

The Surveying Report on the Situation of the
Household-owned Motor Vehicles of
Chinese Cities

CHINA MAINLAND MARKETING RESEARCH COMPANY

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The Surveying Report on the Situation of the Household-owned Motor Vehicles of Chinese Cities

The motor vehicle market, purchased by the households of Chinese cities, has not only its magnificent prospect, but also has its tremendous purchasing potential. This survey is focused on the analysis and research to the motor vehicle purchasing situations of the city households from the different regions, cities, and income levels as well as the influence of the important factors, such as price, purchasing quantity and brand etc. on the household motor vehicle purchasing. This survey is also forecasted the future tendency of the motor vehicles purchased by the city households and is made a suggestion on the fostering the household motor vehicle market.

Chapter 1

Surveying Process

- Surveying Organization
- Questionnaires Design
- Sampling Scheme
- Questionnaires Interviewing
- Questionnaires Examination
- Data Management and Record
- Data Statistical Analysis
- Surveying Report Composing

I. Surveying Organization

In order to wholly reflect the progress situation of living standard of the massive inhabitants of the Chinese cities since 18 years of the implementation of the innovation and opening policy as well as to understand the consumptive situation, consumptive mode and the consumptive intention of the city inhabitants, the State Statistical Bureau, Ministry of Labor, All-China Federation of Trade Unions, Ministry of Justice, Ministry of Public Health and the Headquarters of the People's Bank of China, in the first half of 1997, jointly organized the group of "Surveying in the livelihood progress of Chinese staff and workers" and collectively analyzed the situation of the main consuming goods owned by, purchased by and used by the households. The Survey Institute of Chinese Automobile Market jointed this group and engaged in the questionnaires design and analysis research of the part of the household motor vehicles and finished the surveying report on this base as well.

Beijing M D L INFORMATION COMPANY of the State Statistical Bureau, the member of The Survey Institute of Chinese Automobile Market, was responsible for the implementation of this survey. In order to wholly reflect the situation of the household-owned motor vehicles in the recent years and the future developing tendency, the situation of household-owned motor vehicles of the 71 cities inhabitants were interviewing surveyed with the massive samples first time in this survey.

II. Questionnaires Design

The questionnaires were jointly designed by The Surrey Institute of Chinese Automobile Market, the System Science Institute of the Chinese Academy of sciences, and were approved by Mr.Loxg Hua, Department Chief and Chief Statistician of State Statistical Bureau and the Chief of this Survey Experts Committee, the Researcher Feng Shiyong, tutor of the student for doctor degree, Chief of the System Science Institute of the Chinese Academy of Sciences, and Vice-Chief of this Survey Experts Committee, Prof.ZhaoYanyun, Chief of Statistical Department of the People's University of China and Vice Chief of this Survey Experts Committee and the others.The contents of the questionnaires included the quantity of motor vehicles owned by the households, purchasing prices, purchasing years, preferred brands, engines displacements and the colors etc.

III. Sampling Scheme

1. Sample Total

The total of these surveys the city inhabitants of the thirty provinces, autonomous regions and the municipalities directly under the Central Government, it represents 205,000,000 city inhabitants and 62,500,000 city households.

2. Sampling Scheme

The main surveying objects are the municipalities under the Central Government,

provincial capitals and the plan solo-listed cities, 36 cities totally, and random sampling 480 households in different levels in each municipality directly under the Central Government and 240 households in each provincial capital and the plan solo-listed city. Beside these cities, another 36 prefecture cities and county cities in different levels are sampled at random. Take 200 households as the samples in each prefecture city and 160 households in each county city. Thus, the sample scheme includes 72 cities and 15,600 households totally. But only 71 cities were actually surveyed (the survey will be made in Leas later).

IV. Questionnaires Interviewing

The mode of questionnaires surveying is the face to face interviewing. In order to ensure the quality of questionnaires interviewing, the interviewers and the supervisors were strictly trained.

1. The Training of Supervisors

The supervisors from the Statistical Bureau Consulting Centers of various provinces, autonomous regions and municipalities directly under the Central Government were trained five days in Beijing. The main courses were the item recommendations, sampling methodology, questionnaires interviewing and the surveying quality management. The various provinces, autonomous regions and the municipalities directly under the Central Government organized the training teams to train their subordinate supervisors from the prefecture cities and county cities. The training courses were the same like that in Beijing.

2. The Training of Interviewers

The interviewers were trained by the supervisors of various provinces and cities, the courses are: the intensified interviewing skill, the contents of questionnaire, the requirements of the filling in questionnaire, the requirements of sample usage and the

interviewing simulation etc.

V. Questionnaires Examination

In order to ensure the quality of the questionnaire interviewing, the samplers were separated from the interviewers during the questionnaire interviewing. The interviewers were accompanied with the supervisors in their first interviewing. The questionnaires were examined by the supervisors after retrieval, and they were reexamined by the specialists, the rate of reexamination was 15%.

VI. Data Management and Record

After the questionnaires from the whole country were retrieved, the data were recorded with the data base Foxpro(V2.5). The data were recorded by the double recording method; the data erroneous rate was less than 1%.

VII. Data Statistical Analysis

The Survey Institute of Chinese Automobile Market used the social scientific statistical software package SPSS FOR WINDOWS(V6.0) to conduct the statistical analysis. The data collective work was directly taken care by Mr.Fang Shiyong, tutor of the student for the doctor degree and researcher of the System Science Institute of Chinese Academy of Sciences.

VIII. Surveying Report Composing

MMI Automotive Industry Development Institute, the member of The Survey Institute of Chinese Automobile Market appointed the research personals within the automotive circle to compose this report.

Chapter 2

General Situation of Samples

- General Situation of Samples
- Regional Distribution of Samples
- Income Situation of Sampled Households
- Sexual Composition of Sampled Persons
- Cultural Level of Sampled Persons
- Age Constitution of Sampled Persons

I. General Situation of Samples

There were 15,360 questionnaires to be dispatched in this survey. (the survey will be made in Lhasa later), among them, 9,120 were dispatched in the municipalities directly under the Central Government, provincial capitals and the plan solo-listed cities, representing 70,000,000 population, and 6240 of them were dispatched in the prefecture cities and the county cities, representing 135,000,000 population. All the samples represent 205,000,000 city population and 62, 5900,000 households.

There were 14,978 valid questionnaires obtained through strict examination after these questionnaires were retrieved. The rate of validity was 97.5%, among them, 8,950 of valid questionnaires were retrieved from the municipalities directly under the Central Government, provincial capitals and the plan solo-listed cities, and 6,028 of them from the prefecture cities and county cities.

II. Regional Distribution of Samples

1. Distribution in the Southern and Northern Region of China

There were 7,666 households to be surveyed in the southern region, making up 51.2% of the sum total and 7,312 households in the northern region, making up 48.8%. It nearly make up one half in each region. The details are shown in Table 1.

Table 1.
Distribution of Samples in the Southern and Northern Region of China

Region	Southern	Northern	Total
Number of Household	7,666	7,312	14,978
Percentage (%)	51.2	48.8	100.0

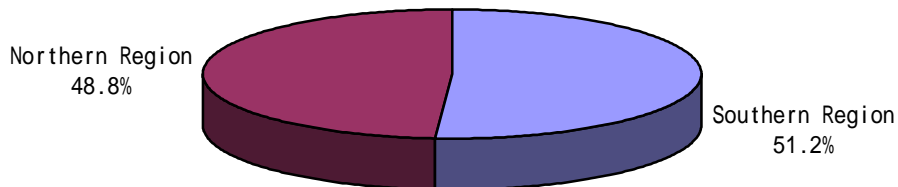


Fig. 1 Distribution of samples in the Southern and Northern Region of china

2. Distribution in the Eastern, Middle and Western Region of China

There were 7,437 households to be surveyed in the eastern region, making up 49.7%, 4,119 households in the middle region, making up 27.5% and 3,422 households in the western region, making up 22.8%. The amount of the households surveyed in the eastern region is more than the others, this is conformity with the dense population in the eastern region. The details are shown in Table 2.

Table 2.
Distribution of Samples in Eastern, Middle and Western Region of China

Region	Eastern	Middle	Western	Total
Number of Household	7,437	4,119	3,422	14,978
Percentage (%)	49.7	27.5	22.8	100.0

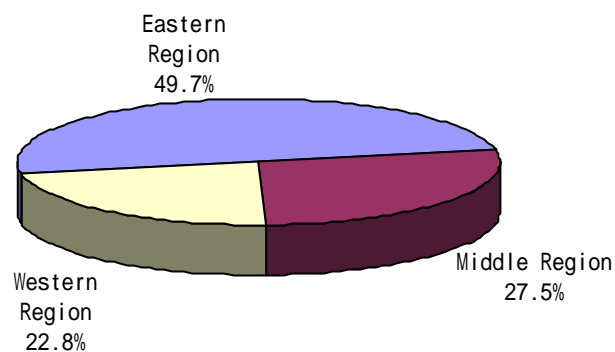


Fig.2 Distribution of Samples in the Eastern, Middle and Western Region of China

3. Distribution in the Different Scale Cities

There were 1,418 households to be surveyed in the municipalities directly under the Central Government, 6,114 households in the provincial capitals, 1,420 households in the plan solo-listed cities, 2,354 households in the prefecture cities, and 3,672 households in the county cities. The samples taken from the different scale cities are corresponding to the total population of those cities. The details are shown in Table 3. The name list of sampled cities is shown in the attached Table.

Table 3.
Distribution of Samples in the Different Scale Cities

Scale of City	The Municipality directly under the Central Government	Provincial Capital	Plan solo-listed City	Prefecture City	County City	Total
Number of Household	1,418	6,114	1,420	2,354	3,672	14,978
Percentage (%)	9.5	40.8	9.5	15.7	24.5	100.0

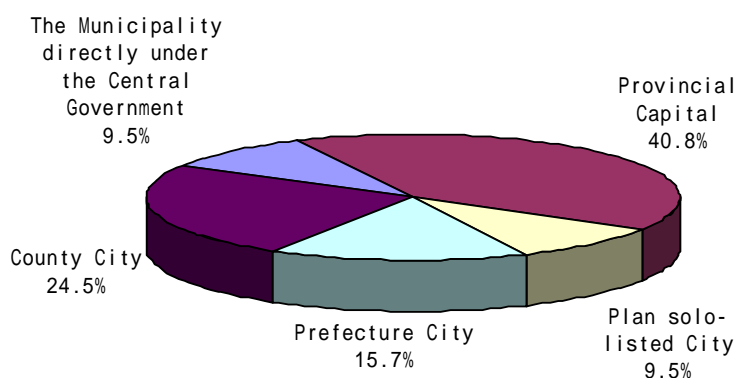


Fig.3 Distribution of samples in the Different scale Cities

III. Income Situation of Sampled Households

The households surveyed in this time have an average population of 3.64 and on the average, there are 2.3 persons having the wage or salary incomes. There are 6,307 households, total income of which is below 1,000 yuan per month, making up 42.1%. There are 7,597 medium-income households, total income of which is between 1,000 and 3,000 yuan per month, making up 50.7%. There are 1,074 high-income households, total income of which is over 3000 yuan per month, making up 7.2% . This is conformity with the situation that there are less high-income households and more medium-and low-income ones in China. The details are shown in Table 4.

Table 4.

Income Situation of Sampled Households

Income Situation	Low Income	Medium Income	High Income	Total
Number of Household	6,307	7,597	1,074	14,978
Percentage(%)	42.1	50.7	7.2	100.0

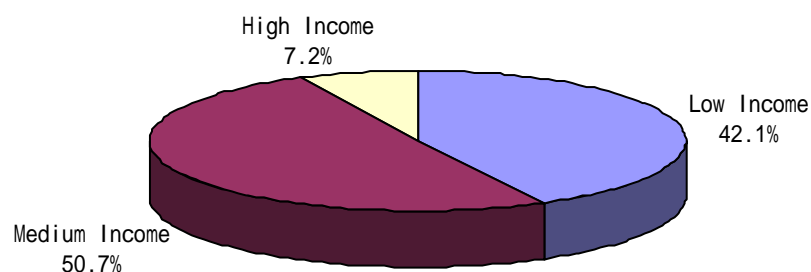


Fig.4 Income Situation of Sampled Households

IV. Sexual Composition of Sampled Persons

This survey is made on the questions of both household and the inhabitant him or herself. During the survey, samples are taken not only from the households but also from the persons in each household. One person is taken from each household for answering to the questionnaires, so the number of the sampled persons is also 14,978.

The sexual composition of sampled persons is male-7,249 persons, making up 48.4% and female-7,729 persons, making up 51.6%. The males and females each make up 50% nearly.

Table 5.
Sexual Composition of Sampled Persons

Sexual Composition	Male	Female	Total
Number of Person	7,249	7,729	14,978
Percentage(%)	48.4	51.6	100.0

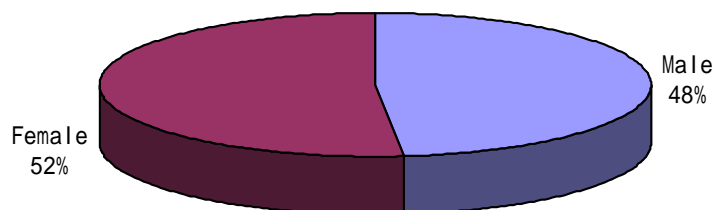


Fig.5 Sexual Composition of Sampled persons

V. Cultural Level of Sampled Persons

The sample persons graduated from or under the junior middle schools make up 41.3%, ones graduated from the senior middle schools and the secondary technical schools make up 36.3% and ones graduated from the universities and colleges make up 22.4%. The cultural sample presents a certain negative offset distribution, this is conformity with the situation that the cultural level is generally lower in China.

Table 6.

Cultural Level of Sampled Persons

Cultural Level	Under the Junior Middle School	Senior Middle School Secondary Technical School	University College	Total
Number of Persons	6,185	5,436	3,357	14,978
Percentage(%)	41.3	36.3	22.4	100.0

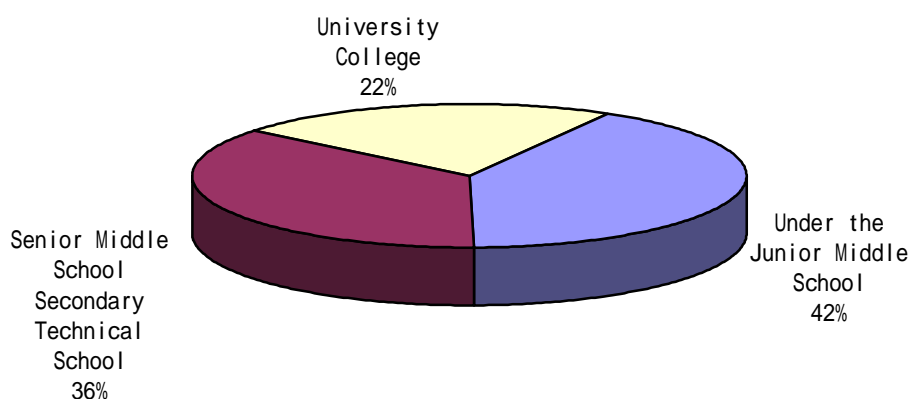


Fig. 6 Cultural Level of Sampled Persons

VI. Age Constitution of Sampled Persons

The sample persons are adults from twenty to sixty-five years old. Among them, the adults from twenty to twenty-nine years old make up 16.0%, the ones from thirty to thirty-nine years old make up 27.7%, the ones from forty to forty-nine make up 26.3% the ones from fifty to fifty-nine make up 16.4% and the ones from sixty to sixty-five make up 13.5%. The samples presents the normal distribution owing to more middle aged persons. The details are shown in Table 7.

Table 7.
Age Constitution of Sampled Persons

Age Constitution	20-29	30-39	40-49	50-59	60-65	Total
Number of Person	2,395	4,153	3,945	2,457	2,028	14,978
Percentage (%)	16.0	27.7	26.3	16.4	13.5	100.0

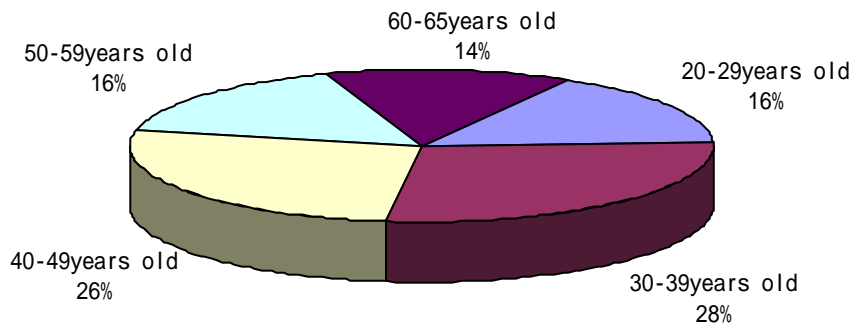


Fig. 7 Age Constitution of Sampled Persons

On the whole, the distributions of the samples taken this time are conformity with the general situation of the Chinese city inhabitants whether we take a view from the household's features or from the individual features, so these samples can be representative of the whole fairly good and reflect correctly the general situation of the Chinese city inhabitants. Thus, the results of this survey are believable.

Attached Table.

The Name List of Sampled Cities

	The Municipality Directly Under the Central Government and Provincial Capital	Plan Solo- List City	Prefecture City	County City
East Region	Beijing Tianjing Shanghai Hebei /Shijiazhuang/ Liaoning/Shenyang/ Shandong/Jinan/ Jiangsu/Nanjing/ Zhejiang/Hangzhou/ Fujian/Fuzhou/ Guangdong/Guangzhou/ Hainan/Haikou/ Guangxi/Nanning/	Shandong/Qingdao/ Zhejiang/Ningbo/ Liaoning/Dalian/ Guangdong/Shenzhen/ Fujian/Xiamen/	Liaoning/Yingkou/ Shandong/Rizhao/ Guangdong/Shanwei/ Hebei/Handan/ Jiangsu/Wuxi/ Zhejiang/Jiaxing/	Liaoning/Dashiqiao/ Shandong/Liaocheng/ Fujian/Shaowu/ Jiangsu/Liyang/ Jiangsu/Haimen/ Shandong/Longkou/ Guangxi/Yulin/ Guangdong/Luoding/ Zhejiang/Xiaoshan/ Guangdong/Gaoyao/
Middle Region	Shanxi/Taiyuan/ Inner Mongolia /Huhhot/ Heilongjiang/Harbin/ Jilin/Changchun/ Henan/Zhengzhou/ Hubei/Wuhan/ Hunan/Changsha/ Anhui/Hefei/ Jiangxi/Nanchang/		Anhui/Anqing/ Hubei/Ezhou/ Henan/Luoyang/ Shanxi/Jincheng/	Anhui/Liuan/ Heilongjiang/Hailin/ Jilin/Tumen/ Inner Mongolia Yakeshi/ Hubei/Suizhou/ Jiangxi/Gaoan/ Henan/Xinyang/ Jilin/Yanji/
Western Region	Shaanxi/Xian/ Ningxia/Yingchuan/ Gansu/Lanzhou/ Qinghai/Xining/ Xinjiang/Urumqi/ Sichuan/Chengdu/ Yunnan/Kunming/ Guizhou/Guiyang/ Xizang/Lhasa/	Sichuan/Chongqing/*	Shaanxi/Baoji/ Sichuan/Neijiang/	Guizhou/Duyun/ Sichuan/Huaying/ Xinjiang/Kashi/ Gansu/Pingliang/ Sichuan/Jiangyou/

*Note: Chongqing was still not approval as a municipality directly under the Central Government during the survey was made.

Chapter 3

The Quantitative Analysis of the Household Motor Vehicles

- Analysis of Total Amount
- Analysis of Quantitative Difference

I. Analysis of Total Amount

Among 14,978 households consisted of staff and workers, 196 households own their motor vehicles, making up 1.3% of the total amount of samples. According to the principle of statistics, the creditable range of the total amount of the owned motor vehicles is between 699, 000 and 926,000 among 62,500,000 city households, the creditability is 95%.

In the same period (1996), the population of the Chinese motor vehicles is 11,000,764(P.513, Chinese Automotive Industry Yearbook). The amount of the private motor vehicles owned by the city inhabitants possesses with 6% to 8% of the total population.

II. Analysis of Quantitative Difference

1). Among 71 surveyed cities, the possession rate of the private motor vehicles is the highest in Shenzhen (4.6%), then followed sequentially by Kuming (3.4%), Xining (3.0%), Xian (2.9%), Beijing(2.6%), the lowest rate is 0.4% in Nanjing, Hangzhou and Guiyang. The possession rate of private motor vehicles is only 0.6% in Shanghai, although she is the largest productive base of cars and has the highest GDP in China; it is lower than half of the average rate nationwide. The rate is 0.6% also in Tianjin and it is approximately between 1%-2% in the other cities.

Table 8.

The Possession Rate of Household Motor Vehicles in the Partial Main Cities

City	Beijing	Tianjing	Shanghai	Shijiazhuang	Shenyang	Nanjing	Hangzhou	Fuzhou
Possession Rate(%)	2.6	0.6	0.6	0.8	1.7	0.4	0.4	1.3
City	Guangzhou	Dalian	Shenzhen	Huhhot	Xi'an	Chengdu	Kuming	Guiyang
Possession Rate(%)	1.3	1.3	4.6	2.1	2.9	1.3	3.4	0.4

2). The possession rate is the highest in the western region, but the amount is the largest in the eastern region.

The possession rate is 1.7% in the western region and is higher by 0.4% than that in the eastern region and by 0.7% than that in the middle region, but the highest possession rate is only 1.7%, so this difference is very large. This is not conformity

with what the people have usually in mind that the possession rate of private motor vehicles is higher in the eastern region (see Table 9). But, there are more population in the eastern region and the amount of private motor vehicles is the highest in the whole country.

Table9.
The Possession Rate of Household Motor Vehicles in the Different Regions

<u>Region</u>	<u>Possession Rate (%)</u>
Eastern	1.3
Middle	1.0
Western	1.7

3). Dividing by the city scale, the possession rate (1.7%) of private motor vehicles is the highest in the plan solo-listed cities. There is a little difference between the another four scale cities, their possession rates are all approximately 1.3%(see Table 10). If calculating again after Shenzhen is removed from the plan solo-list cities, the possession rate of private motor vehicles will reduce to 1.2% in the other plan solo-listed cities. This shows that there is only a little difference in the possession rate between the other five plan solo-listed cities and the cities of another four scale cities.

Table 10.

The Possession Rate of Household Motor Vehicles in the Different Cities

City	Possession Rate (%)
The Municipality directly under the central Government	1.3
Provincial Capital	1.3
Plan solo-listed City	1.7
Prefecture City	1.2
County City	1.2

4). The situation of possession rate of the motor vehicles owned by the households with the different income levels is that there is a very large difference of possession rate between the high income households with 3,000 yuan per month, the medium income households with 1,000-3,000 yuan per month and the low income households with 1,000 yuan per month. The possession rate of high income households is 6.0%, it is 8.6 times of the possession rate (0.7%) of the low income households and it is 5 times of the possession rate (1.2%) of the medium income households(see Table 11).

This difference is far higher than that of between the different regions and

between the different scale cities (the highest possession rate of household-owned motor vehicles in the western region is 1.7 times of the lowest possession rate in the middle region; the highest possession rate of household-owned motor vehicles in the plan solo-listed cities is 1.4 times of the lowest possession rate in the prefecture and county cities). This situation is sufficiently enough to illustrate that the economic strength is the most important decided factor in the purchase of the motor vehicles. In fact, the difference in the purchase of motor vehicles in the different regions and cities also reflects partially the difference of economic strength. This also illustrates from another side that although there is the difference between different regions and between different cities, but this difference is not so large compared with that between the different income levels. There are many rich households in the middle and western regions and in the medium and small cities as well.

Table 11.

The Possession Rate of Motor Vehicles owned by Households with the Different Income Levels

Income Level	Possession Rate (%)
Lower Income	0.7
Medium Income	1.2
High Income	6.0

Chapter 4

The Purchasing Price Analysis of Motor Vehicles by the Households

- The Total Price Analysis
- The Analysis of the Regional Purchasing Price Differences of Motor Vehicles by the Households
- The Analysis of the Purchasing Price Differences of Motor Vehicles by the Households in the Different Scale Cities
- The Analysis of the Purchasing Price Differences of Motor Vehicles by the Households with Different Income Levels
- The Policy Factors Affecting the Purchase of Motor Vehicles by the Households

I. The Total Price Analysis

1). Among the surveyed households, the average price of the purchased motor vehicles is 119,000 yuan per unit.

2). Among the surveyed households, the average anticipated price of the purchasing intent motor vehicles is 120,000 yuan per unit.

Table 12.
 Analysis of Total Price
 (Thousand Yuan)

Average Purchased Price	Average Anticipated Price	Price Differences
119.0	120.0	1.0

A great quantity of motor vehicles could be purchased by the households or not, the economic bearing capacity is the prerequisite condition. The ratio R of the motor vehicle price to the GDP per capita is used usually to express the coefficient of purchasing power of motor vehicles by the households. The value of R is different in the various countries due to the difference in income and consume of the households, the currency purchasing power and the developing policy of motor vehicles when a great quantity of motor vehicles begin to be purchased by the households in many countries, (more than 5% of the households possess motor vehicles), the value of R is between 1.4 and 4.0 , There is a great difference between the economic system of the china and the international economic system, the dual economic system for the city and the dual economic system for the city and the rural area was carried out for more than forty years, so the economy of the city is developed much more rapidly than that of the rural area. The object surveyed this time is city households, according to the annual statistics report made by State Statistical Bureau, the GDP per capita in the Chinese cities is about 11,000 yuan in 1977, the hidden income of the city inhabitants

is about 25%-30%. A portion of people who became rich first have much higher income than any other people. So the value of R in the Chinese cities is about between 5 and 6, and they have more payable purchasing power. At present, the average price of the motor vehicle purchased by the city households is 119,000 yuan, the average anticipated price of the of the purchasing intent motor vehicles by the households is 120,000 yuan. There is only a little difference between these two prices. (See Table 12) The prices of the motor vehicles, purchased by the households, which have moderate performance, beautiful style and reliable quality, is between 80,000 and 120,000 yuan, this will open up a good prospect for the markets within several years, provided it is not limited by the national and local policies.

II. The Analysis of Regional Purchasing Price Differences of Motor Vehicles by the Households

1). The average price of the purchased motor vehicles by the households is much higher in the eastern region than that in the middle and western region.

2). The average anticipated price of the purchasing intent motor vehicles by the households in the eastern region is also much higher than that in the middle and western region.

Table 13.

The Purchasing Price of Motor Vehicles in the Different Regions
(Thousand Yuan)

Region	Purchasing Intent Motor Vehicle	Purchased Motor Vehicle	
	(Price)	(Price)	Possession Rate (%)
Eastern Region	145.0	146.0	1.3
Middle Region	95.0	110.0	1.0
Western Region	99.0	90.9	1.77
Nationwide Average	120.0	119.0	1.3

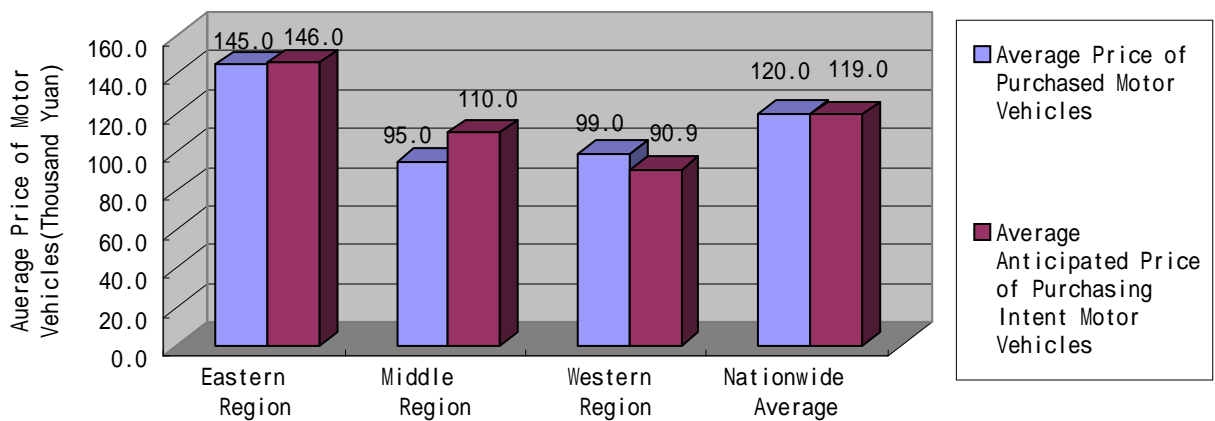


Fig.8 Purchasing Price of Motor vehicles in the
Different Regions

III. The Analysis of the Purchasing Price Differences of Motor

Vehicles by the Households in the Different Scale Cities

1). The price of the purchased motor vehicles by the households in the plan solo-listed cities is much higher than that in the other four-scale cities.

2). It should be paid close attention that the anticipated price drops from 99,000 yuan to 47,000 yuan in the prefecture cities and county cities. The anticipated price jumped up to 157,000 yuan in the municipalities directly under the Central Government and leaps to the first place. The anticipated price drops also in the plan solo-listed cities, but still remains the higher level of 134,000 yuan.

Table 14.

The Purchasing Price of Motor Vehicles in the Different Cities
(Thousand Yuan)

Scale of City	Purchasing Intent Motor Vehicle	Purchased Motor Vehicle	
	Average Price	Average Price	Household- Possession Rate (%)
Municipality directly under the Central Government	157.0	88.1	1.3
Provincial Capital	104.0	115.0	1.3
Plan solo-listed City	134.0	214.0	1.7
Prefecture City and County City	46.7	99.0	1.2
Nationwide Average	120.0	119.0	1.5

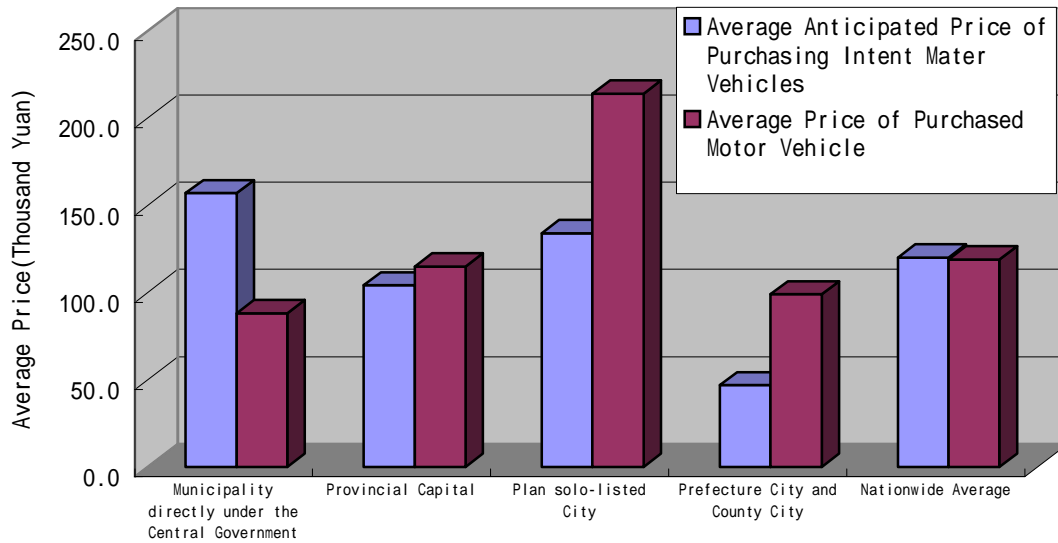


Fig.9 The Purchasing Price of Motor Vehicles in the Different Cities

The anticipated price is higher in the municipalities directly under the Central Government, the most principal reason is that Shanghai and Beijing formulated sequentially some policies restricting the driving time and roads of the motor vehicles with low displacement and low price. As a result, the inhabitants are full of worries for purchase of the low-priced micro-car and micro-vans and have a strong reaction to the policies of restriction and restricting purchase. Some households that wanted originally to purchase micro-motor vehicle intend now to purchase the unrestricted medium and high-class car, which in turn results in the raise of the anticipated price. This reflects from one aspect that the policy will have a great influence upon the markets of the private motor vehicle at present.

The average anticipated purchasing price by the households is about 47,000 yuan in the prefecture and the county cities. It is estimated by the above price that the micro-vans, such as Chang'an and Changhe, and the micro-car, such as Auto, Yunque and Xiali will become the main varieties of motor vehicle chosen by the inhabitants in

the medium and small cities. This is because the most of the inhabitants in these cities, who became rich first, can accept the price of these kinds of motor vehicle and the purchase and use of the motor vehicles are not restricted in these cities.

The mind of purchasing motor vehicle of the inhabitants in the different cities is also different. The amount of the medium and high class motor vehicles is on the large side in the big cities, some households think that they will lose face if they purchase low-class motor vehicle. There is only a little amount of high-class motor vehicles in the medium and small cities, the inhabitants of these cities can find a psychological satisfaction and take a pride in the possession of one motor vehicle. There is a population of 130,000,000 in the perceptual cities and county cities, this is a great potential market, the motor vehicle manufacturing plants should make full use of this opportunity.

IV. The Analysis of Purchasing Price Differences of Motor Vehicles by the Households with Different Income Levels

1). The average price of the motor vehicles purchased by the households with high income is 178,000 yuan and is far higher than that of the motor vehicles purchased by those with medium and low income.

2). The average price of the motor vehicles purchased by the households with medium income is the lowest.

3). The anticipated price of motor vehicles for the households with high income is 180,000 yuan.

4). The anticipated price of motor vehicles for the households with medium income is 76,000 yuan.

5). There is a little difference between the average price of the purchased motor

vehicles and the average anticipated of the purchasing intent motor vehicles for the households with the same income level.

Table 15.

The Purchasing Price of the Motor Vehicles by the Households with Different Income Levels
(Thousand Yuan)

Level of Income	Purchasing Intent Motor Vehicle	Purchased Motor Vehicle	
	Price	Price	Possession Rate (%)
Low Income	106.0	128.0	0.7
Medium Income	76.0	75.0	1.2
High Income	180.0	178.0	6.0
Nationwide Average	120.0	119.0	1.3

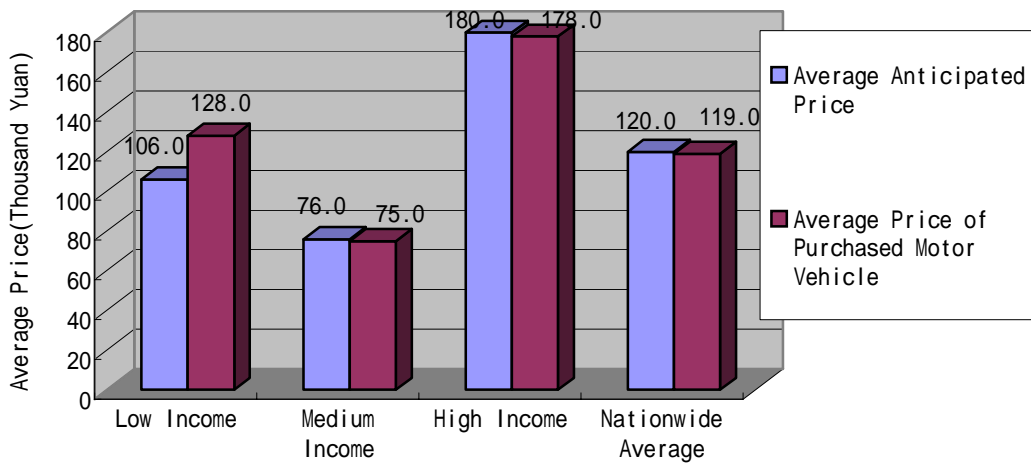


Fig.10 The purchasing price of motor vehicles for the Households with Different Income Levels

China is a developing country that is not rich and the average income per capita is very low. We can't expect that a large quantity of motor vehicles could be purchased by the households within a short time. But a portion of the households that became rich first can already purchase the expensive medium and high class cars, the absolute amount of the cars by this potential purchasing power is considerable. At present, there is a great demand for the cars in the high-income households, but only a small amount of cars are purchased up to the present (only 6% of households purchased the cars). These inhabitants not only take the car as the means of traffic but also regard the comfort and safety of the car as well as the function that shows their economic strength and social status as important.

Only considering the level of the income, the low-income households have not the actual economic strength purchasing a motor vehicle, even keeping a motor vehicle. But on the basis of the survey, the average purchasing price of the motor vehicles purchased by these households is higher than that of the motor vehicles purchased by the medium income households. The main cause is that the low-income households purchase the motor vehicles running for production and business, some get a bank loan and some use the hidden income to purchase the motor vehicle. A small number of households sampled during the survey have trucks and the low-income households make up 83%.

Table 16.

Distribution of the Trucks in the Households
with Different Income Levels

Income Level of the Household	The Percentage of Distribution(%)
Low-Income	83.3
Medium-Income	0
High-Income	16.7

The average price of the motor vehicles purchased by the medium-income households is about 75,000 yuan. This relates to the higher actual costs for running and maintenance after all kinds of fees and taxes were paid. Even if the medium-income households have enough ability to purchase an expensive motor vehicle, the costs for the routine maintenance and repair are not a light burden on these households with the raise of the motor vehicle class. The purchasing price will decrease along with the low-priced motor vehicles sold in the markets.

V. The Policy Factors Affecting the Purchase of Motor Vehicles by the Households

It is mentioned in // The Program of Chinese Automotive Industry of the Ninth Five-Year Plan// that the output of cars will amount to 1,300,000 units by 2000. Some people think that the Chinese people with current income have not such a high purchasing power to consume them. In the light of the surveyed facts, we have this kind of consuming capacity absolutely, even if we get rid of the following factors: 1). The Government authorities are the main consumers. 2). The medium and low income

households do not almost purchase the cars and 3). The number of high-income household does not increase from 1996 to 2000. At the end of 1997, the savings deposit of the inhabitants of the city and rural area in China is about 4500 billions yuan and the circulative cash on hand is about 1000 billions yuan, which is a tremendous potential of consumption.

Table 17.
The Potential Purchasing Power of the City and Rural Area Inhabitants
(Billion Yuan)

	1994	1995	1996	1997
Savings Deposit of the City and Rural Area Inhabitants	2,151,7	2,966,2	3,852,1	4500
Circulative Cash	728,9	788,5	880,2	1000

The most important key point is not the problem of consuming capacity, but how to transform the potential purchasing power to actual purchasing power. According to the statistical data provided by the State Statistical Bureau, the absolute number of the high-income households already goes up to 4,500,000 or so, the average purchasing price and the anticipated price already goes up to 180,000 yuan or so. This is a big market for the plants manufacturing medium and high class cars. The key points are that the cars that can meet the requirements of the consumers should be provided and the appropriate means of promoting sales should be taken, which is the only key to the market.

It is provided in //Industrial Policy of Automotive Industry// that “the state encourages the individual to purchase the motor vehicle” and “ any local authorities

and departments must not interfere in the individual purchase and use of the motor vehicles by the proper ways with the administrative and economic means, and should take vigorous measures to provide support and protection” . But these policies are not implemented and the taxes set by the local authorities themselves are already the important factor affecting the individual purchase of motor vehicles. According to the incomplete statistics, there are several kinds of taxes and fees, as follows:

1). Additional charges for consumption: For example, Jiangxi Province stipulates that 10% charges should be imposed when the unit price of the motor vehicles manufactured in China, Independent Country Allied Union and East Europe is less than 150,000 yuan, 15% charges should be imposed when the unit price is more than 150,000 yuan, 20% charges should be imposed on the other imported motor vehicles, and 5% charges should be imposed on the large buses.

2). Fund raising for construction of the cities: For example, 1,000 yuan should be imposed on each motor vehicle in Nanjing.

3). Fund raising for expressways: For example, 15,000 yuan should be imposed on each motor vehicle in Suzhou.

4). Regulatory fund for purchasing cars: For example, in Zhejiang Province, the regulatory fund should be imposed according to the price of the cars: For the imported cars, 40,000 yuan should be imposed on cars of 120,000 to 200,000 yuan, 60,000 yuan on those of 200,000 to 300,000 yuan, 70,000 yuan on those of 300,000 to 400,000 yuan, and 80,000 yuan on those over 400,000 yuan. For the local made cars, 20,000 yuan should be imposed on the cars of 150,000 to 250,000 yuan, 40,000 yuan on those over 250,000 yuan, 10,000 yuan should be imposed on both the local made and imported low-class cars. Only 5,000 yuan should be imposed on the cars made in Zhejiang Province.

5). Social control charges: For example , in Tianjin 5% charges should be imposed on the cars made in Tianjin, 10% on the other cars made in China, 20% on the imported cars with the displacement below 2L, and 30% on those with the displacement over 2L. In Hebei Province, 10% charges should be imposed on the local made cars, 15% on those made in Russia and East Europe, and 20% on the other imported cars. In Hubei Province, 10% charges should be imposed on the local made cars and 20% on the imported cars. In Chengdu, 10%-20% should be imposed.

6). Charges for extension of the cities: For example, in Heilongjiang Province, 10,000 yuan should be imposed on the cars below 70,000 yuan and 20,000 yuan on those over 70,000 yuan.

7). City educational funds: For example, in Hubei Province, 2% should be imposed.

8). Vehicle management fee: For example, in Wuhan, this fee of each motor vehicle is 200 yuan per year.

9). The expense in spraying characters on the vehicle: For example, in Wuhan, 50 yuan will be imposed on each motor vehicle.

10). Management fee of highway transportation: For example, in Wuhan, 17 yuan should be imposed on one ton of weight per month.

11). Additional charge for goods: For example, in Wuhan, 24 yuan should be imposed on one ton of goods per month.

12). The expense in study and activities of the drivers: For example, in Wuhan, 120 yuan and 80 yuan should be respectively imposed per year.

13). Tax registration fee: For example, in Wuhan, 50 yuan should be imposed per month.

The taxes of motor vehicle is originally higher in China than that in the foreign countries, moreover, there are too many categories and too great amount of the taxes and charges in the many regions, this affects to a great extent the individual initiative in purchase of the motor vehicle and also the development of the national automotive industry at the same time, and injures the images of the local authorities as well. This has a great influence on the purchase of motor vehicles by the households.

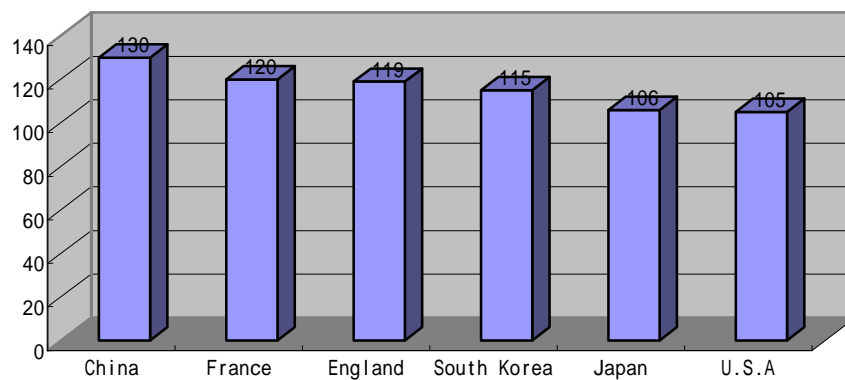


Fig.11 The Comparison of the Actual Expenditure on the Purchase of Motor Vehicles between Chinese Consumers and the foreign ones

Note: Take the retail price of a car with 1.5L as 100

Chapter 5.

The Consumptive Features of Household-owned Cars

- Colour Features of City Household-owned Cars
- Sexual Composition of the Real Drivers in the City Households
- Displacement Class of City Household-owned Cars

I. Colour Features of City Household-owned Cars

This survey shows that most of the cars purchased by the city households in China are in bright colours. There are the most red-coloured cars, making up 31.3% of the purchased cars, the second most cars are white, making up 22.1%, the third most cars are blue, making up 11.0%. The cars in the three kinds of colours already make up 64.4% of the total number of the purchased household cars, close to two thirds. The black, green and gray cars only make up 16% of the total number of city household cars. Although yellow is brighter, there is a low possession rate of yellow cars because they have the same colour as the taxies, only making up 6.7%. The details are shown in the following Table and Figure.

Table 18.
 Colour Constitution of the City Household
 Cars

Colour	Possession Rate (%)
Red	33.29
White	22.09
Blue	11.04
Yellow	6.75
Black	6.75
Green	4.91
Gray	4.29
The Others	12.88

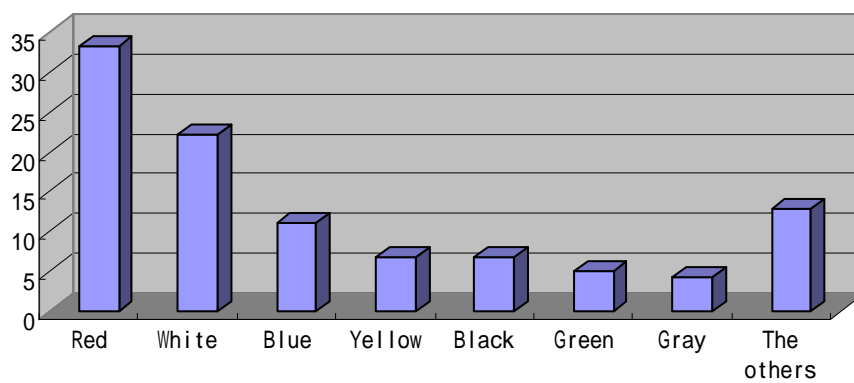


Fig12 Colour Constitution of the City Household-owned Cars

II. Sexual Composition of the Real Drivers in the City Households

This survey shows that the real drivers in the city households are mainly male at present, making up 80.4%. The real female drivers make up 19.6%. But the proportion of the female drivers is tending to increase. The details are showed in the following Table and Figure.

Table 19
Sexual Composition of the Real Drivers

	Sexual Composition of the Real Drivers (%)
Male	80.37
Female	19.63

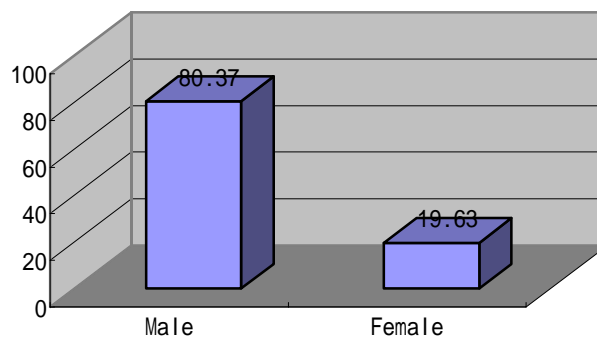


Fig.13 Sexual Composition of the Real Drivers in the City Households

III. Displacement Class of City Household-owned Cars

This survey shows that the household cars with small displacement are in the majority in the Chinese cities. Among them the cars with less than 1.0L of displacement make up 36.5%, 1.0-1.5L making up 20.5%. The two classes of cars are more than half of the possession rate of the household cars. The cars with the displacement of 1.5-2.0L make up 20.6% of the possession rate of the household cars, 2.0-2.5L make up 13.1%, but more than 2.5L only 9.35%. The details are shown in the following Table and Figure.

Table 20.
Displacement Class of City Household-owned Cars

Displacement	Possession Rate(%)
Less than 1.0 L	36.45
1.0-1.49 L	20.56
1.5-1.99 L	20.56
2.0-2.49 L	13.08
More than 2.5 L	9.35

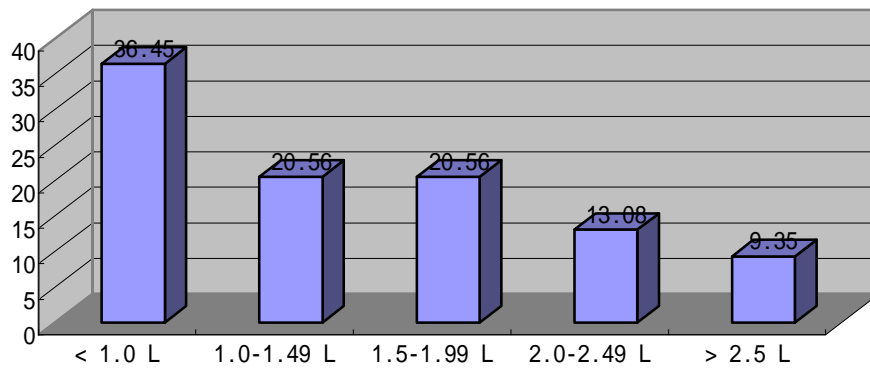


Fig.14 Displacement Class of City Household-owned
Motor vehicles

Chapter 6

The Annual Analysis and Forecast of Purchasing Motor Vehicles by the Households

- General Analysis and Forecast
- Annual Analysis and Forecast of Purchasing Motor Vehicles by the Households in Three Large Regions
- Annual Analysis and Forecast of Purchasing Motor Vehicles by the Households in Four Scales of Cities
- Annual Analysis and Forecast of Purchasing Motor Vehicles by the Households with the Different Income Levels

I. General Analysis and Forecast

Table 21.

The Amount of the Motor Vehicles Purchased by the City Households in 1984-1996

Year	1984	1985	1988	1989	1990	1991	1992	1993	1994	1995	1996
Amount of Motor Vehicles by the Sampled Households (unit)	1	2	2	2	2	4	9	21	35	41	77
Total Amount of Motor Vehicles Purchased by the City Households (1,000 units)	4.2	8.4	8.4	8.4	8.4	16.7	37.6	87.6	146.0	171.1	321.3

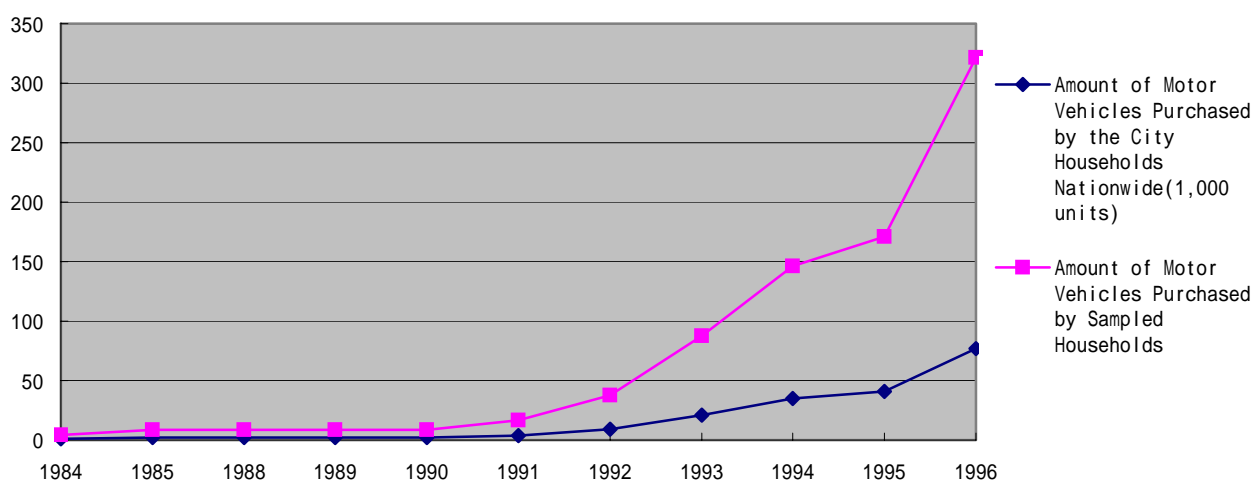


Fig.15 The Increasing Tendency of Motor Vehicles Purchased by City Households

The purchasing rate of motor vehicles by households has been increasing year by year in the cities since nineties, and increased at the speed of 68% per year from 1990 to 1996. The average increasing rate of purchasing of motor vehicles by households in the Chinese cities within the last three years of this century could be forecasted and the forecasted data are shown in Table 22.

Table 22.
Forecasted Amount by the Increasing Rate

Year	1997	1998	1999
Amount of the Motor Vehicles Purchased by the City Households Nationwide (unit)	475,000	701,000	901,000

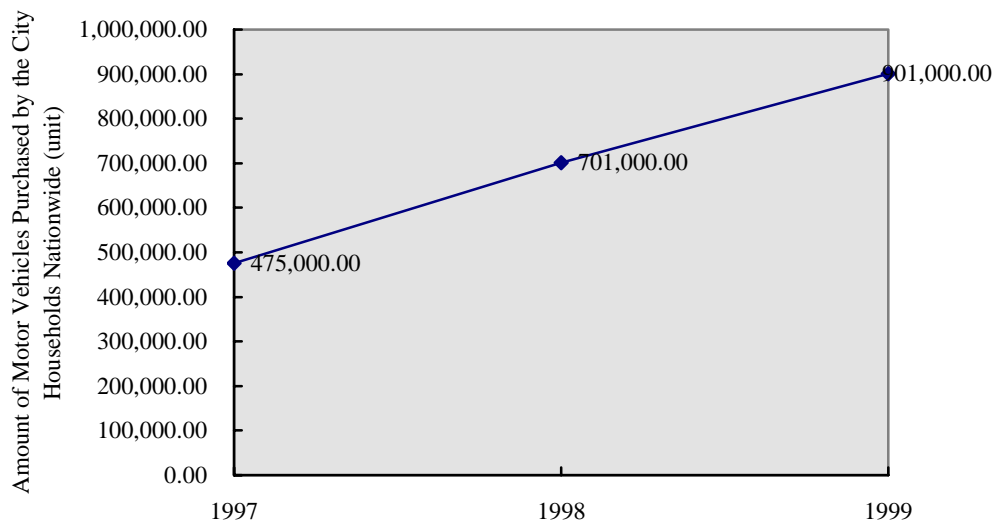


Fig.16 The Forecasted Amount of Motor vehicles
Purchased by city Households

Taking the out-extended tendency of second order curve as the basic pattern and the amount of motor vehicles purchased by households from 1984 to 1994 as the basic data, the amount of motor vehicles purchased by the city households in China can be obtained, as shown in Table 23.

Table 23.

Forecasted Amount Obtained from the Out-extended Tendency of Second Order Curve

Year	1997	1998	1999
Amount of Motor Vehicles Purchased by the City Households in China(unit)	401,000	622,000	964,000

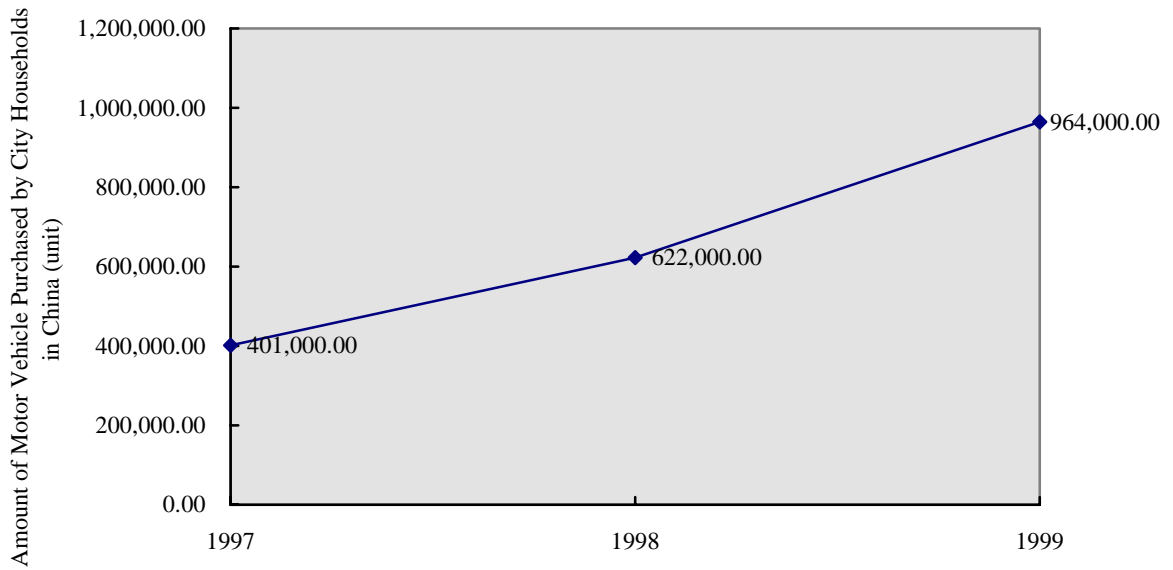


Fig.17 The Forecasted Amount of Motor Vehicles Purchased by City Households Obtained from the Out-Extended Tendency Method of Second Order Curve

After taking the average values from the data forecasted by the above two methods, the amount of motor vehicles purchased by the households in Chinese cities in 1997,1998 and 1999(three years) can be obtained as shown in the following Table.

Table 24.
Comprehensive Forecasted Amount

Forecasting Method	1997	1998	1999
Increasing Rate Method	475,000	701,000	901,000
Second Order Curve Method	401,000	622,000	964,000
Final Forecasted Results	449,000	653,000	937,000

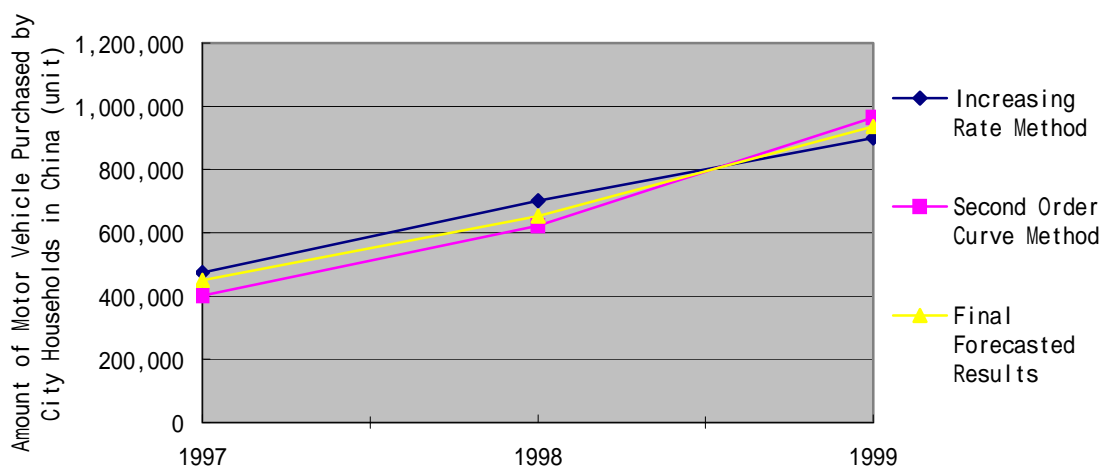


Fig.18 Forecasted Amount of Motor Vehicle Purchased by the Households Obtained from the Comprehension of Two Methods

After the comprehensive considering the amount of motor vehicles purchased by households in China and the forecasted amount of motor vehicles will be purchased by the households from 1997 to 1999 (three years), the total population and the possession rate of the motor vehicles of the city households in the coming three years are shown in the following Table.

Table 25.
The Total Population and Possession Rate of the Motor Vehicles of the City Households in the Coming Three Years

Year	1997	1998	1999
Total Population (million unit)	1,262	1,915	2,852
Possession Rate(%)	2.0	3.6	4.5

We can estimate on the basis of Table 25 that the possessive amount of motor vehicles by the city households will exceed 3,000,000 possibly by 2000.

II. Annual Analysis and Forecast of Purchasing Motor Vehicles by the Households in Three Large Regions

Table 26.
Annual Amount of Motor Vehicles Purchased by Households in Three Large Regions
(Thousand units)

Year	1984	1985	1988	1989	1990	1991	1992	1993	1994	1995	1996
Nationwide	4.2	8.4	8.4	8.4	8.4	16.7	37.6	87.6	146.1	171.1	321.3
Eastern Region	0	4.2	8.4	4.2	8.4	12.5	20.9	33.4	75.1	100.1	141.9
Middle Region	4.2	0	0	0	0	4.2	4.2	20.9	29.2	29.2	79.2
Western Region	0	4.2	0	4.2	0	0	12.5	33.4	41.7	41.7	100.1

Since 1991, the purchase of motor vehicles by households has shown basically an increasing tendency in all three large regions and the increasing rate rose obviously in 1994 and 1996. The amount of motor vehicles purchased has been increasing at the rate of 41% per year in the eastern region from 1994 on, 47% in the western region and 64% in the middle region.

Making a forecast by the comprehension of the increasing rate method and the second order curve method, the forecasting results are obtained and shown in the following Table.

Table 27.
 Comprehensive Analyzing Amount of Motor Vehicles
 Purchased by Households within Three Years in Three
 Large Regions
 (Thousand units)

Year	1997	1998	1999
Eastern region	211.0	304.0	432.0
Middle Region	97.0	150.0	225.0
Western Region	141.0	199.0	280.0

After the comprehensive considering the amount of purchased and the forecasted purchasing motor vehicles by the households in the different regions, the results are obtained and shown in the following Table.

Table 28.

Forecast of the Total Population and Possession Rate of Motor Vehicles of the Households in Three Large Regions from 1997 to 1999

Year	1997		1998		1999	
Forecasted Item	Total Population	Possession Rate (%)	Total Population	Possession Rate (%)	Total Population	Possession Rate (%)
Eastern Region	617,0	2.0	921,0	2.9	1,250,0	4.3
Middle Region	267,0	1.5	417,0	2.5	641,0	3.6
Western Region	380,0	2.6	579,0	3.9	865,0	5.8

The average per capita possession rate of the motor vehicles still ranks first place in the western region in the last three years of this century, the higher possession rate of motor vehicles by the households is reasonable, but the total population of motor vehicles is lower in the western region than that in the eastern region, because there is a vast expense of land and sparse population in the western region.

III. Annual Amount and Forecast of Purchasing Motor Vehicles by the Households in Four Scales of Cities

Table 29.

Annual Amount of the Motor Vehicles Purchased in Four Scales of Cities

Year	1984	1985	1988	1989	1990	1991	1992	1993	1994	1995	1996
Municipality directly under the Central Government	0	0	4.2	0	4.2	0	0	8.4	12.5	20.9	25.7
Provincial Capital	0	0	4.2	4.2	4.2	4.2	16.7	41.7	62.6	70.9	121.0
Plan solo-listed City	0	0	0	0	0	4.2	0	16.7	12.5	16.7	54.3
Prefecture and County City	4.1	8.2	0	4.1	0	8.4	20.9	20.9	58.4	62.6	121.0

The purchase of the motor vehicles by the households shows a tendency to increase rapidly.

From 1994 on, the amount of motor vehicles purchased by the households shows on average increase of 42% per year in the municipalities directly under the Central Government, 41% in the provincial Capitals, 48% in the plan solo-listed cities and 80% in the prefecture and county cities.

Making a forecast by the comprehension of the increasing rate method and the second order curve method, the analysing results are obtained and shown in the following Table.

Table 30.
Comprehensive Analysing Amount of the Motor Vehicles Purchased by Households from 1997 to 1999 in Four Scales of cities
(Thousand units)

Year	1997	1998	1999
Municipality directly under the Central Government	33.0	41.0	48.0
Provincial Capital	227.0	363.0	558.0
Plan solo-listed City	71.0	92.0	134.0
Prefecture and County City	118.0	156.0	195.0

After the comprehensive considering the amount of the purchased and the forecasted motor vehicles by the households in four scales of cities, the results are obtained and shown in the following Table.

Table 31.

Analysis of Total Population and Possession Rate of Motor Vehicles by the Households within Three Years in Four Scales of Cities
(Thousand units)

Year	1997		1998		1999	
Forecast Item	Total Population	Possession Rate(%)	Total Population	Possession Rate(%)	Total Population	Possession Rate (%)
Municipality directly under the Central Government	108,0	1.8	149,0	2.4	197,0	3.2
Provincial Capital	555,0	2.1	918,0	3.4	1,476,0	5.5
Plan solo-listed City	171,0	2.7	263,0	3.8	397,0	6.0
Prefecture and County City	430,0	1.7	586,0	2.3	781,0	3.0

The possession rate will exceed 5% in the plan solo-listed cities and the provincial capitals in 1999(this is an omen that a great quantity of motor vehicles will be purchased by the households).

The population of motor vehicles of the households will close to 1,500,000 in the provincial capitals by 1999. The possession rate of the motor vehicles of the households will increase relative -slowly in the municipalities directly under the Central government. But this report does not rule out the possibility, the possession rate of motor vehicles by households will approach or reach 5% in these municipalities within the next 2-3 years.

IV. Annual Analysis and Forecast of Purchasing Motor Vehicles by the Households with the Different Income Levels

Table 32.

Annual Amount of the Motor Vehicles Purchased by the Households with the Different Income Levels
(Thousand units)

Year	1984	1985	1988	1989	1990	1991	1992	1993	1994	1995	1996
Low Income Level	0	8.4	0	0	0	0	4.2	25.0	29.2	41.7	70.9
Medium Income Level	4.2	0	4.2	0	4.2	12.5	20.9	25.0	79.3	62.5	158.0
High Income Level	0	0	4.2	8.4	4.2	4.2	12.5	37.6	37.6	66.8	91.8

The amount of motor vehicles purchased by the households of all these income levels shows a tendency to increase rapidly. The motor vehicles purchased by the low-income households have shown an average increase of 42% per year since 1994, 85% by the medium income households and 35% by the high income ones.

Making a forecast by the comprehension of the increasing rate method and the second order curve method, the forecasting results are obtained and shown in the following Table.

Table 33.

Annual Forecasted Amount of Motor Vehicles Purchased
by the Households with the Different Income Levels

(Thousand units)

Year	1997	1998	1999
Low Income Level	92.0	137.0	187.0
Medium Income Level	207.0	256.0	386.0
High Income Level	150.0	258.0	365.0

Although there is a great rate difference between the high income-and the medium income households purchasing the motor vehicles, but the absolute amount of the motor vehicles purchased by the households of these two levels is nearly the same. The money spent for purchase of the motor vehicles by households will still occupy a main position in the coming years considering that the high income households purchase mainly the high and medium class cars.

After the comprehensive considering the amount of the purchased and purchasing intent motor vehicles by the households with the different income levels, the following Table can be obtained.

Table 34.

The Total Population and Possession Rate of Motor vehicles of the Households with Three Income Levels from 1997-1999
(Thousand units)

Forecasted Item	1997		1998		1999	
	Total Population	Possession Rate(%)	Total Population	Possession Rate(%)	Total Population	Possession Rate(%)
Low Income Level	270,0	1.0	407,0	1.5	594,0	2.2
Medium Income Level	576,0	1.8	832,0	2.5	1,218,0	3.7
High Income Level	415,0	9.1	673,0	14.2	1,028,0	22.2

It can be seen that the difference in purchasing rate of motor vehicles between the high income households and the medium-and low income ones will get greater and greater.

Chapter 7

The Intention Analysis of the Cars Purchased by the Households

- General Situation
- The Purchase Intention Analysis of the Car Types

I General Situation

1). By the end of 1996, the share of Xiali in the car market for the city households was 23.5%, ranked the first precedence and was higher by 10% than Santana ranking second one.

2). Santana occupies the first precedence among the purchasing intent brands of car for the households in future.

3). Benz occupies the first precedence stable in absolute superiority among the brands preferred by the Chinese city inhabitants.

4). The market share of imported cars purchased by the households will raise in future.

5). On the whole, the households in the municipalities directly under the Central Government, provincial capitals and plan solo-listed cities will purchase the medium and high class cars.

1. The Analysis of the Precedence of the Car Brands by the City Households

Table 35.

The Precedence of Car Brands by the Chinese city Households

The Purchased Brands

Brand	Precedence	Market Share (%)
Xiali	1	23.3
Santana	2	14.0
Lada	4	8.1
Wulin	7	5.8
Toyota	7	5.8
Jetta	9	3.5
The Others		39.5
Total		100.0

The Purchasing Intent Brands

Brand	Precedence	Mentioned Rate (%)
Santana	1	18.5
Xiali	2	14.8
Jetta	3	11.1
Cadillac	3	11.1
Audi	5	9.4
Benz	5	9.4
Fukang	9	3.7
Toyota	9	3.7
The Others		19.0
Total		100.0

The Preferred Brands		
Brand	Precedence	Mentioned Rate (%)
Benz	1	34.9
Santana	2	19.6
Audi	3	9.6
Toyota	4	8.7
Xiali	5	8.1
Honda	6	3.9
Lincoln	7	3.6
Fukang	8	3.3
Cadillac	10	1.8
The Others		6.5
Total		100.0

Santana has risen from the second precedence among the brands of the purchased cars to the first precedence among the purchasing intent brands of cars and occupies the second precedence among the preferred brands of cars as well, its precedence corresponds to its coverage rate of the domestic market, the current market share and the fixed position in the market.

Jetta has risen from the ninth precedence (3.5%) among the purchased brands to the third precedence (11.1%) among the purchasing intent brands, it is estimated that the market share of Jetta will increase further; this will exact an influence upon the change of the current car market setup in China.

Although Xiali drops down on the second precedence in the future purchasing intent brands by the city inhabitants, but considering the Xiali cars have a close relation with the taxi trades, it is estimated that the great fluctuation on the sales of Xiali cars will not happen.

Benz occupies the first precedence among the preferred brands of cars, which shows that Benz cars enjoy the fame among the city inhabitants.

2. Analysis of the Change of the Car's Price Levels

Table 36.
The Price Levels of the Household-owned Cars Getting the First Ten Precedence
(Thousand yuan)

Price Level	<50	50-100	100-200	>200
Percentage of Purchased Cars (%)	20.9	31.4	17.5	5.8
Percentage of Purchasing Intent Cars (%)	9.4	14.8	33.3	33.6
Percentage of Preferred Cars (%)	---	8.1	22.9	62.5

It is shown in the above Table that the purchasing rate of the purchasing intent cars in the price level less than 50,000 yuan is much less lower than that of the purchased cars and the purchasing rate of the purchasing intent cars in the price level more than 100,000 yuan is far higher than that of the purchased cars. It can be seen that the cars in the price level from 100,000 to 200,000 yuan will occupy the main position in the car markets. Although the cars in the price level more than 200,000 yuan have the higher purchasing intent percentage and the preferred percentage, but the purchased rate was low, so its market share will be distinctly lower than that of the cars in the price level from 100,000 to 200,000 due to the small people base.

3. Analysis of the Competitive Power between the Local Made Cars and the Imported Cars

Table 37.

Situation of the Competitive Power between the Local Made Cars and the Imported Cars

	Percentage of Purchased Cars (%)	Percentage of Purchasing Intent Cars (%)	Percentage of Preferred Cars (%)
Local Made Cars	77.9	68.4	43.6
Imported Cars	5.8	24.2	52.6

The percentage of the purchased, purchasing intent and preferred cars of local made is 77.9%, 68.4% and 43.6% respectively, and drops step by step with a big margin one after another. It is shown the city inhabitants will prefer to purchase the imported cars from the long-term point of view. China regulated and implemented

twice the new tariff policies for the imported motor vehicles on April 16, 1996 and October 1, 1997, but she is still one of the countries with the highest tariff rate in the world. At present, the tariff does not have a great influence upon the price level of the imported cars in China and the price of the local made cars, but the tariff that is adjusted further down and the liberalization of license will have a great influence upon the purchase of the cars by the households.

II. The Purchase Intention Analysis of Car Types

Table 38.

The Products of the Purchasing Intention Rising

Rate unit: %

Brand	Possession Precedence	Possession Rate	Purchasing Intent Precedence	Purchasing Intent Rate	Preferred Precedence	Preferred Rate
Santana	2	14.0	1	18.5	2	19.6
Jetta	9	3.5	3	11.1	---	---
Benz	---	---	5	9.4	1	34.9
Fukang	---	---	8	3.7	9	3.3
Audi	---	---	5	9.4	3	9.6

Among the products of the purchasing intention rising, the purchase intention of the imported cars rises distinctly; Santana is the steadiest, Jetta and Fukang rise rapidly.

Chapter 8

Discussion

According to the survey, the most cars purchased by the city households are ones that are less than 100,000 yuan, namely ones with less than 1 L of displacement, making up 31%, the second most cars purchased by the city households are ones of 100,000 to 200,000 yuan, including Jetta, Fukang, Santana, Cherokee etc.. But according to the intention of purchase, the purchase of the cars by the households concentrates on the ones of 100,000 to 200,000 yuan and more than 200,000 yuan, each making up 33% respectively. It is shown that the intention of the future purchase of the cars by the households incline to the medium or high class cars though there is a great demand for the economic cars with small displacement. This is conformable to the sales status of the two main car markets in Beijing.

In the light of the history of the developed countries, the early cars purchased by the households are often the ones with a simple structure and a low price, such as Model T car, Beetle, 2 CV etc... Accordingly, many Chinese people think that the popularization of the cars for households will begin from the micro cars (less than 1 L of displacement) with a low price in China.

But on the basis of the survey, the purchasing intent cars by the households tend to medium or high class ones in the municipalities directly under the Central Government, provincial capitals and plan solo-listed cities. The three-scale cities become the absolute main part of the effective demand in car consuming market not only at present but also within a rather long period. It is shown that the purchase of a great quantity of cars by households begins from the medium class cars in these cities, namely the cars with the price more than 100,000 yuan. We think there are the following several causes through analysis:

1). The Forecast of the Consumer Psychology

The most of people have the full confidence that the anticipated income will increase and the grade of consuming commodity will be raised along with the firm implementation of the policies of innovation and opening to the world and market economization, the sustainable high-speed growth of the national economy for many years and successful high-speed soft landing of the macroscopic economy, which causes the psychology of purchasing cars to tend to the medium-class.

2). Functional Idea of the Consumer

Considering from the angle of economics, the lower the commodity price is, the greater the demand for commodity is. But considering the theory of the consumers' behaviors, the behaviors of consumers depend on the functions of the commodity (means that the contents experienced by the consumers when they consume the commodity). The effectiveness does not depend completely on the substantial properties of commodity, but is also related to the subjective sense of the consumer to commodity, so it has both substantial factors and spiritual factors.

We can see that the consumers purchase cars mainly because of the demand for the transport means substituted for walk through the history of that the cars were purchased by the city households of the developed countries in Europe and America, so the purchase of a great quantity of cars began from low-class micro-cars with a low price in these countries. There is a dense population in the Chinese cities and bicycles have been the universal means substituted for walk in the cities for dozens of years. China is known as a kingdom of bicycles. Taking Beijing as an example, there is a population more than 10,000,000 and 9,000,000 bicycles, so there is a large existing cluster of people using another means substituted for walk in Beijing, this is quite different from the national conditions of the developed countries before a great quantity of cars were purchased by the households in these countries.

To purchase the car is not only for the sake of the simple means substituted for walk, but mainly in order to pursue the feeling of enjoyment, the feeling of wealth and the subordinate feeding of high social status, in other words, it is subjective sense and the needs of spirit that dominate the behaviors of the consumers to purchase cars.

Moreover, the Chinese people have generally consumption idea of “attaining the highest level in one step”, which certainly impel to the city households to purchase higher-class cars.

3). The Control Policies to the Cars Driven in the Cities

In order to reduce the pressure of the dense population and heavy traffic or traffic jam in the big and medium cities, some cities formulate in the recent years a local policy controlling the total amount of the motor vehicles, such as limit to the driving of the motor vehicles with a small displacement, which makes people objectively have to choose the medium or high class motor vehicles when they purchase ones.

In China, the households that purchase the motor vehicles first are often rich first, the consumption level of this portion of people is higher and their choice of motor vehicles also tends to the medium and high class cars. When the common households begin to purchase the car in early next century, their choice will be also focused on the quality, style, performance and comfort of the cars.

China is a country in which there is the dual economy and a tremendous population, There is a non-agricultural population of 250,000,000 only in the city proper. There are a lot of households that have economic strength to purchase motor vehicles and the vast markets of motor vehicles for the households in China. But the potential purchase power is hard to be turned into the actual purchase power due to the restriction of the policies and the operating conditions. The markets where motor vehicles are purchased by individuals are the direction which the automotive industry of China will develop in. the development of the automotive industry of China will be impeded seriously if the questions concerning consumption of the motor vehicles are

not settled. During the survey, we found that the high-income households preferred the imported cars and the imported cars make up nearly 57.4% of the purchasing intent cars, which is a warning to the automotive industry of China.

Judged by the present tendency of China, the large and super large scale cities with a dense population will control the total amount of the motor vehicles sooner or later. Although the pressure of heavy traffic or traffic jam can be reduced, it is at the cost of the limitation to raising the modernized living standard of the people and at the cost of the impediment to developing the automotive industry of China at the same time. The questions concerning the modernization of “walk” of the Chinese households should be paid much attention by the government departments concerned.

Chapter 9

Conclusion

The following conclusion can be drawn from the results of this survey:

1). At present, the possession amount of the motor vehicles by the city households makes up 6%-8% of the total population of the civil motor vehicles in China.

2). The motor vehicles (various vehicles, mainly cars) purchased by the city households nationwide will exceed 1,000,000 expectantly by 2000. The possession rate of the motor vehicles by the households will reach 5% in the big cities (the plan solo-listed cities and provincial capitals). The markets where the motor vehicles for the households are purchased will enter the earlier stage of growth.

3). The average anticipated purchase price of the motor vehicles for the households is about 120,000 yuan.

To sum up, The Chinese motor vehicle consumption markets will increase greatly in the coming 2-3 years along with steady development of the national economy. Under the guidance of the correct policies, the age when cars are purchased by the households is already impossible to come no longer, but will come before long.

Appendix: sampling scheme of the China's urban civil motorbikes' market survey

1. Sampling method for the cities

a. The entirety of the sampling

The total number of the cities at country level and up is 622(by the end of 1994), which includes 3 directly administered municipalities, 6 separately listed and planned cities, 27 provincial capitals(of autonomous regions), 172 regional level cities(apart from provincial capitals) and 414 cities at county level.

b. principles of sampling

1) according to the survey's purpose and requirements, a survey has been carried out on all directly administered municipalities, provincial capitals and separately listed and planned cities. The above-mentioned 36 cities constitute a self-represented stratum and will not be sampled.

2) the remaining 586 cities will be sampled in accordance with the principle of random sampling. The number of the sampled cities will be limited within 40, evenly and reasonably distributed geographically. Also the number of the regional level and county level cities should be rationally assigned. In the light of the disparities of the inhabitants' life standard and the importance among various cities, the sampled cities will be representative respectively on the national and regional level. On condition that the number of the sampled cities is fixed, the sampling error remains low and will enjoy a high precision.

c. the sampling method of the ordinary cities

For the 586 cities which do not fall into the categories of directly administered municipalities, provincial capitals and separately listed and planned cities, the following sampling method will be adopted:

1) stratification

A. On the basis of the geographical locations, the above-mentioned cities can be stratified into 3 regions, namely East (littoral), Central and West. The provinces included in each areas are as follows (3 directly administered municipalities belong to the Eastern littoral areas and are excluded from the area since they have formed a self-represented stratum):

East: Liaoning, Hebei, Shandong, Jiangsu, Zhejiang, Fujian, Guangdong, Hainan, Guangxi.

Central: Heilongjiang, Jilin, Inner Mongolia, Shanxi, Henan, Hubei, Hunan, Anhui, Jiangxi.

West: Shaanxi, Ningxia, Gansu, Qinghai, Xinjiang, Sichuan, Yunnan, Guizhou, Tibet.

B. Each area is regarded as a main stratum. The mid-stratums are composed of regional level and county level cities within the main stratum. Cities included in each mid-stratum are listed as follows:

Form-1: stratification of ordinary cities on the basis of geographical areas and administrative hierarchies.

Geographical areas	regional level cities	county level cities	total
East	81(3)	180(5)	261(8)
Central	68(2)	154(4)	222(6)
West	23(1)	80(3)	103(4)
Total	172(6)	414(12)	586(18)

C. Each mid-stratum is divided into several small strata according to the

salary levels of the cities' inhabitants. The determination of the number of the small strata is based on the number of the cities within mid-strata and is basically proportional. However the sampling rate of the cities in the smaller strata will increase appropriately, for instance, the sampling rate of the regional level cities is slightly higher than the county level cities.

The number of the small strata within each mid-stratum is displayed in the parenthesis after the number of the cities. For instance, Regional level cities in the East area are divided into 3 small strata, county level cities 5 small strata.

2. The sampling method for the cities within the small strata

The sampling within the small strata is based on the probability of the direct ratio of the non-agricultural population (PPS), namely average probability sampling. The Durbin Methodology is adopted as the specific sampling method, which involves survey on the 2 sampled cities within each small stratum. Therefore, 36 sample cities will be selected for the ordinary cities.(Total number of the cities surveyed reaches 72 on the national level.)

2. **Sampling method within each sample city & the determination of sample size and distribution**

a. **the sampling method within the sample cities**

The multi-hierarchy unequal probability sampling is adopted as the sampling method for the families within each sample city. Based on the administrative

hierarchy of the cities (actually according to the cities' size), 4-2-hierarchy samplings are respectively adopted. Specific regulations are as follows:

- The 4-hierarchy sampling method (districts sampling within the city, sub-districts sampling within the districts, neighborhood committee sampling within the sub-districts and family sampling within neighborhood committees) will be adopted among directly administered cities, provincial capitals and separately listed and planned cities (hereafter referred to as metropolis). Since some cities have a well-established sampling frame (including the names of all the sub-districts and materials on population and families), then sampling method in these cities can be simplified to 3-hierarchy and the district level can be abridged.
- The 3-hierarchy sampling method (sub-districts sampling within the cities, neighborhood committee sampling within the sub-districts and family sampling within neighborhood committees) will be adopted among regional level cities. Since some cities have a well-established sampling frame (including the names of all the neighborhood committees and materials on population and families), then sampling method in these cities can be simplified to 2-hierarchy and the sub-district level can be abridged.
- The 2-hierarchy sampling method (neighborhood committee sampling within the cities and family sampling within neighborhood committees) will be adopted among the county level cities.

- The sampling of every hierarchy within each city will adopt unequal probability sampling system proportional to the number of population or families within each sampling unit(district, sub-district and neighborhood), except for the lowest hierarchy(family sampling within neighborhood) which will adopt random starting point probability sampling system, namely equidistant sampling.

b. The determination of sample size and distribution

1. 24 sub-districts will be sampled within each directly administered city, 4 neighborhoods will be sampled within each sub-district, 5 families will be sampled within each neighborhood, and the total number of the sampled families is 480. In 3-hierarchy sampling, 24 sub-districts will be directly sampled within the city(according to the method mentioned in section a.); when it comes to 4-hierarchy sampling, which involves districts, then the number of the sampled districts could be determined at any appropriate figure among 3, 4 or 6 and the unequal probability sampling system will be adopted as the sampling method, and 8, 6 or 4 sub-districts will be sampled within each district(so as to keep the total number of the sampled sub-districts at 24).
2. 12 sub-districts will be sampled within each provincial capital and separately listed and planned city, 4 neighborhood committees will be sampled within each sub-district, 5 families will be sampled within each neighborhood; and the total number of the sampled families is 520. In 3-hierarchy sampling, 12

sub-districts will be directly sampled within the city; when it comes to 4-hierarchy sampling, then the number of the sampled districts could be determined at any appropriate figure among 3, 4 or 6, and 4, 3 or 2 sub-districts will be sampled within each district (so as to keep the total number of the sampled sub-districts at 12).

3. 20 neighborhoods will be sampled within each regional level city, 10 families will sampled so as to render the total number of sampled families at 200. In 2-hierarchy sampling, 20 neighborhoods will be directly sampled within the city; when it comes to 3-hierarchy sampling, then 4 or 5 sampled sub-districts could be selected and 4 or 5 neighborhoods will be sampled within each sub-district(so as to keep the total number of the sampled neighborhoods at 20).
4. 16 neighborhoods will be sampled within each county level city (through the unequal probability sampling system), 10 families will be selected which make the total number of the sampled families to 160.

Form-2 Distribution of the sample size in different types of cities

Type of city	directly administered cities	separated listed and planned cities	regional level cities	county level cities
Number of hierarchies of sampling	3 or 4 hierarchies	3 or 4 hierarchies	3 or 2 hierarchies	2 hierarchies
Number of sub-districts(neighborhoods) sampled within the city	24	12	(20)	(16)
number of neighborhoods sampled within each sub-district	4	4		
number of families sampled within each neighborhood	5	5	10	10
total number of the families sampled	480	240	200	160

3. designed precision

Calculated based on the above-mentioned methods and rules, the total number of the sampled family nation wide is 15,600. The valid returned sample survey forms are of 15,000. The designed effectiveness (DEFF) is at 2.5, and equivalent sample size by simple random sampling is of 6,000 families. Upon the 95% of confidence degree, the absolute error rate can be kept below 1.30%.

The sampled cities of the survey on the life improvement of the workers in China

East(33)

Directly administered cities and provincial capitals	regional cities which are not provincial capitals	county level cities	separately listed and planned cities
Beijing	Yingkou, Liaoning	Dashiqiao, Liaoning	Qingdao, Shandong
Tianjin	Rizhao, Shandong	Liaocheng, Shandong	Ningbo, Zhejiang
Shanghai	Shanwei, Guangdong	Shaowu, Fujian	Dalian, Liaoning
Shijiazhuang, Hebei	Handan, Hebei	Haimen, Jiangsu	Shenzhen, Guangdong
Shenyang, Liaoning	Wuxi, Jiangsu	Suyang, Jiangsu	Xiamen, Fujian
Jinan, Shandong	Jiaxing, Zhejiang	Longkou, Shandong	
Nanjing, Jiangsu		Yulin, Guangxi	
Hangzhou, Zhejiang		Luoding, Guangdong	
Fuzhou, Fujian		Xiaoshan, Zhejiang	
Guangzhou, Guangdong		Gaoyao, Guangdong	
Haikou, Hainan			
Nanning, Guangxi			

Central (21)

provincial capitals	regional cities which are not provincial capitals	county level cities	separately listed and planned cities
Taiyuan, Shanxi	Anqing, Anhui	Liu'an, Anhui	Qingdao, Shandong
Horhot, Inner Mongolia	Ezhou, Hubei	Hailin, Heilongjiang	Ningbo, Zhejiang
Harbin, Heilongjiang	Luoyang, Henan	Tumen, Jilin	Dalian, Liaoning
Changchun, Jilin	Jincheng, Shanxi	Yakeshi, Inner Mongolia	Shenzhen, Guangdong
Zhengzhou, Henan		Suizhou, Hubei	Xiamen, Fujian
Wuhan, Hubei		Gao'an, Jiangxi	
Changsha, Hunan		Xinyang, Henan	
Hefei, Anhui		Yanji, Jilin	
Nanchang, Jiangxi			

West (18)

provincial capitals	regional cities which are not provincial capitals	county level cities	separately listed and planned cities
Xi'an, Shaanxi	Baoji, Shaanxi	Dujun, Guizhou	Chongqing, Sichuan
Yinchuan, Ningxia	Neijiang, Sichuan	Huaying, Sichuan	
Lanzhou, Gansu		Kashi, Xinjiang	
Xining, Qinghai		Pingliang, Gansu	
Urumqi, Xinjiang		Hami, Xinjiang	
Chengdu, Sichuan		Jiangyou, Sichuan	
Kunming, Yunnan			
Guiyang, Guizhou			
Lhasa, Tibet			