# Elasticity of Motor-Vehicle Imports with Respect to Variations in Customs Duty in Zimbabwe (2009-2012)

***Charumbira M., Chikoko L. and Mafumbate J.***
*Faculty of Commerce*
*Midlands State University*
*Gweru, Zimbabwe*

## Abstract

*The research looks at the extent to which the import duty-factor may be influencing the volume of motor vehicle imports in Zimbabwe. The methodology adopts a survey research design with use of questionnaires; interviews and direct observations. The analysis culminates in the calculation of the import elasticity. The findings indicate that the car imports are inelastic with respect to changes in customs duty. Indications are also strong from the findings that the car manufacturing industry in Zimbabwe may not possess, at least in the short-term, the capacity to cater for the domestic demand for motor vehicles. The study advocates for the government of Zimbabwe to effectively use customs duty as a key revenue source since the inelastic nature of vehicle imports provides such scope. However, the reliance on the use of customs duty as a protectionist policy instrument is unlikely to yield the desired result. The findings thus severely weaken the lobbies by the local car manufacturers to get a veil of protection whilst getting established.*

**Keywords:** Import Duty, Trade Policy, Imports, Elasticity, Zimbabwe.

## Introduction

Zimbabwe has been facing a struggling automotive industry amid concerns that the sector needs immense protection from cheap imports of second-hand motor vehicles. The greatest threat has come from Japanese grey imports whose prices are significantly less than the locally assembled motor vehicles. The average price of a locally produced vehicle from Willowvale Mazda Motor Industries is USD25 000, compared to about USD5 000 which is the average landing price for a rather comparable imported used Japanese car. Trade policy is a critical ingredient of sustainable economic development. In recent years there has been widespread debate on whether the use of import duty is an effective sustainable trade policy strategy in limiting the influx of imported second hand vehicles into the country. Arguments have also been raised on the need to strike a balance between protecting local industry and the desire to ensure easy access to vehicles by the majority of the ordinary people. Zimbabwe's customs duty schedule is quite complicated with duty varying by size of vehicle, age of vehicle as well as country of origin. For instance vehicles imported from within SADC attract a lower import duty compared to those imported from the rest of the world. Beitbridge is Zimbabwe's major port of entry since South Africa is the country's major trading partner. The other entry points include Forbes border at Mutare, Kariba, Victoria Falls, Ramokgebane leading to Botswana, Chirundu among others.

Due to the huge import duty charges some importers fail to raise the required duty and consequently dump imported motor vehicles and other appliances at the border posts, especially at the Beitbridge entry point. The number of motor vehicles imported into Zimbabwe went up significantly since January 2011. Some importers deliberately delayed the delivery of vehicles bought in 2010 in order to benefit from the new rates of duty that were to take effect on 1 January, 2011 (Herald, Tuesday, 08 March 2011). The new customs duty structure largely affects the majority of vehicles (petrol and diesel) with the relevant changes summarised in Table 1 below:

**Table 1: Customs Duty for Passenger Motor Vehicles (Petrol)**

| Engine capacity | Tariff code | Customs Duty prior to 01/01/11 (%) | Customs Duty after 01/01/11 (%) | Value-added tax (%) | Surtax for vehicle older than five years (%) |
|---|---|---|---|---|---|
| 0 to 1000cc | 8703.2190 | 25 | 25 | 15 | 25 |
| 1001 to 1500cc | 8703.2290 | 25 | 25 | 15 | 25 |
| 15001 to 2000cc | 8703.2319 | 60 | 40 | 15 | 25 |
| 2001 to 3000cc | 8703.2399 | 60 | 40 | 15 | 25 |
| 3001cc + | 8703.2490 | 60 | 40 | 15 | 25 |

*Source: Zimbabwe Revenue Authority Website.*

Table 1 above shows that for vehicles of engine size greater than 1501cc, the customs duty declined by about 33.3% effective 1 January, 2011. At Beitbridge

Border Post, 3 150 vehicles were reported to have been imported for the month of January 2011 compared to 2 310 vehicles imported in January 2010 (Herald, Tuesday, 08 March 2011). This translates to a 36.4% increase. The increase may have been due to customs duty reduction.

The various vehicle import duty categories render it very difficult to understand on the part of motor vehicle importers. It is against this background that the main objective of this research is to understand the elasticity of motor-vehicle imports with respect to variations in customs duty in Zimbabwe as it has relevance in guiding trade policy. The paper also seeks to estimate the value of the elasticity in order to establish whether or not it makes sense from a revenue perspective to increase or reduce customs duty on motor vehicles.

## Literature Review

Studies elsewhere have indicated that high levels of customs duty can be detrimental to the welfare of citizens of the importing country. Sustainable benefits to local industry have also been recorded in other studies. Roussland and Parker (1984) in their evaluation of the effectiveness of anti-dumping import tariffs for the US found that the import duty as applied on most commodities in that country cannot on a sustainable basis totally eliminate the price advantage on imports. Their study shows that the importers have tended to substitute imports from one regional bloc by imports from another whenever they seek to exploit the price differentials involving duty structures that discriminate based on country of original manufacture.

Grossman (1986) has found that imports were not the most important cause of job losses for the US steel industry over the 1976-1983 period. Such evidence tends to defeat the protectionist argument that is premised on the need to protect local jobs by repealing imports, where such imports threaten to dampen local production and job creation in the domestic economy. Revenga (1992) estimates the import price elasticities for both employment and wages in the US and finds that these ranged from 0.24 - 0.39 for employment and 0.06 – 0.09 for wages. Such elasticities are considered insignificant. Irwin (1998) in a study of the US economy found that the imports were inelastic to the extent that a reduction in import tariffs would lead to reduced customs revenue. Revenue-seeking policies would thus favour increasing the import duties since imports are inelastic.

Wang (2001) uses cross-country data on trade barriers, trade flows and production for 70 countries both developed and developing and finds that both tariff and non-tariff barriers have quite a significant restrictive effect on imports. This makes them a good policy instrument for promoting domestic production, which is ideally what the authorities in Zimbabwe could be hoping for. Discriminatory tariff structure may sometimes not achieve the intended trade diversion effect (Rousslang and Parker, 1984). Though it is of course outside the scope of this study, it may be a delight for future studies to evaluate whether the preferential treatment given by the Zimbabwean customs duty structure to motor vehicles originating from SADC has worked to reduce the number of motor vehicles from the rest of the world.

## Methodology

The study uses a survey research design with use of questionnaires; interviews and direct observation as the main data collection instruments. Convenience sampling, complemented by snow-balling with subgroups was largely adopted to come up with a total of 90 questionnaires which were distributed to key informants such as Zimbabwe Revenue Authority (ZIMRA) officials (30), clearing agents (30), individual motor vehicle importers (26) and car dealers (4). A total of 16 direct interviews were lined up, with ZIMRA officials (4), clearing agents (4), individual motor vehicle importers (4) and car dealers (4). A randomly picked day was reserved for direct observation to check how many vehicles were physically ferried across the Beitbridge port of entry from 6:00 am to 6:00 pm, which could then be used to corroborate the figures from the questionnaires and interviews to achieve effective triangulation.

## Presentation of Results

The response rate on the questionnaires is summarised in Table 2 below:

**Table 2: Response Rate on Questionnaires**

| Category | Number Distributed | Returned | Response Rate |
|---|---|---|---|
| ZIMRA | 30 | 12 | 40% |
| Clearing Agents | 30 | 18 | 60% |
| Individual Importers | 26 | 17 | 65% |
| Car dealers | 4 | 4 | 100% |
| **Total** | 90 | 51 | 57% |

Table 2 shows that the response rate for each category tends to reflect the general reluctance by the ZIMRA employees to participate in the study, for reasons that may range from their busy schedule to fear of disclosing what may be regarded as classified information. The enthusiasm of the car dealers to participate in the study is shown by the response rate of 100%. The individual importers were largely willing to participate but due to their constant mobility some of them could not be located at the border posts to return the questionnaires initially handed to them for completion. The direct interviews were successfully held with 3 of the 4 ZIMRA employees originally targeted. The interviews for the car dealers and clearing agents were all held as scheduled. In the case of ordinary vehicle importers, one focused group discussion was conducted, having members varying from 3 to 8 over the discussion period of approximately two hours.

## Direct Observation

Direct observation was conducted at Beitbridge border post over a normal working day spanning from 6:00 am to 6:00 pm. It was noted that transporters of imported motor vehicles are only allowed across the border during daylight. 12 carriers destined for Zimbabwe passed through the border each carrying an average of 8 vehicles, giving a total of 96 vehicles per day. Assuming that the same pattern prevails daily, then a monthly average of 2 880 motor vehicles could have been imported.

## Summary of Issues from Questionnaire Responses

The questionnaires distributed to clearing agents indicated that 12 of the clearing agents quoted $2 000 as the average import duty charged by ZIMRA for each motor vehicle. If (as reflected by direct observation) about 34 560 vehicles are imported annually, then government stands to generate nearly USD69.2m per annum from duty on motor vehicle imports. This figure is apart from the revenue naturally generated from the auctioning of forfeited motor vehicles for which importers would have failed to pay the relevant duty.

The questionnaires distributed to car dealers and ordinary importers gave the following indications summarised in Table 3 in relation to the condition of imported cars:

**Table 3: Quality of locally assembled vehicles versus imported cars**

| Category | Imported cars are Fully Acclimatised to Local conditions | Imported cars are Require Adaptation to Local conditions | Imported cars are Totally Incompatible with Local conditions | Total |
|---|---|---|---|---|
| Car Dealers | 1 | 3 | 0 | 4 |
| Individual Importers | 3 | 12 | 2 | 17 |

Those who indicated that the imported vehicles required adaptation largely cited the need to immediately change timing belts and tyres upon arrival to make the vehicles acclimatised to the new environment.

The responses by ZIMRA officials on the estimated average number of vehicles forfeited to the state monthly indicate figures ranging from 2 – 45. Since 8 of the respondents estimated the number at 10, it would be more realistic, and of course there is a strong case, to adopt the mode. This translates to about 120 cars per annum. Assuming that an average auction value of USD4 000 is salvaged from each vehicle, then the state may accrue an estimated USD480 000 per annum from the forfeited motor vehicles.

If, hypothetically, import duty on cars were lowered by 50%, all 4 car dealers interviewed indicated that they would (by varying amounts) increase the number of cars they import for resale. The average of the 4 responses was actually a 32% increase in car imports. The elasticity of motor vehicle imports with respect to customs duty is calculated using the following formula, derived from the generic formula for any other elasticity: $\varepsilon_M = \dfrac{\%\Delta M}{\%\Delta CD}$

Where: $\varepsilon_M$ is the elasticity of imports with respect to variations in customs duty

$\%\Delta M$ is the percentage change in volume of motor vehicle imports

$\%\Delta CD$ is the percentage change in customs duty on vehicles.

Substituting the figures in the preceding paragraph into the above formula gives = 0.64. Applying the conventional interpretation of Elasticities, such an elasticity is below the threshold of one, therefore making it inelastic.

On the policies to promote the local automotive industry, 10 of the 12 respondents on the ZIMRA employees questionnaire indicated that restrictive trade policy was not the ideal tool to use to sustain Zimbabwe's automotive industry. Suggestions were made to create an environment where local manufacturers could benefit from supplying accessories, parts and componentry, which business could actually boom amid large volumes of imports of second-hand motor vehicles.

The clearing period based on the responses of the 12 ZIMRA employees was an average of 2 days, slightly lower than the 3 days reflected by the average of the 18 clearing agents who responded to the questionnaire. The absence of same day clearance creates additional costs as imported vehicles have to pay warehousing/ storage cost of about $25 for the first day and $10 for each additional day to the authorized service provider.

## Results from Direct Interviews

All 3 ZIMRA officials interviewed had a common opinion that the major objective of applying high levels of duty on motor vehicles had largely to do with creating a captive source of revenue for government, although other incidental benefits could be generally associated. This brings to question its effectiveness in achieving competitiveness of locally assembled motor vehicles.

All 4 car dealers interviewed indicated that parity between the prices of imported cars and those locally assembled could not be envisaged in the near future. The main reason largely cited was the fact that local firms lacked the capacity to fulfill the needs of the domestic market. It was also highlighted that local manufacturers lacked the innovative drive to achieve low cost production and propel the prices downwards, which is a critical imperative of globalisation.

## Results from Focus Group Discussion

The specific issues raised in the group discussion included the fact that customs duty should not be allowed to exceed the purchase price of the vehicle. The participants also raised concerns that when assessing the value of motor vehicles for purposes of determining duty, the free-on-board (F.O.B) price should be considered as reflected on the bills of lading accompanying the vehicle. The method currently being used by ZIMRA relies on the subject valuation the customs officer. There was consensus among participants that there were too many categories of vehicles on Zimbabwe's customs duty schedule, with some importers getting shockingly high levels of duty that they did not anticipate and plan for. They largely were of the feeling that customs duty should not be used to protect local automotive industry, which does not have the capacity do produce at competitive prices and which has been under the veil of protection for over fifty years, and all the time remaining in infancy. An issue was raised that the industry could at its best employ only up to 50 000 people. There was, however, lack of consensus on the whether the quality of imported motor vehicles is comparable to the locally produced vehicles. Divided opinions were also on whether government could get more revenue by lowering the import duty or by raising it. The participants also cited limited sustainable downstream economic effects emanating from the importation of Japanese motor vehicles. It was observed that car dealers involved in imported second-hand cars were not creating any significant amount of jobs, and that the carrier/transporter business was dominated by South African companies, with little trickle-down effects on Zimbabwean business sector. There was lack of consensus in the focused group discussion on whether the influx of Japanese cars was a clear case of dumping, with strong views expressed in favour of and against such a classification. Participants in the focused group discussion dismissed government plans to ban import of motor vehicles older than 5 years, considering it to be irrational since the current stock of motor vehicles on Zimbabwe's roads were far worse than those currently being imported. They concurred that the new policy proposal was ill-conceived and could adversely affect the economy's sustainable economic growth trajectory.

## Conclusions and Recommendations

There seems to be a real possibility that the price differential between imported vehicles and the locally assembled vehicles cannot be mechanistically filled by merely applying duty levels since such duties will hardly be prohibitive at all. The inelastic nature of the imports implies perhaps that motor vehicle importers will of necessity unlikely to be deterred by sustaining the high import duty. A good opportunity opens up for government to pursue revenue by avoiding the route to an outright ban of the old second-hand vehicles but rather, to pursue sustainable maximisation of revenue from customs duty. Local manufacturers of relevant components and parts may also position themselves to service the growing market created by the influx of imported second-hand vehicles, thus effectively replacing the competition mentality with the complementarity mood. The optimal stance is then to promote a win-win scenario where imports are allowing in, with government generating its revenue from customs duty and at the same time downstream local firms benefiting from supplying spares and accessories. The trickle down effects should then be expected in the form of employment generation and sustainable economic growth, ultimately benefiting all citizens.

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