

## Regional Pricing and the Grey Markets

Companies often establish the price of its products and services tailored for specific markets willingness to pay based on different levels of perceived value. Although this is a valid strategy to try to maximize profits, there is a risk behind it which can jeopardize the ability of the firm to sustain premium prices at most profitable markets. A good example of this issue is the pharmaceutical products price differences between Canada or Mexico and the United States. Or electronics prices in Panama compared to Venezuela or Brazil<sup>1</sup>.

The problem could be increased when products are priced for optimization of volume. This strategy may be helpful to increase market share in a global basis, but can lead to a massive price reduction with the current trend of easier and reduced costs of communication and transportation across the globe, reducing transaction costs.

These situations are complicated, but they are still under a company control. At least, it has the ability to set prices accordingly with its strategies and goals. A worse scenario may arise when we start to see gray market practices due to other causes than prices set by the firm. In fact, very often grey market opportunities are out of control.

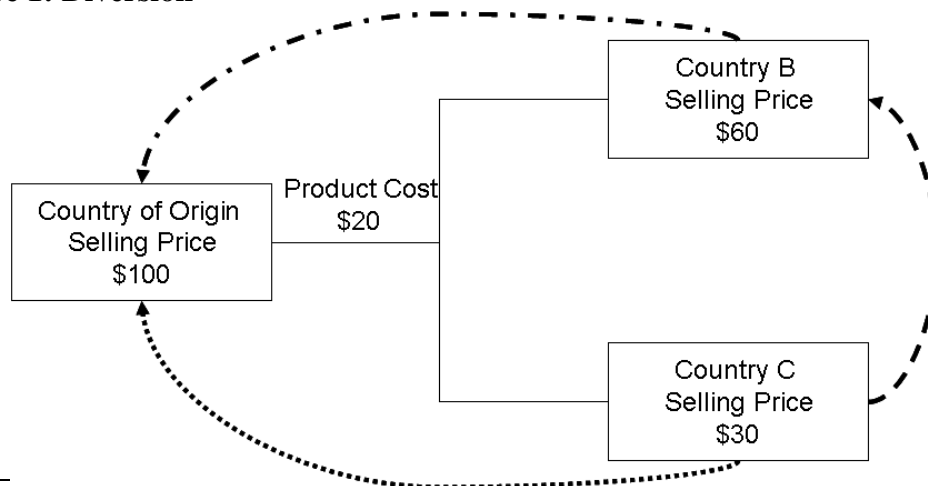
### ***Grey Market Opportunities***

In a traditional market dynamics processes, a manufacturer would buy raw material, build the product, and sell to a distributor, retailer or final customer. The same processes would apply for an exporter or a transnational company shipping its products to its affiliates across the globe, setting the target and minimum prices for each of its markets. Given the above process, grey markets could happen in the following situations:

#### **Diversification**

An independent legal merchant (import/export company) could find a product that is sold in a developed market, cheaper in another, more price sensitive country, and legally import it to where the customers pay a premium for it. (Figure 1 – Diversification)

**Figure 1: Diversification**



<sup>1</sup> This is not limited to countries. It may happen in large countries like the US or Brazil with prices varying from region to region inside the country.

Note in the figure 1 above that the arbitrage would be \$40 (\$100 - \$60) from country B to country of origin; \$30 (\$60 - \$30) from country C to country B; and \$70 (\$100 - \$30) from country C to country of origin.

### **Illegal Diversion**

In this case, the product is brought to the high paying country illegally through consumers or illegal import or export transactions, usually seen in less developed countries, with low customs control.

### **Other Grey Market Opportunities**

#### **Stolen Goods**

Other possibility to create a grey market is when some merchandise is stolen. Having access to products for “free” allows the opportunity to have those items into the same market for a much lower price.

#### **Selling Samples or Donations**

It is known that in certain industries with low variable costs, samples distribution is a common practice to promote a new product or to give a boost in selected brands. However, seldom a manufacturer has a strong control of the distribution of those samples and cannot guarantee if all were given away or if some were sold as regular products.

There are still other opportunities, like counterfeit products, but those are out of the scope of this article.

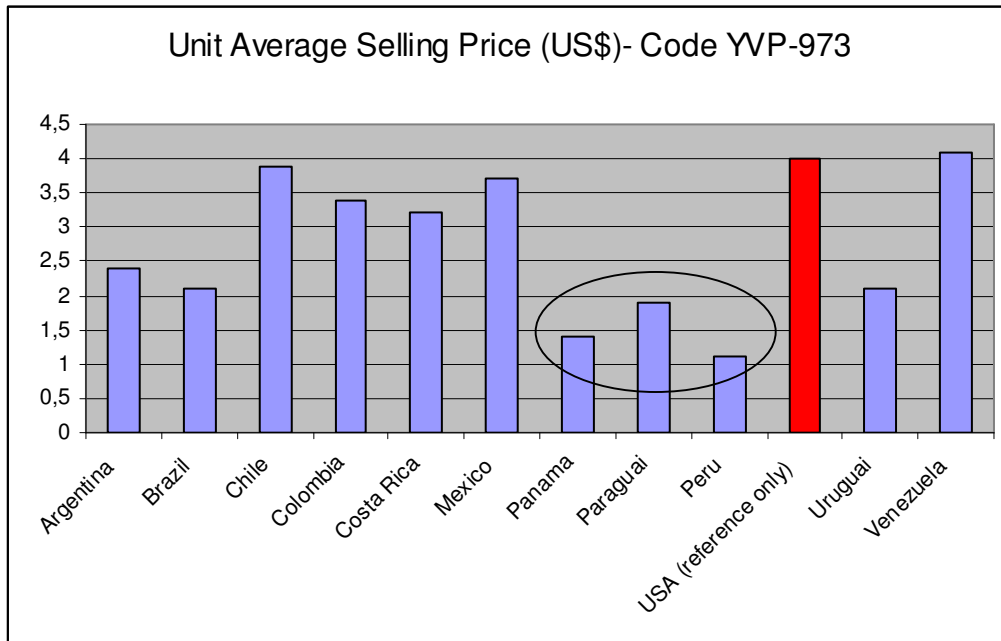
### ***Assessing the Risk***

Out of the grey market opportunities shown above, the one that could bring more problems to a company is the first one, diversion caused by its own pricing policies (or lack of them). After all, how could you justify that a product, imported legally to a less price sensitive country can be found cheaper through an independent channel than through your own distribution channel? This practice if widespread can harm all pricing initiatives that the company might have to this high price, premium market. It is not enough to just look at company selling prices across countries (or regions) to determine the risk of diversion. It is imperative to take into consideration transaction costs. That is, costs incurred such as transportation, taxes, fees, customs, storage, etc. Looking again at figure 1, and assuming that transactions costs for any of those imaginary countries would be \$30, immediately we could assume that diversion from country C to country B would not exist simple because there will be no profit left out of this commerce. On the other hand, the risk of happening between country C and country of origin can be assessed as still very high.

### **What to Look for**

The first step in order to better understand the risk of diversion a business has is to analyze the current average selling prices across countries. The goal is to look for huge differences. Figure 2 below shows the average selling prices of one product being sold across Latin America of a transnational pharmaceutical company.

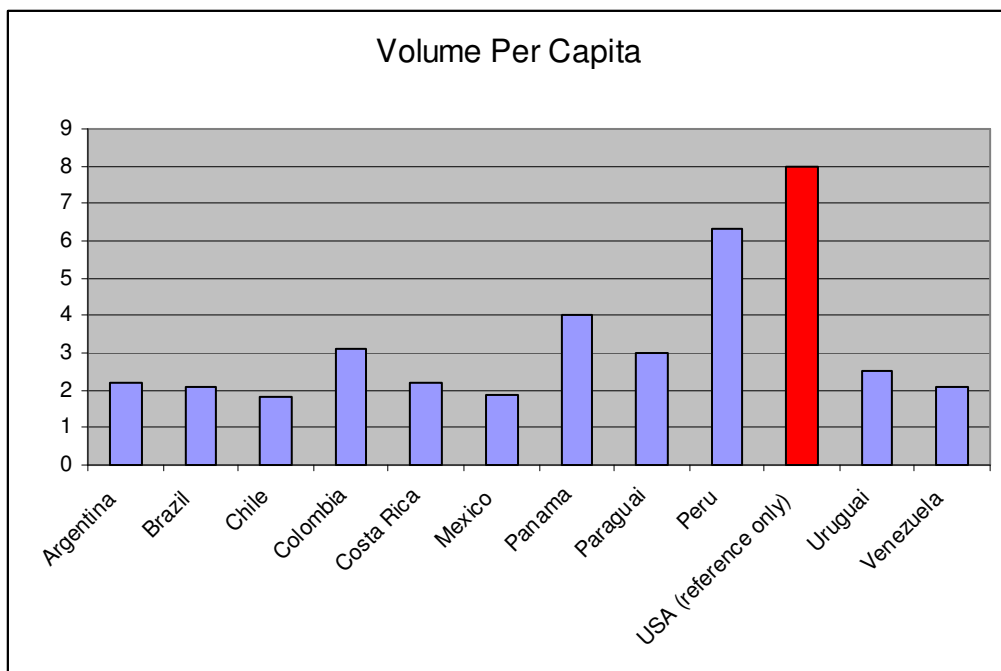
Figure 2: Average Selling Prices across Latin America and Reference Price in the US



Note inside the circle the countries with the lowest average selling prices. Hence, we could expect that if there is any risk of diversion, the highest rates would be on those countries.

The second step to better understand and evaluate the diversion risk involves a volume analysis. This is done in two phases. The first one compares the volume per capita of the product across those countries. See figure 3 below showing volume per capita.

Figure 3: Volume Per Capita



Note that even Peru's consumption per capita is lower than the US, however, much bigger than its neighbors. In fact, Peru volume is above the group mean plus one standard deviation.

The second phase narrows the volume analysis to where the problem seems to exist. It is unlikely that a developing country like Peru has almost the same consumption per capita than the USA. Therefore, a historical volume is run to determine if this is a sustained volume or if any surge or drop in units occurred recently. In this specific case nothing was found, as volumes were fairly constant over time. However, this is a good indicator when a significant change in volume can be identified.

The final step is to estimate the potential that is under risk. That is, how much volume can be coming back from the low price markets to the high price markets and what is the financial impact for the firm. This is the most critical and difficult part of this analysis. In fact, the volume gap can be done through scenario analysis and managerial judgment or using some tactics or techniques to track products across the region.

In this case the scenario analysis conclusion was that there was volume that could be leaving Peru and going to Chile due to its border proximity, market price differences and per capita consumption. In fact, Chile was seeing a drop in volume year after year, despite a strong economic growth and better economic conditions, whereas Peru was growing in volume. The scenario analysis indicated that Chile should be using almost one item more per capita, which at its current average selling price would bring additional US\$35 million in sales. Reducing this volume from Peru would trim US\$17 million in sales, leaving a net positive impact of US\$18 million assuming the hypotheses were correct.

## **Solutions**

Since grey market is a very sensitive issue, it is encouraged that decisions should be made with a high level of certainty. Sometimes just managerial judgment is not enough in order to convince a company that it has a problem with diversion and grey markets. Hence, a number of actions can be implemented in order to track products final destinations.

## **Volume Control**

The first suggested solution to be implemented was to establish with supply chain that any above normal volume should be reported in a monthly basis. In addition, import / export volumes that are available from some of the countries involved should be mapped and reported.

## **Auditing**

In order to track the products destinations a special batch to the problematic market would be manufactured. This would allow the company to confirm if products were being diverted from one country to another and, statistically, it could estimate the total amount. The sales team of the high paying market has to be directly involved on identifying these products in the market or an auditing company can be hired to help in this task.

## New Packaging or Other Product Differentiation

This is already used in some industries. Although it may have an increase in manufacturing costs, the ability to segment the markets through a differentiated product (better) or even a differentiated packaging is a viable solution to avoid diversion and grey market with its own products.

## Risk Track System

Another solution can be developed using an inexpensive risk track system. This system would flag, by product code, occasions that could cause a diversion to happen. Such occasions include, but do not limit, the following variables:

Changes in Average Selling Prices

Sales Volume Trends

Per Capita Consumption

Price Differences Higher than One Standard Deviation

## Pricing Corridors

To avoid any risk of legal diversion a company might simply determine a price corridor which would imply that when a merchant adds the transaction costs to the current average selling price of that product, even in the lowest paying market, it will not make a profit in the highest selling market. Usually, transaction costs of imported goods are in the range of 15 to 45% of the product cost depending on the customs policies and market distances.<sup>2</sup>

In fact, this was the solution adopted by this case. Price indexes for each of its more than 1,000 SKUs were determined in order to keep the product segmentation intact across the countries. Next, the most selling item of the firm's portfolio was used as the base to set prices in local currencies (note that in dollars they were set inside a price corridor or band which would not allow for any diversion to happen across countries taking into consideration transaction costs estimates).

Finally, with the base code set in local currency, it was simply a matter applying the same multiplier to all indexes and the company was able to set its prices across an entire region, respecting its ideal segmentation and avoiding any risk of diversion.

Figure 4: Illustration of the Indexes and Price Bands Created using Local Currencies

CODE	PRICE/INDEX BAND			Country A	Country B	Country C
	Index	Min Band	Max Band	\$2,14	\$3,09	\$9,81
BV75	4313,37	3795,76	4960,37	\$9.230,60	\$11.728,90	\$48.661,23
BV53	5054,73	4448,16	5812,93	\$10.817,11	\$13.744,81	\$57.024,88
VA20	915,56	805,69	1052,89	\$1.959,30	\$2.489,59	\$10.328,88
LR70	357,14	314,29	410,71	\$764,29	\$971,14	\$4.029,11
LR50	550,00	484,00	632,50	\$1.177,00	\$1.495,56	\$6.204,83
PS73	194,04	170,76	223,15	\$415,25	\$527,63	\$2.189,06
PZ96	150,00	132,00	172,50	\$321,00	\$407,88	\$1.692,23

Note that the indexes were created based on products attributes and customers perceived value. Then, the band is created using the transactions costs estimated across the region, setting the minimum and maximum prices allowed for each code. Finally, the local currency is applied to the selected price band for each country. That is, country B, the most sensitive one, used the minimum band index and applied its currency

<sup>2</sup> Author's database on Latin America countries transaction (import / export) costs

multiplier to have its local market prices. On the other hand, country C is the least sensitive country in the region, so local management picked the highest band index to apply its local currency multiplier in order to set its local market prices. Finally, the company's product segmentation is preserved using this approach and any risk of diversion is eliminated since it is not going to be profitable for any merchant to buy those codes in the lowest priced market and try to sell them in the highest priced market since incurring the transaction costs will be higher than the current price differences among them.

## ***Conclusions***

While grey markets may still be of a small size comparing to the total market, due to lower transactions costs across the globe, products harmonization, widespread internet cross border commerce, among other factors, it has the potential to become a real issue in the near future.

A pro-active company should be able to control its prices in a global basis in order to minimize or even eliminate the risk of diversion of its products from low price markets to high price markets. Many alternatives were given in this article in order to do so. Moreover, determining price corridors for global, high volume products is a viable solution to still price accordingly to customers' perceived value and willingness to pay while maintaining a very low risk to develop a grey market in the higher paying markets.

The ability to protect large premium markets more than compensates the risk of losing the ability to sustain those prices due to diversion. In fact, this strategy may cause the firm to lose some volume in the low paying market, but will certainly guarantee the correct volume at a reasonable price in each of its markets (countries).