20,00%	0,00%
San Fernando	84,44%	4,44%	11,11%
San Isidro	82,76%	3,45%	13,79%
San Miguel	100,00%	0,00%	0,00%
San Nicolás	80,00%	10,00%	10,00%
San Pedro	64,52%	22,58%	12,90%
San Vicente	84,62%	15,38%	0,00%
Siupacha	100,00%	0,00%	0,00%
Tandil	80,23%	13,95%	5,81%
Tapalqué	83,33%	8,33%	8,33%
Tigre	78,90%	8,26%	12,84%
Tordillo	50,00%	0,00%	50,00%
Tornquist	87,50%	6,94%	5,56%
Trenque Lauquen	86,67%	6,67%	6,67%
Tres Arroyos	92,16%	3,92%	3,92%
Tres de Febrero	94,12%	0,00%	5,88%
Tres Lomas	40,00%	40,00%	20,00%
Veinticinco de Mayo	100,00%	0,00%	0,00%
Vicente López	75,00%	4,17%	20,83%
Villa Gesell	62,07%	24,14%	13,79%
Villarino	87,50%	4,17%	8,33%
Zárate	87,50%	0,00%	12,50%

Source: Guías turísticas YPF (2000)

**Table A3. Coefficient of correlation of Spearman for the municipalities of "Atlantic Coast", considering five dominant factors**

	Natural resources	Historical resources	Qualified labor	Capital	Non qualified labor
<b>GDP (1) 1993</b>	0,9286	0,7425	0,7516	0,7066	0,8916
	0,0009***	0,0349**	0,0315**	0,0501*	0,0029***
<b>GDP (1) 2003</b>	0,8095	0,4311	0,4728	0,503	0,6386
	0,0149**	0,2862	0,2367	0,2039	0,0883*
<b>GDP (2) 1993</b>	0,9286	0,7425	0,7516	0,7066	0,8916
	0,0009***	0,0349**	0,0315**	0,0501*	0,0029***
<b>GDP (2) 2003</b>	0,8095	0,4311	0,4728	0,503	0,6386

	0,0149**	0,2862	0,2367	0,2039	0,0883*
GDP (3) 1993	0,8095	0,6108	0,788	0,8623	0,8916
	0,0149**	0,1077	0,0202**	0,0059***	0,0029***
GDP (3) 2003	0,7143	0,3234	0,4607	0,6467	0,6747
	0,0465**	0,4346	0,2507	0,0831*	0,0664*
GDP (4) 2003	0,5952	0,503	0,4607	0,7904	0,747
	0,1195	0,2039	0,2507	0,0195**	0,0332**
GDP (5) 2003	0,4762	0,2994	0,4001	0,7785	0,6627
	0,2329	0,4713	0,3261	0,0229**	0,0733*
GDP (6) 2003	0,4762	0,2994	0,4001	0,7785	0,6627
	0,2329	0,4713	0,3261	0,0229**	0,0733*

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Source: Censo Nacional Económico (1994, 2004) & Guías turísticas YPF (2000)

**Table A4. Coefficient of correlation of Spearman for the municipalities of "GBA", considering five dominant factors**

	Natural resources	Historical resources	Qualified labor	Capital	Non qualified labor
GDP (1) 1993	0,2281	0,5732	0,0151	0,47	0,0886
	0,2951	0,0042***	0,9456	0,0236**	0,6876
GDP (1) 2003	0,1173	0,2769	-0,0098	0,2145	-0,146
	0,5941	0,2008	0,9647	0,3256	0,5061
GDP (2) 1993	0,1536	0,5402	-0,0052	0,4338	0,1152
	0,4842	0,0078***	0,9812	0,0386**	0,6007
GDP (2) 2003	0,1622	0,1234	-0,0335	0,2409	-0,1773
	0,4598	0,575	0,8795	0,2681	0,4182
GDP (3) 1993	0,152	0,5457	-0,0021	0,4439	0,0953
	0,4887	0,0071***	0,9925	0,0339**	0,6655
GDP (3) 2003	0,1622	0,1234	-0,0335	0,2409	-0,1773
	0,4598	0,575	0,8795	0,2681	0,4182
GDP (4) 2003	0,0923	0,0907	-0,018	0,1638	-0,2048
	0,6753	0,6808	0,935	0,4553	0,3486
GDP (5) 2003	0,156	0,1942	0,0283	0,2419	-0,19
	0,4771	0,3746	0,8979	0,2661	0,3853
GDP (6) 2003	0,1535	0,2249	0,036	0,2554	-0,1669
	0,4844	0,3022	0,8703	0,2396	0,4465

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Source: Censo Nacional Económico (1994, 2004) & Guías turísticas YPF (2000)

**Table A5. Coefficient of correlation of Spearman for the municipalities of "Pueblos turísticos", considering five dominant factors**

	Natural resources	Historical resources	Qualified labor	Capital	Non qualified labor
<b>GDP (1) 1993</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838
<b>GDP (1) 2003</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838
<b>GDP (2) 1993</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838
<b>GDP (2) 2003</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838
<b>GDP (3) 1993</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838
<b>GDP (3) 2003</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838
<b>GDP (4) 2003</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838
<b>GDP (5) 2003</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838
<b>GDP (6) 2003</b>	0,3162	0,4000	0,2108	-0,3162	-0,3162
	0,6838	0,6000	0,7892	0,6838	0,6838

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Source: Censo Nacional Económico (1994, 2004) & Guías turísticas YPF (2000)

**Table A6. Coefficient of correlation of Spearman for the municipalities of "Rivers and lagoons", considering five dominant factors**

	Natural resources	Historical resources	Qualified labor	Capital	Non qualified labor
<b>GDP (1) 1993</b>	0,2823	0,5289	0,0219	0,4055	0,3191
	0,0667*	0,0003***	0,8893	0,007***	0,037**
<b>GDP (1) 2003</b>	0,3039	0,5045	-0,0353	0,4945	0,336
	0,0475**	0,0006***	0,8223	0,0007***	0,0276**
<b>GDP (2) 1993</b>	0,3507	0,5713	0,085	0,4305	0,4037
	0,0211**	0,0001***	0,5878	0,004***	0,0073***
<b>GDP (2) 2003</b>	0,3197	0,5747	-0,0489	0,4654	0,2474
	0,0366**	0,0001***	0,7555	0,0017***	0,1097
<b>GDP (3) 1993</b>	0,344	0,5749	0,0705	0,434	0,3918
	0,0239**	0,0001***	0,6534	0,0036***	0,0094***
<b>GDP (3) 2003</b>	0,3197	0,5747	-0,0489	0,4654	0,2474
	0,0366**	0,0001***	0,7555	0,0017***	0,1097
<b>GDP (4) 2003</b>	0,3524	0,5727	0,0269	0,442	0,2112
	0,0205**	0,0001***	0,864	0,003**	0,1741
<b>GDP (5) 2003</b>	0,3225	0,544	-0,0002	0,4488	0,2271
	0,0349**	0,0002***	0,9988	0,0025***	0,143
<b>GDP (6) 2003</b>	0,2923	0,5255	-0,0143	0,4447	0,2177
	0,0571*	0,0003***	0,9277	0,0028***	0,1607

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Source: Censo Nacional Económico (1994, 2004) & Guías turísticas YPF (2000)

**Table A7. Coefficient of correlation of Spearman for the municipalities of "Ranges", considering five dominant factors**

	Natural resources	Historical resources	Qualified labor	Capital	Non qualified labor
<b>GDP (1) 1993</b>	0,3952	0,7143	0,494	0,6467	0,7143
	0,3325	0,0465**	0,2134	0,0831*	0,0465**
<b>GDP (1) 2003</b>	0,6108	0,5476	0,2651	0,4192	0,4762
	0,1077	0,16	0,5258	0,3013	0,2329
<b>GDP (2) 1993</b>	0,2275	0,7381	0,4579	0,6826	0,6667
	0,5878	0,0366**	0,2539	0,0621*	0,071*
<b>GDP (2) 2003</b>	0,0599	0,5714	0,2771	0,0838	0,619

	0,888	0,139	0,5064	0,8435	0,1017
<b>GDP (3) 1993</b>	0,2275	0,7381	0,4579	0,6826	0,6667
	0,5878	0,0366**	0,2539	0,0621*	0,071*
<b>GDP (3) 2003</b>	0,0599	0,5714	0,2771	0,0838	0,619
	0,888	0,139	0,5064	0,8435	0,1017
<b>GDP (4) 2003</b>	0,3114	0,7619	0,5543	0,6228	0,7619
	0,4528	0,028**	0,154	0,0991*	0,028**
<b>GDP (5) 2003</b>	0,3593	0,7619	0,5543	0,5629	0,8095
	0,3821	0,028**	0,154	0,1463	0,0149**
<b>GDP (6) 2003</b>	0,3593	0,7619	0,5543	0,5629	0,8095
	0,3821	0,028**	0,154	0,1463	0,0149**

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Source: Censo Nacional Económico (1994, 2004) & Guías turísticas YPF (2000)

**Table A8. Coefficient of correlation of Spearman for the municipalities of "Others", considering five dominant factors**

	Natural resources	Historical resources	Qualified labor	Capital	Non qualified labor
<b>GDP (1) 1993</b>	0,4975 0,0003***	0,5691 0,000***	0,0628 0,6715	0,4069 0,0041***	0,3034 0,0361**
<b>GDP (1) 2003</b>	0,4004 0,0048***	0,5518 0,000***	0,0319 0,8296	0,3311 0,0215**	0,2389 0,102
<b>GDP (2) 1993</b>	0,4999 0,0003***	0,595 0,000***	0,0705 0,6338	0,4361 0,0019***	0,3406 0,0179**
<b>GDP (2) 2003</b>	0,3623 0,0114**	0,4548 0,0012***	0,0093 0,9499	0,3039 0,0357**	0,2898 0,0457**
<b>GDP (3) 1993</b>	0,5089 0,0002***	0,5945 0,000***	0,068 0,6459	0,4359 0,002***	0,3346 0,0201**
<b>GDP (3) 2003</b>	0,3623 0,0114**	0,4548 0,0012***	0,0093 0,9499	0,3039 0,0357**	0,2898 0,0457**
<b>GDP (4) 2003</b>	0,3375 0,019**	0,4418 0,0017***	0,0046 0,9753	0,2893 0,0461**	0,2906 0,0451**
<b>GDP (5) 2003</b>	0,3574 0,0126**	0,4809 0,0005***	-0,0022 0,9884	0,3073 0,0336**	0,2769 0,0568*
<b>GDP (6) 2003</b>	0,3655 0,0106**	0,4968 0,0003***	0,0089 0,9519	0,328 0,0228**	0,2829 0,0514*

Notes: GDP (1): 100% food and accommodation.

GDP (2): 75% food and accommodation and 30% transport.

GDP (3): 100% food and accommodation and 30% transport.

GDP (4): 100% salaries of workers of food and accommodation.

GDP (5): 75% salaries of workers of food and accommodation and 30% of transport.

GDP (6): 100% salaries of workers of food and accommodation and 30% of transport.

Source: Censo Nacional Económico (1994, 2004) & Guías turísticas YPF (2000)