

ECONOMIC AND SECTORAL EFFECTS OF TOURIST SPENDING IN SOUTH AFRICA: REGIONAL IMPLICATIONS

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ABSTRACT:

Tourism may have a favourable impact on economic growth and development in Africa. In South Africa, tourism is widely seen to be a growth catalyst and to be able to contribute towards the economic upliftment of poorer regions. The magnitude of the impact of tourist spending may, however, depend on the extent of leakages from the country or region, and the ability of the region to create backward and forward linkages with other sectors. In this paper an input-output model is used to empirically quantify the impact of tourist spending in South Africa. A distinction is made between international tourist spending and domestic tourist spending. It is argued here that the sectoral effects of tourism might depend, inter alia, on the spending patterns of domestic versus international tourists. Using an input-output model, support was found for the notion that, from a regional development perspective, there should be a stronger emphasis on the development of the domestic tourism market in South Africa over the short-term, with investments in transport services and infrastructure as a strategy over the longer-term to reduce path dependency effects more inherent in international tourism.

Key words: *Tourism, Input-output multipliers, South Africa, development and growth*

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1. INTRODUCTION

Tourism, as well as information technology and telecommunications, are recognised as industries with significant growth and development potential in a global economy (Kruger-Cloete, 1995:751). The tourism industry in particular has been described as the largest global industry (SATOUR circular, 1996 and Van der Merwe, 2000:1). It is also one of the most rapidly expanding industries with tourist arrivals growing by 2.4 per cent world-wide in 1998 (WTO, 1998; Brynard, 1995:12 and Hicks, 1996:7). After petroleum and petroleum products and motor vehicles, international tourism is the third largest export industry globally (Kruger-Cloete, 1995:271).

The tourism industry consists of a number of different but interlinked service industries, particularly accommodation and catering, food processing and beverages, transport, as well as entertainment and other support services (Paton, 1985:64). Increasingly, many developing countries are recognising a potential comparative advantage in tourism and are, as a consequence, adopting tourism development strategies to further growth and development⁵.

Assuming that political and social stability will be maintained, the impact of a growing tourism industry in developing countries may depend on its forward and backward domestic linkages, the nature of its regulation (affecting sustainability) as well as the relative emphasis on domestic *versus* international tourism. In most countries the development of tourism will also have a specific regional impact, due to the geographic distribution of tourism attractions and supporting services. Relatively little research has so far been focused on this aspect of tourism promotion as a development strategy. This paper is an initial (and tentative) attempt to contribute towards filling this vacuum. It will do so by arguing that the regional impact of tourism development may depend, in part, on the relative emphasis on domestic *versus* international tourism. An input-output model of South Africa, an upper middle-income developing country with a possible unexploited comparative advantage in tourism, will be used to find an empirical basis for the assertion that domestic, relative to international, tourism has differential sectoral and economic effects.

The paper is structured as follows: Section two discusses the merits and demerits of foreign tourism promotion in South Africa. Section 3 explains the methodology used to determine the contribution of domestic and international tourist spending to the South African economy. In section 4 the results of a

⁵ Particularly in Africa, tourism has been argued to have significant development potential. Due to its geographic and climatic diversity, ecology, biodiversity and exotic fauna and flora, Africa may be argued to have a comparative advantage in tourism that has so far been unexploited.

10 per cent increase in domestic and international tourism respectively are presented. Section 5 discusses the implications of these results for regional development in South Africa. Section 6 provides a concluding summary of the findings.

2. FOREIGN *versus* DOMESTIC TOURISM PROMOTION

2.1 Definitions

Tourism *per se* can be defined as “the activity of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business or any other purpose” (WTO, 1999). Anyone who spends at least one night away from home is thus classified as a tourist. When travel takes place within the country of residence, it is referred to as *domestic tourism* (WTO, 1999). While international tourism usually refers to all tourists from foreign countries, this paper uses the term *international tourism* for tourists from foreign countries, excluding tourists from Africa. *Foreign tourism* is the term used in the context of this paper to describe the sum of international tourists (as defined above), including tourists from Africa.

2.2 The Case for Domestic Tourism

Since 1994, following South Africa’s democratic transition and the signing of the Uruguay Round of the GATT, foreign tourism to South Africa has increased substantially (Msimang, 1995:20). Foreign tourist arrivals have, for instance, shown a steady increase of more than 10 per cent per annum on average since 1988 (Saayman, 1999). This makes South Africa one of the world’s fastest-growing tourism destinations and has raised expectations as to the impact of foreign tourism on the development of the economy (Van der Merwe, 2000:2 and Wood, 1995:29).

This high rate of current growth could be reflecting a “catching-up” phase whereby South Africa’s tourism share is converging with that of similarly endowed international tourism destinations. For example, South Africa’s tourism sector is currently contributing around 4 per cent to GDP, compared to the above-mentioned 10 per cent contribution of the industry to the economies of the United States and Europe (De Beer *et al.*, 1998:2).

In a globalising economy, where increased international competition is a defining feature, and where path-dependence effects in tourism may have to be overcome for South Africa to be competitive enough to maintain these growth rates in tourist arrivals and thus successfully converge with international trends, government promotion of foreign tourism might be justified. In effect, the argument for government promotion of tourism in South Africa can be based on the overcoming of the path-dependency effects (due to history), as well as on the addressing of the high fixed costs in

tourism, which may create obstacles to entry into international markets for South African tourism service providers. Given, however, that the opportunity cost of government expenditure is high in this country, which is in need of basic social services such as housing and education (Muller, 1997:10), the impact of international tourism on the domestic economy, for example as measured by its multiplier effect, must be sufficiently high in order for social welfare to be maximised.

Another argument when considering significant government promotion of foreign tourism has recently been voiced. This states, simplistically, that foreign tourism is often promoted to the detriment of domestic tourism and that this bias is not justified. In South Africa, domestic tourism contributes approximately 60 per cent to total tourism income (Wood, 1995:29). It has been argued that the domestic tourism market has significant growth potential, based also on a "catching-up" effect, if it is made accessible to South Africa's previously disadvantaged population (Futter & Wood, 1997:58 and Wood, 1995:29). The expectation is therefore that tourism may be one sector through which the concept of "growth through redistribution" might be applied. The domestic tourism sector has also been argued to act as a buffer to counter unpredictable fluctuations in international tourism demand, and thus fluctuations in foreign exchange earnings (De Beer *et al.*, 1998:1).

3. METHODOLOGY

3.1 The model

Tourism (including foreign tourism) impacts on a country's level of development through its effects on employment, income (or gross domestic product – GDP), foreign exchange earnings and prices (Saayman & Saayman, 1999; Saayman & Saayman, 1997; Niedermeier & Smith, 1995 and Hugo, 1992). The magnitude of tourism's impact on the economy is dependent on the magnitude of leakages from the economy (mainly via imports) and the ability of the economy or region to create backward linkages (Niedermeier & Smith, 1995 and Strydom & Lourens, 1995:51).

The typical approach in the economic literature to quantify the impact of tourism spending on an economy is to use a standard input-output table, and model the effect of an exogenous change in spending on final demand. This analysis makes use of matrix algebra to determine a final net output and can be used to estimate the level of income, employment and production required to satisfy a certain level of tourism demand. This analysis also generates multipliers, which include secondary impacts, in an impact analysis (see Kottke, 1988). Alternative methods used elsewhere, such as CGE models and SAM-based multiplier models (see e.g. Zhou *et al.*, 1997; Wagner, 1997 or Wang, 1995) were not considered in the present case since the most recent SAM available for South Africa is only for 1995 (and is basically an adjustment from a 1992 base year which, in turn, is based on a 1986 input-output table).

The weaknesses of an input-output analysis include that industry as a whole and not individual firms are dealt with, that multipliers are subject to misinterpretation (Kottke, 1988:123) and that tourism data are usually inadequate for the detailed requirements of an input-output analysis (Archer, 1997). Nevertheless, Wanhill (1994) indicates that it is still the most popular tool to determine the impact of tourism on an economy and has been used by researchers such as Wang (1997), Andrew (1997), Bergstrom *et al.* (1990), Fletcher (1989), Heng and Low (1990), Loomis (1995) and Smeral (1999), among others.

3.2 The Data

In the present paper, the recently released 1996 South African Input-Output (I-O) Table (Conningarth Consulting Economists, 1999) was used as the basis of the model. Data on tourist spending were obtained from the South African Tourism Board (SATOUR) and the South African Reserve Bank (SARB). The magnitude of tourist spending and the breakdown categories are defined in SATOUR surveys. For further refinement, published SARB figures for tourism traffic and travel expenses were also included. Data from 1996 were used to be comparable with those of the 1996 input-output table.

3.3 The Simulations

Given that tourists to South Africa have been increasing by 10% per annum on average over the past five years, the simulations attempted to analyse the impact of a 10% increase in both domestic and foreign tourism spending. This of course assumes a linearly homogenous relationship between tourist arrivals and tourist spending.

Whilst overall magnitudes of foreign and domestic tourist spending are available, it is not obvious how these must be allocated in an input-output model to the various economic sectors. Additional information on tourist spending patterns, taken from SATOUR surveys, had to be used for this purpose. These allocations determined the simulations (or shocks) performed.

3.3.1 Modelling a 10 per cent increase in domestic tourist expenditure

Based on the 1996 SATOUR survey, domestic tourist spending contributed R19.112 billion to GDP. South Africans undertook 22.644 million trips in that year, spending an average of R844 per trip (SATOUR, 1997:17). The breakdown of domestic tourist spending into different categories is indicated in Table 1:

Table 1: Breakdown of domestic tourist spending (1996)

Expenditure category	Percentage	Rand amount	Total Rand amount
Accommodation	27,02%	R228	R5 166m
Food and drink	23,34%	R197	R4 463m
Transport	24,17%	R204	R4 622m
Other	25,47%	R215	R4 871m
Total	100%	R844	R19 122m

(Source: SATOUR, 1997:17)

These expenditure categories were attributed to various sectors in the 1996 I-O table according to the proportions of consumer expenditure as reflected in the I-O table.

3.3.2 Modelling a 10 per cent increase in international tourist expenditure

The volume and expenditure patterns of international tourists to South Africa differ from that of domestic tourists. The likely (or possible) differential impact which it might have on the local economy (and its regional impact), can be modelled and compared to that of domestic tourist expenditure.

International tourist spending is estimated to have contributed R12,7546 billion to South Africa's GDP in 1996. Approximately 1,2 million international tourists (excluding African tourists) visited South Africa that year (Rhodes & Saayman, 1998). The average spending per tourist was R18 600 (SATOUR, 1996:17). According to the August 1996 survey done by SATOUR, the R18 600 was spent as follows (Table 2):

Table 2: Breakdown of international tourist spending (1996)

Expenditure category	Percentage	Rand amount	Total Rand amount
Airfare	43%	R7 998	R9 597,6m
Prepaid expenses	22%	R4 092	R4 910,4m
Shopping, souvenirs and gifts	11%	R2 046	R2 455,2m
Food and drink	6%	R1 116	R1 339,2m
Accommodation	10%	R1 860	R2 232,0m
Local transport	3%	R558	R669,6m
Recreation, culture and dance	2%	R372	R446,4m
Other	3%	R558	R669,6m
Total	100%	R18 600	R22 320,0m

(Source: SATOUR, 1996:17)

According to the South African Reserve Bank Quarterly Bulletin (1998) the amount of airfare that come to South Africa (via South African Airways), amounted to R2 235 million. Using the tourism traffic figure from the SARB quarterly bulletin, the amount of prepaid expenses entering South Africa was determined at R2 707,6 million. If it is assumed that most of the prepaid expenses are on pre-booked tours, the following assumptions (Table 3) regarding prepaid expenses entering South Africa can be made:

Table 3: Assumption regarding prepaid expenditure

Expenditure category	Percentage	Rand amount
Local transport	30%	R812,28m
Accommodation	30%	R812,28m
Food and drink	5%	R135,38m
Recreation, culture and dance	2%	R81,228m
Other	3%	R54,152m
Business services (profit)	30%	R812,28m
Total	100%	R2 707,60m

For the purpose of this analysis, the international tourist spending categories and totals are summarised in Table 4:

Table 4: Total international tourist spending (1996) per category

Expenditure category	Percentage	Rand amount
Local transport	29,14%	R3 716,88m
Accommodation	23,87%	R3 044,28m
Shopping, souvenirs and gifts	19,25%	R2 455,20m
Food and Drink	11,56%	R1 474,58m
Recreation, culture and dance	4,14%	R527,628m
Other	5,67%	R723,752m
Business services (profit)	6,37%	R812,28m
Total	100%	R12 754,60m

These expenditure categories were allocated to the corresponding sectors in the 1996 I-O table. In total, the above implies that a 10 per cent increase in foreign tourist expenditure would amount to a R1,23 billion in domestic demand.

4. RESULTS

4.1 Impact of Domestic Tourism

A 10 per cent increase in total domestic tourist expenditure amounts to a R1,82 billion increase in domestic demand. In order to determine the multiplier effect thereof, and the sectoral impact, the X-vector of final demands in the I-O model was adjusted by the above increase. The results can be classified as macro-economic effects and sectoral effects.

The macroeconomic effect of a 10 per cent increase in domestic tourist expenditure was found to give rise to an increase in output of R3,58 billion. This implies a multiplier of **1,96**. This multiplier indicates the increase in production or output and such output multipliers are generally greater than income multipliers (Wang, 1997:42).

The sectoral effects were as follows:

Table 5: Sectoral effects of a 10% increase in domestic tourist spending

Sector	Increase in output (Rand bn)	Percentage of total
Agriculture	0,31	8,68%
Mining	0,03	0,84%
Manufacturing	1,31	36,7%
Electricity and water	0,10	2,8%
Construction	0,03	0,84%
Trade	0,22	6,16%
Catering and accommodation	0,54	15,13%
Transport and communications	0,61	17,09%
Services	0,42	11,77%

Table 5 shows that the sector to benefit most from the increase in tourist expenditure is manufacturing (R1,31 bn), followed by transport and communications (R0,61 bn). It is noticeable that the catering and accommodation category benefited third most.

The detailed results indicated that within manufacturing, the food and food processing sector (R0,67 bn) and the beverage sector (R0,17 bn) benefited the most.

4.2 Impact of International Tourism

As in the case of domestic tourism, the results can be categorised as macro-economic and sectoral results.

The macroeconomic results indicated an increase in total output of R2,34 billion. Given the original exogenous injection of R1,23 billion, this implies a multiplier of **1,9** – somewhat lower than that of domestic tourism, but not significant.

The sectoral results are given in Table 6 below:

Table 6: Sectoral effects of a 10% increase in international tourist spending

Sector	Increase in output (Rand bn)	Percentage of total
Agriculture	0,14	5,96%
Mining	0,02	0,85%
Manufacturing	0,63	26,81%
Electricity and water	0,06	2,55%
Construction	0,02	0,85%
Trade	0,16	6,81%
Catering and accommodation	0,32	13,62%
Transport and communications	0,47	20,0%
Services	0,53	22,55%

Table 6 shows that, as in the case of domestic tourists, the manufacturing sector benefited most (R0,63 bn). Within manufacturing, food and food processing is the sector that benefits most. Next to manufacturing, the services sector (which includes business services related to recreation) benefited the most (R0,53 bn), followed by transport (R0,47 bn) and catering and accommodation (R0,32 bn). The table also indicates that, compared to domestic tourism, agriculture benefited less from international than domestic tourists (R0,14 bn *versus* R0,31 bn).

5. REGIONAL IMPLICATIONS

The above results may have the following regional (provincial) implications for tourism in South Africa:

Firstly, both international and domestic tourism has a positive impact on economic development in South Africa, with multipliers of 1,9 and higher. An important finding is that the overall multiplier effect of domestic tourism is not significantly different from that of international tourism. According to the White Paper on Tourism (South Africa, 1996) provincial authorities (i.e. regional governments) are responsible for the development and promotion of domestic tourism. The national agency, SATOUR, is responsible for marketing South Africa as an international tourist destination. To maximise the benefits from tourism, provincial governments should become more active in marketing their products to new markets within South Africa.

A second implication is that international tourism has more benefits for services, which are currently more developed in affluent regions, such as the provinces of Gauteng, Western Cape and KwaZulu-Natal. These provinces also attract the most domestic as well as international tourists (see Appendix A) (Rhodes & Saayman, 1997). A further advantage of these three provinces

is that they offer the three international gateways to South Africa, increasing their accessibility.

Table 7 below shows the percentage share of total gross geographical product (GGP) for different sectors of the economy which can be attributed to different provinces in South Africa. The significance of this is that it supports the argument that tourist spending benefits certain provinces more than others. For example, if trade and accommodation increase because of an increase in demand from more tourists, Gauteng will benefit most, followed by Western Cape and KwaZulu-Natal. It is the same with services, transport, printing and publishing, to name but a few. De Beer *et al.* (1998) support the notion that tourism can lead to an unequal spread of benefits. Unemployment, which is a major problem in regions such as the Eastern Cape, Northern Province, Northern Cape, North West and the Free State, will thus not be alleviated with current tourism strategies.

New strategies should consider that provinces need to develop their transport systems to make them more accessible – particularly road networks and airports. This viewpoint is shared by Mkhize (1994). The Spatial Development Initiatives (SDI's), which should increase traffic to these provinces, can help in this regard (De Beer *et al.*, 1998 and Saayman & Saayman, 1999). Where possible, these provinces will also have to supply their own goods and fresh produce instead of "importing" them from Gauteng, Western Cape and KwaZulu-Natal in order to minimise leakages to these more affluent provinces. Provinces should also improve tourism-related services, for example recreation, entertainment, tour operators and tour guides, which will also benefit international tourism. Another element of a tourism strategy could be for provinces to focus primarily on the domestic market.

Looking at tourism's effect on employment, the results in section 4 showed that the sectors benefiting most from tourism are manufacturing, transport and communications, catering and accommodation, services and agriculture. Of these, only catering and accommodation, services (non-financial) and agriculture can be classified as relatively labour-intensive industries (see Appendix B). Food and food processing and beverages (the manufacturing industries which benefit most) can be seen as moderately labour-intensive and relatively capital-intensive industries respectively (see Appendix B).

Table 7: Percentage share of total sector GGP (1994)

Sector	WC	EC	NC	GP	MP	NP	NW	KZN	FS
Agriculture	20	9	4	5	14	6	10	18	14
Gold Mining	0	0	0	33	27	4	15	2	20
Other Mining	1	0	16	4	6	17	45	6	5
Food Processing	20	6	1	33	7	3	3	21	5
Beverages	28	5	1	41	3	3	3	13	4
Tobacco	25	2	0	69	0	0	4	0	0
Textiles	23	15	0	9	5	0	0	47	1
Clothing	43	2	1	13	0	0	0	37	4
Leather Products	36	23	1	25	0	0	0	13	2
Footwear	22	9	0	4	0	0	0	61	4
Wood & Wood Products	15	8	0	17	32	5	1	19	3
Furniture	18	3	0	46	2	3	3	21	4
Paper & Pulp	13	4	0	25	12	1	0	44	1
Printing & Publishing	24	4	0	55	0	0	1	14	2
Chemicals	13	4	0	32	22	0	2	17	10
Rubber Products	2	52	0	22	0	0	0	23	1
Plastic Products	21	3	0	56	1	1	1	13	3
Non-metallic Minerals	10	3	2	55	3	1	11	12	3
Basic Iron & Steel	1	0	0	64	23	0	2	9	0
Non-ferrous Metals	1	0	0	46	0	0	0	53	0
Fabricated Metals	10	3	0	69	3	1	2	12	2
Machinery	9	3	0	72	2	0	3	9	2
Electrical Machinery	8	10	0	69	0	0	7	6	0
Motor Vehicles	3	35	0	54	1	0	1	6	1
Other Transport	22	3	0	40	0	0	1	31	4
Other Manufacturing	11	10	0	41	10	3	1	18	5
Electricity	10	3	2	20	41	7	2	8	8
Construction	15	8	1	39	5	3	6	16	6
Trade & Accommodation	18	8	2	42	4	3	3	16	5
Transport & Communications	15	10	3	37	4	2	2	22	6
Financial Services	18	7	2	47	3	2	3	13	5
Community Services	13	6	1	53	3	2	3	15	4
Government Services	15	2	3	41	4	8	5	15	6
Non-classified	20	7	2	41	2	2	4	15	6
Total (average)	15	6	2	39	8	4	6	15	6

(Source: Coetzee & Joubert, 1998:7)

6. CONCLUSIONS

This paper argued that the regional impact of tourism development might depend, *inter alia*, on the differential economic and sectoral impacts of domestic *versus* international tourist spending. Using an input-output model, support was found for the notion that there should be stronger emphasis on the development of the domestic tourism market in South Africa, as the macroeconomic effect is greater and more beneficial to sectors prominent in poorer provinces.

It was also established that regions such as Gauteng, Western Cape and KwaZulu-Natal benefit most from an increase in international tourists to and in South Africa, for these provinces are the suppliers of services and manufactured products. They are also the gateways to South Africa. This situation leads to an unequal distribution of tourism benefits, where the provinces which need development and revenue the most, receive the least. The implication is that substantial path dependency effects will operate on a regional level in case of international tourism. Improvements in infrastructure and transport services are vital if these effects are to be ameliorated.

It can therefore be concluded that regional governments (particularly of poorer regions) in South Africa should focus more on domestic tourism as a short-term tourism development strategy. Here the path-dependency effects may be smaller. However, they should complement this focus by increasing investment in transport services and infrastructure, as part of a medium- to longer term strategy for development of the international tourism market.

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APPENDIX A:

Provincial domestic tourism market share (1996)

Province	% of all trips
Northern Cape	1,8%
Western Cape	12,4%
Eastern Cape	14,0%
KwaZulu-Natal	29,6%
Mpumalanga	6,9%
Northern Province	5,3%
North West	8,7%
Free State	6,2%
Gauteng	15,2%

(Source: SATOUR, 1997)

Provincial international tourism market share (1996)

Province	% visitors*
Northern Cape	4,5%
Western Cape	51,5%
Eastern Cape	16,0%
KwaZulu-Natal	28,5%
Mpumalanga	20,5%
Northern Province	4,5%
North West	7,5%
Free State	5,0%
Gauteng	66,5%

*Note that the percentages do not add up to 100% because most international tourists visit more than one province while staying in South Africa.

(Source: Rhodes & Saayman, 1998)

APPENDIX B:

1996 capital-labour ratios for different sectors of the economy (1995=100)

Sector	Fixed capital stock (R millions)	Labour	Labour : Capital	Rank
Agriculture	45 299	800 000	1 : 56 624	2
Mining	102 356	566 469	1 : 180 691	5
Manufacturing	176 188	1 456 501	1 : 120 967	4
Construction	6 157	323 585	1 : 19 027	1
Transport and communication	196 474	203 178	1 : 967 004	6
Trade, catering & accommodation	60 709	764 384	1 : 79 422	3
Financial institutions	275 218	214 234	1 : 1 284 661	7

(Source: SARB Quarterly Bulletin, 1999)

1996 capital-labour ratios for the manufacturing sector (1990=100)

Sector	Fixed Capital stock (R-millions)	Labour	Labour : Capital	Rank
Processed food	10 916,71	177 000	1 : 61 676	14
Beverages	7 642,36	31 000	1 : 246 528	22
Textiles	2 397,47	79 000	1 : 30 348	9
Clothing, excl. footwear	390,14	150 000	1 : 2 601	1
Leather and leather products	125,06	8 000	1 : 15 633	4
Footwear	265,69	25 000	1 : 10 628	3
Wood and wood products	1 003,20	60 00	1 : 16 720	5
Paper and paper products	4 691,50	48 000	1 : 97 740	21
Printing and publishing	1 479,43	53 000	1 : 27 914	7
Industrial chemicals	33 344,66	29 000	1 : 1 149 816	25
Other chemical products	3 805,75	66 000	1 : 57 663	13
Rubber products	1 126,55	18 000	1 : 62 586	16
Plastic products	1 829,63	47 000	1 : 38 928	11
Glass and glass products	934,95	10 000	1 : 93 495	20
Non-metallic mineral products	4 192,88	66 000	1 : 63 528	17
Basic iron and steel products	21 303,08	59 000	1 : 361 069	23
Non-ferrous metal products	6 859,41	14 000	1 : 489 958	24
Metal products, excl. machinery	2 996,74	124 000	1 : 24 167	6
Non-electrical machinery	2 519,83	77 000	1 : 32 725	10
Electrical machinery	2 476,66	86 000	1 : 28 798	8
Professional equipment etc.	435,62	7 000	1 : 62 231	15
Motor vehicles, parts and accessories	5 464,45	82 000	1 : 66 652	18
Other transport equipment	847,60	12 000	1 : 70 633	19
Furniture	445,50	48 000	1 : 9 281	2
Other manufacturing	1 163,11	27 000	1 : 43 078	12

(Source: NPI, 1998)