RESEARCH

Automobile Market Outlook

Panama

2013
Economic Analysis

- **In 2013 and 2014, 52,800 and 54,420 new vehicles will be sold, respectively.** We expect to see a rebound in sales of high value automobiles, underpinned by stable fuel prices, low interest rates and improvements in average income. Taking this into account, Panama should double its vehicle fleet over the next 10 years.
- **Car ownership in Panama is focused on people with earnings of over USD 1,100 a month.** The greatest demand for vehicles is to be found in the age groups between 35 and 59 years.
- **Vehicle imports are in excess of USD 1.0 billion a year.** This is underpinned, inter alia, by the demand for vehicles in the Metrobus system and the stability in the imported basket prices.
- **There is expected to be an increase in bank financing to vehicle purchases,** connected with the higher share of new vehicles in the Panamanian market and their improved financing conditions.

Index

Closing date: February 13, 2013

1. Abstract

During 2012, 50,609 vehicles were sold in Panama, 8.5% higher than the total figure for 2011. Small vehicles accounted for 43% of this total. **According to our estimates, total sales will be of 52,800 vehicles this year, while we expect 54,420 units to be sold in 2014.** We also expect there to be a gradual recovery in top of the range vehicles, as household earnings increase.

These vehicle sales forecasts will imply **a vehicle fleet renewal rate (annual sales / total stock) of very close to 10%, leading to a reduction in the average vehicle life from 8.5 years to a level of lower than 7 years.**

Car ownership increased above household formation in the previous decade, reflecting the high degree of elasticity of vehicle demand at medium income levels. The age groups with the strongest propensity towards acquiring a vehicle lie in the 35 to 59 year bracket, with income of higher than USD 1,112 per month.

Supply in the Panamanian vehicle sector is relatively fragmented, as it is a small market with access to a broad range of brands.

Automobile sector imports amount to USD 1.109 billion. 80% of this amount corresponds to new vehicles, 6% to used vehicles and 14% to auto parts. The main markets supplying vehicle imports were Japan (26% of the total), South Korea (19%), Colombia (17%), United States (15%) and Thailand (10%). The leading brand in the market changed from Toyota to Hyundai.

Auto parts imports are in the region of USD 152 million. They are imported from United States (26%), China (18%), Colón Free Trade Zone (14%) and South Korea (9%).

Two price indicators, implicitly constructed using imports and vehicle loans, indicate relative stabilization of prices since 2009. In four years (2009-2012), prices accumulated an increase of only 7.0%, below the inflation of 18.9% caused during the same period. In other words, in terms of real value, prices would have fallen by over 10% between 2009 and 2012.

The size of the vehicle credit portfolio within total consumer credit increased from 11.9% in 2011 to the current figure of 12.6%, today equivalent to USD 783 million.

The average interest rate in 2012 was 7.2%, an all-time low. **Interest rates should continue at single-digit levels over the next three years due to favorable liquidity conditions worldwide.**

Financial system credits (banks and rest of system) accounted for 50% of total new vehicle sales in 2012. **According to BBVA Research estimates, they could account for between 55% and 60% in 2014 due to higher numbers of new car transactions and low interest rates.**

2. Current situation and outlook for the automotive industry

Panama is passing through one its most longest periods of growth in its history. After growing 10.7% per annum in 2011, it is expected to grow in the region of 10% in 2012. This growth was fuelled by construction investment and mining breakthroughs, in addition to a dynamic performance in private consumption. Basically, households have taken advantage of low market interest rates, together with more stable vehicle prices, to access this market.

Table 1
Relevant indicators for the Panamanian automobile market

Relevant indicators	
Population (thousands, 2012)	3,655
Per capita GDP (USD, 2012)	9,527
Size of territory (thousands of square km)	770,8
Road network (thousands of km, 2011)	15,326.7
Asphalt and concrete road network (% of road network, 2011)	42
Vehicle stock (thousands, 2011)	494,354
Vehicles per 1000 inhabitants, 2011	138
Age of the vehicle stock (years, 2011)	8.6
New automobile sales (units per year, 2012)	50,609
Average vehicle price (USD)	20,144
Average value financed (2012)	85%
New vehicle finance (% of new car sales)	50.7%

Source:INEC, ADAP, IMF, CEPAL, BBVA Research

High vehicle sales prompted a quick renewal of vehicle fleet

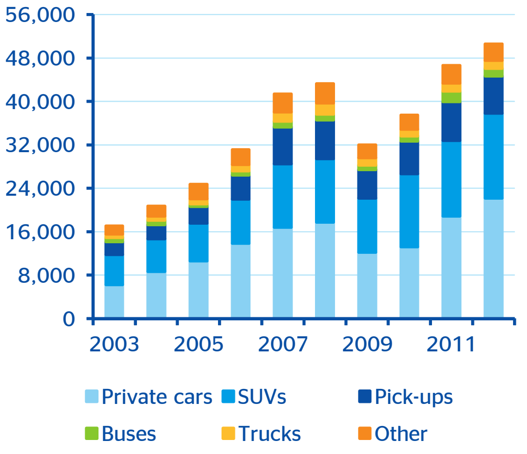
Record vehicle sales were registered in Panama in 2012. Sales amounted to 50,609 units, 8.5% higher than in 2011 (Chart 1). Particularly striking was the increase in the share of small vehicles, which accounted for 43% of sales, eight per cent higher than the percentage registered in 2010, and the same percentage which was relinquished by luxury cars, SUVs and pick-ups. Lower sales of luxury vehicles are likely to be attributable to bottlenecks in external supply, rather than to restrictions on the demand side in Panama.

The new trend in fuel prices might curb the increase in the share of small vehicles. We have observed reductions in internal gasoline and diesel costs, in line with a more stable dynamics in international oil prices. This means there could perhaps be more room for higher cylinder vehicles to resume growth, though this would be limited by the ethanol addition restrictions in gasoline from April 2013 on.

Furthermore, the demand for new vehicles should continue to be driven by professionals who have recently arrived on the job market (light vehicles) and by the increase in national income (luxury vehicles). According to our estimates, while 27% of Panama's population belonged to the middle-high classes in 2011, in 2015 43% of the population will belong to these two groups. This figure is tantamount to having an additional 170,000 families (accumulated between 2011 and 2015) at income levels which allow them to access the acquisition of high range vehicles (See Chart 1).

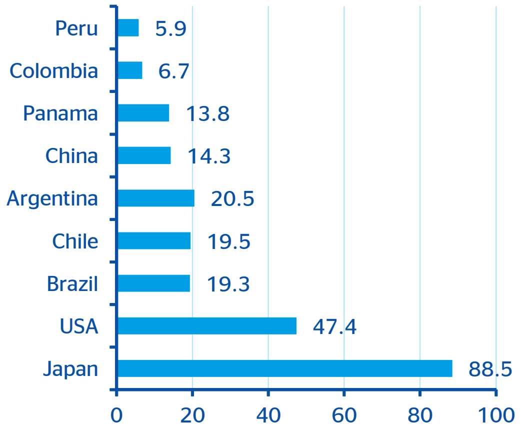
These vehicle sales forecasts will imply a vehicle stock renewal rate (annual sales / total stock) of very close to 10%, leading to a reduction in the average vehicle life from 8.5 years to a level of lower than 7 years. The renewal rate reached a low in 2009, when it stood at 7.2%. Today, the vehicle stock renewal rate is 9.8%, surpassed only by Brazil and China amongst the group of emerging countries, showing the high degree of elasticity of vehicle sales in countries with low auto ownership, such as Panama, to increases in income. Annual sales considering the population of Panama are low (Chart 2). The vehicle fleet is currently in excess of 500,000 vehicles, with 77% of them used for private activities, 21% for commercial use and the remaining 2% under official ownership.

Chart 1
Auto Sales. Units



Source: INEC, ADAP and BBVA Research

Chart 2
Vehicle sales per 1000 inhabitants. Values for 2012



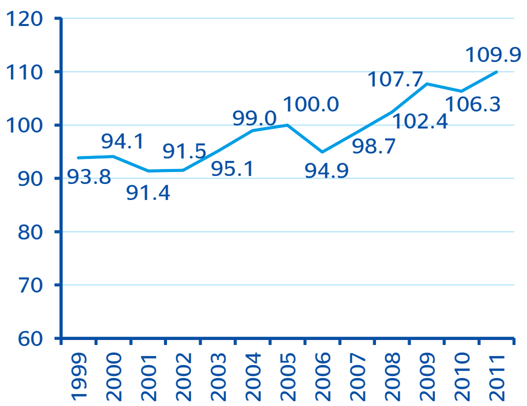
Source: IMF, national sources and BBVA Research

While Panama's vehicle stock grew, more roads were built, mainly made out of asphalt and concrete. This means the vehicle flow index (vehicles per constructed kilometer of road network) has remained constant in recent years (Chart 3). In fact, it only increased by 9.9% between 2005 and 2011. This indicator would indicate low congestion levels in Panama, limiting the downward pressures which the lack of roadways would have on vehicle demand.

According to our estimates, around 52,800 units will be sold this year, while we expect in 2014 we expect 54,420 units to be sold. The potential for increase in sales is due to the low person per vehicle indicator (133 for each 100,000 thousand inhabitants in Panama), which is the average figure for emerging countries (Chart 4), countries which have good prospects of multiplying their vehicle stocks over the next 10 years (see Chart 2).

However, these forecasts depend on what effects public transport systems will have on the demand for private vehicles. On the one hand, the Government's permission granted to buy buses used during the building of the subway system might increase the import of used vehicles, to the detriment of sales of new passenger vehicles. Furthermore, having the integrated transport system might change the vehicle's role as being the main form of getting to work towards an asset more used for tourism and family leisure.

Chart 3
Vehicle flow index. As a percentage



Source: INEC and BBVA Research

Chart 4
Vehicle ownership rate*. As a percentage

* (Vehicle stock / inhabitants) *100.
Source: IMF, national sources and BBVA Research

Box 1. Analysis of car ownership in Panama

Vehicle ownership can be analyzed using the 2000 and 2010 population census figures. And dynamic analyses can also be performed of vehicle demand in the period between the two censuses.

According to the 2010 census, 31% of families have at least one vehicle. This level is higher than the figure of 26% of households which reported this asset in 2000. In absolute terms, while total households increased by 30% over ten years, households with a vehicle grew by 56%. Of the households with vehicle, 71% have one, 22 have two, and 7% have three or more.

Vehicle demand shows different characteristics depending on the groups of population. Car ownership is more likely in a nuclear household (consisting of parents and children – 34% of households) and which is compound (with persons living in the home who are not blood relations – 37%), than one which is made up of one person (19%) or extended (relatives of a member of the nucleus – 30%). Of the households with vehicle, 88% of the one-person families have a car and 10% have two. In nuclear households, however, 71% has a vehicle and 23% has two; and in compound households, 61% has one and 28% has two (Chart 5).

In terms of income level, the probability of having a car is stable and low in people with income of lower than USD 1,112 a month (at 2012 prices). After this level, there is an important structural change, in other words, this would be the threshold to determine capacity to access the automobile market. For example, while only 20% of people with income lower than this threshold have a car, and with a maximum level of 35% for people with an income between USD 890 and USD 1,112, the population having income higher than the threshold with a vehicle is 63% on average, with a minimum level of 47% in people who are only just over the threshold (Chart 6).

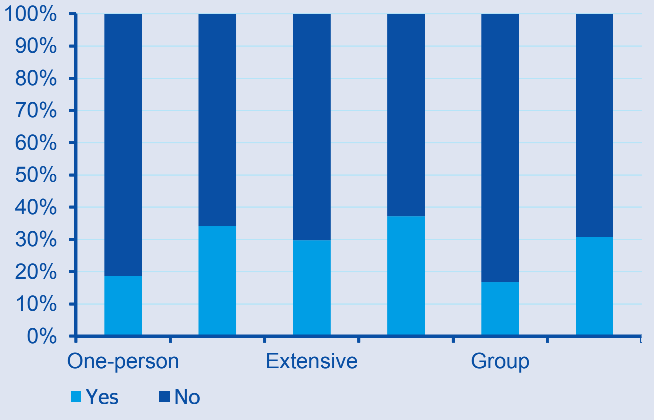
This seems to reflect a phenomenon which is common in other economies: vehicle demand does not only respond positively to income, as we might expect, but it is also more elastic at medium income levels. However, when personal income is in excess of USD 4,500 per month, then the elasticity is reduced again and the probability of car ownership converges towards a maximum of 92%.

With people of adult age, the probability of car ownership increases towards the age of 59 years, at which point it falls away. The greatest propensity towards car ownership is found between the ages of 35 and 59 years. Amongst the 55-59 year age group, there is a 38% probability of car ownership, the greatest of all ages. However, when the analysis turns to car ownership by gender, no significant differences are apparent, with percentages for men and women vehicle owners standing in the region of 30% in both cases.

A person is more likely to own a car if one has a mortgaged home (62% of cases). On the other hand, if the home has different characteristics (rented, own home), then the likelihood falls to a percentage of lower than 30% in all cases. This can be related to the analysis by ages, where we can see that the ages with the greatest propensity for credit lie between 35 and 59 years old. However, people with rented or proprietary homes usually belong at earlier or later ages, respectively.

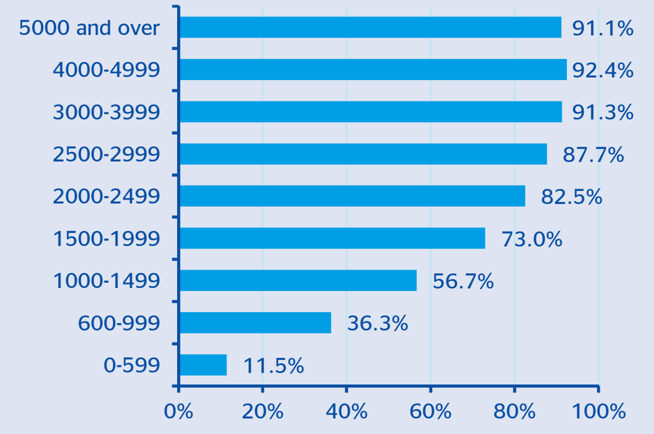
In short, car ownership increased above household formation in the previous decade, reflecting the high degree of elasticity of vehicle demand at medium income levels. The age groups with the strongest propensity to acquire a vehicle lie in the 35 to 59 year bracket, with income of higher than USD 1,112 per month. Lastly, it is more common for a person who has a mortgage to be the owner of a vehicle.

Chart 5
Tenencia de autos por tipo de familia. En porcentaje



Source: INEC y BBVA Research

Chart 6
Tenencia de auto por rango de ingresos. En porcentaje



Source: INEC y BBVA Research

Box 2. Panamanian vehicle stock to double in 10 years

The rapid growth in the vehicle fleet is not a purely Panamanian phenomenon, but is in fact evident in other emerging markets with high population density and steady economic growth. Over the last decade, the vehicle stock of the EAGLES countries ("Emerging and Growth-Leading Economies"), in other words, the emerging markets spearheading global growth - China, India, Brazil, Indonesia, South Korea, Russia, Turkey, Mexico, and Taiwan - was multiplied by 2.5, while Panama's vehicle stock increased twofold. In Asian countries, the fleet increased by 3.3 times due to strong growth in China, India and Indonesia. At the same time, vehicle demand in developed countries lost steam, leading to a significant fall in demand, due to the international financial crisis that began at the end of the last decade.

Against this background, BBVA Research recently estimated the growth potential of the automotive sector in the world. For that purpose, a long-term model was projected to assess changes in the number of vehicles per thousand inhabitants, in accordance with income per capital, degree of urbanization, population density, financial depth and the quality of road infrastructures. The core model makes use of a non-linear relationship called the *Gompertz* curve, which associates car ownership levels with income per capita. The idea in this relationship is that the car per inhabitant ratio is very low for very low levels of income per capita; however, it takes off at medium-low income levels, and grows very rapidly so as to reach certain saturation levels at high income levels.

Under this model, strong and sustained growth will fuel vehicle demand in emerging markets. In Latin America, Turkey and the rest of Asia, demographics will also be a very important factor. Thus, the Chinese vehicle stock is expected to increase fourfold over the present decade to become the world's largest. Brazil is expected to reach the size of Japan, while Russia and India edge closer to that level, leaving the rest of the G6 countries (G7 minus USA) behind. Developed countries, on the other hand, stand close to saturation levels both in terms of income per capital and also demographically, except for the United States. Sales in these countries will depend on depreciation and technological advances.

The results indicate that Panama has ample room to increase its vehicle stock. In fact, according to the study, car sales in Panama, as in some Asian countries, are subject to high income variations, a common phenomenon in countries going through an expansion phase (see Box 2 for elasticity in Panama by income level). Conversely, Poland and South Korea are the most mature markets among emerging economies, with elasticities of car ownership close to the standards in developed economies.

This study forecasts that Panama will increase its vehicle fleet by 424.4 thousand vehicles between 2010 and 2020, which will come very close to doubling its current stock (Chart 7) with an annual growth rate of 7.6%. This would be very close to average forecasts for emerging economies, where the stock will again more than double in this decade, with the number of units reaching over 450 million, easily exceeding the total for G7 countries.

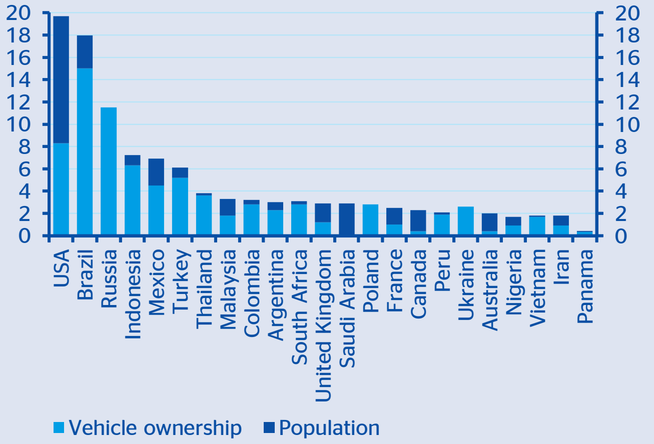
The annual vehicle increase rate in Panama (7.6%), of all the emerging economies in the sample (117 in total), will only be surpassed by 9 countries (Chart 8). The increase in the vehicle stock between 2010 and 2020, as a percentage of the population at the end of the period, will be surpassed only by China, Kuwait, Mongolia, Malaysia and Lithuania.

The main expansion factor for the automotive market in Panama -explaining 87% of the forecast until 2020- is the low starting point with regard to the ratio of automobiles to inhabitants, which in 2020 would reach 202 automobiles per 1,000 inhabitants, still a long way from the saturation rate estimated to be 500. On the other hand, larger, advanced economies such as the USA, Canada and Australia will be supported by population growth, given their greater vehicle penetration at present.

Among G7 countries, the United States will be the only economy to show a recovery after the crisis. This will mean that G7 economies will lose market share to under 40% by 2020 and that emerging economies will exceed this figure, eventually reaching 50%. China accounts for two thirds of this change[1].

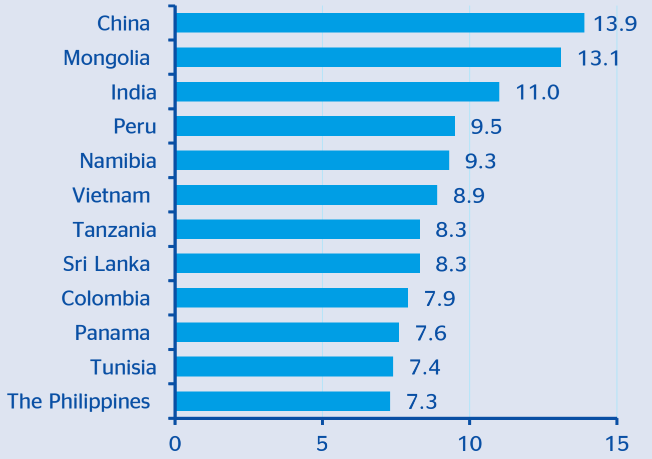
1: To obtain further detail on these overall estimates, please consult the BBVA Research economic outlook edition titled "The key emerging markets for the automobile sector".

Chart 7
Increase in vehicle stock by explanatory factor. In million units



Source: BBVA Research

Chart 8
Average annual rate of increase in vehicle fleet, 2010-2020. As a percentage



Source: BBVA Research

The imported supply is concentrated in new cars

Supply in the Panamanian vehicle sector is relatively fragmented, as it is a small market with access to a broad range of brands. This diversity has come about due to its position as a logistic hub for Central America, the launching of the trade promotion treaty with the US, and the low customs duties which Panama applies to other trading partners, given the lack of any national industry to be protected from the outside.

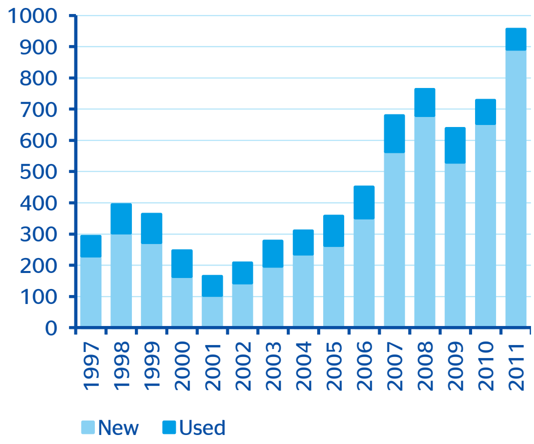
During 2011 (the most recent figure), imports in the auto sector amounted to USD 1.109 billion, with 24.2% annual growth. 80% of this amount corresponds to new vehicles, 6% to used vehicles and 14% to spare vehicle parts (Chart 9). This value confirms a trend which began in 2010: the reduction in the share of second hand vehicles, which reached 30% in 2001 and had stabilized between 15% and 20% in the years before 2010.

This lower impact of second hand vehicles, a trend which should become even more pronounced in future years, has been prompted by regulations for the control of contaminating emissions using Inspection and Maintenance systems. Furthermore, importers of new vehicles pay duties of between 5% and 10%, while second hand vehicles pay duties of over 20%.

Imports are concentrated in new cars of between 1,500 and 3,000 c.c. (29% of the total) and in passenger transport vehicles (20%). The latter registered significant growth from share of 10% in 2010, due to greater demand from the Metrobus system.

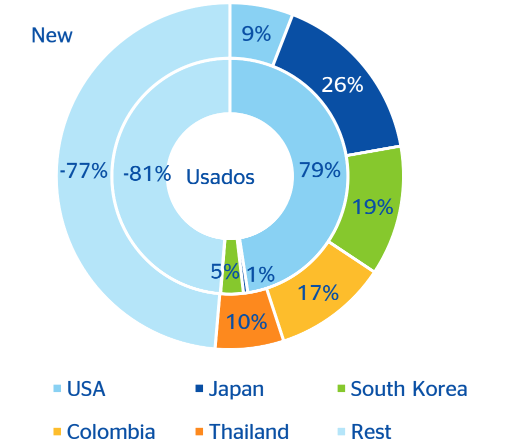
The main markets supplying vehicle imports were Japan (26% of the total), South Korea (19%), Colombia (17%), United States (15%) and Thailand (10%), countries which make up 87% of the external acquisitions in the sector (Chart 10). Japan is still the market leader, but its share is now lower (in 2009, it accounted for 32%). United States, meanwhile, was moved off its number two spot, which it had held since 2009 with 28% of the market. The reduction in the share of the United States is likely to be due to the lower import of second hand cars, given that 79% of these vehicles originate from the US.

Chart 9
Vehicle imports. Millions of dollars



Source: INEC and BBVA Research

Chart 10
Vehicle imports by origin. As a percentage



Source: INEC and BBVA Research

Of the other Asian countries, South Korea increased its share from 13% while Thailand's share remained constant at 10%, compared with 2009. The sharp increase registered by Colombia in 2011 would be temporary, as this is due to the 1,200 buses for the Metrobus system supplied by Colombia.

The leading brand in the market changed from Toyota to Hyundai. Hyundai reported sharp growth between 2010 and 2012, going from a share of 16.3% in 2009 to 21.9% in 2012, while Toyota now accounts for 20.5% of the market, when in 2009 it had a share of 23.7%.

Imports of spare vehicle parts amounted to USD 152 million in 2011, 8.7% lower than in 2010. This reduction may be due to the higher concentration of the vehicle stock in new vehicles, thereby prompting lower demand for repair and maintenance services (Table 2). The main spare parts imported were wheels and tires (24% of the total), carpeting and seat covers (8.9%), bodywork (6.5%) and shock absorbers (5.6%).

Spare vehicle parts are imported from United States (26%), China (18%), Colón Free Trade Zone (14%) and South Korea (9%). Although spare parts from Asia are still the most important market for these components, with a share of at least 32% (the origin of the trade with the Colón Free Trade Zone not being known), the United States has won share through its trade promotion treaty, a situation which could endure as long as there is a preferential trade agreement with that country.

Table 2
Imports of auto parts by type. Millions of dollars

	Accumulated 2007-2010	2011
Wheels and Tires	228.8	36.4
Carpeting and Covers	3.2	13.5
Bodies and Cabins	25.9	9.9
Shock absorbers	23.5	8.4
Brakes	12.4	5.8
Other	284.6	77.9
Total	578.4	151.9

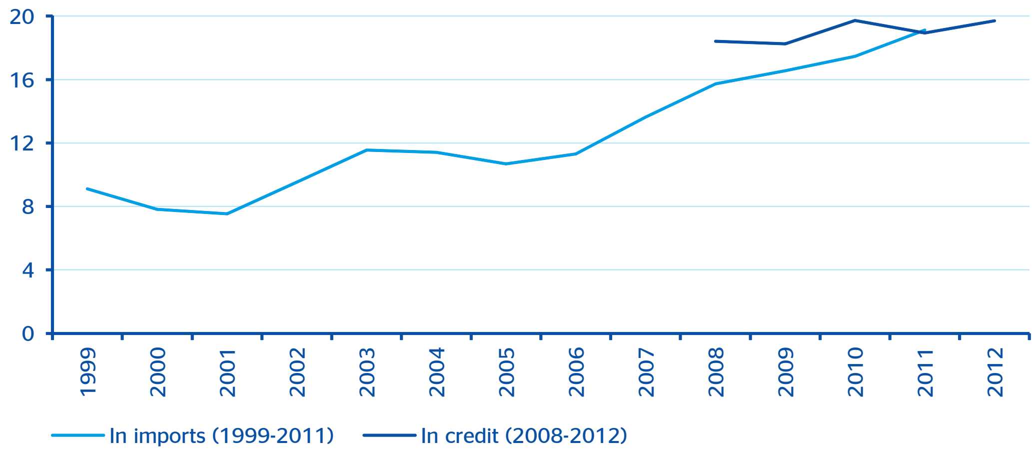
Source: INEC and BBVA Research

Prices have stabilized in recent years

Using the available data, we can make two series of implicit vehicle prices. First, given that all the vehicle supply is imported, it is possible to calculate an average price based on the total value of new vehicle imports, using the number of vehicles sold in a year as a denominator. Furthermore, we can calculate the average price of financed vehicles using credit payments specifically used for vehicle acquisition. In the two cases, the calculations are approximate, given that they do not take into account the composition of the vehicle basket.

The two indicators show stabilization in prices. On the one hand, implicit valuations in vehicle loans show that in four years (2009-2012), prices accumulated an increase of only 7.0%, below the inflation of 18.9% occurring during the same period. In other words, in real value prices would have fallen by over 10% between 2009 and 2012. Meanwhile, the average value of a new imported car rose 6.7% per annum on average between 2009 and 2011, much lower than the average of 17.9% per annum by which it increased by in 2007 and 2008 (Chart 11).

Chart 11
Implicit vehicle prices in imports and in credit. Thousand of current dollars



Source: APC, INEC and BBVA Research calculations

3. Financing

In November 2012, the vehicle credit portfolio amounted to USD 783 million, 16.5% higher than in the same month of 2011. Its proportion within total consumer credit rose from 11.9% in 2011 to the current figure of 12.6% (Chart 12). It also maintained its contribution to the total portfolio at 2.3%, as the sharp growths in commercial credit (20.2% per annum) did not allow its share to rise.

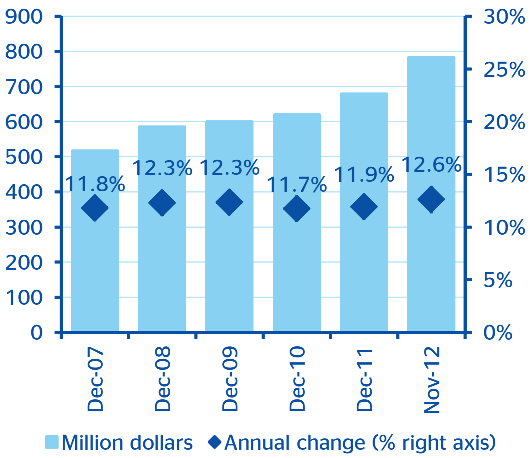
The vehicle financing interest rate is the lowest of the free personal investment interest rates. The average interest rate of 2012 amounted to 7.2%, below the 7.6% observed one year before. The easy access to international liquidity and the fact that interest rates are expected to continue at close to zero in the United States should keep interests down to a single-digit over the next three years.

The first eight banks in vehicle financing (from a universe of 32 banks with this credit facility) account for 90% of vehicle credits. And three of these eight banks are responsible for 60% of the lending. The average credit is USD 16.5 thousand, rising from USD 14.7 thousand in 2008.

Payments during 2012 were concentrated in a range of between USD 10,000 and USD 30,000 (77% of the total). New credits of over USD 30,000 rose between 2011 and 2012, from 13% to 16% respectively. In 2012, 76% of credits granted by banks were between 61 and 84 months. In particular, 49% of the payments were between 6 and 7 years (Chart 13).

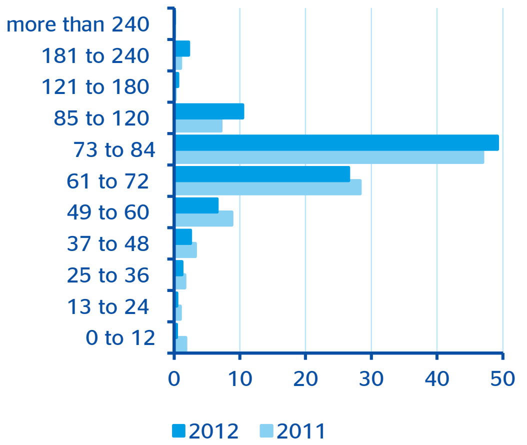
Credits of the financial system (banks and rest of system) accounted for 50% of total sales of new vehicles in 2012. This percentage was 8.7% above the amount financed in 2011. Moreover, with this growth the banking system achieved the same penetration rate which it had in 2008. In coming years, the presence of lower interest rates and higher weighting of new vehicles would be expected to fuel penetration of formal credit in the acquisition of new vehicles. According to BBVA Research estimates, it could reach between 55% and 60% in 2014.

Chart 12
Vehicle portfolio (millions of dollars, percentage)



Source: APC and BBVA Research

Chart 13
Payments of vehicle portfolio by terms. As a percentage



Source: APC and BBVA Research

4. Conclusions

The automobile market in Panama is in an expansion phase, similar to that seen in other emerging economies with low car ownership. What is more, the new regulations which will encourage the import of new automobiles, in contrast with the strong share formerly held by second hand vehicles, underlines the need for vehicle renewals in Panama, especially in the transportation of merchandise. This latter sector will have to follow the pace of the logistic breakthroughs occurring in Panama, thanks to the widening of the Channel and the growth in trade flows through the Colón Free Trade Zone.

Demand for private vehicles is expected to be underpinned by increases in average income of the economy, which is expected to grow between 30% and 40% over the next five years. This would mean that the middle classes will become the largest population group, which, taking into account the demographic boom in Panama (60% if its population is of a working age), should fuel strong demand for automobiles.

The main challenges of Panama, if it is to capitalize on these positive projections, are the expansion of its city and national road systems, achieving modern and fast mass city transport systems, and consolidating the opening up of trade with the aim of reducing internal prices further still.

DISCLAIMER

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