## A Regional Study of the Colombian Corporate Sector: Differences, Trends and Developments in Different Cities

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#### Abstract

The study presented here looks at the Colombian corporate sector broken down by city. In particular, it studies the eight main cities of the country. It is an initial study, maybe the first of its kind, and it aims to act as a foundation for future research in the area. A database obtained from the Superintendencia de Sociedades is used for the analysis. Structural differences between the cities in 2003 are studied, as well as the development of the cities between 1996 and 2003. The study shows that the 100 largest firms in the country are almost exclusively located in the country's four largest cities. Rather more surprisingly, it shows that small and medium-sized enterprises (SMEs) are generally concentrated to the country's larger cities, and particularly to Bogotá, while many medium-sized and smaller cities completely lack SMEs. The study also shows that, in terms of aggregate sales, the cities have developed very differently.

<sup>\*</sup> The opinions expressed here are those of the author and not necessarily of the Banco de la República, the Colombian Central Bank, nor of its Board of Directors. I express my thanks to Adolfo Meisel for helpful comments and suggestions. Any remaining errors are my own.

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#### 1 Introduction

The study presented in this paper investigates the regional structure of the Colombian corporate sector. In particular, the study looks at how the structure of the corporate sector differs between the eight major cities of the country, and also compares these cities to smaller cities. The objective of the study has been to build a foundation for future research as well as to generate some initial results. The study is, therefore, in its scope neither complete nor profound. This has been a necessary limitation to restrict the extent of an otherwise potentially very extensive project. The study presented here is, furthermore, as far as I know, the first such study carried out on Cobmbia.

For the purpose of the study, an extensive database obtained from the *Superintenedencia de Sociedades*<sup>1</sup> is used. This should with few exceptions include all firms in the country. From this database, two different datasets are derived. One dataset contains data on 7,001 firms for 2003. The other contains the sub sample of this dataset defined by those firms that existed throughout the period 1996 to 2003, which leaves us 3,452 firms. The datasets are divided into four size brackets: Small and medium-sized enterprises (SMEs),<sup>2</sup> major, large, and the largest 100 firms. Micro enterprises are excluded from the study.

The study contains two parts. First, it looks at the firms in Colombia in 2003, and how these were distributed in different cities, as well as in different business sectors. Then the development of the firms of the eight major cities of the country, Bogotá, Medellín, Cali, Barranquilla, Bucaramanga, Cartagena, Pereira and Manizales, are studied for the period 1996 to 2003.

The paper presents a number of findings: The largest 100 firms are almost exclusively located in the country's four largest cities, which might not be surprising. Rather more surprising is that smaller and medium-sized cities of the country have very few small-and medium-sized enterprises (SMEs). Such cities are normally dominated by one or a

<sup>&</sup>lt;sup>1</sup> This is the Colombian government body that supervises and regulates corporations in the country.

<sup>&</sup>lt;sup>2</sup> In Spanish these are referred to as *empresas pequeñas y medianas* or *PYMEs*.

few larger firms, while SMEs are in many cases completely missing. Of the country's approximately 3,400 SMEs, over 2,000 are located in Bogotá alone. Medellín has around 400 SMEs, Cali has around 330 and Barranquilla around 140. This suggests that Bogotá has a much more developed and dynamic corporate sector than the rest of the country.

The study continues by analysing the eight major cities of the country. The individual firms are aggregated in different business sectors in the different cities, and it is shown that different sectors are dominant in different cities. Even if nothing surprising, the tables presented should provide a good foundation for future research in the area.

The development of the aggregate sales of the firms of the eight different cities is also studied. The time period analysed, 1996 to 2003, includes the crisis year of 1999. It is shown that the cities were differently affected by the crisis, and also that their development throughout the period was very different. Manizales was the city worst hit by the crisis, but it was also the city that recovered fastest. Bucaramanga was the city with the worst performance during the period.<sup>3</sup> Cali also showed a rather lacklustre performance, particularly when analysing the SMEs of the city.

The paper is organised as follows: Chapter 2 introduces and discusses the dataset used for the study. Chapter 3 looks at the firms in 2003, and breaks the dataset down by city. In chapter 4 the development of the eight largest cities of the country is studied, and chapter 5 concludes the paper.

Note that this paper uses the Anglo-Saxon terminology for billions, trillions and so on. 4

<sup>4</sup> According to Anglo-Saxon terminology, one billion is 1,000,000,000 and one trillion is 1,000,000,000,000. In Spanish terminology, 1,000,000,000 is referred to as one thousand million, while 1,000,000,000,000 is referred to as one billion.

<sup>&</sup>lt;sup>3</sup> Adolfo Meisel, in fact, pointed out to me that Bucaramanga has, indeed, performed relatively well, so the result here is, in this context, contradictory.

### 2 The Colombian Corporate Sector

The research presented in this paper looks at the Colombian corporate sector at a firm level. The research is based on balance sheets and income statements for the vast majority of Colombian registered firms. The research mainly draws from two earlier papers and uses the datasets and tools developed and defined in these papers. The papers are presented in section 2.1 below. Section 2.2 continues by describing the Superintendencia de Sociedades database, from which de dataset used in the study is retrieved. The dataset is defined and discussed in section 2.3. Section 2.4 and 2.5 divides this dataset into size brackets and business sectors.

#### 2.1 Earlier Studies on the Colombian Corporate Sector

The study presented in this paper is based mainly on two former papers, Rowland (2005a) and Rowland (2005b), which studied the Colombian corporate sector. Both these papers focus on the differences between foreign and domestic firms in Colombia, but they also give a good overview of the general structure and developments of the corporate sector. However, none of the papers investigates the regional structure of the corporate sector.

The first of the two papers, titled *Foreign and Domestic Firms in Colombia: How Do They Differ?*, studies the Colombian corporate sector in year 2003, and particularly focus on the differences between foreign and domestic firms, as apparent from the title. The study uses a dataset containing balance sheets and income statements for some 7,001 firms. This dataset was obtained from the Superintendencia de Sociedades. The study concludes that foreign and domestic firms differ in a number of aspects. Foreign firms tend to have a larger total asset turnover than domestic firms; they are more leveraged than domestic firms; and they tend to have a lower net-profit margin than domestic firms. However, these results are not conclusive. When the dataset is broken down by sector,

<sup>&</sup>lt;sup>5</sup> Rowland (2005a).

the results are much less clear. When analysing external debt, foreign firms do, nevertheless, tend to hold almost four times as much external debt as domestic firms of the same size. Foreign firms also tend to import more.

The second to the two papers, bearing the title *Foreign and Domestic Firms in Colombia: Development and Trends 1996-2003*, 6 investigates the differences in the development of these two sets of firms during the period 1996 to 2003. This period includes the 1999 economic crisis. The dataset is drawn from the same database as the previous study, but includes only those firms present throughout the whole period, which reduces the sample to 3,452 firms. If the development of foreign majority-owned firms, as an aggregate, is compared to that of domestic firms, it is shown that foreign firms have, in terms of aggregate sales, grown faster than their domestic counterparts, and that they were less affected by the 1999 crisis. Profit developments have also been more positive for foreign firms than for domestic firms, both in terms of operating margin and net-profit margin. While the net-profit margin of domestic firms was seriously affected by the 1999 crisis, that of foreign firms was hardly affected at all. The leverage of foreign firms, measured as total liabilities to total assets, has, furthermore, increased during the period, while that of domestic firms have remained more or less flat. For foreign minority-owned firms, on the other hand, the results are less conclusive.

To my knowledge, no previous study has been done on the regional structure of the Colombian corporate sector. The study presented here aims to be a first step in filling that gap. The study uses the same datasets as used by Rowland (2005a) and Rowland (2005b), so those readers that are familiar with these studies can skip the remaining sections of this chapter, which define and discuss this dataset.

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<sup>&</sup>lt;sup>6</sup> Rowland (2005b).

<sup>&</sup>lt;sup>7</sup> Rowland (2005a) includes a relatively thorough literature survey, but this concentrates on the literature on foreign direct investment at a firm level. Earlier papers exploring foreign and domestic firms in Colombia and foreign direct investment into the country include Pedraza (2003a, 2003b), and Steiner and Salazar (2001).

#### 2.2 The Superintendencia de Sociedades database

The study carried out here uses a database obtained from the Superintendencia de Sociedades. This presents the balance sheets and income statements from 1996 and up until 2003 for all firms that are registered with the Superintendencia. The database excludes banks and financial institutions, which are regulated by the *Superintendencia Bancaria*, as well as around 80 of the approximately 130 firms listed on the Colombian stock exchange, which are regulated by the *Superintendencia de Valores*. The database also excludes the large majority of micro enterprises, which are defined as firms with less than 10 employees or less than COP 166 millions in assets in 2003.<sup>8</sup> Apart from these exceptions, the database should include all firms in Colombia. In 2003 the database included some 9,204 firms. For the preceding years the number of firms varied between 9.027 and 10.680.<sup>9</sup>

#### The database includes information on:

- NIT number (a unique identification number)<sup>10</sup>
- Company name
- City and department where registered
- CIIU (the firm's main activity area one out of 366 activity areas)
- Sector (one out of 60 sectors)
- Balance sheet accounts (Assets, Liabilities, Equity)
- Income statement accounts (Revenues, Expenses, Net profit)

<sup>&</sup>lt;sup>8</sup> As defined by Law 590 of 2000.

<sup>&</sup>lt;sup>9</sup> The database for 2001 contained only 6,239 firms due to a change in regulations, which resulted in a drop in the number of firms reporting to the Superintendencia that year. However, the database for 2001 was reconstructed using *previous year's data* from the 2002 database.

<sup>&</sup>lt;sup>10</sup> Numero de identificación tributaria.

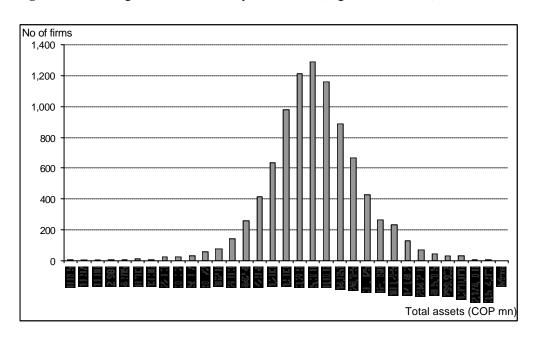


Figure 2.1: Histogram of all firms by size, 2003 (logarithmic scale)

Note: Based on the original database, including all 9,204 firms.

Source: Superintendencia de Sociedades.

Even if most of the data has been verified by the Superintendencia, errors remain.<sup>11</sup> Considerable time has, therefore, been spent on correcting any such errors, since they could otherwise invalidate the results of the study.

Figure 2.1 graphs a histogram of the firms in the database in 2003. On a logarithmic scale, the firms seem to be normally distributed, with a geometric mean of total assets of COP 4,300 million.

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<sup>&</sup>lt;sup>11</sup> One particular error is that the figures of a number of firms are reported in pesos rather than in thousands of pesos, which is the norm.

#### 2.3 The Dataset Used in the Study

The dataset used in this study is the same as that used in Rowland (2005a) and Rowland (2005b). In line with these studies, a number of firms were excluded from the original database. These include micro enterprises, defined as firms with total assets of less than COP 166 million, <sup>12</sup> and firms with total sales of less than COP 83 million, which were regarded as too small as well. The rationale is that only a small fraction of micro enterprises are registered with the Superintenencia de Sociedades. We do, nevertheless, assume that all firms with assets or sales exceeding the above values are registered with the Superintendencia. In line with Rowland (2005a, 2005b), firms in liquidation, in *concordato*, or in restructuring as defined by Law 550, <sup>13</sup> were excluded as well. These are firms generally under financial distress, and can be assumed to have a behaviour significantly different from the rest. For the year 2003, this leaves us with 7,001 firms.

When studying the time period 1996 to 2003, we will use a subset of these firms. Exactly how this is defined will be discussed in section 4.1 in chapter 4.

#### 2.4 Firms by Size

The firms in the dataset have, for the purpose of the study, been divided into size brackets based on total assets. These size brackets are defined in table 2.1, and are the same as those used in Rowland (2005a, 2005b). The definition of micro, small, medium-sized and major companies is as stipulated by Law 590 of 2000. In addition, two more size brackets have been defined, large firms and the largest 100, as apparent in the table.

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<sup>&</sup>lt;sup>12</sup> This definition is in accordance with Law 590 of 2000, which defines the size brackets of firms.

<sup>&</sup>lt;sup>13</sup> Firms in *concordato* are firms in financial distress that are temporarily protected from creditors to give them time to restructure their operations. *Concordato* was in 2000 replaced by Law 550, which is a more elaborate legal framework. Law 550 has many similarities with Chapter 11 in the United States.

**Table 2.1:** Definition of size brackets for the firms in the dataset

Size	Total assets in 2	003 (COP million)
	from	to
Micro Small Medium Major	0 166 1,660 4,980	166 1,660 4,980 49,800
Large Largest 100	49,800 340,500	340,500

*Note:* The Largest 100 size bracket is defined to include the largest 100 firms in the dataset. Large firms have been defined to have a cut-off point ten times the size of major firms. Micro, small, medium-sized and major firms are defined according to Law 590 of 2000. Micro enterprises are excluded from the study.

**Table 2.2:** The 2003 dataset divided into firms by size

Size	No of firms	Total assets (COP million)	% of total (based on assets)
Small Medium Major Large Largest 100	1,229 2,155 2,975 542 100	1,165,032 6,669,958 43,712,265 62,897,119 102,864,393	0.5% 3.1% 20.1% 28.9% 47.3%
Total all firms	7,001	217,308,767	100.0%

Table 2.2 presents the 2003 dataset divided into these size brackets. It is apparent that the largest 100 firms account for as much as 47.3 percent of total assets, while small and medium-sized firms together, even if as many as 3,384, only account for 3.6 percent of total assets. This presents one problem when analysing the data. If normal arithmetic averages are used to express a measure, these will mainly be based on small and medium-sized firms, with the largest 100 firms only playing a marginal role. However, an aggregate figure or an average weighted on the assets of firms will be dominated by the largest 100 firms, with s mall and medium-sized firms playing hardly any role at all.

Firms of different sizes can be assumed to behave very differently, so this calls for firms of different size brackets to be studied separately. In line with Rowland (2005a, 2005b) we have, furthermore, decided to use weighted averages for the purpose of the study rather than plain arithmetic averages.

#### 2.5 Firms by Sector

The database from the Superintendencia de Sociedades divides the firms into 60 different sectors representing different business segments. These are, in fact, numbered 1 to 66 with some numbers missing. Table 2.3 on the next page shows a complete list of these sectors.

Figure 3.2 on the following page shows the 20 most important sectors by aggregate assets. It is apparent from the figure that investment activities is the most dominant sector, with aggregate assets of some COP 41,103 trillion. This sector includes holding companies as well as conglomerates. The sector also includes 28 of the largest 100 companies, and those companies account for 69.2 percent of aggregate assets of the sector, i.e. significantly more then for the corporate sector as a whole. The largest companies in the investment activities sector are Grupo Aval, Invernac, Suramericana de Inversiones, Valores Bavaria, and Santo Domingo. The sector is by no means homogenous, and the companies in the sector can be assumed to behave very different from one and another depending on their business activities.

After investment activities follow wholesale, food industry, drinks and telecommunications, in order of aggregate assets.

**Table 2.3:** The different sectors

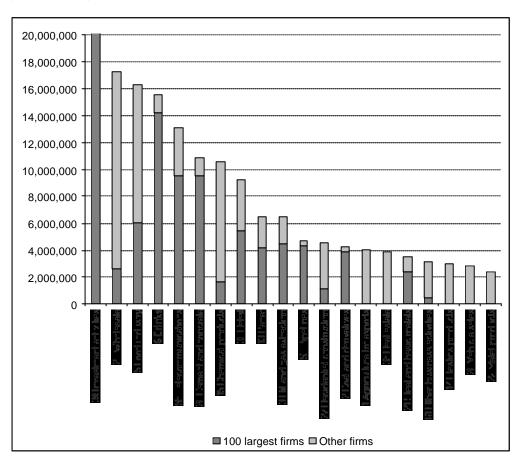
1	Agriculture	with	export	predominance

- 2 Coal and derivatives
- 3 Oil and gas extraction
- 4 Extraction of other minerals
- 5 Food industry
- 6 Drinks
- 7 Tobacco
- 8 Textiles and fabrics
- 9 Clothes
- 10 Leather
- 11 Shoes and footwear
- 12 Wood products
- 13 Paper, carton and derivatives
- 14 Editorial and printing (excl publication)
- 15 Chemical products
- 16 Rubber products
- 17 Plastics products
- 18 Glass and glass products
- 19 Mineral products (excl metals)
- 20 Cement and concrete products
- 21 Steel and basic metals
- 22 Metal-mechanical products
- 23 Vehicle manufacturing
- 24 Manufacturing of other means of transportation
- 25 Other manufacturing industries
- 26 Electricity generation
- 27 Residential building construction
- 28 Vehicle sales
- 29 Wholesale
- 30 Retail

- 31 Accommodation
- 32 Cargo transportation by land
- 33 Mail delivery
- 34 Investment activities
- 35 Real estate
- 37 Education
- 38 Health and social services
- 39 Other community services
- 41 Sales of fuels and lubricants
- 42 Other agricultural sectors
- 43 Cattle farming
- 45 Forestry and related activities
- 46 Manufacturing of other products
- 47 Publication of periodicals
- 48 Manufacturing of machines and equipment
- 49 Transportation by sea
- 50 Transportation by air
- 52 Other passenger transportation systems
- 53 Pipelines
- 54 Storage
- 55 Telecommunications and networks
- 56 Radio and television
- 59 Fishing
- 60 Information systems
- 61 Other business activities
- 62 Civil construction
- 63 Construction preparation
- 64 Oil and gas derivatives
- 65 Food retail
- 66 Tourism activities

Source: Superintendencia de Sociedades.

Another important observation from figure 2.2 on the next page is that some sectors are dominated by large firms, while others are dominated by smaller firms. Sectors dominated by the largest 100 firms include, in particular, drinks, cement and concrete, pipelines, and coal and derivatives. Sectors where the largest 100 firms only have limited presence include, in particular, wholesale, and chemical products. It is also apparent, that of the seven least important sectors in the graph, only two, steal and basic metals, and other business activities, include firms from the largest 100.



**Figure 2.2:** The 20 most important sectors in terms of aggregate assets in 2003 (COP million)

*Note:* Investment activities have total assets of COP 41,103 trillion, of which 69.2 percent belongs to the 100 largest firms.

Source: Rowland (2005a).

Figure 2.2 only illustrates the 20 largest sectors. Data on all sectors are presented in the appendix in table A.1.

## 3 Colombian Firms by City

We will in this chapter break down the firms in the dataset by city, to investigate if there are any differences in the structure of the corporate sector of different cities. Section 3.1 defines the dataset used in this chapter, and section 3.2 breaks down the dataset by city and size of firm. In section 3.3 the eight major cities of the country are specified and discussed, and section 3.4 looks at the different business sectors present in those cities. In section 3.5 total asset turnover, leverage, and return on assets are presented for the different cities, and differences are analysed.

#### 3.1 The Dataset Used

For the analysis in this chapter we will use the dataset for 2003 as defined in section 2.3 in the previous chapter. This dataset, consequently, contains balance sheets and income statements for some 7,001 firms.

#### 3.2 Firms by City and Size

Table 3.1 presents Colombian firms by city and size. The cities are sorted by total sales, and the table only contains the 30 most important cities in terms of total sales. The complete table with all cities is presented in table A.2 in the appendix.

Two things are apparent from table 3.1. First, as could be expected, the largest 100 firms are, with only few exceptions, concentrated to the country's four largest cities. Second, and more surprisingly, many smaller cities of the country do not have any small and medium-sized enterprises (SMEs).

**Table 3.1:** Firms by city and size, 2003

	SMEs			Major			Large			Largest	100		All firm	s	
City (Department)	No of firms	Total sales (COP mn)	% of total all cities	No of firms	Total sales (COP mn)	% of total all cities	No of firms	Total sales (COP mn)	% of total all cities	No of firms	Total sales (COP mn)	% of total all cities	No of firms	Total sales (COP mn)	% of total all cities
		(001-1111)			(00)			(00)			(00.			(001	
Bogota D.C.	2,005	6,238,727	54.5%	1,517	23,909,550	48.8%	294	29,831,276		52	26,494,679		3,868	86,474,232	
Medellin (Antioquia)	405	1,595,287	13.9%	468	7,950,112	16.2%	79	7,090,121	13.2%	22	8,071,602		974	24,707,122	15.5%
Cali (Valle)	332	1,037,881	9.1%	309	4,958,446	10.1%	63	6,932,126		15	,, -	10.2%	719	,- , -	
Barranquilla (Atlantico)	138	446,335		155	2,624,772	5.4%	32	2,295,822		6	4,158,436		331	9,525,365	6.0%
Bucaramanga (Santander)	69	327,912	2.9%	76	1,837,094	3.7%	10	791,782	1.5%	0	0	0.0%	155	2,956,787	1.8%
Manizales (Caldas)	48	165,330	1.4%	35	629,709	1.3%	9	1,295,410	2.4%	0	0	0.0%	92	2,090,449	
Cartagena (Bolivar)	47	279,171	2.4%	54	832,979	1.7%	10	747,513		1	144,452		112	2,004,115	
Pereira (Risaralda)	40	192,787	1.7%	39	705,840	1.4%	6	712,675		0	0	0.0%	85	1,611,302	1.0%
Palmira (Valle)	16	35,211	0.3%	32	503,025	1.0%	5	436,244	0.8%	2	559,591	1.2%	55		1.0%
Tocancipa (Cundinamarca)	2	8,194	0.1%	3	107,598	0.2%	2	769,784	1.4%	1	559,545	1.2%	8	1,445,121	0.9%
Chia (Cundinamarca)	6	23,266	0.2%	10	222,415	0.5%	2	137,087	0.3%	1	859,169	1.9%	19	1,241,937	0.8%
Neiva (Huila)	12	78,280	0.7%	12	248,979	0.5%	1	308,475		0	0	0.0%	25	635,734	0.4%
Santa Marta (Magdalena)	20	53,927	0.5%	14	160,213	0.3%	4	379,441	0.7%	0	0	0.0%	38	593,582	0.4%
Ibague (Tolima)	22	109,660	1.0%	21	423,486	0.9%	1	17,628	0.0%	0	0	0.0%	44	550,774	0.3%
Cucuta (Norte de Santander)	43	170,316	1.5%	30	362,891	0.7%	0	0	0.0%	0	0	0.0%	73	533,207	0.3%
Soacha (Cundinamarca)	14	39,687	0.3%	17	296,881	0.6%	2	148,333	0.3%	0	0	0.0%	33	484,901	0.3%
Buga (Valle)	5	14,028	0.1%	7	107,985	0.2%	2	326,039	0.6%	0	0	0.0%	14	448,051	0.3%
Mosquera (Cundinamarca)	2	4,469	0.0%	7	117,273	0.2%	3	249,266	0.5%	0	0	0.0%	12		
Santander de Quilichao (Cauca)	4	7,385		7	85,636	0.2%	4	274,173		0	0	0.0%	15		
Cota (Cundinamarca)	4	21,205	0.2%	9	289,883	0.6%	0	0	0.0%	0	0	0.0%	13	311,089	0.2%
Villavicencio (Meta)	4	9,257	0.1%	12	230,799	0.5%	1	32,803	0.1%	0	0	0.0%	17	272,859	0.2%
Pasto (Narino)	11	43,092	0.4%	9	198,600	0.4%	0	0	0.0%	0	0	0.0%	20	241,692	0.2%
Funza (Cundinamarca)	8	22,753	0.2%	6	75,574	0.2%	1	138,236	0.3%	0	0	0.0%	15	236,563	0.1%
Sincelejo (Sucre)	5	18,820	0.2%	8	93,503	0.2%	1	100,082	0.2%	0	0	0.0%	14		0.1%
Facatativa (Cundinamarca)	2	16,548	0.1%	0	0	0.0%	1	171,245	0.3%	0	0	0.0%	3	187,793	0.1%
Santa Rosa de Cabal (Risaralda)	2	15,633	0.1%	2	164,962	0.3%	0	0	0.0%	0	0	0.0%	4		0.1%
Rionegro (Antioquia)	8	25,798	0.2%	3	34,454	0.1%	1	116,560	0.2%	0	0	0.0%	12		0.1%
Tulua (Valle)	6	14,583	0.1%	6	124,611	0.3%	1	29,383	0.1%	0	0	0.0%	13	168,576	0.1%
San Martin (Meta)	0	0	,	0	0	0.0%	1	154,255		0	0	0.0%	1	,	0.1%
Caloto (Cauca)	0	0	0.0%	11	139,607	0.3%	0	0	0.0%	0	0	0.0%	11	139,607	0.1%
Total all 104 cities	3,384	11,456,976	100.0%	2,975	49,017,747	100.0%	542	53,868,607	100.0%	100	45,496,240	100.0%	7,001	159,839,570	100.0%

Note: Cities sorted by total sales. Only the first 30 cities included. The total includes all 104 cities. For the complete table, see table A.2 in the appendix.

SMEs, in fact, seem to be concentrated to the larger cities. In 2003, of the country's 3,384 SMEs, 2,005 are in Bogotá, 405 in Medellín, 332 in Cali and 138 in Barranquilla. Bucaramanga, Manizales, Cartagena, and Pereira have around 50 SMEs each. However, the smaller cities have very few SMEs. Villavicencio, for example, which is a medium-sized city, <sup>14</sup> has one large firm, 12 major firms, but only four SMEs. The pattern is the same for most smaller and medium-sized cities.

These results suggest that Bogotá has a much more dynamic corporate sector than the rest of the country. Bogotá has 15.9 percent of the country's population, but it has almost 60 percent of the number of small and medium-sized firms in the country. Many smaller cities, which could be expected to have a considerable number of SMEs, are instead dominated by a small number of larger firms with SMEs almost or completely lacking.

It should be emphasised that the analysis here suffers from a bias when studying large firms. These normally have operations in several cities, while all their revenues are referred to the city where they are registered. Olympica, a supermarket chain, is, for example, registered in Barranquilla, while its most important city, in terms of revenues, is Bogotá. This bias is, however, normally not present when studying small and medium-sized firms.

#### 3.3 The Eight Major Cities of Colombia

We continue by studying the eight major cities of the country in terms of population. These cities together with some corporate statistics are listed in table 3.2. It is apparent that Bogotá is the dominant corporate centre of Colombia, not only in absolute but also in relative terms. Bogotá stands for 54.1 percent of total sales and 56.4 percent of total assets in the country. Sales per inhabitant in Bogotá stand at COP 12.6 million, which is considerably higher than in any other of the eight cities. Bogotá is followed by Medellín and Cali, with sales per inhabitant of COP 8.4 million and COP 7.4 million respectively.

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<sup>&</sup>lt;sup>14</sup> Villavicencio has around 305,000 inhabitants (projections for 2003 by DANE). It is the administrative capital of the department of Meta.

Barranquilla and Manizales have sales per inhabitant of COP 5.7 million and COP 5.4 million respectively. Bucaramanga, Cartagena, and Pereira, however, all lie below the country average of COP 3.7 million. With sales per inhabitant of only COP 2.2 million, Cartagena has the lowest value. It is also the poorest of the eight cities in the table. 15

**Table 3.2:** The eight major cities of Colombia together with selected statistics (COP million)

City	Population	No of firms	Total sales	% of total	Total assets	% of total	Sales/ inhabitant	Sales/ firm
Bogota D.C.	6,850,000	3,868	86,474,232	54.1%	122,619,578	56.4%	12.6	22,356
Medellin	2,940,000	974	24,707,122	15.5%	38,797,842	17.9%	8.4	25,367
Cali	2,360,000	719	17,577,219	11.0%	23,308,067	10.7%	7.4	24,447
Barranquilla	1,660,000	331	9,525,365	6.0%	12,555,936	5.8%	5.7	28,778
Bucaramanga	979,000	155	2,956,787	1.8%	2,259,852	1.0%	3.0	19,076
Cartagena	903,000	112	2,004,115	1.3%	2,599,705	1.2%	2.2	17,894
Pereira	626,000	85	1,611,302	1.0%	1,258,749	0.6%	2.6	18,956
Manizales	385,000	92	2,090,449	1.3%	1,692,574	0.8%	5.4	22,722
Total 8 cities	16,703,000	6,336	146,946,591	91.9%	205,092,302	94.4%	8.8	23,192
Country total	43,134,000	7,001	159,839,570	100.0%	217,308,767	100.0%	3.7	22,831

Source: DANE (population), and calculations by the author.

One fact, that might influence the numbers, as discussed previously, is that many of the largest firms tend to have their head offices in Bogotá. In fact, 52 of the country's largest 100 firms have their head office in Bogotá. 16 Many of these firms have production or activities in other parts of the country, while their total sales are registered in Bogotá. The sales per inhabitant of COP 12.6 million for Bogotá might, therefore, be inflated.

17

<sup>&</sup>lt;sup>15</sup> See, for example, Baron, Perez and Rowland (2004) for a discussion on GDP per capita for the different regions of Colombia.

16 See table 3.1 earlier.

#### 3.4 Sales per City and Sector

Table 3.3 and 3.4 on the next four pages shows total sales broken down by city and sector. Table 3.3 shows the absolute figures in COP million, which table 3.4 shows the relative figures, i.e. the participation of each sector in the total sales of the city. The sectors in the tables are sorted on their importance in the country as a whole in terms of aggregate sales.

Table 3.4 is directly derived from table 3.3, and it reveals a number of interesting facts. The five most important sectors in terms of total sales are wholesale, food industry, retail, chemical products and vehicle sales. Wholesale is the most important sector in all of the six inland cities, <sup>17</sup> with participation rates of between 17.0 and 27.8 percent, while in Cartagena and Barranquilla it has participation rates of 7.4 and 13.2 percent respectively. In Cartagena, the most important sector is food industry, with 19.7 percent participation, and in Barranquilla it is retail, with 17.0 percent. <sup>18</sup> The food industry is also very important in Cali (18.4 percent), and retail in Medellín (15.7 percent) and Manizales (17.7 percent). Chemical products is a very important sector in Barranquilla (13.9 percent) and Cartagena (12.8 percent), while it is close to absent in Bucaramanga and Pereira. Vehicle sales, on the other hand, is important in Bucaramanga (7.1 percent) and Pereira (5.8 percent), but much less so in Barranquilla (1.3 percent).

<sup>&</sup>lt;sup>17</sup> I.e. Bogotá, Medellín, Cali, Bucaramanga, Pereira and Manizales.

<sup>&</sup>lt;sup>18</sup> In Barranquilla, retail is the most important of these five sectors. However, the most important sector of all is, in fact, coal and derivatives, with a participation rate of 21.2 percent.

**Table 3.3a:** Sales per city and sector, 2003 (COP million)

29 Wholesale 20,069,252 4,203,846 3,056,089 1,257,144 727,066 147,405 349,932 581,88 5 Food industry 6,698,919 2,487,468 3,227,466 943,551 321,106 394,743 308,776 179,03 30 Retail 5,997,098 3,882,718 1,440,034 1,616,650 290,015 130,344 126,281 370,38 15 Chemical products 6,068,295 1,202,002 1,705,818 1,322,291 406 255,895 0 79,79 28 Vehicle sales 3,309,009 648,577 739,775 128,064 210,153 76,343 93,665 83,03 6 Drinks 3,348,876 998,809 4,692 12,796 37,248 306 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
5 Food industry 6,698,919 2,487,468 3,227,466 943,551 321,106 394,743 308,776 173,03   30 Retail 5,997,098 3,882,718 1,440,034 1,616,650 290,015 130,344 126,281 370,39   15 Chemical products 6,068,295 1,202,002 1,705,818 1,322,291 406 255,895 0 79,79   28 Vehicle sales 3,309,009 648,577 739,775 128,064 210,153 76,343 93,665 83,03   6 Drinks 3,348,876 998,809 4,692 12,796 37,248 306 0	9 33,063,856
30 Retail     5,997,098     3,882,718     1,440,034     1,616,650     290,015     130,344     126,281     370,38       15 Chemical products     6,068,295     1,202,002     1,705,818     1,322,291     406     255,895     0     79,79       28 Vehicle sales     3,309,009     648,577     739,775     128,064     210,153     76,343     93,665     83,03       6 Drinks     3,348,876     998,809     4,692     12,796     37,248     306     0	, ,
15 Chemical products 6,068,295 1,202,002 1,705,818 1,322,291 406 255,895 0 79,795 128,064 210,153 76,343 93,665 83,03   6 Drinks 3,348,876 998,809 4,692 12,796 37,248 306 0	
6 Drinks 3,348,876 998,809 4,692 12,796 37,248 306 0	4 11,964,221
2 Oil and rea systemation   5 200 426   0   0   0   0	0 5,261,941
3 Oil and gas extraction 5,209,136 0 0 0 0 0 0	5,209,136
55 Telecommunications 3,564,094 572,688 70,622 167,694 13,287 11,610 0	0 4,418,830
13 Paper 718,025 1,039,947 1,439,996 95,635 0 0 183,560	0 3,614,244
2 Coal and derivatives 1,520,156 7,977 3,860 2,063,410 0 0 0	0 3,607,943
23 Vehicle manufacturing 2,328,730 70,136 36,954 0 96,938 20,007 25,638 33,84	1 3,584,447
61 Other business activities 2,684,489 245,636 320,249 75,501 19,612 14,926 3,294 14,36	1 3,476,458
34 Investment activities 1,935,119 992,016 240,556 23,515 1,313 625 114 3,37	1 3,208,820
1 Agriculture for exports 1,652,473 634,704 361,047 17,141 58,106 2,111 410 1,35	7 2,942,485
9 Clothes 413,708 1,738,767 124,282 26,078 5,813 0 187,138	0 2,728,299
20 Cement and concrete 1,329,410 538,447 186,891 267,757 7,463 144,452 637 76,66	3 2,695,794
17 Plastics products   1,274,867   442,226   207,320   122,453   43,064   138,815   12,548   43,07	4 2,614,284
21 Steel and basic metals 1,440,884 413,501 226,749 23,670 295,889 798 0 31,45	4 2,583,325
25 Other manufacturing 1,018,578 227,916 594,363 121,455 5,715 27,409 8,173 84,27	2,492,500
22 Metal-mechanical products 750,654 324,969 507,051 218,334 8,518 0 9,382 128,68	2,178,463
64 Oil and gas derivatives 1,952,131 1,269 0 3,201 87,314 83,249 0	0 2,170,466
27 Recidential construction   1,384,006   232,303   195,784   98,905   121,676   50,213   4,968   25,51	6 2,140,477
48 Machines and equipment 1,103,448 299,039 127,727 124,842 2,848 10,170 24,243 242,60	4 2,054,917
43 Cattle farming 654,179 268,018 94,611 138,652 457,357 12,336 1,333 13,15	
8 Textiles and fabrics 1,118,377 519,597 19,505 4,323 0 0 68,151 1,19	3 1,837,364
14 Editorial and printing 1,054,518 94,213 477,120 2,312 2,228 0 0	0 1,650,569
62 Civil construction 657,398 253,706 182,681 48,158 13,183 18,904 4,695	0 1,371,433
38 Health and social services 575,356 61,443 552,846 609 1,336 0 0	0 1,193,605
19 Mineral products 817,237 158,697 43,681 6,515 2,452 18,060 0 1,16	2 1,164,278
56 Radio and television     856,940     9,749     58,426     22,141     360     0     0	948,142

**Table 3.3b:** Sales per city and sector (continued...)

Sector	Bogota D.C.	Medellin	Cali	Barranguilla	Bucaramanga	Cartagena	Pereira	Manizales	COLOMBIA
18 Glass and glass products	110,226	599,075	0	33,256	0	0	10,800	0	775,439
16 Rubber products	114,009	· · · · · · · · · · · · · · · · · · ·	585,905		1,142	0	10,800	0	760,592
39 Other community services	450,652		152,175			2,272	2,291	4,178	
46 Other products	498,583		14,643		2,510	0	2,231	2,509	
53 Pipelines	623,229		0	16,767	0	0	0	0	639,996
65 Food retail	441,521	98,393	9,178	0	14,287	0	46,301	260	609,940
35 Real estate	384,471	56,786	18,426			10,722	1,868	5,834	
41 Sales of fuels and lubricants	277,250	116,159	3,587	22,523	55,594	14,663	9,883	3,090	537,994
31 Accommodation	209,977	24,666	71,776	15,249		127,023	4,940	1,683	509,252
63 Construction preparation	248,586	144,681	41,322	28,181	2,782	0	100	0	506,141
24 Manufacturing of OMT	604	169,519	184,290	5,475	0	6,578	112,576	0	479,041
60 Information systems	379,274		36,018			7,434	0	0	473,451
54 Storage	309,006	,	3,662	6,379	0	4,581	719	597	381,913
59 Fishing	4,106		2,921	0	ŭ	227,174	4,215	0	283,251
47 Publication of periodicals	120,760	56,959	41,821	0	19,452	11,335	3,421	17,977	271,725
11 Shoes and footwear	94,322	39,512	51,919			0	0	62,813	· · · · · · · · · · · · · · · · · · ·
10 Leather	52,313		0	79,081	524	22,136	0	0	240,628
32 Cargo transportation by land	191,982		17,222	16,004		0	0	0	238,934
7 Tobacco	0	216,899	0	0	0	0	0	0	216,899
50 Transportation by air	106,693	16,799	0	0	0	0	0	0	211,484
42 Other agricultural sectors	54,294	31,427	16,495			0	1,251	1,587	205,341
4 Extraction of other minerals	36,972	126,869	3,935		0	0	0	0	181,923
37 Education	22,235		0	3,474	0	0	0	0	131,927
26 Electricity generation	66,560		32,506		0	291	0	0	114,884
66 Tourism activities	79,274	1,857	8,018	0	0	9,042	0	0	98,191
12 Wood products	61,973		4,089			0	0	0	89,786
52 Other passenger transport.	13,947	0	9,071	184		0	0	985	· · · · · · · · · · · · · · · · · · ·
45 Forestry	1,681	14,035	22,046		0	0	0	85	,
49 Transportation by sea	1,641	0	0	7,307	0	2,143	0	0	14,410
33 Mail delivery	12,731	0	0	0	0	0	0	0	12,731
Total All Sectors	86,474,232	24,707,122	17,577,219	9,525,365	2,956,787	2,004,115	1,611,302	2,090,449	159,839,570

*Note:* OMT stands for other means of transportation.

**Table 3.4a:** Sales per city and sector, 2003, relative terms

Sector	Bogota D.C.	Medellin	Cali	Barranquilla	Bucaramanga	Cartagena	Pereira	Manizales	COLOMBIA
29 Wholesale	23.21%	17.01%	17.39%	13.20%	24.59%	7.36%	21.72%	27.84%	20.69%
5 Food industry	7.75%	10.07%	18.36%	9.91%	10.86%	19.70%	19.16%	8.28%	10.96%
30 Retail	6.94%	15.71%	8.19%	16.97%	9.81%	6.50%	7.84%	17.72%	8.96%
15 Chemical products	7.02%	4.87%	9.70%	13.88%	0.01%	12.77%	-	3.82%	7.49%
28 Vehicle sales	3.83%	2.63%	4.21%	1.34%	7.11%	3.81%	5.81%	3.97%	3.47%
6 Drinks	3.87%	4.04%	0.03%	0.13%	1.26%	0.02%	-	-	3.29%
3 Oil and gas extraction	6.02%	-	-	-	-	-	-	-	3.26%
55 Telecommunications	4.12%	2.32%	0.40%	1.76%	0.45%	0.58%	-	-	2.76%
13 Paper	0.83%	4.21%	8.19%	1.00%	-	-	11.39%	-	2.26%
2 Coal and derivatives	1.76%	0.03%	0.02%	21.66%	-	-	-	-	2.26%
23 Vehicle manufacturing	2.69%	0.28%	0.21%	-	3.28%	1.00%	1.59%	1.62%	2.24%
61 Other business activities	3.10%	0.99%	1.82%	0.79%	0.66%	0.74%	0.20%	0.69%	2.17%
34 Investment activities	2.24%	4.02%	1.37%	0.25%	0.04%	0.03%	0.01%	0.16%	2.01%
<ol> <li>Agriculture for exports</li> </ol>	1.91%	2.57%	2.05%	0.18%	1.97%	0.11%	0.03%	0.06%	1.84%
9 Clothes	0.48%	7.04%	0.71%	0.27%	0.20%	-	11.61%	-	1.71%
20 Cement and concrete	1.54%	2.18%	1.06%	2.81%	0.25%	7.21%	0.04%	3.67%	1.69%
17 Plastics products	1.47%	1.79%	1.18%	1.29%	1.46%	6.93%	0.78%	2.06%	1.64%
21 Steel and basic metals	1.67%	1.67%	1.29%	0.25%	10.01%	0.04%	-	1.50%	1.62%
25 Other manufacturing	1.18%	0.92%	3.38%	1.28%	0.19%	1.37%	0.51%	4.03%	1.56%
22 Metal-mechanical products	0.87%	1.32%	2.88%	2.29%	0.29%	-	0.58%	6.16%	1.36%
64 Oil and gas derivatives	2.26%	0.01%	-	0.03%	2.95%	4.15%	-	-	1.36%
27 Recidential construction	1.60%	0.94%	1.11%	1.04%	4.12%	2.51%	0.31%	1.22%	1.34%
48 Machines and equipment	1.28%	1.21%	0.73%	1.31%	0.10%	0.51%	1.50%	11.61%	1.29%
43 Cattle farming	0.76%	1.08%	0.54%	1.46%	15.47%	0.62%	0.08%	0.63%	1.20%
8 Textiles and fabrics	1.29%	2.10%	0.11%	0.05%	-	-	4.23%	0.06%	1.15%
14 Editorial and printing	1.22%	0.38%	2.71%	0.02%	0.08%	-	_		1.03%
62 Civil construction	0.76%	1.03%	1.04%	0.51%	0.45%	0.94%	0.29%	-	0.86%
38 Health and social services	0.67%	0.25%	3.15%	0.01%	0.05%	-	-	-	0.75%
19 Mineral products	0.95%	0.64%	0.25%	0.07%	0.08%	0.90%	-	0.06%	0.73%
56 Radio and television	0.99%	0.04%	0.33%	0.23%	0.01%	-	-	-	0.59%

**Table 3.4b:** Sales per city and sector, 2003, relative terms (continued...)

Sector	Bogota D.C.	Medellin	Cali	Barranquilla	Bucaramanga	Cartagena	Pereira	Manizales	COLOMBIA
18 Glass and glass products	0.13%	2.42%	_	0.35%	_	_	0.67%	_	0.49%
16 Rubber products	0.13%	0.13%	3.33%	0.21%	0.04%	_	-	_	0.48%
39 Other community services	0.52%	0.30%	0.87%	0.03%	0.10%	0.11%	0.14%	0.20%	0.46%
46 Other products	0.58%	0.23%	0.08%	1.24%	-	-	-	0.12%	0.44%
53 Pipelines	0.72%	-	-	0.18%	-	-	-	-	0.40%
55 Food retail	0.51%	0.40%	0.05%	-	0.48%	-	2.87%	0.01%	0.38%
35 Real estate	0.44%	0.23%	0.10%	0.70%	0.07%	0.53%	0.12%	0.28%	0.36%
1 Sales of fuels and lubricants	0.32%	0.47%	0.02%	0.24%	1.88%	0.73%	0.61%	0.15%	0.34%
31 Accommodation	0.24%	0.10%	0.41%	0.16%	0.21%	6.34%	0.31%	0.08%	0.32%
63 Construction preparation	0.29%	0.59%	0.24%	0.30%	0.09%	-	0.01%	-	0.32%
24 Manufacturing of OMT	0.00%	0.69%	1.05%	0.06%	-	0.33%	6.99%	-	0.30%
10 Information systems	0.44%	0.10%	0.20%	0.07%	0.66%	0.37%	-	-	0.30%
4 Storage	0.36%	0.16%	0.02%	0.07%	-	0.23%	0.04%	0.03%	0.24%
9 Fishing	0.00%	0.02%	0.02%	-	-	11.34%	0.26%	-	0.18%
7 Publication of periodicals	0.14%	0.23%	0.24%	-	0.66%	0.57%	0.21%	0.86%	0.17%
1 Shoes and footwear	0.11%	0.16%	0.30%	0.15%	-	-	-	3.00%	0.17%
0 Leather	0.06%	0.29%	-	0.83%	0.02%	1.10%	-	-	0.15%
2 Cargo transportation by land	0.22%	0.05%	0.10%	0.17%	-	-	-	-	0.15%
Tobacco	-	0.88%	-	-	-	-	-	-	0.14%
70 Transportation by air	0.12%	0.07%	-	-	-	-	-	-	0.13%
2 Other agricultural sectors	0.06%	0.13%	0.09%	0.58%	0.05%	-	0.08%	0.08%	0.13%
Extraction of other minerals	0.04%	0.51%	0.02%	-	-	-	-	-	0.11%
7 Education	0.03%	0.42%	-	0.04%	-	-	-	-	0.08%
6 Electricity generation	0.08%	-	0.18%	0.16%	-	0.01%	-	-	0.07%
6 Tourism activities	0.09%	0.01%	0.05%	-	-	0.45%	-	-	0.06%
2 Wood products	0.07%	0.02%	0.02%	0.16%	-	-	-	-	0.06%
2 Other passenger transport.	0.02%	-	0.05%	0.00%	-	-	-	0.05%	0.04%
5 Forestry	0.00%	0.06%	0.13%	0.25%	-	-	-	0.00%	0.04%
9 Transportation by sea	0.00%	-	-	0.08%	-	0.11%	-	-	0.01%
3 Mail delivery	0.01%	-	-	-	-	-	-	-	0.01%
otal All Sectors	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

*Note:* OMT stands for other means of transportation.

If we study the rest of the sectors, the cities continue to show quite different corporate characteristics. Other important sectors in Bogotá, include drinks (3.9 percent), oil and gas extraction (6.0 percent), and telecommunications (4.1 percent). important sector in Medellín as well (4.0 percent). Other important sectors in Medellín include paper (4.2 percent), investment activities (4.0 percent), and clothes (7.0 percent). In Cali, paper is a very important sector (8.2 percent), followed by health and social services (3.2 percent), and rubber products (3.3 percent). The sector that completely dominates Barranquilla is coal and derivatives with a participation rate of as much as 21.7 percent, which makes it the most important sector in the city. Bucaramanga is dominated by two sectors, in addition to wholesale, and food industry, which have been discussed before; those sectors are steel and basic metals, with a participation rate of 10.0 percent and cattle farming with a participation rate of 15.5 percent. Other important sectors include residential construction (4.1 percent) and oil and gas derivatives (3.0 percent). In Cartagena, fishing is a dominant sector with a 11.3 percent participation. Oil and gas derivatives (4.1 percent) is also important. In Pereira, in addition to wholesale and food industry, dominant sectors include paper, and clothes, with participation rates of 11.4 and 11.6 percent respectively. Textile and fabrics (4.2 percent), and manufacturing of other means of transportation (7.0 percent) are also important sectors. Finally, in Manizales, manufacturing of machines and equipment is a very important sector with a participation rate of 11.6 percent. Other important sectors include cement and concrete (3.8 percent), metal-mechanical products (6.2 percent), and shoes and footwear (3.0 percent).

#### 3.5 Some Key Ratios for the Major Cities

Figure 3.1, 3.2 and 3.3 graphs some ratios for the firms in the eight major cities in the country. The values are calculated as aggregates, i.e. the aggregate value of the numerator is divided by the aggregate value of the denominator. Care has to be taken when analysing the differences between the different cities, since firms from different sectors tend to behave very differently, as discussed in Rowland (2005a). The differences in the graphs might, therefore, very well relate to firms of different sectors being present in different cities, rather than similar firms in different cities behaving differently. So the results of these graphs are not conclusive. Further research is needed to properly analyse the differences.

Figure 3.1 shows total asset turnover, which is defined as sales divided by the total assets of a firms. It is apparent from the figure that firms from Pereira, Manizales and Bucaramanga had a higher asset turnover than firms from other cities. Among firms from the major size bracket, those from Cartagena had the largest total asset turnover, while in the other size brackets firms from Cartagena had the lowest total asset turnover. How do we interpret these results? Total asset turnover reflects the level of sales generated by the firm's assets, and more productive firms will, therefore, have a higher total asset turnover than less productive ones. However, firms in capital-intensive industries will have a much lower total asset turnover than those in labour intensive industries. Trading companies, such as firms in wholesale and retail, tend to have very high total asset turnover. So it is impossible to draw any conclusions from this figure without analysing the structure of the corporate sector of these cities more in detail.

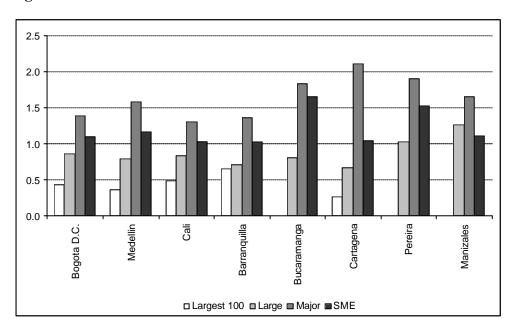


Figure 3.1: Total asset turnover of firms in different cities

Note: Averages weighted by total assets. Only five of the cities have firms among the largest 100.

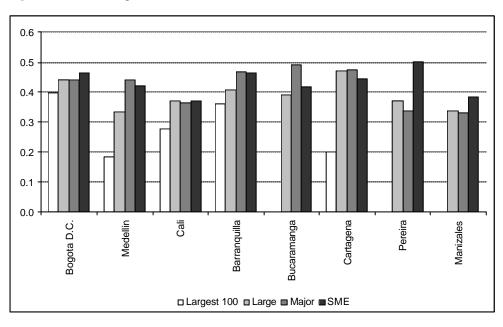


Figure 3.2: Leverage of firms in different cities

Note: Averages weighted by total assets. Only five of the cities have firms among the largest 100.

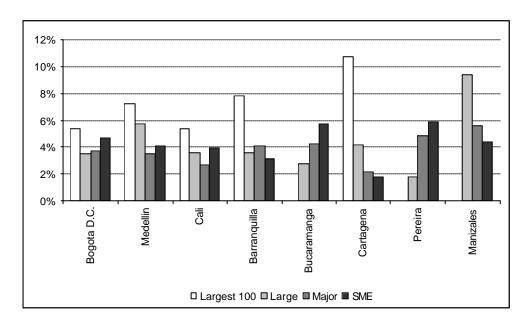


Figure 3.3: Return on assets of firms in different cities

Note: Averages weighted by total assets. Only five of the cities have firms among the largest 100.

Figure 3.2 shows the leverage of the firms in the different cities. This is defined as total liabilities divided by total assets. Firms from Manizales and Pereira were on average less leveraged than firms from other cities, with the exception of SMEs from Pereira, which were actually the most leveraged.

Figure 3.3 shows the return on assets of the firms in the different cities. This is defined as earnings before taxes divided by the firm's total assets. Again, this measure varies considerably between different sectors, so the results are not conclusive. Return on assets also tends to vary significantly from year to year. The figure does, nevertheless, show that firms in Manizales had, with the exception of SMEs, a higher return on assets than in other cities. Cartagena also shows an interesting pattern, with major firms and SMEs showing the lowest return on assets of all cities, while firms among the largest 100 had a higher return on assets than those of other cities.

## 4 Trends and Developments 1996-2003

We now continue to study the development of aggregate sales of the firms of the eight major cities for the period 1996 to 2003. Section 4.1 defines the dataset used for the study. Section 4.2 analyses the development of aggregate sales for the different cities, including all firms, and section 4.3 analyses the same development using only small and medium-sized firms.

#### 4.1 The Dataset Used

We will for the purpose of the study, carried out in this chapter, use the same dataset as defined and discussed earlier in chapter 2, but we will now use all the years from 1996 up until 2003. All the figures in the dataset are, furthermore, adjusted by the GDP deflator, to account for inflation. The adjusted figures, therefore, represent constant 2003 pesos. The GDP deflator used is shown in table 4.1.

**Table 4.1:** Colombian GDP deflator (2003 = 1)

Year	GDP deflator
1996	0.483
1997	0.564
1998	0.648
1999	0.729
2000	0.818
2001	0.869
2002	0.925
2003	1.000

Source: Banco de la República.

We now continue by crossing the datasets from the different years, and we define our sample to include only those firms that existed throughout the whole period, i.e. from 1996 to 2003. This gives us a sample of 3,452 firms. This is exactly the same sample as used by Rowland (2005b).

The firms are divided into size brackets in line with what we did in chapter 2. However, instead of using total assets in 2003 as a definition of the size of the firm, we use the total assets of 1996. One characteristic of this sample is that it will only include 174 small firms. <sup>19</sup> As discussed by Rowland (2005b), the reason for this is that of the small firms that existed in 1996, not many exist in their original form in 2003. Most of them have either seized to exist or have been merged with or acquired by other firms. In line with the analysis in the previous chapters, we will merge the small and medium-sized size brackets into one, i.e. small and medium-sized enterprises (SMEs).

#### 4.2 Trends and Developments in the Eight Major Cities

Figure 4.1 and 4.2 shows the changes in aggregate sales of the firms in the eight major cities of the country. These figures include the economic crisis year of 1999, when all cities saw a contraction of aggregates sales. The worst hit cities were Bucaramanga, Pereira and Manizales, which saw contractions in aggregate sales that year of 14.2, 15.8, and 18.8 percent respectively. Manizales, which was the worst hit city, nevertheless, recovered strongly in 2000, when it saw aggregate sales growing by 19.6 percent. This is very different from Bucaramanga, where aggregate sales continued to contract in 2000, albeit with only 0.3 percent.

<sup>&</sup>lt;sup>19</sup> The sample includes 174 small firms, 1,214 medium-sized firms, 1,691 major firms, 308 large firms, and 65 firms among the largest 100. In total, the sample contains 3,452 firms, as discussed earlier.

Figure 4.1: Aggregate sales in real terms, changes

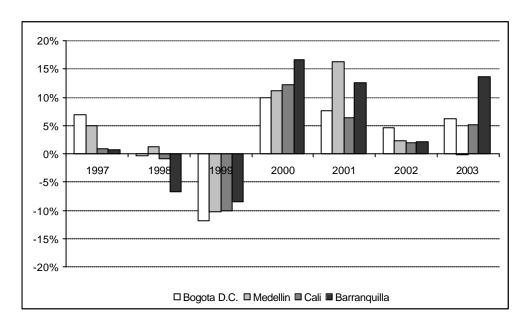
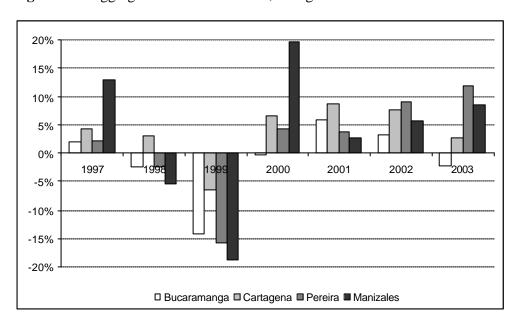
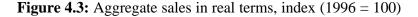


Figure 4.2: Aggregate sales in real terms, changes





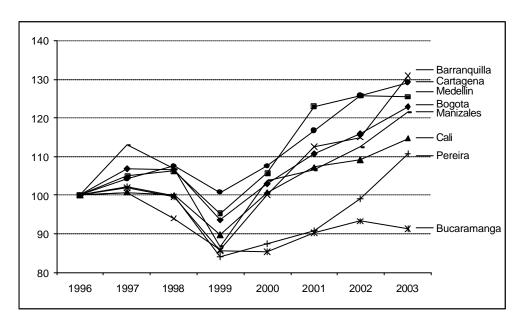


Figure 4.3 shows the aggregate sales of the firms of the eight cities as indices, with 1996 as the base year. This figure also shows that Bucaramanga was the worst performer among the cities. It has never really recovered from the 1999 crisis. Another city that saw a slow recovery was Pereira. The city least hit by the crisis, according to this figure, was Cartagena. This is also apparent in figure 4.2, where Cartagena showed a contraction of 6.4 percent, which is less than any of the other cities. One problem with this analysis is that it gives a very strong weight to firms among the largest 100. Many such firms have production and activities in other cities but their home city, and the analysis here does not take that into account. However, if we study small and medium-sized firms, these can with few exceptions be assumed to have all their activities in their home city. For this reason, we will continue our analysis by looking at SMEs in the different cities.

#### 4.3 Small and Medium-Sized Firms

Figure 4.4, 4.5 and 4.6 shows the development of aggregate sales of SMEs of the different cities.

Figure 4.4 and 4.5 shows the changes in aggregate sales for the different cities. For Bucaramanga, Pereira and Manizales the pattern is very similar to that in figure 4.2 earlier. Manizales saw aggregate sales contracting with as much as 23.6 percent in 1999, which was the worst of all the cities. However, it also saw a strong rebound in 2000, when aggregate sales grew by 16.7 percent. Bucaramanga experienced less contraction in 1999, but did not start to recover until 2001. The similarities are striking between figure 4.2 earlier which included all firms for Bucaramanga, Cartagena, Pereira and Manizales, and figure 4.5 on the previous page, which only include SMEs for the same cities. However, of these four cities, only Cartagena has firms among the largest 100, and it does, in fact, only have one such firm, so figure 4.2 should not be distorted by these really large firms.

The story for the four largest cities shown in figure 4.4 is very different. Medellín, Cali and Barranquilla all saw aggregate sales of their SMEs contract seriously. In 1999, aggregate sales, in fact, contracted by as much as 16.5, 15.6 and 20.5 percent in Medellín, Cali and Barranquilla respectively. SMEs of Bogotá fared better, but still saw their aggregate sales contracting by 9.4 percent.

Figure 4.4: Aggregate sales in real terms, SMEs, changes

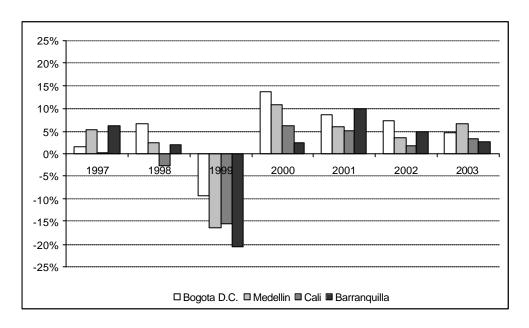
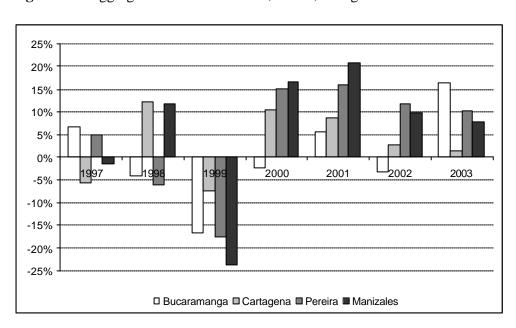
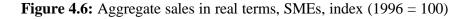
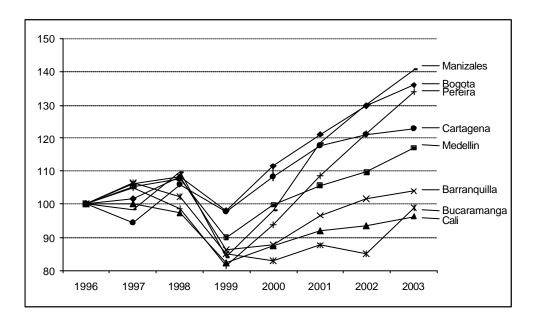


Figure 4.5: Aggregate sales in real terms, SMEs, changes







If we look at figure 4.6, which graphs the development of aggregate sales from 1996 to 2003 for the SMEs of the different cities, we can conclude that Manizales was the city that performed best during the period, with 2003 aggregate sales of their SMEs standing 40.5 percent above their 1996 level. Bogotá and Pereira were other strong performers, with corresponding figures of 36.0 and 33.9 percent respectively. The laggards in this graph are clearly Cali and Bucaramanga, where aggregate sales among SMEs in 2003 were standing below their 1996 values. Bucaramanga has, however, only seven firms in the sample, which is far too little to draw any conclusion.

When analysing SMEs, there is a selection bias in our sample that should be emphasised. We only look at those SMEs that have been present throughout the full period 1996 to 2003. Those that have seized to exist are, consequently, not studied. We could, therefore, assume that firms in our sample perform better on average than those of a sample containing all SMEs in the country. This bias should, furthermore, be larger for small firms than for large, since small firms include many new start-ups of which some go out of business very quickly and others grow and perform very well. This bias should, however, not influence the relative performance of different cities, so it does not invalidate the results here. The growth rate of the SMEs in our sample might, nevertheless, be overstated in relation to that of SMEs in general.

#### 5 Conclusions

In this paper we have studied the Colombian corporate sector at a regional level. In particular we looked at how the structure of the corporate sector differed between the eight largest cities of the country, and how these cities compared to smaller and medium-sized cities. The objective of this initial study has been to build a foundation for future research. Nevertheless, the analysis has generated a number of interesting results.

The study uses a database obtained from Superintendencia de Sociedades, which with few exceptions contains the data for all registered firms in Colombia. We studied the firms present in 2003 as well as the development of these firms from 1996 to 2003 for the eight major cities of the country.

The study shows that the 100 largest firms in the country are almost exclusively located in the country's four main cities. Rather more surprisingly, the study shows that the smaller and medium-sized cities of the country almost completely lack small and medium-sized enterprises (SMEs). Such cities are generally dominated by one or a few larger firms, while SMEs in many cases are completely missing. Of the country's approximately 3,400 SMEs, more than 2,000 are in Bogotá. Medellín has about 400 SMEs, Cali around 330 and Barranquilla around 140. These results suggest that Bogotá has a much more developed and dynamic corporate sector than the rest of the country, and that smaller cities lag significantly in this aspect. When studying the eight major cities of the country, it was, furthermore, shown that aggregate sales of the firms of these cities developed very differently during the period 1996 to 2003. Bucaramanga was the worst performer during the period. Cali also showed a rather dreary performance, particularly when studying SMEs. None of these cities seem to have recovered from the 1999 economic crisis. Manizales, on the other hand, which was the city most seriously affected by the crisis, have recovered strongly.

<sup>&</sup>lt;sup>20</sup> According to Adolfo Meisel, this result contradicts that of other studies. Bucaramanga has, in fact, done relatively well.

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# **Appendix**

Table A.1: Firms by sector in order of total assets, 2003

Table A.2: Firms by city and size in order of total sales, 2003

The tables are presented on the following pages.

**Table A.1a:** Firms by sector in order of total assets, 2003

		Small/m	edium		Major			Large			Largest	100		Total	
Se	ctor	No of	Assets	% of	No of	Assets	% of	No of	Assets	% of	No of	Assets	% of	No of	Assets
		firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)
34	Investment activities	130	357,491	0.9%	195	3,095,733	7.5%	72	9,191,589	22.4%	28	28,458,658	69.2%	425	41,103,472
29	Wholesale	572	1,393,778	8.1%	529	7,152,077	41.3%	56	6,086,961	35.2%	5	2,676,791	15.5%	1,162	17,309,607
5	Food industry	102	249,249	1.5%	150	2,696,419	16.5%	64	7,299,140	44.8%	11	6,055,816	37.2%		16,300,624
6	Drinks	14	35,786		21	439,954	2.8%		855,103	5.5%		14,209,974	91.4%	47	15,540,817
55	Telecommunications	32	72,587	0.6%	48	749,553	5.7%	20	2,669,564	20.4%	6	9,578,597	73.3%	106	13,070,301
	_				_			_			_				
_	Cement and concrete	8	23,660		8	100,613	0.9%		, ,		_	-,,			10,829,785
15	- · · · · · · · · · · · · · · · · · · ·	58	160,498		117	1,846,489	17.5%		-,,			1,641,354	15.6%		-,- ,
30		253	558,552	6.1%	147	1,840,230	20.0%	15		14.7%		5,451,190			9,198,452
13	-1 -	2	5,449	0.1%	23	455,558	7.0%		,,			4,183,886			6,520,712
3	Oil and gas extraction	6	8,744	0.1%	18	378,290	5.8%	12	1,669,618	25.7%	6	4,441,752	68.4%	42	6,498,404
53	Dinalinas	0	0	0.0%	0	0	0.0%	2	224 454	6.9%	2	4,342,591	93.1%	4	4,666,745
27	Pipelines Recidential construction	149	351.741	7.8%	124	1,754,635	38.7%		- , -			1,128,748			4,535,189
2	Coal and derivatives	9	15,603	0.4%	5	87,115	2.0%		.,,			3,888,905			4,252,698
1	Agriculture for exports	170	452,266		173	2.295.435	57.2%		- ,		_		0.0%		4,252,096
25	Real estate	226	527,066		173	2,295,455	61.6%					_			3,886,950
35	Real estate	220	327,000	13.07	172	2,392,319	01.076	10	907,303	24.970		U	0.076	400	3,000,930
21	Steel and basic metals	10	19.880	0.6%	21	328.682	9.4%	7	799.116	22.9%	1	2.343.152	67.1%	39	3,490,830
61	Other business activities	250	484.365	15.5%	122	1.686.473	53.9%	6	476,135			482,961	15.4%	379	3,129,934
17	Plastics products	58	151,529	5.1%	79	1,495,008	49.9%	12	,			,	0.0%	149	2,997,520
28	Vehicle sales	154	363,283	12.7%	111	1,357,460	47.6%	11	1,131,898	39.7%	0	0	0.0%	276	2,852,641
22	Metal-mechanical products	54	120,046	5.1%	53	767,573	32.4%	12	1,480,847	62.5%	0	0	0.0%	119	2,368,467
	•					•									
9	Clothes	76	194,818	8.8%	70	1,131,455	50.9%	8	895,874	40.3%	0	0	0.0%	154	2,222,147
8	Textiles and fabrics	31	80,590	3.7%	36	601,051	27.6%	15	1,495,727	68.7%	0	0	0.0%	82	2,177,368
56	Radio and television	40	64,240	3.0%	15	175,021	8.1%	3	470,560	21.8%	2	1,451,282	67.2%	60	2,161,102
14	Editorial and printing	64	143,554	6.7%	48	745,723	34.6%	14	1,268,244	58.8%	0	0	0.0%	126	2,157,521
25	Other manufacturing	66	155,142	7.3%	71	1,062,823	50.0%	7	907,548	42.7%	0	0	0.0%	144	2,125,512

**Table A.1b:** Firms by sector in order of total assets (continued...)

Small/medium			Major			Large			Larges			Total		
Sector	No of	Assets	% of	No of	Assets	% of	No of		% of	No of	Assets	% of		Assets
	firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)
23 Vehicle manufacturing	29		4.2%	36	666,454	32.5%		348,697	17.0%		2 951,091	46.3%		2,052,276
48 Machines and equipment	41	,	4.4%	43	731,424	36.0%	-	1,209,319	59.6%		0 0	0.0%		2,030,530
43 Cattle farming	99	,	13.1%	89	1,311,421	70.6%	4	,	16.3%		0 0	0.0%		1,858,052
62 Civil construction	80	, -	8.8%	55	777,729	42.0%	8	,	49.1%		0 0	0.0%		1,850,209
64 Oil and gas derivatives	25	71,285	3.9%	28	548,932	30.1%	11	1,201,399	66.0%		0 0	0.0%	64	1,821,616
19 Mineral products	22	58,779	4.1%	18	396,559	27.4%	4	506,507	35.0%		1 484,435	33.5%	45	1,446,279
18 Glass and glass products	l 1		0.1%	8	179,143	15.1%	2	,	15.8%		1 818,592		12	1,186,132
39 Other community services	61	118,612	11.5%	35	481,232	46.7%	4	431,276	41.8%		0 0	0.0%	100	1,031,120
31 Accommodation	46	111,776	11.5%	32	417,754	43.1%	5	440,659	45.4%		0 0	0.0%	83	970,189
63 Construction preparation	63	,	14.2%	55	667,060	69.9%	2	,	16.0%		0 0	0.0%	120	954,722
	_			_			_						l	
45 Forestry	5	,	1.8%	5	114,579	14.0%	_	,			0 0		_	816,259
16 Rubber products	9	,	3.0%	7	127,338	16.3%		,	36.7%		. 0,=	44.0%	_	781,510
46 Other products	14	,	4.8%	17	197,906	28.6%		- ,	66.6%		0 0	0.0%		692,716
38 Health and social services	22	,	3.7%	6	45,193	6.6%	_	,	89.6%		0 0	0.0%		681,359
60 Information systems	25	53,377	10.3%	24	319,628	61.7%	2	145,244	28.0%		0 0	0.0%	51	518,249
65 Food retail	27	58,626	13.5%	18	216,449	49.8%	2	159,722	36.7%		0 0	0.0%	47	434,797
54 Storage	64	128,897	31.4%	22	281,529	68.6%	0	0	0.0%		0 0	0.0%	86	410,426
24 Manufacturing of OMT	2	2,489	0.6%	5	54,610	13.4%	3	350,708	86.0%		0 0	0.0%	10	407,807
7 Tobacco	0	0	0.0%	0	0	0.0%	0	0	0.0%		1 346,223	100.0%	1	346,223
37 Education	10	23,055	6.8%	0	0	0.0%	1	316,698	93.2%		0 0	0.0%	11	339,753
47 Publication of periodicals	6	9.770	3.0%	12	165.379	50.7%	2	151,128	46.3%		0 0	0.0%	20	326,277
59 Fishing	12	-, -	6.9%	8	120,198	38.8%		,	54.3%		0 0	0.0%	_	309,854
42 Other agricultural sectors	19		14.6%	16	255,201	85.4%		· ·	0.0%		0 0	0.0%		298,960
4 Extraction of other minerals	17	-,	13.0%	10	160,480	57.6%	-	_			0 0	0.0%		278,841
11 Shoes and footwear	7	, -	5.4%	12	144,115	52.3%	2	,	42.3%		0 0			275,537

Note: OMT stands for other means of transportation.

**Table A.1c:** Firms by sector in order of total assets (continued...)

		Small/medium		Major			Large			Largest	100		Total		
8	Sector	No of	Assets	% of	No of	Assets	% of	No of	Assets	% of	No of	Assets	% of	No of	Assets
		firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)	Total	firms	(COP mn)
4	1 Sales of fuels and lubricants	39	68,810	27.5%	16	181,619	72.5%	0	0	0.0%	0	C	0.0%	55	250,429
2	26 Electricity generation	7	11,269	4.9%	8	91,348	40.1%	1	125,150	54.9%	0	C	0.0%	16	227,767
1	0 Leather	8	25,475	13.2%	9	110,829	57.4%	1	56,626	29.4%	0	C	0.0%	18	192,930
3	2 Cargo transportation by land	24	52,555	28.0%	6	53,878	28.7%	1	81,383	43.3%	0	C	0.0%	31	187,817
1	2 Wood products	12	31,877	30.0%	7	74,247	70.0%	0	0	0.0%	0	C	0.0%	19	106,124
5	70 Transportation by air	4	5,518	5.3%	5	99,113	94.7%	0	0	0.0%	0	C	0.0%	9	104,632
6	6 Tourism activities	30	50,202	48.2%	3	54,005	51.8%	0	0	0.0%	0	C	0.0%	33	104,207
5	2 Other passenger transport.	13	17,620	41.8%	3	24,553	58.2%	0	0	0.0%	0	C	0.0%	16	42,173
4	9 Transportation by sea	6	12,424	100.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	6	12,424
3	3 Mail delivery	1	808	11.1%	1	6,471	88.9%	0	0	0.0%	0	0	0.0%	2	7,279
L															

**Table A.2a:** Firms by city and size in order of total sales, 2003

	SMEs			Major			Large			Largest	100		All firms	s	
City (Department)	No of	Total sales	% of total		Total sales	% of total		Total sales			Total sales				% of total
	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities
								•						·	
Bogota D.C.	2,005	6,238,727	54.5%	1,517	23,909,550	48.8%	294	29,831,276	55.4%	52	26,494,679	58.2%	3,868	86,474,232	54.1%
Medellin (Antioquia)	405	1,595,287	13.9%	468	7,950,112	16.2%	79	7,090,121	13.2%	22	8,071,602	17.7%	974	24,707,122	15.5%
Cali (Valle)	332	1,037,881	9.1%	309	4,958,446	10.1%	63	6,932,126	12.9%	15	4,648,767	10.2%	719	17,577,219	11.0%
Barranquilla (Atlantico)	138	446,335	3.9%	155	2,624,772	5.4%	32	2,295,822	4.3%	6	4,158,436	9.1%	331	9,525,365	6.0%
Bucaramanga (Santander)	69	327,912	2.9%	76	1,837,094	3.7%	10	791,782	1.5%	0	0	0.0%	155	2,956,787	1.8%
Manizales (Caldas)	48	165,330		35	629,709	1.3%	9	1,295,410	2.4%	0	0	0.0%	92	2,090,449	
Cartagena (Bolivar)	47	279,171	2.4%	54	832,979	1.7%	10	747,513	1.4%	1	144,452		112	2,004,115	
Pereira (Risaralda)	40	192,787	1.7%	39	705,840	1.4%	6	712,675	1.3%	0	0	0.0%	85	1,611,302	1.0%
Palmira (Valle)	16	35,211	0.3%	32	503,025	1.0%	5	436,244	0.8%	2	559,591	1.2%	55	1,534,072	1.0%
Tocancipa (Cundinamarca)	2	8,194	0.1%	3	107,598	0.2%	2	769,784	1.4%	1	559,545	1.2%	8	1,445,121	0.9%
Chia (Cundinamarca)	6	23,266	0.2%	10	222,415	0.5%	2	137,087	0.3%	1	859,169	1.9%	19	1,241,937	0.8%
Neiva (Huila)	12	78,280	0.7%	12	248,979	0.5%	1	308,475	0.6%	0	0	0.0%	25	635,734	
Santa Marta (Magdalena)	20	53,927	0.5%	14	160,213	0.3%	4	379,441	0.7%	0	0	0.0%	38	593,582	0.4%
Ibague (Tolima)	22	109,660		21	423,486	0.9%	1	17,628	0.0%	0	0	0.0%	44	550,774	0.3%
Cucuta (Norte de Santander)	43	170,316	1.5%	30	362,891	0.7%	0	0	0.0%	0	0	0.0%	73	533,207	0.3%
Soacha (Cundinamarca)	14	39,687	0.3%	17	296,881	0.6%	2	148,333	0.3%	0	0	0.0%	33	484,901	0.3%
Buga (Valle)	5	14,028	0.1%	7	107,985	0.2%	2	326,039	0.6%	0	0	0.0%	14	448,051	0.3%
Mosquera (Cundinamarca)	2	4,469	0.0%	7	117,273	0.2%	3	249,266	0.5%	0	0	0.0%	12	371,008	
Santander de Quilichao (Cauca)	4	7,385		7	85,636	0.2%	4	274,173	0.5%	0	0	0.0%	15	367,193	
Cota (Cundinamarca)	4	21,205	0.2%	9	289,883	0.6%	0	0	0.0%	0	0	0.0%	13	311,089	0.2%
Villavicencio (Meta)	4	9,257	0.1%	12	230,799	0.5%	1	32,803	0.1%	0	0	0.0%	17	272,859	
Pasto (Narino)	11	43,092	0.4%	9	198,600	0.4%	0	0	0.0%	0	0	0.0%	20	241,692	0.2%
Funza (Cundinamarca)	8	22,753	0.2%	6	75,574	0.2%	1	138,236	0.3%	0	0	0.0%	15	236,563	0.1%
Sincelejo (Sucre)	5	18,820	0.2%	8	93,503	0.2%	1	100,082	0.2%	0	0	0.0%	14	212,405	0.1%
Facatativa (Cundinamarca)	2	16,548	0.1%	0	0	0.0%	1	171,245	0.3%	0	0	0.0%	3	187,793	0.1%
Santa Rosa de Cabal (Risaralda)	2	15,633	0.1%	2	164,962	0.3%	0	0	0.0%	0	0	0.0%	4	180,595	0.1%
Rionegro (Antioquia)	8	25,798	0.2%	3	34,454	0.1%	1	116,560	0.2%	0	0	0.0%	12	176,812	0.1%
Tulua (Valle)	6	14,583		6	124,611	0.3%	1	29,383	0.1%	0	0	0.0%	13	168,576	
San Martin (Meta)	0	0	0.0%	0	0	0.0%	1	154,255	0.3%	0	0	0.0%	1	154,255	0.1%
Caloto (Cauca)	0	0	0.0%	11	139,607	0.3%	0	0	0.0%	0	0	0.0%	11	139,607	0.1%

**Table A.2b:** Firms by city and size in order of total sales (continued...)

	SMEs			Major			Large			Largest	100		All firm	s	
City (Department)	No of	Total sales		No of	Total sales	% of total	No of			No of	Total sales		No of	Total sales	
	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities
Cartago (Valle)	4	19,077	0.2%	2	113,567	0.2%	0	0	0.0%	0	0	0.0%	6	132.644	0.1%
Tenjo (Cundinamarca)	2	2.744		4	49,969	0.2 %	1	-	0.0%	0	0	0.0%	7	- ,-	
Monteria (Cordoba)	5	40,154		4	87,943	0.1%	0	,	0.0%	0	0	0.0%	9		
Guacari (Valle)	0	,	0.0%	0	0,010	0.0%	1	_	0.2%	0	0	0.0%	1	-,	
Popayan (Cauca)	9	22,938		6	82,623	0.2%	0	0	0.0%	0	0	0.0%	15		0.1%
Sogamoso (Boyaca)	3	5,495	0.0%	3	99,714	0.2%	0	0	0.0%	0	0	0.0%	6	105,209	0.1%
Cajica (Cundinamarca)	1	4,342	0.0%	0	0	0.0%	2	90,314	0.2%	0	0	0.0%	3	94,657	0.1%
Duitama (Boyaca)	2	27,177		2	65,586	0.1%	0	_	0.0%	0	0	0.0%	4	- ,	
Chinchina (Caldas)	1	11,847	0.1%	2	71,031	0.1%	0	_	0.0%	0	0	0.0%	3		
Armenia (Quindio)	8	27,972	0.2%	6	50,350	0.1%	0	0	0.0%	0	0	0.0%	14	78,322	0.0%
Zipaquira (Cundinamarca)	3	2,809	0.0%	3	69,988	0.1%	0		0.0%	0	0	0.0%	6		
Puerto Tejada (Cauca)	2	10,727	0.1%	8	58,183	0.1%	0	-	0.0%	0	0	0.0%	10		
Espinal (Tolima)	3	4,628		2	8,779	0.0%	1	50,617	0.1%	0	0	0.0%	6	- ,	
Jamundi (Valle)	4	9,055		3	51,902	0.1%	0	0	0.0%	0	0	0.0%	7	,	
Cienaga (Magdalena)	0	0	0.0%	1	59,836	0.1%	0	0	0.0%	0	0	0.0%	1	59,836	0.0%
La Ceja (Antioquia)	0	0	0.0%	4	57,179	0.1%	0		0.0%	0	0	0.0%	4	- , -	
Carmen de Viboral (Antioquia)	0	0	0.0%	0	0	0.0%	1	55,116		0	0	0.0%	1	00,	
Buenaventura (Valle)	8			2	33,604	0.1%	0		0.0%	0	0	0.0%	10		
Valledupar (Cesar)	7	21,671		3	31,391	0.1%	0	-	0.0%	0	0	0.0%	10	,	
Guarne (Antioquia)	0	0	0.0%	2	51,762	0.1%	0	0	0.0%	0	0	0.0%	2	51,762	0.0%
La Union (Valle)	2	4,017	0.0%	3	43,783	0.1%	0		0.0%	0	0	0.0%	5		
Madrid (Cundinamarca)	0	0	0.070	2	44,797	0.1%	0	-	0.0%	0	0	0.0%	2		
Candelaria (Valle)	2			2	28,757	0.1%	0	-	0.0%	0	0	0.0%	4	,	
La Tebaida (Quindio)	1	384	0.0%	1	37,818	0.1%	0	-	0.0%	0	0	0.0%	2		
Apartado (Antioquia)	0	0	0.0%	2	33,648	0.1%	0	0	0.0%	0	0	0.0%	2	33,648	0.0%
Sopo (Cundinamarca)	0	0	0.0%	2	32,564	0.1%	0	-	0.0%	0	0	0.0%	2	,	
Saldana (Tolima)	0	0	0.0%	1	29,111	0.1%	0	-	0.0%	0	0	0.0%	1	=0,	0.0%
Caucasia (Antioquia)	2	27,065		0	0	0.0%	0	-	0.0%	0	0	0.0%	2		
Yotoco (Valle)	0	0	0.0%	1	25,262	0.1%	0	0	0.0%	0	0	0.0%	1	25,262	
Fresno (Tolima)	1 0	I 0	0.0%	1	25,020	0.1%	0	0	0.0%	0	0	0.0%	1	25,020	0.0%

**Table A.2c:** Firms by city and size in order of total sales (continued...)

	SMEs			Major			Large			Largest	100		All firm	s	
City (Department)	No of			No of	Total sales		No of			No of	Total sales			Total sales	
	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities
Lasida (Talissa)			0.00/		0.4.700	0.40/	0	0	0.00/			0.00/		0.4.700	0.00/
Lerida (Tolima)	0	7 454	0.0% 0.1%	1	24,762	0.1% 0.0%	0	0		0	0	0.0%	1	24,762	0.0%
Amaga (Antioquia)	1	7,451		1	16,404		-	Ū	0.0%	0	0	0.0%	2	23,856	0.0%
La Virginia (Risaralda)	1	23,261	0.2%	0	0 000	0.0%	0	0	0.0%	0	0	0.0%	1	23,261	0.0%
Mariquita (Tolima)	0	0	0.0%	1	22,068	0.0%	0	0	, .	0	0	0.0%	1	22,068	0.0%
Agua de Dios (Cundinamarca)	U	0	0.0%	1	21,068	0.0%	U	0	0.0%	U	0	0.0%	1	21,068	0.0%
Barrancabermeja (Santander)	0	0	0.0%	1	20,219	0.0%	0	0	0.0%	0	0	0.0%	1	20,219	0.0%
Marinilla (Antioquia)	0	0	0.0%	1	19,570	0.0%	0	0	0.0%	0	0	0.0%	1	19,570	0.0%
Turbaco (Bolivar)	2	17,818	0.2%	0	0	0.0%	0	0	0.0%	0	0	0.0%	2	17,818	0.0%
Turbo (Antioquia)	1	17,462	0.2%	0	0	0.0%	0	0	0.0%	0	0	0.0%	1	17,462	0.0%
San Andres (S. Andres y Providencia)	2	9,319	0.1%	3	5,219	0.0%	0	0	0.0%	0	0	0.0%	5	14,538	0.0%
Tunja (Boyaca)	3	3,195	0.0%	2	11.178	0.0%	0	0	0.0%	0	0	0.0%	5	14.373	0.0%
Toro (Valle)	0	0,133	0.0%	1	14,229	0.0%	0	0		0	0	0.0%	1	14,229	0.0%
Santa Rosa de Osos (Antioquia)	1	14,051	0.1%	0	0	0.0%	0	0	, .	0	0	0.0%	1	14,051	0.0%
Tierralta (Cordoba)	1	13,836		0	0	0.0%	0	0		0	0	0.0%	1	13,836	0.0%
Corozal (Sucre)	0	0	0.0%	1	12,567	0.0%	-	0		ő	Ö	0.0%	1	12,567	0.0%
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La Dorada (Caldas)	0	0	0.0%	1	12,310	0.0%	0	0	0.0%	0	0	0.0%	1	12,310	
Subachoque (Cundinamarca)	1	137	0.0%	1	12,037	0.0%	0	0	, .	0	0	0.0%	2	12,174	
El Cerrito (Valle)	0	0	0.0%	1	11,451	0.0%	0	0		0	0	0.0%	1	11,451	0.0%
Palermo (Huila)	0	0	0.0%	1	11,073	0.0%	0	0	0.070	0	0	0.0%	1	11,073	0.0%
Chigorodo (Antioquia)	0	0	0.0%	1	10,129	0.0%	0	0	0.0%	0	0	0.0%	1	10,129	0.0%
Suesca (Cundinamarca)	1	9,692	0.1%	0	0	0.0%	0	0	0.0%	0	0	0.0%	1	9,692	0.0%
Ipiales (Narino)	1	7,993		0	0	0.0%	0	0		0	0	0.0%	1	7,993	0.0%
Girardot (Cundinamarca)	1	5,047	0.0%	1	2,550	0.0%	0	0		0	0	0.0%	2	7,597	0.0%
Sibate (Cundinamarca)	1	6,623		0	0	0.0%	0	0		0	0	0.0%	1	6,623	0.0%
Bolivar (Antioquia)	1	5,084		0	0	0.0%	0	0		0	0	0.0%	1	5,084	0.0%
Rivera (Huila)	0	n	0.0%	1	4,849	0.0%	0	0	0.0%	0	0	0.0%	1	4,849	0.0%
Riofrio (Valle)	0	0	0.0%		3,936	0.0%	0	0	0.0%	0	0	0.0%	1	3,936	
Fuente de Oro (Meta)	1	3,921	0.0%	0	3,930	0.0%	0	0		0		0.0%		3,921	0.0%
Pesca (Boyaca)		3,814		٥	0	0.0%	0	0		0		0.0%		3,814	
Sevilla (Valle)	2	3,758		٥	0	0.0%		0	0.070	0		0.0%	2	3,758	0.0%
Covina (vano)		5,750	0.076			0.076		0	0.076	ľ		0.078		5,750	0.070

**Table A.2d:** Firms by city and size in order of total sales (continued...)

	SMEs			Major			Large			Largest	100		All firm	S	
City (Department)	No of	Total sales			Total sales									Total sales	
	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities	firms	(COP mn)	all cities
Tale (Occurs)	,	0.540	0.00/			0.00/	0	0	0.00/	0		0.00/		0.540	0.00/
Tolu (Sucre)	1	2,513		0	0	0.0%	0	0	0.0%		0	0.0%	1	2,513	
Guamo (Tolima)	1	1,942		0	0	0.0%	0	0	0.0%		0	0.0%	1	1,942	
Chiquinquira (Boyaca)	1	1,487	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	1	1,487	0.0%
Galapa (Atlantico)	1	1,392	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	1	1,392	0.0%
Fusagasuga (Cundinamarca)	2	1,134	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	2	1,134	0.0%
Leticia (Amazonas)	1	894	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	1	894	0.0%
Puerto Salgar (Cundinamarca)	0	0	0.0%	1	752	0.0%	0	0	0.0%	0	0	0.0%	1	752	0.0%
Tumaco (Narino)	2	625	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	2	625	0.0%
Ocana (Norte de Santander)	1	534	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	1	534	0.0%
Carmen de Apicala (Tolima)	1	518	0.0%	0	0	0.0%	0	0	0.0%		0	0.0%	1	518	0.0%
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San Gil (Santander)	1	295	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	1	295	0.0%
San Cayetano (Norte de Santander)	0	0	0.0%	1	226	0.0%	0	0	0.0%		0	0.0%	1	226	0.0%
Caicedonia (Valle)	1	126	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	1	126	0.0%
Pradera (Valle)	0	0	0.0%	1	102	0.0%	0	0	0.0%		0	0.0%	1	102	0.0%
		ŭ	0.070	·		0.070		Ů	0.070	l ĭ	Ū	0.070	·	.02	0.070
Total all cities	3,384	11,456,976	100.0%	2,975	49,017,747	100.0%	542	53,868,607	100.0%	100	45,496,240	100.0%	7,001	159,839,570	100.0%