Technical Report

Assessing Options to Implement Proof of Payment Provision in the Tax Code for Excise Taxes

by Dennis Beng Hui, Dennis Cruz, Bryan Gobaco, Richard Li, Jose Edgar Mutuc, Eisen Cerujano, Zara Dorin, and Rachelle Red

Prepared for

Commissioner Jose Mario C. Buñag
Bureau of Internal Revenue
Department of Finance
Republic of the Philippines

Submitted for review to

USAID/Philippines OEDG

February 26, 2007

EMERGE
A GRP project supported by USAID

Economic Modernization through Efficient Reforms and Governance Enhancement (EMERGE)
Unit 2003, 139 Corporate Center, 139 Valero St., Salcedo Village, Makati City 1227, Philippines
Tel. No. (632) 752 0881 Fax No. (632) 752 2225

Preface

This report is the result of technical assistance provided by the Economic Modernization through Efficient Reforms and Governance Enhancement (EMERGE) Activity, under contract with the CARANA Corporation, Nathan Associates Inc. and The Peoples Group (TRG) to the United States Agency for International Development, Manila, Philippines (USAID/Philippines) (Contract No. AFP-I-00-00-03-00020 Delivery Order 800). The EMERGE Activity is intended to contribute towards the Government of the Republic of the Philippines (GRP) Medium Term Philippine Development Plan (MTPDP) and USAID/Philippines' Strategic Objective 2, "Investment Climate Less Constrained by Corruption and Poor Governance." The purpose of the activity is to provide technical assistance to support economic policy reforms that will cause sustainable economic growth and enhance the competitiveness of the Philippine economy by augmenting the efforts of Philippine pro-reform partners and stakeholders.

Commissioner Jose Mario C. Buñag, Bureau of Internal Revenue (BIR), by letter dated April 17, 2006, requested EMERGE to assist the BIR conduct a comprehensive and in-depth study on the most effective control system for the removal of cigarettes from the place of production/customs custody to enable the Bureau to ascertain the most cost-effective system to collect the proper amount of excise tax on cigars and cigarettes and ensure a level playing field for all industry players, as well as determine the necessary institutional, procedural, manpower, logistical and reportorial requirements to effectively implement the chosen control and monitoring system. The 1997 Tax Reform Act mandated that internal revenue stamps, whether of bar code or fusion design, be affixed on each pack of cigars and cigarettes subject to excise tax, but the implementation of this provision of the law was deferred until the most cost-effective system could be identified. Meanwhile, current procedures, which deploy Revenue Officers on Premises (ROOPs) of local manufacturers to ensure the correct amount of excise taxes are paid, are regarded has highly vulnerable to revenue leakages.

Upon USAID approval, EMERGE contracted a team of experts, led by Mr. Dennis Beng Hui and composed of Dennis Cruz, Bryan Gobaco, Richard Li, Jose Edgar Mutuc, Eisen Cerujano, Zara Dorin, and Rachelle Red, to undertake this task, the results of which are reported here.

The views expressed and opinions contained in this publication are those of the authors and are not necessarily those of USAID, the GRP, EMERGE or the latter's parent organizations.

Assessing Options to Implement Proof of Payment Provision in the Tax Code for Excise Taxes

by
Beng Hui, Dennis
Cruz, Dennis
Gobaco, Bryan
Li, Richard
Mutuc, Jose Edgar
Cerujano, Eisen
Dorin, Zara
Red, Rachelle

February 26, 2007

TABLE OF CONTENTS

Executive Summary

The first progress report on "Assessing Options to Implement Proof of Payment Provision in the Tax Code for Excise Taxes" covers two major deliverables. These are:

- A Profile of the Philippine Cigarette Industry
- An Estimate of Potential Excise Tax Revenues, Actual Tax Collections, and Leakage in the Philippine Cigarette Industry

The first part of this report covers the profile of the Philippine Cigarette Industry which contains a competitiveness assessment using Porter's 5 Forces method. The observations found in the Cigarette Industry were as follows:

- The industry is expected to continue to have a slow and steady growth in spite the fact that there are external forces limiting its growth potential. These limiting factors are in the form of continuous tax reforms by the government and the expanding influence on regulating smoking activities in Public. The growth of the industry is slower than the growth of the GDP of the Philippines.
- The industry is perceived to be stable and it is highly unlikely that either new competitors or new substitute products can enter the market that can actually threaten the existing market shares of the players currently in the Philippine Market.
- Industry rivalry is relatively tame and may exist on some brand categories. Generally, these brands have their respective loyal consumers, especially those brands classified from mid-priced to premium. There is more rivalry at the low price range simply because the main attraction of these brands is their affordability to the mass smoking market.

The second part of this report covers the estimate of potential excise tax revenues, actual tax collections, and leakagea in the Philippine Cigarette Industry. The major activities discussed are as follows:

- A re-definition of the term "Leakage" which was formalized as simply the deviation between the Target Collection versus the Potential Collection or the deviation between the Potential Collection versus the Actual Collection.
- The deviation between the Target and Potential, and Potential and Actual was due to multiple sources. These sources were changes in business conditions and policies, unexpected macroeconomic effects, forecasting errors, microeconomic adjustments, tax structure, tax avoidance, and tax evasion.

Six methods were identified for estimating the potential excise collections based on available secondary information. The purpose of these methods is to provide a range of possible potential excise tax collections considering that there are inherent assumptions in using all forms of available data. The gaps were computed by getting the difference between the actual collections less the potential collection. A negative gap indicates that the potential is greater than the actual collection. It must be clearly understood that the deviations are not automatically assumed to be actual collection losses. These deviations are estimates and subject to the accuracy of the information and inherent assumptions on how data was collected and reported by the sources cited in this study.

Year	Actual Excise Tax (in millions of Php)	Goal (in millions of Php)	Computed Excise Tax (in millions of pesos)					
			Using Production less Exports	Using Brand Shares data by Euromonitor Study	Using Consumption	Using CGS from Financial Statements	Using Brand Shares data without price protection	Using CGS and Inventory from Financial Statements
2001	19,424	17,941	(774)	(598)	(5,084)	(1,305)	(3,747)	(1,689)
2002	19,884	18,570	(1,240)	(295)	(4,655)	(1,893)	(7,114)	(2,297)
2003	19,695	20,731	(2,326)	(1,573)	(4,689)	3,467	(9,124)	2,981
2004	23,076	21,537	627	1,893	(1,342)	7,413	(5,813)	6,956
2005	23,377	25,734	(2,993)	26	(4,502)	386	(23,371)	(625)

- It has been observed that there was not much of a difference between the potential and actual collections. The difference ranges (indicated by red values in parenthesis) from 300 million to around 9 billion pesos. These values are below the usual reported estimates of tax leakage considering that these deviations cannot be classified as all due to tax leakage. Positive differences (referring to black numerals) indicate that actual collections exceed that of the estimated potential. This can only be conclusive if it has been observed that there really was most likely an over collection than potential which happened in 2004. The rationale for 2004 actual collection greater than potential is due to a substantial frontloading done by the cigarette companies.

- Since the difference observed consists of both tax avoidance and tax evasion, the potential contribution of tax evasion which was equated to tax leakage is substantially small relative to the total existence of the deviations.

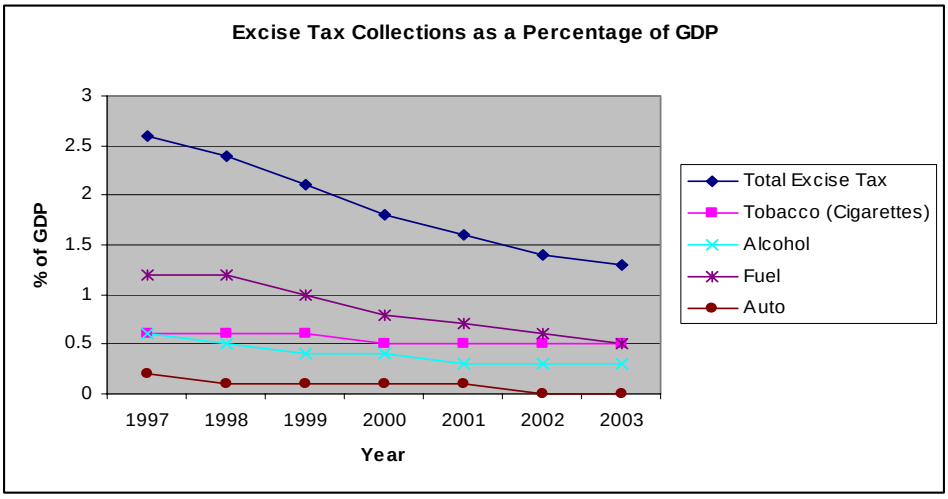
- The most promising policy change is when price protection is no longer used which would result in a significant jump of at least 20 billion pesos for 2005 using the new excise tax rates.

PART 1: A Profile of the Philippine Cigarette Industry

I. Background of the Study

The Bureau of Internal Revenue (BIR) of the Philippines is responsible for generating revenues for the government through the collection of taxes. One of the major sources of these revenues is the excise tax. According to the National Internal Revenue Code under Chapter 4, section 129, an excise tax is a tax applicable to certain specified goods or articles manufactured or produced in the Philippines for domestic sale or consumption or for any other disposition, and to things imported into the Philippines. Specific tax is an excise tax imposed on certain goods based on weight or volume capacity or any other physical unit of measurement. It applies to alcohol and alcohol products, tobacco and tobacco products, and petroleum products. Ad valorem tax is another type of an excise tax imposed on certain goods based on selling price or other specified value of the goods. It applies to mineral products, automobiles and other non-essential goods.

According to an International Monetary Fund (IMF) report entitled "Increasing Public Sector Revenue in the Philippines", the total contribution excise tax as a percentage of Gross Domestic Product (GDP) has declined from 2.6% GDP in 1997 down to 1.3% GDP in 2003. Of the total excise tax collection, the contribution of tobacco (including cigarettes) excise tax has risen from 23% to almost 40% (based on the ratio of percent GDP) of the total excise tax collections from 1997 up to 2003. This is largely attributed to the decline of excise tax collections in alcohol, fuel, and auto. Figure 1 shows the declining trend of various excise tax collections as a percentage of GDP



Source: International Monetary Fund Working Paper, 2005

Figure 1. Total Excise Tax Collections and its components (as a % of GDP)

As of September of 2006, the excise tax collection from cigarettes was estimated to be around 45% of the total excise tax collections. This has led to the premise that cigarette excise tax collection is given a higher share of the targeted excise tax collection.

Excise tax is more popularly associated to "Sin Taxes" which is covered under Republic Act 9334 (RA 9334). The sin products typically referred to, but not limited to, are Alcohol and Tobacco products. In the Philippines, alcohol and tobacco are more commonly known as beer and cigarettes, respectively. The purpose of sin taxes in general is to impose unusually high excise tax rates to these sin products as a way to generate revenues in fiscally tight times and at the same time discourage consumption of these "objectionable products".

RA 9334 was enacted in December 2004 and is expected to generate Php 15B worth of additional revenues for the government by end of 2005 through these sin products. Based on actual cigarette excise tax collections from 2004 to 2005, the amount of increase in the cigarette excise tax collection was only Php 835 million, considering that tobacco/cigarette has almost 40% share of the total excise tax collection. Table 1 below shows the change in actual excise tax collections for cigarettes from 2000 to 2006* (Note that 2006 only covers up to October).

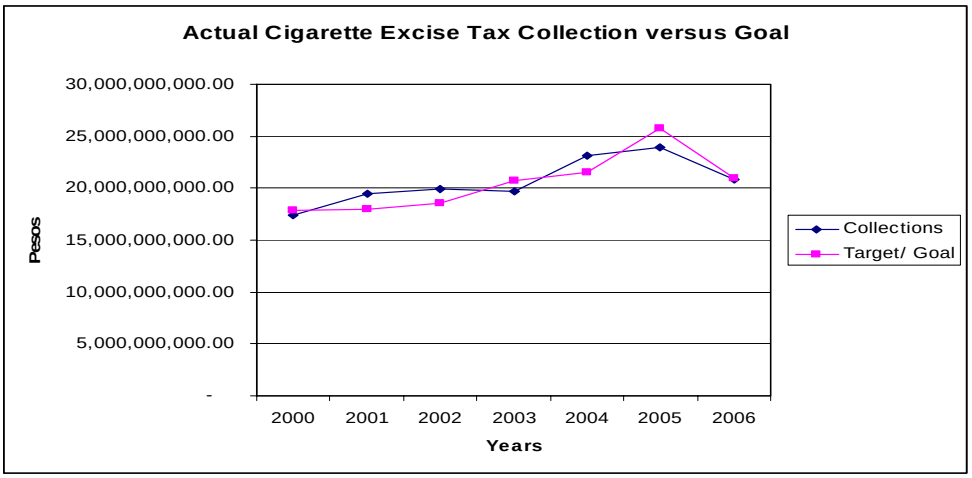
Table 1. Actual Cigarette Excise Tax Collections

Year	Collections (php)	Change (php)
2000	17,413,635,529.30	-
2001	19,423,570,329.70	2,009,934,800.40
2002	19,883,503,258.60	459,932,928.90
2003	19,695,137,219.46	(188,366,039.14)
2004	23,076,191,898.22	3,381,054,678.76
2005	23,911,258,250.00	835,066,351.78
*2006	20,886,808,075.00	(3,024,450,175.00)

Source: Bureau of Internal Revenue (Large Taxpayer Services)

Before the enactment of RA 9334, BIR Revenue Regulation 22-2003 imposed an increase in excise tax only on new cigarette brands based on their current retail price while maintaining the excise tax rates of old cigarette brands even though these may have higher retail prices than the new brands. This has been revised through BIR Revenue Regulation 12-2004. Eventually, the Bureau of Internal Revenue issued Revenue Regulation No. 3-2006 in order to implement RA 9334. These series of regulations have tried to put in place a tax classification system for cigarettes from *Ad valorem* to a specific tax based on whether a brand is High Priced, Medium Priced, or Low-Priced. However, the implementation of the new tax rates is dependent on the whether the brand

Due to these many legal changes in the implementation of excise tax, the Government has been relying on excise tax collection, especially with the tobacco/cigarette industry to be able to generate the needed revenue to finance its expenditures. Historically, the target allocated to cigarette excise tax collections by the BIR been met half of the time from 2000 up to 2006. Figure 2 shows the years when cigarette excise tax collections were below the target set by the Bureau of Internal Revenue (BIR).



Source: Bureau of Internal Revenue

Figure 2. Comparison of Actual and Target Cigarette Excise Tax

In spite of the many legal changes in the excise tax implementation, the increased in the excise tax collection for cigarette was not able to live up to its expectation. This has led to the common notion that cigarette excise tax collections should have helped achieved the overall excise tax collections, but unable to, due possible tax leakages ranging from tax evasion by cigarette companies, collusion of some BIR personnel with the cigarette industry, and an industry slowdown of demand for cigarettes due to heavy government regulation. These explanations have attempted to rationalize the achievability of the cigarette excise tax goals but have really provided a clear understanding of the behavior of the cigarette industry throughout the years.

Objectives of the Industry Assessment

The main purpose of this report is to provide an overall assessment of the cigarette industry in the Philippines that would help the Bureau of Internal Revenue support their efforts of enhancing the capacity of BIR to properly assess and collect the correct amount of excise tax from cigarette companies.

The specific objectives of the study are as follows:

1. Provide a profile of the Philippine Cigarette Industry and the forces that influence its behavioral dynamics

2. Estimate the potential tax revenue that could be collected from the industry.

3. Compare actual tax collections and potential tax revenues and provide an estimate of the potential excise tax leakage.

Methodology for the Industry Assessment

The methodology for the industry appraisal follows that of Porter's 5 forces model. Michael Porter's model assesses both internal and external forces that affect the balance of

power in the industry and the profitability of the industry as a whole. The 5 Forces model contains the following elements:

- Buyer Power
- Supplier Power
- Barriers to Entry
- Threat of Substitutes
- Industry Rivalry

Buyer power refers to the degree of impact that the customers or buyers have on the industry. Buyer factors that can influence the industry are buyer volume, buyer information, price sensitivity, and buyer incentives. A strong buyer power can dictate the growth and development of an industry.

Supplier power refers to the influence of suppliers of material and other components to the industry that manufacture the product. Supplier factors that can influence the industry are in the form of concentration of suppliers, importance of volume, types of inputs and their cost, switching cost and presence of substitutes, and forward integration. Influential suppliers can end up dictating the price of raw materials and capturing the industry's profits which can make the industry less attractive for investors.

Barriers to Entry refers to the possibility of new firms entering the market. Factors referring to barriers are capital investment, learning curve, economies of scale, government policies, intellectual property, switching costs, and access to inputs. These barriers reduce the rate of entry of new firms leading to higher levels of profit for those who are already in the industry.

Threat of Substitutes refers to products from other industries that can serve as a substitute to the industry's product. Factors driving these threats are buyer switching, trade-off of substitutes, and switching cost. These threats of substitutes becomes a factor when a product's demand is sensitive to price changes relative to the affordability of the substitute product – a situation which results to a less attractive industry.

Industry Rivalry refers to the degree of rivalry that exists in the industry. Rivalry is influenced by the number of players, industry growth, high fixed costs, switching cost, storage costs, product differences, brand identity, and corporate stakes. Intense rivalry leads to more dynamics and aggressive strategies from the different players of the industry, which can indicate the industry's level of attractiveness and profitability.

Figure 3 shows Michael Porter's framework for Industry Analysis with the 5 forces and how the other forces affect the level of rivalry within the industry.

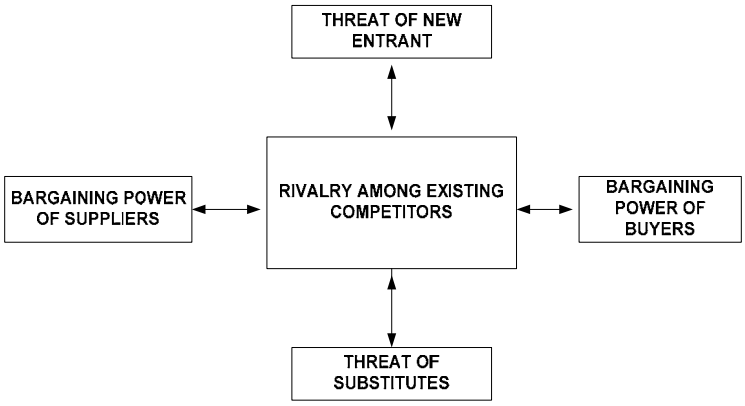


Figure 3. Framework for Industry Analysis with the 5 forces

II. The Cigarette and its major Components

A cigarette is a product manufactured out of cured and finely cut tobacco leaves, which are rolled or stuffed into a paper-wrapped cylinder (generally less than 120 mm in length and 10 mm in diameter). The four basic components of a cigarette consist of the tobacco rod, the cigarette paper around the tobacco rod, the filtration zone, and the filter and tipping around the filtration zone. These four components can be seen in Figure 4.

Source: http://www.bat.com

Figure 4. Major Components of a Cigarette

The most valuable material in cigarette is the tobacco rod. The rod includes tobacco lamina (the flat part of the tobacco leaf), tobacco stem (midribs of the leaf), and expanded lamina. Cigarette tobacco rod is blended from two main leaf varieties: yellowish 'bright', also known as Virginia where it was originally grown, contains 2.5-3% nicotine; and 'burley' tobacco which has higher nicotine content (3.5-4%). US blends also contain up to 10% of imported 'oriental' tobacco, which is aromatic, but relatively low (less than 2%) in nicotine.

In addition to the leaf blend, cigarettes also contain 'fillers' which are made from the stems and other bits of tobacco, which would otherwise be waste products. These are mixed with water and various flavourings and additives. Additives are used to make tobacco products more acceptable to the consumer. They include humectants (moisturizers) to prolong shelf life; sugars to make the smoke seem milder and easier to inhale; and flavourings such as chocolate and vanilla. While some of these may appear to be quite harmless in their natural form they may be toxic in combination with other substances.

The cigarette paper includes both paper and adhesive. The type of paper used in the cigarette can also modify the nicotine and tar delivery. Using more porous paper will let more air into the cigarette, diluting the smoke and (in theory) reducing the amount of tar and nicotine reaching the smoker's lungs. The filter is made mainly from cellulose acetate fibres, known as tow. Cellulose acetate is derived from wood pulp. The fibres are bonded together with a hardening agent, triacetin plasticizer, which helps the filter to keep its shape.

The filter is wrapped in paper and sealed with a line of adhesive. Sometimes charcoal is added to filters. Filters trap some of the tar and smoke particles from the inhaled smoke. Filters also cool the smoke slightly, making it easier to inhale. They were added to cigarettes in the 1950s, in response to the first reports that smoking was hazardous to health. Tobacco companies claimed that their filtered brands had lower tar than others and encouraged consumers to believe that they were safer. These design adjustments achieve different strengths and tastes, and can reduce smoke yields of various smoke components.

Benefits of Cigarette Smoking

Cigarette smoking can begin from boredom and peer pressure. Nicotine is one of the most addictive drugs in the world today. Research shows that nicotine is more addictive than heroine or cocaine. When one smokes, nicotine goes to the brain very quickly and initially gives a feeling of alertness and increased performance on some tasks. Eventually, the smoker will need more and more cigarettes to feel the same effects. Soon, cigarettes become a crutch that smokers use to deal with stress and anxiety. The more a person uses smoking to deal with such conditions, the less other ways of coping are used.

Cigarettes are seen as a replacement to other potential harmful behaviours of coping with stress. Such examples would be drugs, gambling, and other vices. Often cigarette smoking would lead to an increase in smoking and dependency on cigarettes. A smoker get a great deal of pleasure from smoking; enjoying the taste, smell and feel; turning smoking into a very personal and relaxing occasion.

III. Major Players in the Philippine Cigarette Industry

The Philippine cigarette industry has five major players namely Fortune Tobacco Corporation, La Suerte Cigar and Cigarette Factory, Mighty Corporation, Philip Morris Manufacturing Inc., and Associated Anglo-American Tobacco Corporation.

Fortune Tobacco Corporation

Fortune Tobacco Corp., the country's largest cigarette firm, was founded in 1966 by Mr. Lucio Tan, a Chinese immigrant who once worked in a tobacco factory. Since there were few players in the cigarette industry, Fortune Tobacco grew at an accelerated pace. One of its best-selling brands, Hope, was actually introduced nearly three decades ago. In addition to its own brands that mostly cover mid priced and economy cigarettes, the company also currently manufactures several brands under license from JT International.

The leader with the Bureau of Internal Revenue's estimate of over 50% value share as of 2003, the company has repeatedly been hyped up in the past with media accusations of tax evasion. The company has allegedly been given special favours by more than one Philippine president. However, these rumours seem to have faded away, and Fortune Tobacco is still going strong, set to launch a new cigarette brand, More Classic, in early 2004, to add to its already wide product portfolio.

Fortune Tobacco has not had to establish offices all over the country; it simply gets its products sold through local distributors in different regions nationwide. A local distributor of Fortune Tobacco products in the Visayas region points out that the most popular brands from Fortune during the year span of 1999 to 2004 were Champion and Hope. Champion leads in economy, while Hope, with its positioning as the "luxury" cigarette, tops mid priced. Hope Menthol is also pinpointed in a worldwide survey as the leading menthol brand in the Philippines.

Fortune Tobacco's hold over the people may also be attributed to the adverts it has aired over the years, at least before the Tobacco Regulation Act. The jingles for “More” on local channels and the association of “Hope” with "luxury cigarette" hold a firm place in terms of Filipino cigarette brand-name recall. Other than TV adverts, though, Fortune Tobacco mainly supplies small point-of-sale billboards, hung outside sari-sari stores all over the country.

La Suerte Cigar and Cigarette Factory

La Suerte Cigar & Cigarette Factory used to be the local manufacturer of Philip Morris Co Inc brands from 1955 until 2002. The licensing agreement was terminated following Philip Morris Co Inc’s decision to take control of operations in the Philippines. The Chinese-Filipino owners of La Suerte sought a bigger stake in the multi-million dollar project that Philip Morris was planning, but the international company refused its request. Armed with the experience and technology from nearly half a century of producing Philip Morris cigarettes, La Suerte, with its own local brands, has been able to develop its products with a

premium taste catering to the preferences of Filipino smokers. Sources claim that La Suerte started aggressively marketing its own brands as soon as it became aware of the pending separation from Philip Morris, way back in 1999. In fact, official figures from the Bureau of Internal Revenue (BIR) show La Suerte brands Memphis and Astro introduced in 1999 and targeted at the lower income groups, had sales growing by a yearly compounded growth rate of 275% as of 2002.

Moreover, the company, the brands of which are exclusively distributed nationwide by Bonheur Marketing Corporation, was able to utilize the distribution networks from marketing Philip Morris brands, making sure its products made their way to sari-sari stores in nearly every province across the country. The company does not spend much on mass media advertising and it has always had strict rules about selling to minors; therefore the Philippine president's signing of the Tobacco Regulation Act in June 2003 has not affected it much. La Suerte products are marketed more through on-site trade and consumer promotions, which mean that it will simply have to abide by the new restrictions on promotions without sacrificing much advertising and promotions-drawn sales.

Unfortunately, the strong foothold that La Suerte has managed to keep despite the expected heated competition from the Philippine manufacturing unit of Philip Morris is threatened by the BIR's Revenue 22-2003, imposing higher excise taxes on brands introduced after 1996. La Suerte brands Memphis and Astro were among those cited that should be paying a higher excise tax than currently and a company source has commented on how this will greatly reduce the company's value share in 2004. The higher excise tax inevitably caused the prices of La Suerte brands to shoot up, destroying its strategy of being the most affordable, and turning away its highly price-sensitive consumer base.

Mighty Corporation

Mighty Corporation (MC) is a fully integrated tobacco company located at Malolos, Bulacan, Philippines. The factory lies in a 9-Hectare Property 50 kilometers north of Manila. The principal activities of Mighty Corporation include tobacco processing and cigarette manufacturing. There are 3 operating plants in the Bulacan factory: the Tobacco Processing Operations and 2 Cigarette Manufacturing Facilities. The Tobacco Processing Operations include fermentation of tobaccos for the cigar blended cigarillos.

Mighty Corporation also has a complete Threshing and Redrying Plant, which supply the necessary requirements for the cigarette manufacturing operations of the company. The 2 Cigarette Manufacturing facilities answer for the 2 major product lines of MC. The company boasts of a complete cigarette product line, the Cigar Blended Cigarillos and the American Blended Cigarettes. The Cigar Blended Cigarillos are a blend of dark air cured tobaccos. Its distinctive aroma and flavor has made the products of Mighty Corporation as a by word in the Philippine cigarette market. Mighty Corporation produces the well-known products of La Campana Fabrica De Tabacos and Alhambra Industries. The 2 products of these two companies have a combined history of over a century, dating back to the Spanish Colonial History in the Philippines. These cigarillos are known as Cortos and Regaliz Largos. The flavors of these cigarettes are a combined distinct cigar aroma and the smoothness of fully aged and fermented tobaccos. It is wrapped in a specialized cigarette paper, which gives a

sweet taste and flavor to the cigarette. Mighty Corporation is currently the market leader in the cigarillos market in the Philippines.

To complete the product line of Mighty Corporation, the other is the American Blended Cigarettes. The American Blended Cigarettes are composed of Fully Aged Flue Cured Virginia and Burley Tobaccos. It has a smooth taste and a satisfying tobacco flavor. This product line has gained a substantial increase in the current product mix of Mighty Corporation, produced in Non-Menthol and Menthol variants. Mighty Corporation has continuously improved in this product category in the recent years to answer for the growing demand on this type of cigarettes.

Philip Morris Manufacturing Inc.

The US$300 million state-of-the-art manufacturing plant of Philip Morris (Phils) Manufacturing Inc in Tanauan, Batangas City, was formally inaugurated in May 2003, after nearly half a century of coursing its production through a local producer. From 1955 to 2002, Philip Morris maintained a licensing agreement with La Suerte Cigar & Cigarette Factory, with the Filipino-Chinese-owned cigarette manufacturing firm producing Philip Morris's Marlboro and Philip Morris brands for the Philippines. The new plant spans a total of 25 hectares, rolling out an annual 40 billion sticks of cigarettes, and fully equipped with the latest in environmental protection technology, quality control measures, and work safety measures. Sources indicate that the Philippine plant will be used as the hub for Philip Morris's Asia-Pacific operations.

Despite Philip Morris's being in second place behind local leader Fortune Tobacco for the past few decades, the discontinuing of its contract with La Suerte Cigar & Cigarette Factory proved to be a big blow to its performance. Official figures from the BIR show that from 19 million sticks sales in 1999, by the end of 2002, brands Philip Morris and Marlboro dropped in total annual sales to less than 18 million sticks. The huge decline may be attributed to La Suerte's hastening to market its own local brands as soon as it learned of Philip Morris's plans to take charge of Philippine operations: the five decades of producing Philip Morris and Marlboro cigarettes had trained the local partner well in terms of hitting the Filipinos' taste, and by targeting the lower end of the scale by selling its brands at the lowest prices, it apparently cut a huge chunk out of Philip Morris's share.

Unhampered and perhaps spurred on by the unexpected setback, in July 2003 Philip Morris announced the launch of the L&M brand to challenge Fortune Tobacco and to compete in mid priced cigarettes. Moreover, in December 2003, Philip Morris acquired four cigarette trademarks from Sterling Tobacco Corp, owned by Sampoerna of Indonesia, namely Bowling Gold, Stork, Miller, Bowling Green, this time to compete for sales among lower-income consumers. The acquisition of these brands completed Philip Morris's line up, giving it presence in economy, mid-priced, and premium cigarettes.

Associated Anglo-American Tobacco Corporation

There is no publicly available information regarding the profile and operations of Associated Anglo-American Tobacco Corporation. Even the Securities and Exchange Commission (SEC) does not have financial statements from 1998 up to 2003. The only information that SEC have regarding Associated Anglo-American is its 2004 annual report.

According to the SEC, the company belongs to the top 5000 corporation having a ranking of 3049.

IV. Cigarette Brands in the Philippines

According to a paper by Alehcnowizc and Chapman published in the Tobacco Control (2004), the Philippines is considered to have the strongest tobacco lobby in Asia. There are numerous ranging from a highly influenced western culture, high prevalence of smoking among the Filipino youth for both men and women (aged 18 years old and less), and cigarette prices are among the lowest in Asia. Table 2 shows different cigarette brands locally manufactured by five (5) leading companies.

Table 2. Summary of Number of Active Brands by Company (as of Feb. 2003)

Company	No. of Active Brands	No. of Inactive Brands
Fortune Tobacco	33	18
La Suerte Cigar and Cigarette Factory	7	16
Mighty Corporation	30	8
Philip Morris Manufacturing Incorporated	12	0
Associated Anglo-American Tobacco	31	47

Source: BIR RMO 06-03

The number of active and inactive brands as identified in the Revenue Memorandum Order 06-03 of the Bureau of Internal Revenue shows the dynamism in the Filipino cigarette market, where the major companies actively introduce new brands to capture the market's taste and preference. The detailed breakdown of specific brands by company is shown in Appendix 1.

These brands are classified by the BIR according to three price categories namely, the low (less than Php 5/pack without tax), mid-price (between Php 5 to Php 6.50/pack without tax), and premium priced brands (between Php 6.50 to Php 10/pack without tax). There is a fourth category (higher that Php 10/pack without tax) covering very high price brands, but no brand has been classified under this category. Table 3 shows the percentage of brands based on cigarette stick volume for each category. It evident that the mid-price market which captured the highest share has slowly shifted to either the high price or the low priced brand.

Table 3. Percentage Breakdown of Brands by Price

% retail volume	2001	2002	2003	2004	2005	2006
Premium (pack in 20s)	35.1%	35.1%	33.0%	33.6%	36.0%	35.6%
Mid-priced (pack in 20s)	22.8%	22.8%	22.7%	21.3%	20.0%	15.9%
Low (pack in 20s)	41.6%	41.6%	43.7%	44.0%	43.2%	47.8%
Low (pack in 30s)	0.5%	0.5%	0.6%	1.0%	0.8%	0.7%
Total	100	100	100	100	100	100

Source: Bureau of Internal Revenue (based on actual removals)

In the long run, however, more cigarette companies are shifting to producing low price brands including those brands that are packed by 30s. The following are the possible reasons on why more production is focused on the low price items:

a. Cigarette consumers are price sensitive are unable to afford the cigarette prices with the added excise tax.
b. Manufacturers are able to earn a higher margin with the low priced brands, therefore more financially attractive to manufacture.
c. Mid-priced brand cannot distinguish itself in the market against Premium priced and low priced brand making it less in terms of customer value for money spent due to the added excise tax.

Cigarette Company Shares

The market share per company for the year 2001-2003 is shown in Table 4 where Reemtsma Cigarenttenfabriken GmbH, British American Tobacco, and JTI are classified as an importer of cigarettes. Table 4 shows that Fortune Tobacco Corporation is the leading local cigarette manufacturing company and British American Tobacco (Philippines) Ltd. is the leading importer of cigarettes.

Table 4. Company Market Shares based on Retail Volume

Company	% Retail Volume		
	2001	**2002**	**2003**
Fortune Tobacco Corporation	37.0	36.5	35.8
Philip Morris (Phils) Manufacturing Inc	-	-	26.8
British American Tobacco (Philippines) Ltd	16.4	16.8	16.4
La Suerte Cigar and Cigarette Factory	35.8	35.3	9.0*
Reemtsma Cigarettenfabriken GmbH	6.3	6.0	5.8
JTI Co (Philippines) LTD	0.4	0.4	0.4
Others	4.2	5.0	5.9
TOTAL	100.0	100.0	100.0

Source: Euromonitor International Estimates

The substantial drop in the market by La Suerte Cigar is a result of Philip Morris terminating its contract agreement with La Suerte and opening its manufacturing and distribution for Malboro and Philip cigarette brands, which used to be under La Suerte. It should also be noted that the total shares held by companies who import their cigarette amount to at least 20% of the cigarette market. This constitutes a significant presence by imported brands which are being distributed in the Philippine market resulting to a significant import duty from the Bureau of Customs.

Another key item in Table 4 is the “Others” category which would most likely include Mighty Corporation and Associated Anglo-American Tobacco which considered minor players in the Cigarette industry, but caters to the low priced market. The low priced market has been shown to have a slow and steady growth.

Cigarette Brand Shares

Table 5 shows the leading brand of cigarettes in the market for the year 2001-2003 are Malboro, Winston, and Camel. All of these major brands are considered as premium priced brand which are actually protected and classified as "Old Variants" and are thus given a special rate which are lower compared to those stated in the existing Revenue Memorandum Order given by BIR. Thus these brands enjoy the classification of a premium brand with a mid-price excise tax rate.

Table 5. Cigarette Brand Shares based on Retail Volume

Brand	Company	2001	2002	2003
Marlboro	Philip Morris (Phils) Manufacturing Inc	-	-	25.9
Winston	Fortune Tobacco Corporation	20.7	20.4	20.0
Camel	Fortune Tobacco Corporation	11.9	11.7	11.4
Lucky Strike	British American Tobacco (Philippines) Ltd	7.8	8.4	8.2
Capri	British American Tobacco (Philippines) Ltd	8.6	8.4	8.1
West	Reemtsma Cigarettenfabriken GmbH	6.3	6.0	5.8
Astro	La Suerte Cigar and Cigarette Factory	4.4	6.9	5.8
Memphis	La Suerte Cigar and Cigarette Factory	3.0	3.5	3.2
Hope	Fortune Tobacco Corporation	2.2	2.3	2.3
Champion	Fortune Tobacco Corporation	1.4	1.4	1.4
Philip Morris	Philip Morris (Phils) Manufacturing Inc	-	-	0.9
Fortune International	Fortune Tobacco Corporation	0.6	0.5	0.5
Mild Seven	JTI Co (Philippines) LTD	0.4	0.4	0.4
Salem	Fortune Tobacco Corporation	0.2	0.2	0.2
Marlboro	La Suerte Cigar and Cigarette Factory	27.4	24.0	-
Philip Morris	La Suerte Cigar and Cigarette Factory	1.0	0.9	-
Other		4.2	5.0	5.9
TOTAL		100.0	100.0	100.0

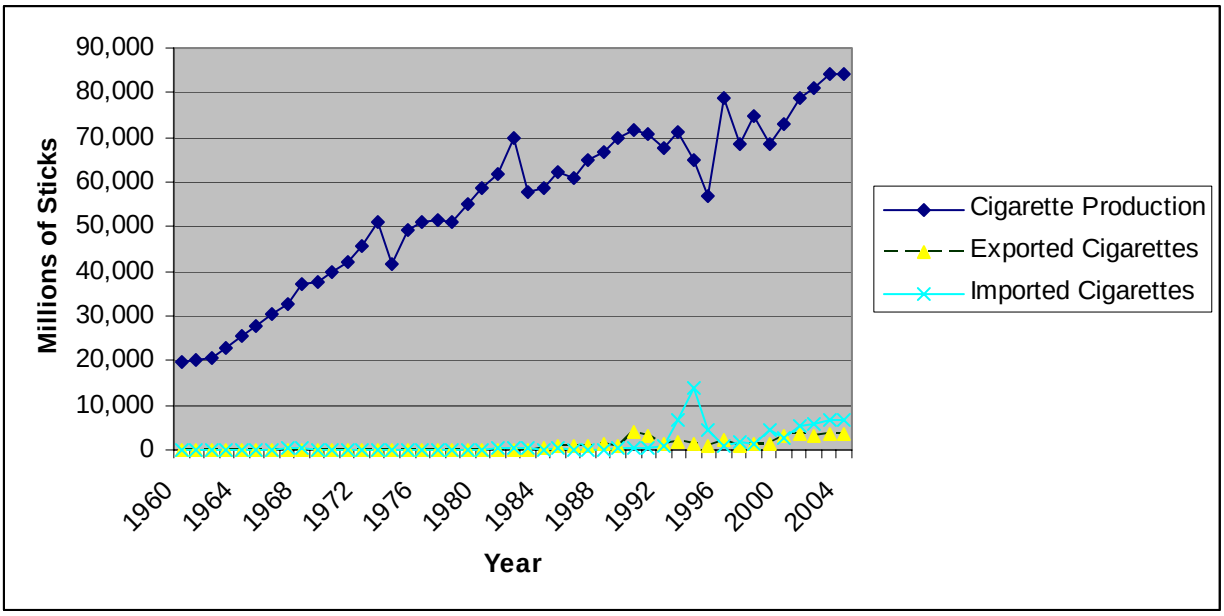
Source: Euromonitor International Estimates

Cigarette Production, Consumption, Exports and Imports

Data from the United States Department of Agriculture showed that Philippine Cigarette production shows a growth pattern from 1960 up to 2004, but seems to be slowing down in the later years. This pattern can be seen in Figure 5. This seems to reinforce the fact that the industry growth is slowing down due to two major factors. These are the negative public image of smoking and drive to lessen smoking in public places by the Government and the increase in excise tax being imposed on cigarettes. Appendix 2 shows the detailed values of cigarette production, exports and imports in the Philippines. Consumption data is almost

impossible to compile accurately. However, using production, exports and imports, consumption data can be estimated by using the following relationship:

Cigarette Production + Cigarette Imports – Cigarette Exports = Cigarette Consumption



Source: United States Department of Agriculture (USDA)

Figure 5. Historical Data on Annual Production, Exports and Imports

Government Regulations

Cigarette companies have complained regarding the numerous changes in government regulations involving the implementation of cigarette excise tax. There have been two major directions in government regulations that impacted the cigarette industry. These are regulations involving the excise tax for cigarettes and regulations involving limiting the act of smoking in public places.

Regulations involving the changes in excise tax for cigarettes started with Republic Act (RA) 8240 shifting the use of excise tax from ad valorem to specific tax, followed by RA 8424 which specified that cigarettes packed by hand are taxed differently compared to those that are packed by machine. This provided some form of relief for companies employing manual labor for hand packed cigarettes and protects its labor force. Finally, RA 9334 mandated the increase in the excise tax rates for cigarettes. The increase in excise tax rates was in response to the need for the excise tax to be responsive to inflation, which the previous regulation did not take into account.

In response to these republic acts, the Bureau of Internal Revenue released a series of Revenue Regulations (RR) and Revenue Memorandum Orders (RMO) to provide guidelines and interpretations as to the implementation of excise tax. These guidelines cover the increase in excise tax rates for machine pack cigarettes, rules and procedures for the net retail price of

cigarettes for new and old brands (which is used as a basis for the price classification of cigarettes), and revisions of the price classifications of the cigarette brands.

In parallel to these changes in the excise tax rates, two major landmark bills have been passed which was RA 8749 otherwise known as the "Clean Air Act" and RA 9211 also known as the "Tobacco Regulation Act" which promoted a smoke free environment.

These major bills both taxing the cigarette industry and the regulating the act of smoking have been decried by the tobacco and cigarette industry as means of killing the industry. Appendix 3 shows the summary of the different regulations implemented by the Government.

V. Assessment of the Philippine Cigarette Industry

There are 5 major forces that can influence the dynamic behavior of the Philippine Cigarette Industry. These forces help understand the balance of power in the industry, detect favorable and unfavorable forces in the Industry, indicate the level of attractiveness to invest, and predict future profitability.

Buyer Power

According to Porter, the most important factor to consider with respect to buyer power is the size and concentration of the customers versus the size and concentration of the industry players. If industry concentration is greater than buyer or customer concentration, it leads to an "oversupply" in the industry and this situation enhances buyer power.

Buyer power is created when buyers gain bargaining leverage through any of the following conditions: (A) oversupply in the industry; (B) relatively big buyer volumes; (C) low buyer switching costs; (D) ease of backward integration; (E) presence of substitute products; (F) high price sensitivity; (G) lack or absence of brand identity and (H) low product differentiation. We shall attempt to determine the existence or non-existence of each of these conditions and interpret their impact on buyer power as applied to the cigarette industry.

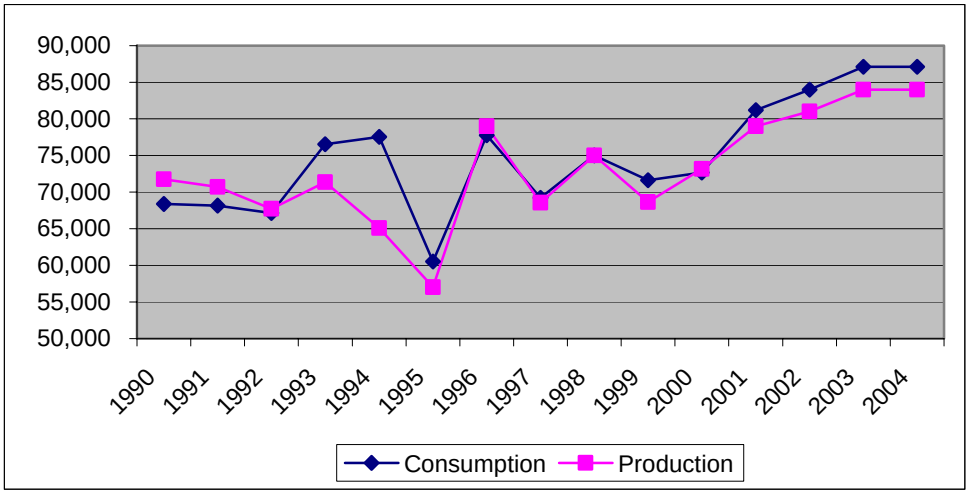
A. Oversupply in the Industry

Based on data from the United States Department of Agriculture shown in Figure 6 and in Appendix 2, cigarette production volume never seems to be enough to satisfy the market consumption. Appendix 2 showed that from 1960 to 2004, the country had to rely on cigarette importation to meet total industry demand.

Since the Philippines rely annually on importation of cigarettes to satisfy the total demand of the industry, it may be concluded that there is a domestic undersupply of cigarettes in the Philippines. Since domestic supply is not enough to meet total industry demand, buyers in this industry do not gain bargaining leverage and buyer power.

It is worthy to note that a drop in domestic cigarette production and cigarette exports happened in 1995. The undersupply that year was filled in by imports coming from various legislated freeports such as the Subic Special Economic and

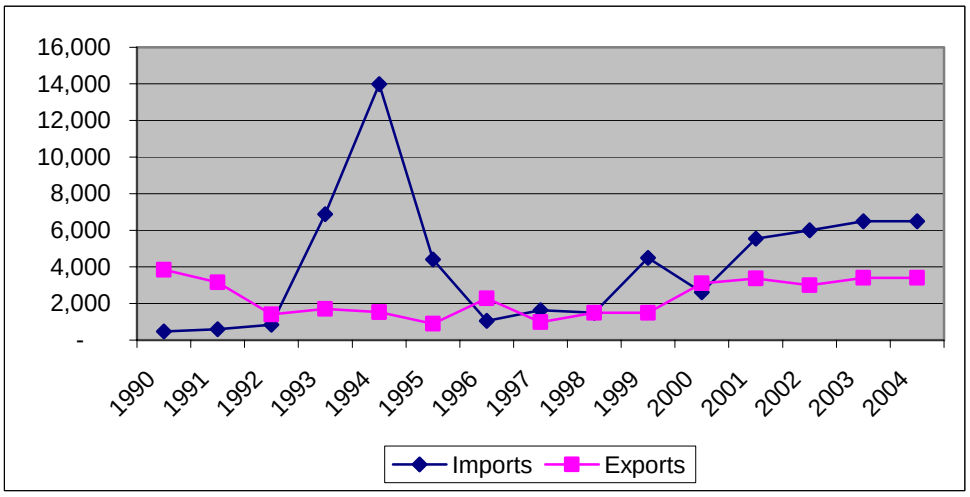
Freeport Zone (created under Republic Act No. 7227), Cagayan Special Economic Zone and Freeport (created under Republic Act No. 7922), Zamboanga City Special Economic Zone (created under Republic Act No. 7903). The three laws were drafted and passed in 1995.



Source: Foreign Agricultural Service, USDA

Figure 6. Cigarette Production and Consumption

Generally speaking, the Philippine Cigarette industry tends to import more that what it actually exports. The spike in exports can somehow be traced to the emergence of these Free Ports throughout the Philippines. This can be seen in Figure 7 where the exports are generally lower that the imports.



Source: Foreign Agricultural Service, USDA

Figure 7. Cigarette Exports and Imports

B. Buyer Volume

Cigarettes are sold through multiple retail channels to its customers; this means that customers do not have the power to influence the industry. An important factor that contributes in nullifying buyer volume as a condition in this industry that creates buyer power is that there exist so many possible points of sales for cigarettes in the Philippines.

Estimates from the Euromonitor International is shown in Table 6 which shows that the various distribution channels in the Philippines that sell the cigarettes whether by pack, by ream, or per stick directly to smokers. Most supermarkets such as SM, Robinsons, Macro buy cigarettes bulk directly from manufacturers. This allows them to gain more distributor discounts relative to the other retailers. However, these supermarkets sell cigarettes by the packs or by the ream, which would require smokers to shell out a much bigger amount although relatively cheaper per stick. The distributors' high volume does not bind the cigarette companies to them since other forms of access are available.

Majority of the smokers tend to make use of spare change and purchase on a per stick basis which the other forms of retailer offer such as "Sari-Sari Store" and other types of street vendors. These types of retail stores allow the customer multiple accesses to cigarettes and encourage smokers to buy when needed because of accessibility to cigarettes.

Table 6. Percentage Retail Sales of Cigarettes by Distribution

Distribution Channel	1998	2002	2003
Supermarket / Hypermarkets	51.8	47.0	46.0
Independent Food Stores	0.3	1.0	1.1
Convenience Stores	2.5	3.3	3.5
Discounters	7.0	6.3	6.0
Drugstores	1.8	0.5	0.4
Petrol / Gas Service Stations	0.8	1.5	1.5
Newsagent-tobacconists / kiosks	0.3	0.5	0.6
Tobacconist / Specialist	1.0	2.0	2.3
Bar – Tobacconist	-	1.5	1.6
Street Vendors	2.8	2.5	2.3
Vending	-	-	-
Others	32.0	34.0	34.8
TOTAL	100.0	100.0	100.0

Source: Euromonitor International Estimates

The "Others" in the distribution channel may refer to Jump boys who sell cigarettes along the roads. According to a Newsbreak article dated October 9, 2006 entitled "Deadly Industry: The Philippines is one of the largest markets for cigarettes in the World", it stated that "One characteristic of the Philippine cigarette market is

that as an archipelago, there are up to one million points of sales that consist mostly of sari-sari stores and street vendors. There are brands that are regional favorites too. Jump boys who sell the cigarettes on the streets on a per-stick basis harp on the affordability of the product, even among the poorest Filipinos."

Furthermore, cigarette is a hot demand item especially among the youth because of its addictive nature. This fact seems to ensure steady, if not growing, sales among various distribution channels. The strong demand for cigarettes is also the reason why there is competition for supply among various distribution channels. Cigarette has historically enjoyed a seller's market.

A Newsbreak article dated October 9, 2006 entitled "Puffing Teens: Access to cigarettes is easy" stated that "Loiter by the sari-sari stores in the university belt in Manila and observe students during their break. They puff cigarettes and the vendors are happy to earn from them. Never mind that many of these students must be under 18 and are not allowed by law to smoke. These sari-sari stores require no identification cards from their customers. A 2003 Global Youth Tobacco Survey by the World Health Organization shows that in the Philippines, four out of 10 high school students aged 13 to 15 has smoked cigarettes. Some of them (one in every eight smokers) got into the habit before they were 10 years old. Access to this addictive and restricted product has become easier than in 2000 when the same survey was conducted. From 46.6% of the respondents in 2000, 62.8% were allowed to buy cigarettes in 2003. With over 7,000 respondents nationwide, the survey also showed that boys are more inclined to smoke than girls. For these adolescents, it is usually curiosity or peer pressure that gets them into the habit."

C. Ease of Backward Integration

Backward integration is defined as a strategy wherein a company integrate the upstream activities in a supply chain in order to gain more control on the flow goods going downstream. There are only few big players in the cigarette industry. From Table 7, it can be seen that there are only three major players and a few minor players in this industry. It is almost impossible even for the owners of SM supermarket to control a cigarette company due to the high cost of infrastructure needed and the importance of an extensive distribution network for cigarettes. Restricting the distribution network would only result into a negative effect in its sales. Backward integration is therefore not easy for distributors to gain control of the cigarette industry. Backward integration would result to a less extensive distribution network.

Table 7. Market Share of Top 3 Industry Players

Company	2001	2002	2003
Fortune Tobacco Corporation	37	36.50	35.80
La Suerte Cigar and Cigarette Factory	35.80	35.30	9.00
Philip Morris (Phils) Manufacturing Inc	-	-	26.8

Source: Euromonitor International Estimates

D. Presence of Substitute Products

The existence of substitutes for cigarettes does not create buyer bargaining leverage and buyer power because of two important reasons:

1.) Nicotine replacement therapies such as nicotine gum, nicotine patch, nicotine inhaler, nicotine nasal spray, nicotine lozenge and bupropion are not "real" substitutes for cigarettes because these products only aim to psychologically provide the "benefits" of cigarette smoking as against a "real" substitute which aims to provide the same "benefits" as the substituted product provides to the customer.

2.) The Nicotine Replacement Therapies (NRT) are relatively more expensive (based on cost per day) than the cigarettes they intend to substitute as shown in Table 8. According to the Senate Journal of the 13th Congress, a Filipino smoker on the average consumes ten and a half sticks of cigarettes per day. Based on current price of around Php1.25 per stick, average daily cost amount to only Php13.125.

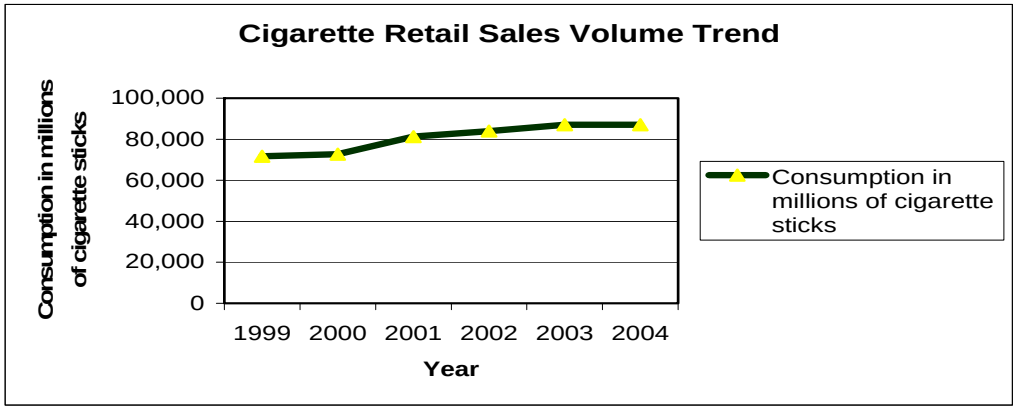
Table 8. Prices of Nicotine Replacement Therapies

NRT	Average Daily Cost (*1 US$ = 53 Php)	Unit Price in Php
Nicotine gum	**2 mg:** P134.09 – P273.48 (9 pieces) **4 mg:** P195.57 – P307.93 (9 pieces)	**2 mg:** P14.89 – P30.39 per piece **4 mg:** P21.73 – 34.21 per piece
Nicotine patch	P117.66 – P207.23	P117.66 – P207.23
Nicotine inhaler	P252.28 – P321.71 (6 cartridges)	P42.05 – P53.62 per cartridge
Nicotine nasal spray	P147.34 – P180.2 (8 doses)	P18.42 – P22.53 per dose
Nicotine lozenge	**2 mg:** P263.94 (9 pieces) **4 mg:** P263.94 (9 pieces)	**2 mg:** 29.33 per piece **4 mg:** 29.33 per piece
Bupropion	P205.11 – P227.9	P205.11 – P227.9

Source: Smoking Cessation, October 2004

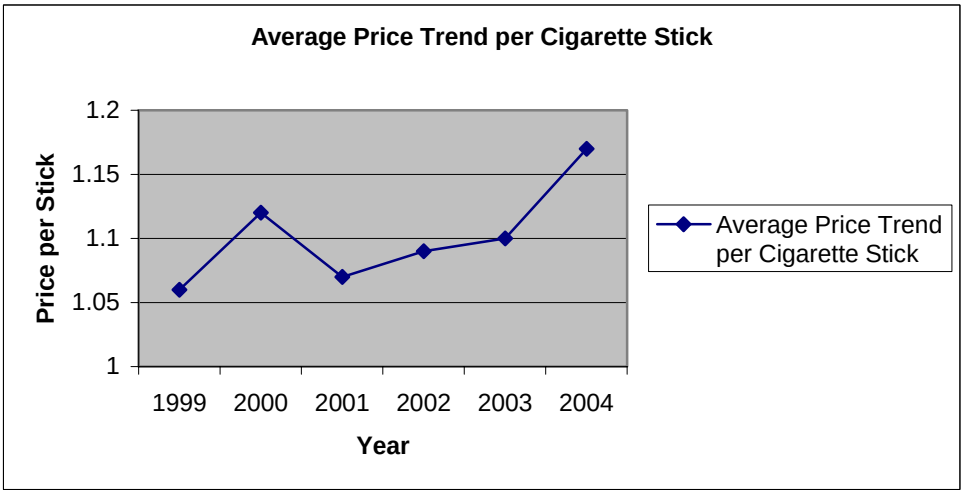
E. Sensitivity to Price

Consumption of cigarette products in the Philippines is generally not price sensitive. A pack of 20 sticks of local brand cigarettes costs just around Php25. According to the Cigarette Prices of 2001 (Guindon, 2001), the Philippines, at $0.51 per pack, is third to the lowest in the cost of a local brand cigarette. The lowest is Yugoslavia and Senagal both at $0.28 per pack of cigarettes. Because cigarette in the Philippines is cheap and affordable even among the poorest of Filipinos, demand for it is relatively stable. Figure 8 shows that retail sales volume continues to experience annual growth in spite of a generally increasing trend in the average price per stick through time as shown in Figure 9.



Source: National Statistics Office

Figure 8. Cigarette Retail Sales Volume Trend



Source: Euromonitor International Estimates

Figure 9. Average Price Trend per Cigarette Stick

Table 9 shows that though average price per stick increased marginally from 2001 to 2004, retail sales volume still managed to post a positive gain year on year. As food is a necessity to people, Filipinos who smoke have already incorporated cigarettes into their daily budget. It has become a necessity and a way of life. Its consumption has therefore become insensitive to general price increases.

Table 9. Retail Sales and Average Price of Cigarettes

Year	Value (in million pesos)	Annual Consumption Volume (in million sticks)	Average Price per Stick (Php/stick)
1999	75751.7	71,620	1.06
2000	81551.6	72,665	1.12
2001	86854.3	81,190	1.07
2002	91159.5	84,000	1.09
2003	96049.1	87,100	1.10
2004	102097.3	87,100	1.17

Source: Euromonitor International Estimates

F. Brand Identity

Brand identity in this industry has been clearly established. As can be seen in Table 10, the different cigarette brands in this industry registered a fairly consistent and stable market share from 2001 to 2003. This indicates that these brands have a loyal customer base. As mentioned earlier, there are brands that are regional favourites.

Table 10. Company Market Shares based on Retail Volume

Company	% Retail Volume		
	2001	2002	2003
Fortune Tobacco Corporation	37.0	36.5	35.8
Philip Morris (Phils) Manufacturing Inc	-	-	26.8
British American Tobacco (Philippines) Ltd	16.4	16.8	16.4
La Suerte Cigar and Cigarette Factory	35.8	35.3	9.0*
Reemtsma Cigarettenfabriken GmbH	6.3	6.0	5.8
JTI Co (Philippines) LTD	0.4	0.4	0.4
Others	4.2	5.0	5.9
TOTAL	100.0	100.0	100.0

Source: Euromonitor International Estimates

G. Brand or Blend Loyalty

There are a lot of possible cigarette blends that create some form of product differentiation in the market. Notwithstanding, low buyer power still prevails because of strong product or blend preference among consumers. In a study made by Euromonitor International "Tobacco in the Philippines", it forecasted, "American blend is projected to remain the dominant tobacco leaf type for Philippine cigarettes, although some growth in Virginia blend is expected, to account for slightly over 10% by the end of 2009.

As can be seen in Table 11, Filipinos strongly favour the American blend over Virginia or other blends which is reflected in terms of a bigger percentage in retail sales volume over the other blends.

Table 11. Retail Sales of Cigarettes by Tobacco Type: % Volume Breakdown 1999-2004

% retail volume	1999	2000	2001	2002	2003	2004
American blend	94.5	92.3	91.5	91.3	91.0	90.5
Virginia	5.5	7.5	8.3	8.5	8.5	9.0
Other blend	-	0.3	0.3	0.2	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Euromonitor International Estimates

The anticipated increased prices of cigarettes may cause less flexibility for Filipino smokers to try out a new taste, thus hampering much further growth by the unfamiliar Virginia blend cigarettes. Introducing menthol Virginia blend cigarettes may help to hasten its acceptance, given that the menthol at least would be familiar to the Filipino smoker who prefers smoking menthol cigarettes, masking the unfamiliarity of the different leaf type."

Still according to the same study, "Fortune Tobacco Corp's apparent decision to test the waters for Virginia blend cigarettes by introducing an economy brand seems to uphold the fact that Filipinos have preferred American blend cigarettes over the years. The slow uptake of Virginia blend cigarettes in the Philippines may be attributed to the Filipinos' penchant to stick with the familiar.

Filipino smokers tend to patronize the taste they have become accustomed to, and trying a new blend may be seen as risky and a waste of money. The imperceptible presence of other blends may also be a tribute to that attitude, with Filipino smokers clinging to tried and tested cigarettes. Filipino cigarette manufacturers inevitably hold on to that concept as well, allowing the dominant taste

and preferences to dictate product developments by the company." Buyer power is therefore diminished because of brand or "product blend" loyalty.

H. Switching Cost

Switching cost may be defined as the "cost" of switching from one product to another within the cigarette industry or the "cost" of switching from the products of one industry to another. "Costs" may refer to either monetary or other qualitative or unquantifiable aspects of the switching process. As such, switching cost within the industry (in monetary terms) is generally low across products that cater to a particular market segment since it is unlikely for buyers to switch from low-priced to premium brands and vice-versa. However, due to brand and/or blend preference among Filipino smokers, switching cost tends to be high for consumers in this industry.

High switching costs cause consumers to stay where they are, thereby promoting industry stability and diminishing buyer power in the industry. It may also be argued that the cost of switching from cigarettes to alternative products of another industry is high in both monetary and qualitative terms. As discussed in the previous section, alternative products or NRT's are much more expensive than their cigarette counterparts. Furthermore, there are clear indications based on consumption data that consumers will continue to patronize cigarette products due to its addictive nature. Buyer power is therefore diminished as smokers become hooked to a cheaper and addictive product.

As a conclusion on the determinants of buyer power, it is not a significant force on the Philippine cigarette industry. On the contrary, it is a force that contributes favorably to the performance and stability of the cigarette industry. Table 12 summarizes the impact of the various determinants of buyer power and its effect on the Cigarette Industry

Table 12. Summary of Determinants of Buyer Power

Determinants of Buyer Power	Impact	Effect on Industry
Bargaining Leverage	Low	Favorable
Buyer concentration vs. Firm Concentration	High buyer concentration relative to firm concentration	Favorable
Buyer Volume	Low	Favorable
Ability to backward integrate	Backward integration is difficult	Favorable
Substitute products	More expensive	Favorable
Price sensitivity	Low	Favorable
Brand or product blend loyalty	High	Favorable
Brand identity	High	Favorable
Buyer switching costs	High	Favorable

Supplier Power

The counterpart of buyer power is supplier power. The first arena that needs to be assessed to analyze supplier power is: (A) supplier concentration vis-à-vis the number or volume of industry players. The other important area that should be looked into is the bargaining capability of suppliers dictated by the presence of: (B) distinctness or degree of differentiation of the inputs they supply, (C) supplier switching costs on the part of industry participants and (D) potential of forward integration by the suppliers. The following points give an evaluation on how tobacco farmers and growers (suppliers) are impacting the performance of the local cigarette manufacturing industry.

A. Supplier Concentration

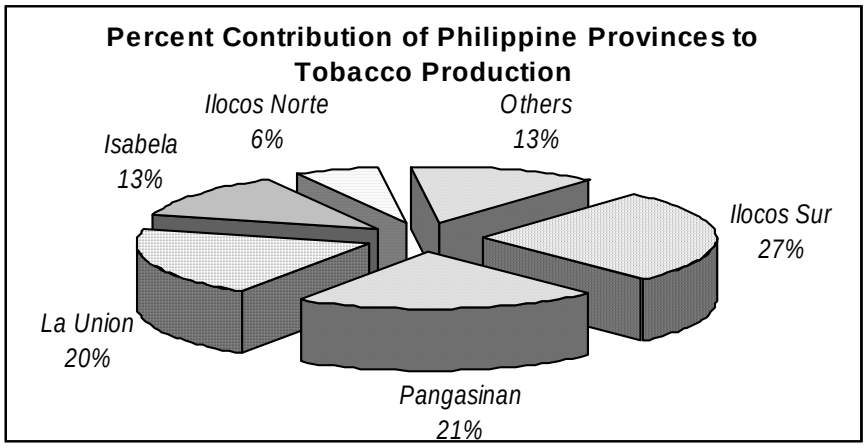
There is a high supplier concentration brought about by an abundant tobacco supply and the significantly fewer number of cigarette manufacturers compared to the number of tobacco growers. This diminishes supplier power putting the cigarette industry at a better position to obtain tobacco materials at an amount and price favourable to them.

The primary component of any cigarette product is the dried tobacco leaves. Tobacco farming and harvesting occurs in many Philippine provinces. According to the Bureau of Agricultural Statistics, tobacco leaf agricultural production occurs in 23 Philippine provinces covering approximately 40,236 hectares. The bulk of its production circles around 3 types of tobacco: (1) Virginia, (2) Burley, and (3) Native/Dark tobacco.

From the database of the National Tobacco Administration, Virginia tobacco is grown in Region I, particularly, Ilocos Norte, Ilocos Sur, Abra and La Union. Burley tobacco is also grown in Region I in Pangasinan, La Union, Abra; Isabela and Cagayan in Region II; Tarlac in Region III; and Occ. Mindoro in Region IV.

Native/Dark tobacco is grown in Pangasinan and La Union in Region I; Cagayan, Isabela, Nueva Vizcaya and Quirino in Region II; the Visayan provinces of Capiz, Iloilo, Cebu, Negros Oriental and Leyte; and in the Mindanao provinces of Zamboanga del Sur, Bukidnon, Misamis Oriental, North Cotabato and Maguindanao

From the 1999 to 2003 production data in the Bureau of Agricultural Statistics, 5 provinces corner 87% of the country's total tobacco output. Figure 10 shows the distribution among the top five producers of tobacco in the Philippines.



Source: Bureau of Agricultural Statistics and National Tobacco Administration

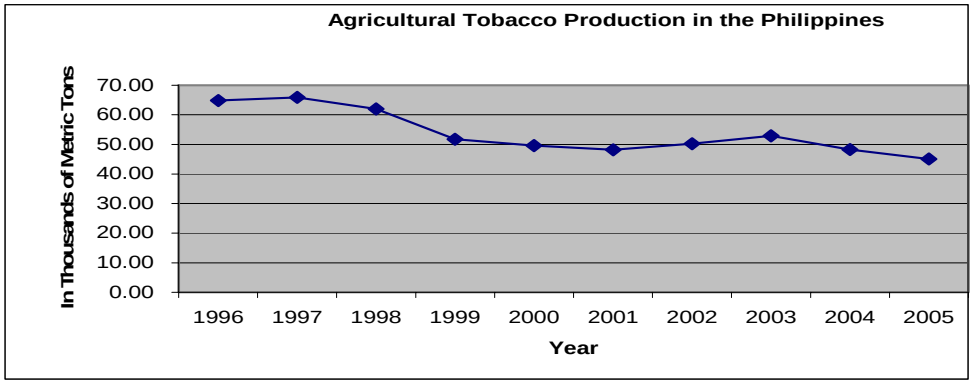
Figure 10. Percent Contribution of Philippine Provinces to Tobacco Production

Based from the Bureau of Agricultural Statistics, bulk of the utilization of total tobacco supply in the Philippines during the years 1999-2003 was for the manufacture of cigarettes with around 78% of the available metric tons being used for this purpose. The next 15% was exported while the remaining 7% was used either for other products like controlling agent for algae, moss and other microorganisms in fishponds or wasted.

Although majority of tobacco harvests are still allotted for cigarettes, there are recent developments regarding other tobacco uses. It was reported that tobacco stalk as a virgin tobacco pulp is used in the manufacture of various types of paper. According to an August 12, 2005 issue in the Manila Bulletin by Mar Supnad, the tobacco leaf was also found to be useful for the manufacture of fertilizer for inland aquaculture application.

The Philippines is not the only tobacco-producing nation. In fact, the Food and Agricultural Organization of the United Nations Rome declared that under a variety of climactic and soil conditions, there are around 100 countries worldwide that plant and cultivate tobacco. The major producers are China, the United States, India, Brazil, Turkey, Zimbabwe and Malawi. However, the Food and Agricultural Organization of the United Nations has consistently included the Philippines in the top 20 tobacco producing countries in the world. During the period of 1996 to 2005, the Philippines rank played around the 15th to the 20th spot.

The Philippines' Bureau of Agricultural Statistics showed that agricultural tobacco production has exhibited a declining trend in the previous years (from 64.87 thousand metric tons in 1996 to 45.10 thousand metric tons in 2005, decreasing at an yearly average rate of 4% across the 10 year period mentioned. Perhaps the absence of significant growth in the tobacco output of the top 20 producing countries in the world allowed the Philippines to retain its ranking. Figure 11 below compares the behavior of annual Philippine tobacco production output against the top 20 producing countries.



Source: Bureau of Agricultural Statistics, Department of Agriculture–Philippines

Figure 11. Trend of Philippine Agricultural Tobacco Production

Despite the presence of local tobacco leaves, the Philippines used to be a net exporter of tobacco leaves during the 1980s but have suddenly become a net importer of tobacco leaves until today. This is most likely influence by the slow down in the world wide tobacco production resulting to a decrease in the demand for Philippine tobacco leaves.

Imports are usually sourced from China, US, Brazil, Zimbabwe and Malawi – Importation is inevitable because a cigarette consists of a blend of different tobaccos of different grades and not one country produces all of these. From a study done by the Euromonitor International, the very popular American Blended Cigarette (ABC) consumed by most Filipinos, is made up of a mixture of flue-cured, burley and oriental tobacco type. One study puts it this way- "As tobacco derives its flavor from the soil, climate and other environmental factors as well as altitude and type of tobacco grown, most cigarette manufacturers must source their tobaccos from a wide range of countries as no single location offers the full array of necessary leaf characteristics.

According to Streetfield's paper entitled "The Global Tobacco Trade", Malawi's medium grade burley tobacco along with Brazil's flue cured and Greece's oriental tobaccos are just three of the essential components of a typical ABC. The USDA GAIN Report mentioned that the Philippine produced tobacco, particularly the Virginia flue-cured type, is a filler grade type which is of lower quality compared to those harvested in countries like US, Brazil and Zimbabwe. However despite of it being a low grade, domestically produced leaf are still prized by local cigarette manufacturers as bulk of the Philippine consumers go for cheap domestic brands.

The same reason that explains the need for importation provides the basis of why there is an export market for tobacco. Based from the USDA GAIN Report, the export market of Philippine tobacco is usually composed of US, Germany, Spain and Malaysia.

The Philippines is a net exporter of the native, dark air-cured type of tobacco used as fillers in cigars because foreigners appreciate the taste of this tobacco leaf better than Filipinos do. Table 13 shows the supply and utilization of tobacco leaves in thousands of metric.

Table 13. Philippine Tobacco Supply and Utilization

YEAR	SUPPLY			UTILIZATION		
	Production	Imports	Total Supply	Export	Waste	Domestic Use
1993	104.00	13.54	117.54	17.21	10.40	89.93
1994	56.90	26.64	83.54	11.93	5.69	65.92
1995	63.71	26.11	89.82	19.15	6.37	64.30
1996	64.87	14.56	79.43	18.18	6.49	54.76
1997	65.09	23.86	88.95	18.17	6.51	64.27
1998	71.09	18.71	89.80	13.19	7.11	69.50
1999	51.69	28.92	80.61	17.64	5.17	57.80
2000	49.60	28.04	77.64	9.71	4.95	62.90
2001	48.17	17.72	65.89	9.73	4.82	51.35
2002	50.17	24.04	74.21	11.73	5.02	57.47
2003	52.90	29.92	82.82	12.25	5.29	65.28

Source: Bureau of Agricultural Statistics, Department of Agriculture –Philippines

With the above information, it can be culled that the tobacco suppliers of the Philippine cigarette manufacturing companies are not only locally based but also rather globally dispersed. Working on the aggregate total supply and import data from 1993 to 2003, roughly 27% of tobacco supply in the Philippines is sourced from abroad. On an international scale, agricultural tobacco production is deemed to be abundant in the sense that it could "respond to the trends in tobacco leaf demand". Food and Agricultural Organization of the United Nations Rome made a projection on the tobacco consumption and production using historical data which is shown in Table 14.

Table 14. Global Tobacco Demand and Leaf Production

Year Range		Tobacco Demand and Consumption (in '000 tons)	Tobacco Leaf Production (in '000 tons)
1970-72		4,193.9	4,269.4
1980-82		5,404.0	5,455.3
1990-92		6,616.6	6,936.2
1997-99		6,475.7	5,983.3
Baseline Projection*	2005	6,695.4	6,809.4
	2010	7,151.5	7,160.0
Policy Projection**	2005	6,062.7	6,098.1
	2010	6,447.7	6,430.7

*assumes continuation of present policies with respect to production support and consumption taxation. It thus assumes no change in real prices throughout the projection period

**assumes adoption of strong policy measures against tobacco consumption and production that include increasing consumption taxation and reducing production support.

From the projections included in the table above, it can be seen that the ability of tobacco production to catch up with demand could probably be sustained in the future. Going beyond mere mathematical projections, there is a number of circumstantial evidence that argues for the view that tobacco supply could be sustained in the long run. Locally, the agricultural tobacco industry is a major source of livelihood especially for the people in Ilocos (Region 1) and Cagayan Valley (Region 2) provinces of the country.

From the National Tobacco Administration website, during the 2002 to 2003 crop year, it was reported that there was a total of 57,398 tobacco farmers scattered throughout 177 municipalities or 1,608 barangays (roughly 4% of the total barangay count) of the Philippines. It estimated that these farmers have around 300,000 dependents and around 1.56 million workers in other industries rely on it. Even though other crops have higher yield on a per hectare basis, tobacco remains to be attractive because it is a less perishable crop as cited by a report done by the Gallaher Group Plc.

Dried tobacco leaves can be kept for unlimited period of time as long as it is stored correctly. This fact serves as a disincentive for these farmers to switch to other agricultural products.

Aside from the known fact that tobacco dominates agricultural, social, economic and political life in the regions growing it, the tobacco leaf and most especially its cigarette by product has been a major source of revenue for the national government. As long as cigarette demand remains, there will always be an impetus for tobacco farmers to continue in their livelihood. In fact, as far as tobacco and cigarette are concerned, one study puts it this way- "Governments face a dilemma. They have an economic and a social interest in tobacco. It provides jobs, tax revenue and (for some) foreign exchange earnings. But governments also have a duty to protect their population's health. Treating people for smoking-related illnesses can be costly as discussed by Van Liemt in his paper entitled "The World Tobacco Industry".

Alechnowicz and Chapman in their paper, "The Philippine Tobacco Industry", highlighted the tobacco industry as the the Philippine government's primary source of income. Tobacco products' excise tax contribution to the country's GDP amounted to 0.5 to 0.6% during the period of 1997 to 2003. Fletcher in a report to the International Monetary Fund on "Increasing Public Sector Revenue in the Philippines" mentioned that the excise tax from these products contributed around 3.5% to 4.2% of the government's total tax revenue. It is not merely the national government that benefits from the tax revenues but also the local government, especially those belonging to the Ilocos provinces. Republic Act 7171 states that Virginia tobacco-producing provinces are allotted a 15 percent share of excise taxes on the manufacture of Virginia-type cigarettes. The government's prizing of the tobacco industry can be seen by its establishment of the National Tobacco Administration, an attached agency under the Department of Agriculture, way back in 1987. Its mandate is to (1) improve the economic and living conditions and raise

the quality of life of the tobacco farmers and (2) promote the balanced and integrated growth and development of the tobacco industry.

In the Philippine setting, there are only 5 primary cigarette manufacturing companies compared to the 57,398 farmers scattered in different municipalities and barangays. The same imbalance can be seen globally as the world market for cigarettes is dominated by a low and steadily diminishing number of suppliers based from Van Liemt's paper "The World Tobacco Industry". The point of this imbalance is that the manufacturing companies are in a better position to bargain for favorable prices when it comes to purchasing tobacco leaves as inputs for their cigarettes.

A search online for possible tobacco leaf substitute yielded only one hit – "A tobacco leaf substitute for the manufacturing of a cigarette substitute that contains the same taste and flavor of a regular cigarette is comprised of, including but not limited to, leaves of Morus alba L, 1354MI, and leaves of Lillium longiflorum. The tobacco leaf substitute has additional beneficial effects of low nicotine content." This concoction of leaves described in Free Patents Online has a pending US patent application and is most probably not yet commercialized. With this, tobacco leaves will remain and continue to be a critical component of any cigarette product.

Streetfield in his paper entitled "The Global Tobacco Trade" mentioned that Tobacco leaves are differentiated commodities. The kind of leaf is classified by a type-grade combination. The most often used types in cigarette making and smoking are the virginia, burley and oriental leaf. The quality of each type and thus its flavor is highly dependent on the type of soil where it is grown, the altitude and other environmental factors. Consequently, different countries produce different quality. The highest quality fully flavored virginia flue cured tobacco comes from the US, Brazil, Zimbabwe. The medium flavored are usually from India, Canada, Argentina and Italy while the filler grade (of the lowest quality) are from Philippines, Poland, Spain and also Argentina and Brazil. The European countries are known for their high quality oriental leaves. The countries Turkey, Greece, Yugoslavia and Bulgaria are top exporters of this.

From the British American Tobacco website, grades are generally determined by a leaf's position on the plant, its thickness, aroma, graininess and colour (lemon, orange and mahogany are the most typical) and the quality and maturity of the plant. The type-grade combination used then affects the sensory characteristic of a cigarette.

Customer loyalty to a particular cigarette brand is highly dependent on the flavor of the cigarette which in turn is derived from the flavors of the type of tobacco used. There is no perfect grade of tobacco as some leaves add more aroma and others offer better burning rates. Streetfield described cigarette manufacturers who use a balanced blend of tobacco leaves that is better than the

individual tobacco and at the same time suits the taste of its target market. For all the customer retention importance and sophistication of a cigarette blend, it seems like that the type-grade kind of tobacco leaf used in a cigarette is so strict so as to inhibit supplier source switching but some evidence proves to the contrary. For instance, when Zimbabwe was wracked by political turmoil that led to a decline in its tobacco output, Brazil saw a significant increase in its total raw leaf exports. There is even a claim that had the US not implemented a production quota, its export could also have risen. Locally, when tobacco produced in the Ilocos provinces dropped in quality, Fortune Tobacco Corporation turned to imports as a material source. There seems to be relative ease in switching from one supply source to another which could either be explained by the fact that a particular kind of tobacco leaf is really produced in various areas by different farmers or the classification of cigarette brands as premium, mid-priced and economy according to value and taste allows them considerable leeway to move along the tobacco type-grade scale without significantly altering the cigarette characteristic. To add to this, the opening of global trade barriers and lowering of tariff rates has made sourcing from multiple tobacco leaf suppliers much easier than it is in the past decades.

Locally, a national tripartite conference attended by tobacco farmers' organizations, traders, industry buyers and representatives from the National Tobacco Administration is conducted yearly to set floor prices of agricultural tobacco output. Based on a 2001 USDA GAIN Report, the price is usually set on a per-kilo basis. It is deemed that this kind of "price setting policy with a strong Tobacco Contract Growing Program (TCGP) will be necessary to prevent farmers from shifting to competing crops".

However, despite this conference, which should serve as a channel for negotiating a price that would be fair to all, and the fact that tobacco being a commodity should follow the price-supply-demand law of economics, reports made by Corpus on "Lucio Tan's Fortune Continues to Reign in Tobacco Sector "and Leal's "Tobacco Farmers Struggle Vs Exploitation" highlighted that the tobacco farmer groups are being exploited and abused.

Solidarity of Peasants Against Exploitation or Stop-Ex says that traders are exploiting farmers by downgrading their produce and buying it at lower prices or by charging usurious rates for farm inputs. The traders were accused of monopolizing the supply of seedlings and setting conditions so that farmers sell the produce exclusively to them at prices they set unilaterally. It also at one instance, accused the government of siding with cigarette manufacturing companies, especially Lucio Tan of Fortune Tobacco Corporation, claiming that government was more interested in giving him political accommodations than looking after the farmers. Table 17 below gives average values (across grades) of floor prices of different tobacco types from the years 1996 to 2001. It is noticeable that the increase in prices had stagnated from 1999 to 2002.

Table 15. Average Floor Prices across Grades of Different Tobacco Types

Year	Virginia Tobacco	Burley Tobacco	Dark-Air Cured Tobacco
1997	Php 33.50	Php 20.21	Php 19.10
1998	Php 36.29	Php 22.00	Php 20.70
1999	Php 37.79	Php 23.50	Php 21.70
2000	Php 37.79	Php 23.50	Php 21.70
2001	Php 37.79	Php 23.50	Php 21.70

Source: Philippine Tobacco and Products Annual 2001-USDA GAIN Report

Streetfield declared in his paper that "Worldwide, auction used to be the main means by which tobacco was marketed but recent rends in cigarette manufacturing have seen an increase in growers marketing the tobacco directly to individual buyers".

Philip Morris, for instance, used the argument that they needed to have a closer control over quality, quantity and type of tobacco as the reason why they resorted contracting tobacco purchases. While this kind of arrangement might not be of any problem for tobacco growers in the developed countries, the same may not be true for the developing countries to which majority (around 80% based on 2003 figures) of tobacco planting has shifted.

This is the case as most farmers in the developing countries are illiterate small-scale growers who cannot effectively represent themselves in contract negotiations and thus cannot bargain for favorable contractual terms.

As a conclusion, it can be said that the tobacco leaf suppliers has rather low power and ability to dictate terms or even influence the actions of the cigarette manufacturing companies. Let it be noted that though tobacco leaves was cited as a unique agricultural commodity leading to an absence of real substitutes on its behalf, the relatively high level of supplier concentration takes away the potential that this mentioned factor might work to the advantage of farmers and growers.

Table 16. Summary of Determinants of Supplier Power

Determinants of Supplier Power	Impact	Effect on Industry
Supplier Concentration	High	Favorable
Presence of Substitute Inputs (Other Agricultural Products Substituting for Tobacco Leaves)	Low	Unfavorable
Switching Costs of Suppliers	Low	Favorable
Threat of Forward Integration Relative to Threat of Backward Integration by Firms in the Industry	Low	Favorable

Barriers to Entry

One of the five competitive forces identified by Porter is the entry of potential player(s) in the industry. A new player or competitor in the industry will definitely affect the performance of every existing player in the industry. The decision of a new player to enter a competition would depend on the level of difficulty to enter (i.e. entry barrier) the industry.

The issues or barriers present in cigarette industry include the following: (A) product classifications/variations; (B) brand loyalty; (C) switching cost; (D) product accessibility to market; (E) government policy; and (F) health related issues.

A. Product Classifications/Variations

As of February 2003, 234 brands have been manufactured by seven cigarette manufacturing companies. These cigarette brands can be classified depending on the target market. High end cigarettes (i.e., Premium Brands) are more expensive than cigarettes targeting consumers belonging to a lower income bracket. This can allow new player(s) to evaluate market segments and identify which segment they can easily penetrate. From Table 17, mid-priced brands accounted to more than 60% of the total sales volume although it has a decreasing trend. Moreover, the percentage market share of Premium Brands is steadily increasing from 1999 to 2004. Smokers' preference with respect to brand classification is starting to shift to Premium Brands.

Table 17. Breakdown of Sales Volume

Year	Sales Volume	Price Band		
		Premium	Mid-priced	Economy
1999	89,180	14.00%	65.50%	20.50%
		12,485	58,413	18,282
2000	91,260	15.50%	65.00%	19.50%
		14,145	59,319	17,796
2001	91,780	16.80%	64.80%	18.50%
		15,419	59,473	16,979
2002	90,610	18.80%	63%	18.3%
		17,034	57,084	16,581
2003	89,245	20.00%	62.00%	18.00%
		17,849	55,332	16,064
2004	87,668	22.50%	60.00%	17.50%
		19,725	52,601	15,342

Source: Euromonitor International Estimates

On the other hand, having too many cigarette brands in the market can also be considered a barrier to new players. Market saturation can occur that can lead to a high turn over rate of cigarette brands especially for brands not produced by leading companies. Figure 4 shows the percentage growth of annual consumption. The figure shows an erratic behavior in the growth rate.

Furthermore, out of the 234 brands produced by seven cigarette manufacturing companies, 108 (46%) have been considered inactive.

B. Brand Loyalty

Brand loyalty is relatively strong in cigarette industry. Buyers associate quality of brands with the manufacturer as evident by the fact that the most saleable brands are produced by leading cigarette manufacturers like Fortune Tobacco Corporation and Philip Morris, Inc. Because of this, new players may have difficulty in capturing a significant percentage of the market. Table 20 shows the brand share for the period 2001-2003. This data revealed that the percentage market shares for each brand produced by the three leading companies are almost constant. The table also shows that the sales of both Marlboro and Philip Morris were not affected when Philip Morris (Phils.) Manufacturing Company started producing these brands. At that time the license of La Suerte Cigar and Cigarette Factory to produce these brands were terminated. Furthermore, high turnover rate of cigarette brands can also imply negative behavior of buyers with respect to new brands introduce by new player.

Table 18. Brand Share per company

Company	Brand	2001	2002	2003
Fortune Tobacco Corporation	Winston	20.7	20.4	20
	Camel	11.9	11.7	11.4
	Hope	2.2	2.3	2.3
	Champion	1.4	1.4	1.4
	Fortune International	0.6	0.5	0.5
	Salem	0.2	0.2	0.2
La Suerte Cigar and Cigarette Factory	Astro	4.4	6.9	5.8
	Memphis	3	3.5	3.2
	Marlboro	27.4	24	-
	Philip Morris	1	0.9	-
Philip Morris (Phils) Manufacturing Inc	Marlboro	-	-	25.9
	Philip Morris	-	-	0.9

Source: Euromonitor International Estimates

Many smokers would claim that cigarette is addictive. Thus, it allows them to patronize the brand they normally smoke. New players would have to manufacture cigarettes having at least the same quality as of the available brands in the market to be able to compete in the industry.

C. Switching Cost

A new player in cigarette industry may have to spend a significant amount of resources to be able to capture an acceptable market proportions. A new player will have to face the following issues: (1) strong brand loyalty; (2)

eventual banning of advertisements and promotions of cigarettes; and (3) growing concerns of government and non-government agencies over health hazards related to smoking. A new brand of cigarette may not be enough to persuade smokers to switch to a new brand produce by new player in the industry.

D. Product Accessibility to Market

Cigarettes are very much accessible to buyers since these can be purchased from street vendors and all sari-sari stores. Moreover, Filipino smokers do not need to buy one pack of cigarettes per single purchase. Street vendors and sari-sari stores allow buyers for single stick purchase.

E. Government Policy

The full implementation of R.A. No. 9211 or the Tobacco Regulation Act of 9211 could affect cigarette sales and could discourage entry of new players in the industry. The law covers the following:

- Eventual banning of tobacco advertisements starting January 2007 and sponsorship starting January 2008
- Regulation of labeling of tobacco products
- Regulation of tobacco promotions
- Smoking ban in public places

This law aims to protect the people from health hazards associated to smoking and at same time safeguard the interest of the stakeholders in the tobacco industry. Government policy regarding excise tax on cigarettes can also discourage new players to enter the tobacco industry. Appendix 4 shows the changes on the excise tax rates from 1990 to 2011. An increase in the tax rate would mean a decrease in the potential profit assuming the selling price remains the same. Furthermore, this policy will require all cigarette withdrawals from the factory to be charged with excise tax.

F. Health Related Issues

Currently, there is a growing concern among the public regarding health hazards brought about by smoking. Both government and non-government agencies are actively launching campaigns against smoking. Appendix 5 shows summary of programs or campaigns against smoking from 1987 to 2005. Likewise, non-smokers are beginning to assert their rights on having smoke-free environment. A new player will have to re-think their strategy in dealing with this situation in order to sell their products to the market.

Table 19 shows the summary of the impact of the determinants for new entrants to the cigarette industry. The conclusion is that these issues related to new players in cigarette industry are generally more favorable to the old players in the industry. This implies that it is not beneficial for a new player to enter the cigarette industry and compete with the current industry leaders.

Table 19. Summary of Determinants of Threat of New Entrants

Issues on New Entrants	Impact	Effect on Industry
Product Classifications/Variations	Classified according to target market	Unfavorable
	High turn over rate	Favorable
Brand Loyalty	Strong brand loyalty	Favorable
Switching Cost	Relatively High for new player	Favorable
Product Accessibility to Market	Easily Accessible	Unfavorable
Government Policy	Presence of R.A. No. 9211	Favorable
	Policy on Excise Tax	Favorable
Health Related Issues	Programs/campaigns against smoking by government and NGOs are continuously being launched	Favorable

Threats to Substitutes

Substitution "is the process of by which one product or service supplants another in performing a particular function or functions for a buyer" (Porter, 1985). The penetration of substitute products or services determines the growth or decline of an industry. There are four important aspects of the substitution factor: (A) presence of substitutes; (B) relative price performance of substitutes; (C) switching costs; and, (D) buyer propensity to substitute.

A. Presence of Substitutes

From a more apparent perspective, as noted earlier, there are no real substitutes to cigarettes and cigarette smoking as there seems to be no product that can function exactly, or even similarly, as cigarettes do. Most competing products that deliver the same effects such as to relieve stress and boredom do not necessarily undermine the demand for cigarettes and smoking because products can be taken together with cigarettes.

Thus, the main substitutes for local cigarettes are mainly imported cigarette brands. As indicated in Table 2, a significant portion of cigarette market is covered by importers. As much as 22% of the retail volume from 2001 to 2003 was supplied by British American Tobacco (Philippines) Ltd, Reemtsma Cigarettenfabriken GmbH and JTI Co (Philippines) LTD. Table 4 shows that imported cigarettes grew ten-fold from 11 million sticks to 112 million sticks between 1960 and 1970, doubled between 1970 and 1980, and doubled again to 446 million sticks in 1990. In 2004, the Philippines imported some 6.5 billion sticks even as at its pick, almost 14 billion sticks were imported in 1994. The increasing presence of imported cigarette in the Philippines is also indicated by Figure 10.

Nevertheless, some competing products can be identified if the point of view of one tobacco manufacturer is considered. At least one tobacco manufacturer does not view the cigarette as a product. Rather, nicotine is seen as the product and smoking is "drug administration".

"The cigarette should be conceived not as a product but as a package. The product is nicotine.…Think of the cigarette pack as a storage container for a day's supply of nicotine.…Think of a cigarette as a dispenser for a dose unit of nicotine. Think of a puff of smoke as the vehicle of nicotine.…Smoke is beyond question the most optimised vehicle of nicotine and the cigarette the most optimised dispenser of smoke." (PhilipMorris, 1972, http://www.ash.org.uk/html/conduct/html/trustus.html)

They further note that ""…[T]he primary motivation for smoking is to obtain the pharmacological effect of nicotine."

As such nicotine replacement therapies, that include nicotine gum, nicotine patch, nicotine inhaler, nicotine nasal spray, and nicotine lozenge, are alternative "vehicles" to deliver nicotine to the body. Most of these therapies are not available in the Philippines. In fact, Nicorette, a nicotine gum produced and marketed by Pfeizer was introduced in the Philippines only recently, in July, 2006.

Another related product that can be considered as a substitute as it prevents or limits the use of cigarettes without providing nicotine is buproprion that is marketed as Zyban. This prescription drug works by suppressing the part of the brain that gives the smoker a nicotine buzz when smoking a cigarette. It reduces the cravings as well as the usual withdrawal symptoms of anxiety, sweating and irritability. The giving up smoking website (**http://www.givingupsmoking.co.uk/how_to_give_up/a-z/**) lists other alternative ways of stopping the smoking habits, all of which can affect the demand for cigarettes. These include acupuncture, hypnotherapy and laser treatment. The international acupuncture website lists only one Filipino that can offer treatment for smoking through acupuncture. There are no sources of information as to the practice of hypnotherapy and laser treatment to cure tobacco dependency in the Philippines.

Similarly, information drives and campaigns and social and group therapies provided by government and non-government organizations can also lead to lower demand for cigarettes. Currently, there are many anti-smoking initiatives in the country but there is no data to reflect their success in affecting cigarette demand.

While there are indeed alternative products or services that can reduce demand for cigarette smoking, albeit limited in number, the decision to continue smoking cigarettes or to shift to these alternative products and services is

determined not by availability but by prices, costs and willingness to shift to these alternatives.

B. Relative Price Performance of Substitutes

Table 2o compares the prices of the various nicotine replacement therapy alternatives. Daily consumption expense of these treatments can be as low as PhP134.09 per day for nicotine gums to as high as Php321.71 per day for nicotine inhalers. This can be compared to an average of Php25 to Php31.25 per day expense on some 20 to 25 cigarette sticks per day. The huge cost difference to direct substitutes of cigarettes can discourage smokers from using alternative sources of nicotine.

Table 20. Nicotine Replacement Therapies (Similar to Table 8)

NRT	Average Daily Cost (*1 US$ = 53 Php)
Nicotine gum	**2 mg:** Php134.09 – Php273.48 (9 pieces) **4 mg:** Php195.57 – Php307.93 (9 pieces)
Nicotine patch	Php117.66 – Php207.23
Nicotine inhaler	Php252.28 – Php321.71 (6 cartridges)
Nicotine nasal spray	Php147.34 – Php180.2 (8 doses)
Nicotine lozenge	**2 mg:** Php263.94 (9 pieces) **4 mg:** Php263.94 (9 pieces)
Bupropion	Php205.11 – Php227.9

Source: Smoking Cessation, October 2004

C. Switching Costs

The costs to switching from cigarettes to substitutes, other than monetary costs, include the immediate negative effects of unavailability of nicotine in the body. Nicotine provides at least three brain chemicals – serotonin, dopamine and norepinephrine – all of which regulate mood that contribute to feelings of confidence and mastery and pleasure. In particular, dopamine causes pleasure while the absence of norepinephrine causes agitation and irritability. Stopping smoking thus will cost the smoker pleasure and suffer uncomfortable negative effects.

Bupropion, on the other hand, has been reported to have remarkable effects on addicted smokers using more than 15 cigarettes per day. While this prescription drug provides the smoker with both norepinephrine and dopamine, users of Bupropion have reported nausea, headaches, dry mouth and blurred vision. Zyban is not recommended if you are pregnant, breast feeding, have a history of epilepsy, liver disease or an eating disorder.

Other than monetary costs, switching to nicotine replacement therapies is affected by the nicotine dosage differences and the delayed and decreased "benefits" from them. It is estimated that "within 10 seconds of starting to smoke, nicotine is available in the brain. Before this, impact is available, giving an instantaneous catch or hit, signifying to the user that the cigarette is 'active.'" (http://www.ash.org.uk/html/conduct/html/trustus.html) In contrast, NRT provide smaller doses of nicotine that do not provide maximum desired impact. For instance, nicotine patches provides a steady dose of the nicotine over the course of the day which is a "pretty boring way to ingest nicotine" (Gladwell, 2000).

D. Buyer Propensity to Substitutes

The propensity or the drive to replace cigarettes for alternatives products and services is governed by a number of factors. First, as discussed earlier, there is a need to smoke because of the pharmacological benefits derived from smoking. The need to gain these benefits stems, according to studies from conditions and psychological makeup of smokers and potential smokers. A 1986 study of psychiatric outpatients in Minnesota showed that half of them smoked. Another study revealed that 60 percent of heavy smokers had a history of major depression. In still another study, close to 90 percent of schizophrenics smokes. Gladwell (2000) observes that as overall smoking rates decline, the smoking habit becomes more concentrated among the most troubled and marginal members of society.

Secondly, the reason for smoking lies in the social context in which smokers learned how to smoke. Gladwell (2000) suggests that smoking is related to sophistication and social acceptance. In one study in the US, it was shown to be related to sex drive. Indeed, the Philippines GYTS, a school-based survey of more than 11,000 students in 2000, revealed that 25.8% think boys and 13.9% think girls who smoke have more friends. Further, some 13.8% think boys and 8.9% think girls who smoke look more attractive

Third, the acceptance of smoking in society coupled with lax implementation of smoking bans may have an effect on the propensity to stop smoking. In the Philippines GYTS study, 18.5% of the students reported that they usually smoke at home. Moreover, some 44.8% buy cigarettes in a store and that 46.6% who bought cigarettes in a store were NOT refused purchase because of their age.

The negative health effects of cigarette smoking both to smokers and non smokers as highlighted by anti-smoking campaigns could counter all propensities to smoke. However, even with reportedly increased activities of anti-smoking groups in the Philippines, the activities of anti smoking campaign could have been offset by a similar aggressive campaign by tobacco companies. For instance, the Philippines GYTS, revealed that 8 in 10 students saw anti-

smoking media messages in the past 30 days; 8 in 10 students saw pro-cigarette ads in the past 30 days. Moreover, it was reported that environmental tobacco smoke exposure is very high - 6 in 10 students live in homes where others smoke; over 7 in 10 are exposed to smoke in public places; almost 6 in 10 have parents who smoke. Despite these, only 4 in 10 students think smoke from others is harmful to them and 4 in 10 students think smoking should be banned in public places.

As for the overall conclusion, the propensity to shift to alternative nicotine products is not high. Alternative products do not offer sufficient reason to replace cigarette consumption. In the Philippines, availability of these alternatives is limited, alternatives are more expensive, psychological cost of giving up smoking is high while substitute products could not offer the same satisfaction as nicotine from cigarette does, and propensity to give up smoking is rooted in the personal and social needs of smokers. Table 21 shows the summary of the determinants for substitutes.

Table 21. Summary of the Determinants for Substitutes

Issues on Substitutes	Impact	Effect on Industry
Presence of substitutes	Limited availability	Favorable
Relative price performance of substitutes	High cost/more expensive than cigarettes	Favorable
Switching Cost	Significantly higher for substitutes	Favorable
Buyer propensity to substitute	Unlikely due to addicting effect of cigarettes	Favorable

Industry Rivalry

Rivalry within the industry has many factors. These include the number of companies in the industry, behavior of the market, cost of investment, storage costs, switching costs, and levels of product differentiation

A. Number of Firms

The cigarette industry has a limited set of players for decades. Up until the early 2000, the industry is dominated by 5 players, 3 of which currently accounts for more than 70% of the entire market.

The general market leader has always been Fortune Tobacco with its wide selection of product variants that cater to almost all market classes. La Suerte Cigar and Cigarette Factory used to occupy second place in terms of market share. However, the termination of the long term partnership with Philip Morris in 2002 has left it struggling to market its own local brands to a lower market class.

Philip Morris Manufacturing Inc. was able to successfully penetrate the Philippine market, which has long been considered a haven for cigarette

manufacturers due to the country's lax implementation of tobacco regulations. The key factor that allowed Philip Morris to successfully take over the distribution of Malboro and Philip Morris products from La Suerte was its ability to take hold of the network of La Suerte distributors and dealers which have long been the backbone of the cigarette industry.

Nevertheless, even with the emergence of Philip Morris as a potential powerhouse that would take over the market leadership, Fortune Tobacco has still remained number one, but has shown signs of losing its grip of the number one position, most likely due to the aggressive marketing and distribution efforts being done by Philip Morris.

By looking at the market share of the top three players based on their best selling brands, Fortune Tobacco offers a much wider selection of brands which caters from low to premium brands allowing it to capture a much wider customer base compared to La Suerte and Philip Morris.

It can also be observed that the more dynamic market is actually between the Winston, Camel, and Hope brands of Fortune Tobacco as against that of Marlboro and Philip Morris. This means that the battle for market leadership is concentrated on the high and premium brands, while the low and middle brands have relatively stable market share.

Table 22 shows the detailed breakdown of the market share by brand.

Table 22. Market Share by Brand of Top 3 Players (Similar to Table 5)

Company	Brand	2001	2002	2003
Fortune Tobacco Corporation	Winston	20.7	20.4	20
	Camel	11.9	11.7	11.4
	Hope	2.2	2.3	2.3
	Champion	1.4	1.4	1.4
	Fortune International	0.6	0.5	0.5
	Salem	0.2	0.2	0.2
La Suerte Cigar and Cigarette Factory	Astro	4.4	6.9	5.8
	Memphis	3	3.5	3.2
	Marlboro	27.4	24	-
	Philip Morris	1	0.9	-
Philip Morris (Phils) Manufacturing Inc	Marlboro	-	-	25.9
	Philip Morris	-	-	0.9

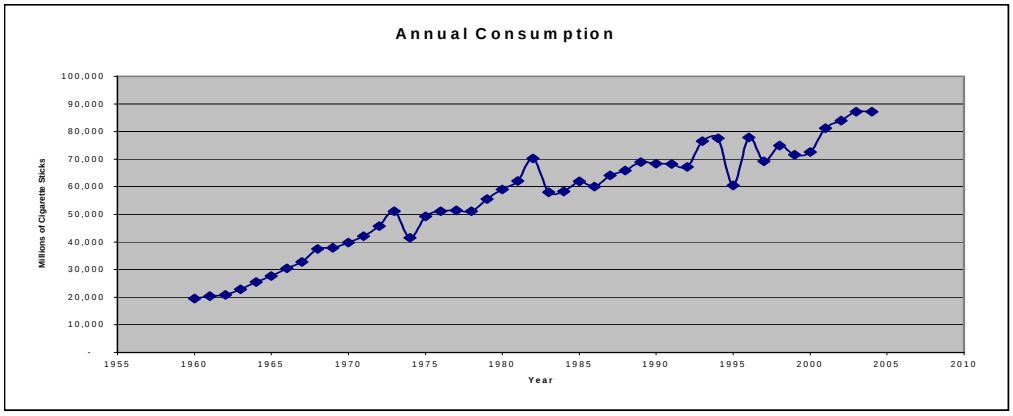
Source: Euromonitor International Estimates

B. Market Growth

Using data from the United States Department of Agriculture Report on the Philippine consumption of cigarettes, the general annual consumption pattern of the

Philippine consumers shows a stable increase in the total number of cigarette sticks consumed every year in millions of sticks. Although there are few sharp fluctuations in demand particularly in 1974 and 1995, the general trend of the market seems to point to a relatively stable future for the industry.

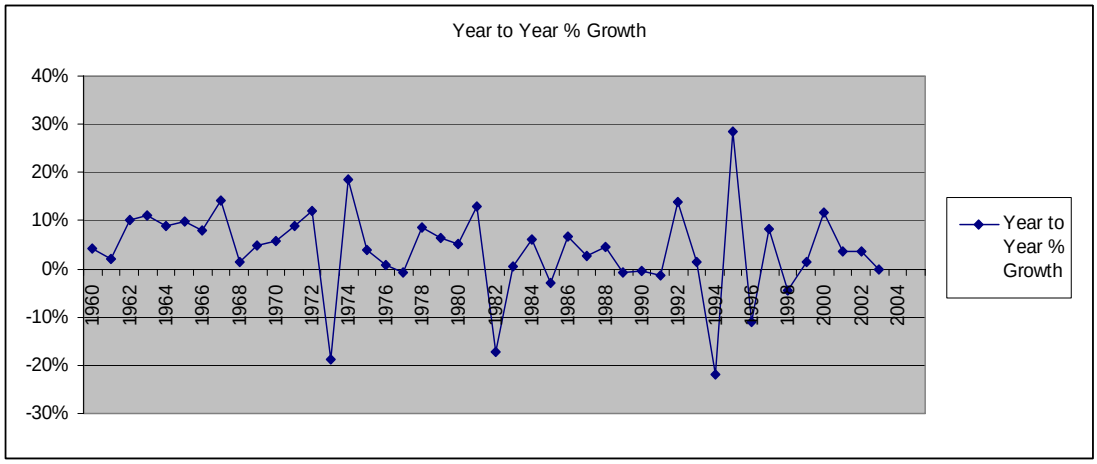
In spite of the many efforts by government and non-government agencies in trying to overtax and discourage the consumption of cigarettes as health hazards, annual consumption of cigarettes remain increasing. Figure 12 shows the pattern of annual cigarette consumption in the Philippines.



Source: FAS (USDA)

Figure 12. Annual Consumption of Cigarettes in the Philippines

Another way of looking at the consumption behavior is to analyze the year to year growth rate of cigarette consumption in the Philippines. Figure 4 shows the pattern generated using the year to year growth rates. It can be seen from the figure that there is a cyclical pattern that occurs in the consumption growth. A dip in the year-to-year growth rate happens approximately every 10 years in the middle of each decade starting from 1970 up to 1990. This trend seems to continue up to 2005 which currently has no available data.



Source: FAS(USDA)

Figure 13. Year to Year Growth Rates in Percentage

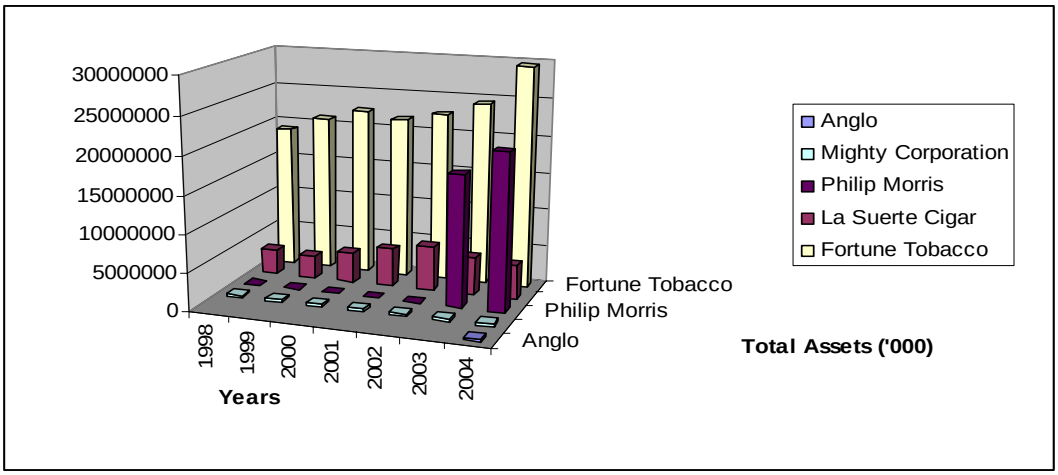
Possible reasons for this seemingly recurring extremely negative growth rates could be traced to the following sources, though additional data would be needed to validate these sources:

- Political Events
- Economic factors such as exchange rates, GDP, price per stick (price index), price of tobacco leaves, local supply of tobacco leaves, and implementation of new tax regulations on the cigarette industry
- Health related programs from both government and non-government institutions

C. Fixed Costs

Financial data from the Securities and Exchange Commission was gathered for the top 5 cigarette manufacturing companies. These financial data covers the total assets, total liabilities, and the owner's equity from 1998 up to 2004. The financial information is used to represent the amount of investment and financial commitment that cigarette companies have put into the business. Figure 14 shows the amount of total assets reported by the 5 cigarette companies. It can clearly be seen that there seem to be correlation between the total assets of the company and the market position that it has achieved.

Fortune Tobacco which is number one in the market also has the most assets invested in the cigarette industry, followed strongly by Philip Morris based on the investment it made in 2002. La Suerte Cigar has seen a decline in their total asset declaration which also coincides with the decline in their market share.

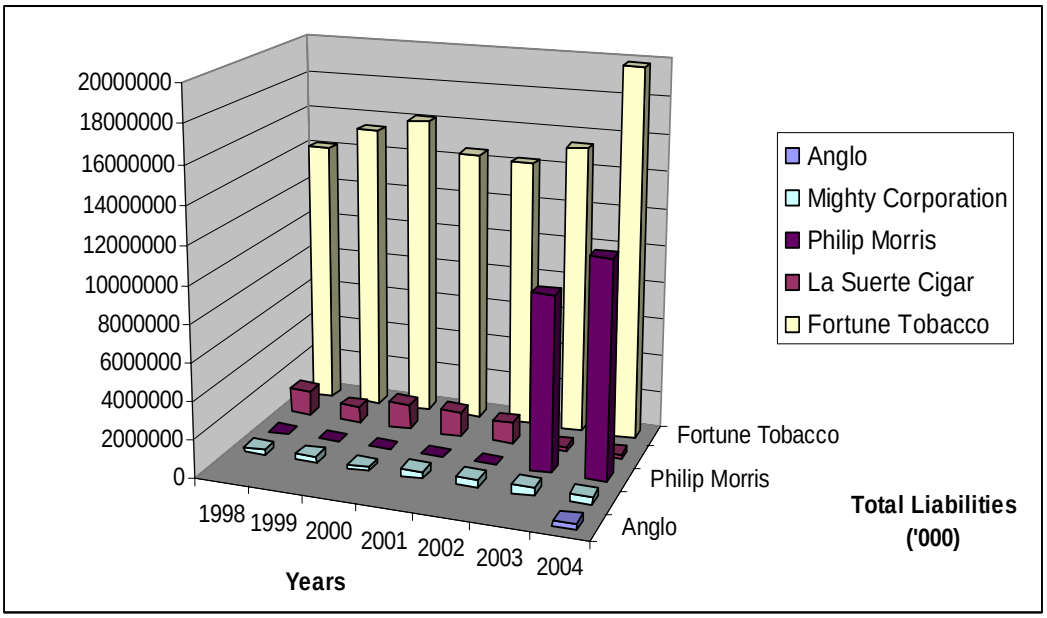


Source: Securities and Exchange Commission

Figure 14. Total Assets of the Top 5 Cigarette Manufacturing Companies

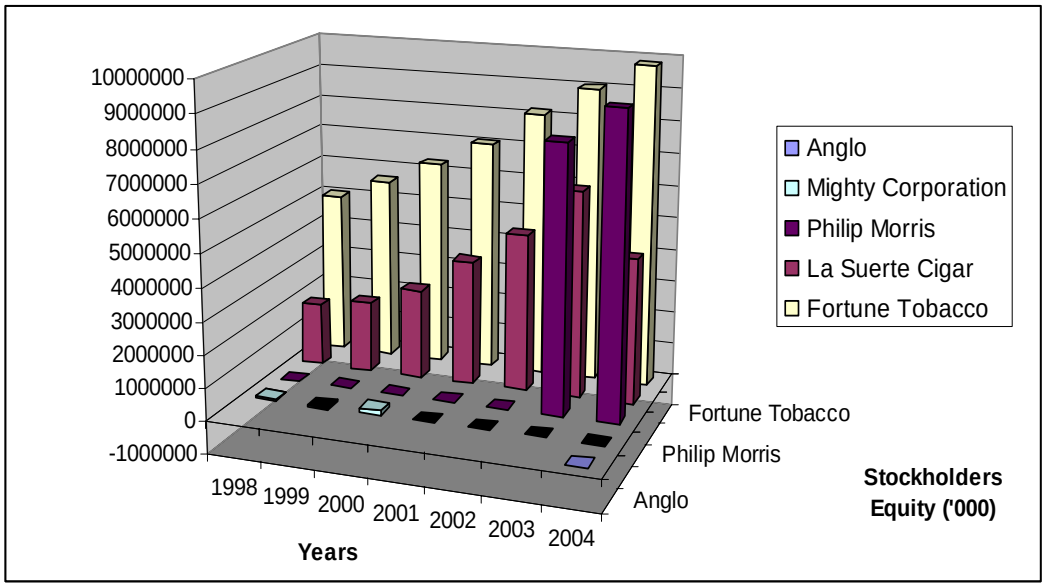
Figure 15 and 16 show a similar observation using the total liabilities and stockholders equity as declared by each company. Generally speaking, companies

who take a significant share of the market relative to the other players have higher financial stake in the industry.



Source: Securities and Exchange Commission

Figure 15. Total Liabilities of the Top 5 Cigarette Manufacturing Companies



Source: Securities and Exchange Commission

Figure 16. Total Liabilities of the Top 5 Cigarette Manufacturing Companies

The type of product manufactured and distributed in this industry is of high volume and low value. It is therefore necessary for players in this industry to be able to capitalize on their investment in order to have a much higher capacity that would

allow them to have better economies of scale in terms of their overhead cost. Appendix 6 shows the detailed financial status of the five major cigarette companies in the Philippines

D. Storage Costs

Cigarette distribution relies heavily on an extensive distribution network of third party logistics and independent area distributors who are obligated to carry and store the bulk of the inventory being manufactured by a cigarette company. Although a cigarette manufacturer does not carry the actual inventory, it nevertheless shoulders the cost through distribution contracts with these distributors. Table 23 shows the variety of distribution channels being used by cigarette manufacturers. It can be observed that there has been an increase in the variety of channels being used in selling cigarettes. It should be noted that there is a significant proportion of cigarettes being sold in other non-formal channels (classified as "Others").

Rivalry among the top players is evident in the number of creative channels used in marketing and selling cigarettes. The challenge is to have a distribution channel that can immediately get hold of the right customers for their product. Storage cost is automatically high, but not necessarily handled by the cigarette manufacturer, but by other players in its supply chain. Inventory is necessary because people who consume cigarettes do so to immediately gratify their addictive urges. Hence, when customers want to smoke, it is important that cigarettes are easily accessible. Otherwise, a competitor brand which is readily available may become the immediate choice.

Table 23. Retail Sales of Cigarettes by Distribution (Similar to Table 6)

Distribution Channel	1998	2002	2003
Supermarket / Hypermarkets	51.8	47.0	46.0
Independent Food Stores	0.3	1.0	1.1
Convenience Stores	2.5	3.3	3.5
Discounters	7.0	6.3	6.0
Drugstores	1.8	0.5	0.4
Petrol / Gas Service Stations	0.8	1.5	1.5
Newsagent-tobacconists / kiosks	0.3	0.5	0.6
Tobacconist / Specialist	1.0	2.0	2.3
Bar – Tobacconist	-	1.5	1.6
Street Vendors	2.8	2.5	2.3
Vending	-	-	-
Others	32.0	34.0	34.8
TOTAL	100.0	100.0	100.0

Source: Euromonitor International Estimates

E. Switching Costs

Cigarette prices in the Philippines are one of the cheapest in the world. The cost of a stick of cigarette is approximately a little over Php 1.00 based on the estimated price calculation shown in Table 24.

Table 24. Retail Sales and Average Price of Cigarettes

Year	Value (in million pesos)	Annual Consumption Volume (in million sticks)	Average Price per Stick (Php/stick)
1999	75751.7	71,620	1.06
2000	81551.6	72,665	1.12
2001	86854.3	81,190	1.07
2002	91159.5	84,000	1.09
2003	96049.1	87,100	1.10
2004	102097.3	87,100	1.17

Source: Euromonitor International Estimates

The price of cigarettes varies depending on its target market class. Market class can cover from low-priced to mid-priced to premium brands. However, the price difference between brands under the same class does not create a high switching cost for the customer.

It is an important strategy for cigarette companies to introduce various brands catering to various market segments. This indicates that cigarette companies have realized that customers tend to stick to their own market segments and are not keen on shifting from a low to a premium brand (or vice versa). A high switching cost therefore exists for customers who switch across brands that cater to different market segments. Switching cost for customers moving from low to premium brand cigarettes is in terms of additional cost, while switching cost from premium to low-priced cigarettes is in terms of lower satisfaction level for the customer.

F. Low Levels of Product Differentiation

Similarly, since there is low switching cost within each market segment or brand class, there is also little product differentiation except for its brand identification. This is the main reason why advertisement is still critical for the companies to market their cigarettes more on the image their cigarette is trying to project. Better brand image means more leverage to price the cigarette higher than the competitor. Better brand identification means better recall and association by the customers to their cigarettes. In addition, better brand image allows the cigarette companies to better price their products leading to higher profitability.

In conclusion, the cigarette industry exhibits limited degree of rivalry among its top market leaders. Rivalry is relatively constrained within each market category. This is why there is a need for cigarette companies to offer more product variety to capture other markets segments that are not captured by its rival players. Table 25 shows the summary of determinants and its impact on industry rivalry.

Table 25. Summary of Determinants of Rivalry in the Industry

Determinants of Rivalry	Impact	Effect on Industry Rivalry
Number of firms	Low number of firms	Leads to less rivalry
Market Growth	Slow Stable growth	Increase rivalry over new market based only on the increase in market growth
Fixed Cost	High investment for high volume manufacturing	Increased rivalry due to need to maximize capacity
Storage Cost	High storage cost from an extensive distribution system since inventory is spread over multiple levels in the distribution)	Leads to increase rivalry due to the need to move products quickly. Push factor
Switching Cost	high switching cost due to brand and taste loyalty regardless of category	Less rivalry since companies cannot easily entice customers to switch
Level of Product differentiation	Product differentiation is low within each market category and high across market categories.	Leads to high rivalry within each market category,
Brand Identity	High Differentiating factor lies in brand image	Brand identification is high, thus less rivalry

VI. Conclusion

Using the analysis of each driver in Porter's model for 5 forces, the industry seems to project the following:

- There is a contained rivalry among the current players in the cigarette industry. The rivalry exists only on a certain market segment and has been limited due to the impact of brand identification that buyers associated to their preferred cigarettes.
- Buyer power is limited in the cigarette industry. This is evident in the fact that buyers (smokers) are typically low volume consumers who are recurring customers. Customers are not able to impact the players since these customers are independent and unorganized. This little influence is exerted by them. Although, modern retailers (large retailers) are able to exert some influence on the value of cigarettes, these type of buyers in general have to deal with the fact that cigarette is a product is a guaranteed sale with low profit. Thus, retailers are always attracted to selling cigarettes and at the mercy of when the players can provide these cigarettes.

- Supplier power has been observed to be low. This is evident on the fact that there has been an abundance of local and imported tobacco supply. Including the fact that buyers prefer the "American blend" which makes use of imported tobacco variety, local suppliers cannot actually demand better price nor dictate the direction of the industry. Local tobacco supply is often looked as filler to a cigarette rather than a major component that would drive product loyalty.
- The industry is fairly established that that entry of new players is very difficult. There is already a growing trend to contain the activities of the cigarette industry through tougher regulations and the growing awareness of the negative social impact of cigarettes to the human population.
- There is a low risk for customers to actually shift to alternative products aside from cigarettes. This has been limited due to the "substitute products" distribution system and their prevailing market price.

In conclusion, the industry is expected to continue its slow but steady growth. There are limited players in the market, enough for the industry players to grow. Future strategies for these companies should be to shift to a high priced or low priced cigarette and provide clear value for money for the cigarette users. In spite of the fact that many regulations tend to stifle the growth of the cigarette industry, it remains resilient by capitalizing on the natural urge of its consumers to smoke. Consumption is still assured in the future due to the wide range of consumers from the youth (as young as 15 years old) to old (65 years and even older).

As long as cigarette smoking remains a legal activity, the potential to grow and survive remains. This becomes an expected benefit for those who are already in the industry since it makes it very difficult for new players to come into the picture. Finally, as long as the industry sustains and develops its extensive distribution network that would allow cigarettes to be distributed and make readily available to consumers, the urge to smoke can easily be satisfied.

PART 2: An Estimate of Potential Excise Tax Revenues, Actual Tax Collections, and Leakage in the Philippine Cigarette Industry

I. Introduction

The Department of Finance estimated the total tax leakage in 1997 at 7.8% of the Gross National Product with 7.2% of the Gross Domestic Product attributable to the Bureau of Internal Revenue. In pesos, the total tax leakage is around PhP197.2 billion.

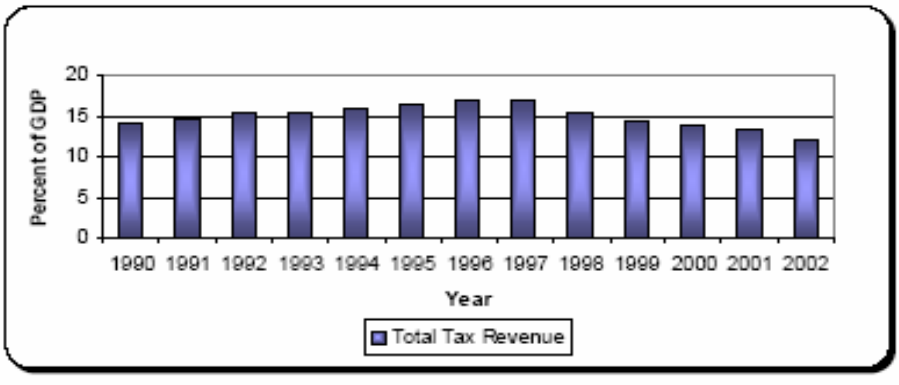
The impact of lost or missed collection is on the fiscal position of the country with a budget deficit. The average fiscal gap for the period 1990-2000 is about P33.1 billion while the average for the period 1980-1990 is about P17 billion (Gamboa, 2002). In 2006, the budget deficit dropped to PhP62.2 billion, the lowest in an 8-year period (Inquirer, 2007). The decline pattern shown in Table 1 is attributed to improved revenue collections.

Table 1. Budget deficit (in billions)

1999	2002	2003	2004	2005	2006
PhP 111.7	PhP 210.74	PhP 199.9	PhP 187.0	PhP 146.8	PhP 62.2

Source: Inquirer, 2007

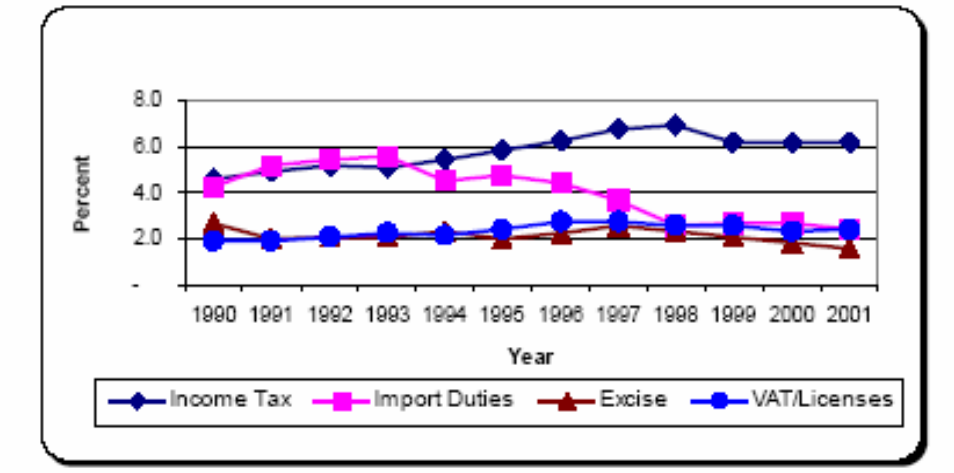
In her review of the President's Budget for 2003, Manasan (2004) observed that the poor fiscal position is mainly due to revenue side more than the expenditure side. She notes that the while expenditures have remained fairly stable, the total tax effort has declined as shown in Figure 1. The tax effort as measured by the ratio of total taxes collected and the Gross Domestic Product showed a decline of at least 4 percentage points from a high of 17.0 percent in 1997 to 13.9 percent in 2000. The decline continued up to 2004 when tax effort was registered at 9.9 percent (Vicente, 2006). The continued drop in tax effort suggests that there is a failure on the part of government to match budgeted expenditures with revenue collections.



Source: Manasan (2002; 2004)

Figure 1. Over all tax effort: tax revenues as a percentage of GDP

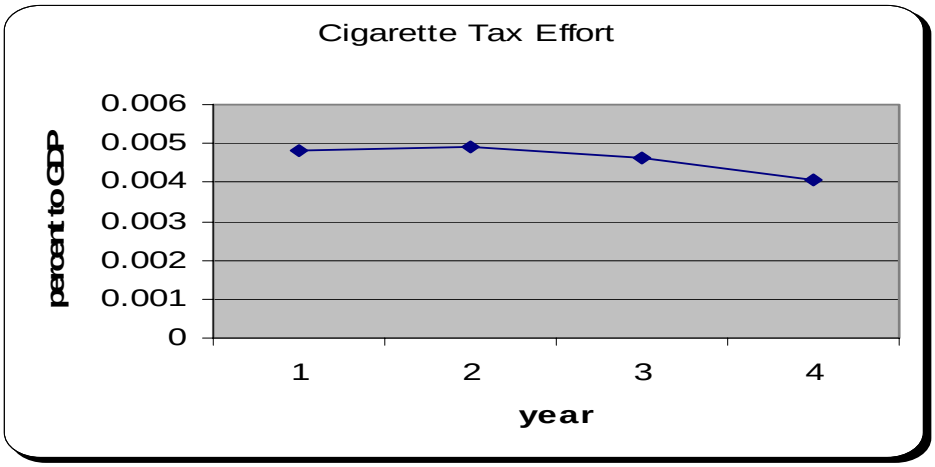
The breakdown of BIR tax effort is shown in Figure 2. The graph shows that income tax effort peaked around 1998 but remained stable at lower value until 2001. In contrast, import duties have declined since 1993 and settled at more than 50% its peak, suggesting a huge loss of potential revenues. The excise tax and VAT efforts seem to be rather stable with slight drops beginning in 1998.



Source: Manasan (2002; 2004)

Figure 2. Tax to GDP ratio of selected taxes

The tax effort in excise taxes specifically from cigarettes is given in Figure 3. It may be noted that during the entire period from 2001 to 2004, actual amount of excise tax collections were increasing except in 2004. The cause of the decline in tax effort therefore was higher rate of increase in GDP than the rate of increase in excise tax collections. That is, the excise tax collection did not match the growth in GDP.



Source: BIR data

Figure 3. Cigarette Excise Taxes to GDP ratio from 2001 to 2004

This study is intended to explore the issue of tax leakages in excise taxes for the cigarette industry. The current report examines the current concept and understanding of

leakages and explores alternative concepts. The actual revenue collections in the cigarette industry from 2000 to 2004 are compared with other statistics to understand the true nature of leakages.

In essence, this paper asks whether documented estimates of tax leakages are actual leakages or simply theoretical or potential leakages. Our analysis attempts to determine if current estimates of tax leakages can be realistically attributed to deliberate efforts to evade taxes or if the leakages were simply a result of computational assumptions and not real leakages. Some qualitative analysis and interpretation are made at the end of the paper.

II. Concepts on Excise Tax Leakage

Tax leakage is generic term to indicate loss in potential tax revenues. Tax leakages determine the payments lost due to failure to collect the "right" amount of taxes.

In general, tax leakages refer to the differences of current performance with past performance. In other words, the decline in tax effort is termed as tax leakage in as much as the past revenues were not, or more appropriately seemingly not, collected. It implies that the expected revenues went to other channels other than government, thus a leakage. The assumption from declining tax effort is that had previous performance been maintained, the fiscal problem would not have been experienced.

While this is indeed one of the common interpretations of tax leakages, this is by no means the only one clear cut definition of tax leakages. Alternatively, there are other terms that are used to refer to difference between quantities. For instance, Manasan (2003) uses the term tax gap to denote "the difference between the tax that should be paid according to tax statutes and the tax which should be collected".

The difference between actual and potential tax revenues, whether they be based on past historical data or estimated following tax laws, can be attributed to the two concepts of tax avoidance and tax evasion.

The difference between these two approaches is their legality. Tax avoidance utilizes legal frameworks to minimize the actual taxes paid while tax evasion uses illegal and unacceptable practices to reduce taxes paid. Tax avoidance, as a legal measure, may rearrange the company's activities to reduce tax liabilities. This may involve postponement of taxes, tax arbitrage and the transfer of capital, labor and operations to geographic areas with lower tax rates. Tax incentive programs of the government which are intended to encourage correct taxes but which may also reduce the total possible tax revenues, may be categorized as tax avoidance. More specifically, the BIR has pegged the excise taxes on a list of cigarette brands based on their old classification. This excise tax rate is considerably lower than what it should be currently charged.

In contrast, tax evasion involves fraudulent means of not paying the right amount of taxes. While Philippine jurisprudence does not have an exact definition of "tax fraud" the BIR Handbook for Special Agents define fraud as "deception brought about by misrepresentation

of material facts, and silence when good faith requires expression, resulting in material damage to one who relies on the same and has the right to do so" (NTRC, 1980).

In other words, there is a deliberate effort to conceal or alter facts that can directly reduce the computed taxes. Manasan (1981) lists some common ways of evading taxes: under reporting under-reporting of income, over-statement of expenses, use of fictitious receipts, the keeping of double sets of books, false or fictitious entries in books, fictitious transactions in the name of dummies, and, non-recording of sales.

As may be apparent from their definitions, estimation of unpaid taxes due to either avoidance or evasion is extremely difficult. Regardless of legality, there are no available reliable data on avoidance and evasion precisely because they are kept hidden and not made known to authorities. Moreover, by nature, they are not intended to be computed nor made known. At the Philippine Institute for Development Studies (PIDS), the effort to explain the difference between actual and potential collection is focused on the decline in tax effort (Manasan, 2002; 2004) and explained by factors due to the economic structure, the tax policy and tax evasion. This approach suggests that tax leakage as the unrealized tax collection is equal to tax evasion.

III. Approaches in estimating excise tax leakage

Vicente (2006) reviewed some of the approaches to quantifying tax leakages. These methodologies include the gap approach, tax elasticity approach, special amenities and audit approach and underground economy approach.

- Gap approach, typically used for individual income taxation, measures tax leakage by comparing aggregate personal income reported in the tax returns (ITR) with the income reported in the national income accounts (NIA). There are apparent differences in the calculations because personal exemptions are accounted for in the ITR but not in the NIA.

- The elasticity approach estimates potential tax payments using a regression equation and the forecasts compared with actual tax collections. The approach measures incremental tax evasion rather total tax evasion (Richupan, 1984).

- The amnesty approach measures tax evasion from tax amnesty returns that are voluntarily supplied by taxpayers. The accuracy of the approach depends on the participation of erring taxpayers in the amnesty program.

- The audit approach, on the other hand, relies on data gathered by revenue examiners. The frequency of audits determined by the government's manpower capacity ad the possibility of collusion of taxpayers with revenue agents similarly limits the approach's accuracy and reliability.

- The underground economy approach estimates tax evasion by measuring the unreported informal economy using the currency equation procedure, physical

input technique and labor market approach. These approaches assume that the size of the underground economy determines tax evasion volume.

Vicente (2006) reports that following Avila's work in 1984 that used simple gap approach for specific taxes and elasticity approach for income taxes, the National Tax Research Center (NTRC), the Philippine Institute for Development Studies (PIDS), and the Department of Finance (DOF) made tax evasion studies and estimates. The NTRC estimated evasion from corporate and income taxes using the gap approach. The PIDS studied individual and corporate taxes, tax on passive income and VAT using gap, audit and elasticity approaches. The DOF used gap approach for individual and corporate income tax and VAT on domestic sales.

Another practice of the PIDS is to explain the decline in tax effort (Manasan, 2002; 2004) by computing potential taxes lost compared to a base year. The percentage decline in tax effort is split among three factors: economic structure, tax policy and tax evasion. Economic structure as a factor suggests that changes in the economy such as inflation and other macroeconomic developments can reduce tax collection. Tax policy, which includes implementation of new tax rates, laws, and procedures, similarly can account for drops in revenue collection. Finally, the portion that cannot be explained or estimated from economic structure and tax policies are attributed to tax evasion.

The computational definition of tax evasion as a residual and unexplained portion of the decline in tax effort deserves some comment. The residual nature of the calculation does not necessarily mean that it matches the concept of tax evasion. In other words, the resulting computations assume that the unexplained portion of the decline in tax effort is necessarily illegal and unlawful.

Indeed, inherent in all these approaches and the concept of tax leakages are the inaccuracy of these mathematical models that have been subject to controversy (Peacock and Shaw, 1982). The assumptions, both implicit and explicit, in these methods will determine the validity of the estimates. The validity of these estimates, in turn, determines the reliability of the estimated tax leakage. To question the validity of stated leakages, therefore, is to question the validity of estimate approaches.

Except for the audit and amnesty approach which use closer to actual data, some points can be made about these estimation techniques.

First, implicit in a forecasting technique, including regression models, is that conditions prevailing the past are the same in the present and future. That is, the conditions affecting the data in the past will continue to similarly affect future data. It must be pointed out that the conditions in the past seldom continue in the present because of changes in macro and micro economic variables. In particular, the Philippines has been subjected and beset with many changes both economic and political that could affect actual tax payments. More specifically, the excise system has been changed through executive action or legislation at least 17 times since the 1970 and the excise tax law has been changed more often than other tax laws (Vicente, 2006).

Second, the relationship between macroeconomic variables and microeconomic variables is complex and not direct. Estimating tax revenues using macroeconomic variables does not necessarily give valid estimates because of the complexity of their relationships. The different industries that contribute to the national revenue account do not similarly react to the same macroeconomic variables. Furthermore, the performance of each company and each of its own brands are not affected in the same ways always by the same macroeconomic factors. Company performance and production, that determine collected excise taxes, are governed by individual firm strategies reacting to the reality of macroeconomic variables. They are unlikely to follow the same reactions and performances.

Third, using estimates for performance evaluation, that is comparing actual collection performance with estimates to determine the performance of the collecting agency, may be a questionable practice. The inherent inaccuracy of estimates due to inconstancy of prevailing conditions and macroeconomic variables not being easily translatable to performance targets may overvalue the expected performance of collecting agencies. Manasan (2002) argued that there is a need to decouple the revenue forecasts developed for expenditure management from evaluating the performance of the BIR and the Bureau of Customs. He suggests that the BIR should provide accurate estimates of the expected tax collections given the current structure of the tax system and prevailing weaknesses of the tax collection system. Moreover, the simplified practice of breaking down national revenue targets to geographical and industry units with their own targets can further add to unreliable collection targets.

The incompatibility of macroeconomic-based forecasts and performance targets of collecting agencies can be illustrated with the computational definition of tax evasion as used by Manasan (2004). She wrote that "what cannot be explained by the two factors (economic structure and tax policy) was attributed to tax evasion." The definition automatically explains unexplainable discrepancies to erring taxpayers or to collection agency even as there is no effort to investigate and identify the cause of reduced tax effort. Considering computational errors and unrealized assumptions, this discrepancy cannot be automatically attributed to deliberate efforts to evade taxes.

Concept of Tax deviation and tax target

This study proposes a more general concept of tax deviation to determine more realistic estimates of tax leakages. The purpose is to use a more objective term to denote the differences between actual collection and some reference point that acts as a tax collection target. This section explores possible target collection figures that are currently available.

The current practice for setting collection targets at the LT section at the BIR are generally based on national revenue collection targets that are intended to finance national government expenditures. The total revenue collections include BIR collections, BOC collections and non-tax collections from other sources. The collection performance is measured as a ratio of actual collections and GDP National target collections are allocated to BIR, BOC and non tax sources. In turn, BIR targets are divided among its agencies, regional units and industries.

The total revenue collections, as budgeted items, are forecasted and estimated using past historical data as well as macroeconomic factors.

Cigarette production data from companies can also serve to set targeted collections as they represent potential collections. The computed excise taxes from the production data is a good estimate as this assumes that all produced items are removed from the company.

Another set of data that can be used to set the target are the consumption figures. Consumption data seems to be a more realistic estimate of potential collections as they more closely estimate actual removals.

A third possible basis of the collection target is data from the submitted financial statement at the Securities and Exchange Commission. Sales, cost of goods sold and inventory can be used to estimate the actual removals, which determine excise taxes.

A fourth approach for setting up more realistic collection targets is based on audits and amnesty programs. These two bases are intended to determine how much tax these companies avoided in the past year and expecting to have a more accurate estimate of what should be collected through the companies' cooperation.

The next section estimates the tax deviation resulting from using these various targets. The fourth target based on audits and amnesty, however, is not used as there is no available data.

IV. Computation methods

This section describes the different approaches by which the potential cigarette industry excise tax collection figure may be estimated. Assumptions made under the different computational methods that may reduce or limit the accuracy of the approach are also discussed in this section. Data from various sources, which include USDA, NSO, Euromonitor International Studies, BIR, and Financial Statements of cigarette companies, were used to estimate the potential industry excise tax collection figure for the years 2000 to 2005. As such, it must be emphasized that the potential tax figures computed in this section are merely estimates since data sources still have to be verified. In cases where the required data did not extend until year 2005, available data were used to forecast the values for the missing years.

The following approaches were employed: (1) By Cigarette Price Category Using Production Data; (2) By Cigarette Brand Using Available Brand Shares Data; (3) By Cigarette Price Category Using Consumption Data; (4) By Cigarette Price Category Using CGS Data from Financial Statements; and (5) By Cigarette Brand Using Available Brand Shares Data (Without Price Protection).

The objectives of this section are to use independent sources of data in computing potential cigarette excise tax revenues and also to compare and tie up the differences in the results obtained using the different approaches. The end goal is to determine the difference (if any) between the potential cigarette industry excise tax collection figures and the actual BIR cigarette excise tax collection figures for the years 2000 to 2005.

By Cigarette Price Category Using Production Data

The production data cannot be applied directly in computing the potential cigarette excise tax amount since production data is inclusive of cigarettes intended for export. Thus, the exports are deducted from the production (as shown in Table 1) to derive the production quantity (in millions of sticks) for domestic consumption. Since the production data obtained extended only up to the year 2004, the number of cigarette sticks produced and exported for the year 2005 was forecasted using linear regression. The data used to forecast the production and exports spanned from 1960 to 2004.

Table 1. Production for domestic consumption

Year	Production (in millions of sticks)	Exports (in millions of sticks)	Production for domestic consumption (in millions of sticks)
2000	73,156	3,105	70,051
2001	79,000	3,360	75,640
2002	81,000	3,000	78,000
2003	84,000	3,400	80,600
2004	84,000	3,400	80,600
2005	86,310*	2,618*	83,692

Source: USDA
** Value is forecasted by linear regression using 1960-2004 data.*

The number of sticks belonging to the different price bands namely high, mid-priced, and low was determined using data obtained from a Euromonitor study. The Euromonitor study provided the percentage distribution of retail sales according to the aforementioned price bands (see Table 2). The percentages of the different price bands were then multiplied to the derived production for domestic consumption data in order to obtain the excisable number of cigarette sticks (in millions) under each of the three price bands (high, mid-priced and low). Due to unavailability of data, the market share of the different price bands in 2005 was forecasted by averaging the available market share from 2000 to 2004. Results of these computations are summarized in Table 2.

Table 2. Excisable Number of Cigarette Sticks Under Each Price Band (in millions)

Year	Production for domestic consumption (in millions of sticks)	Price Band		
		High	Mid-priced	Low
2000	70,051	15.50%	65.00%	19.50%
		10,858	45,533	13,660
2001	75,640	16.80%	64.80%	18.50%
		12,708	49,015	13,993
2002	78,000	18.80%	63.00%	18.30%
		14,664	49,140	14,274
2003	80,600	20.00%	62.00%	18.00%
		16,120	49,972	14,508
2004	80,600	22.50%	60.00%	17.50%
		18,135	48,360	14,105
2005	83,692	18.72%*	62.96%*	18.36%*
		15,667	52,692	15,366
	Source: USDA	Source: Euromonitor, 2005		
** Values are forecasted by averaging the market share from 2000 to 2004.*				

Since excise tax is assessed on a per-pack basis, then the unit of measure of excisable cigarettes (in millions of sticks) under each price band has to be converted into the equivalent number of packs. The excisable number of cigarette packs can be obtained by simply dividing the excisable number of cigarette sticks by 20, which is the usual number of cigarette sticks in one pack. However, packs of cigarettes under the low price band can either have 20 sticks or 30 sticks. Using the percentage distribution of cigarette sticks packed in 20s and 30s (see Table 3) obtained from the Bureau of Internal Revenue, the excisable number of low-priced cigarette sticks packed in 20's and 30's can be obtained. The excisable number of low-priced cigarette packs is then obtained by dividing the excisable number of cigarette sticks by 20 or 30, depending on the number of sticks per pack. Computation results are shown in Table 4, which shows the excisable number of cigarette packs under each price band.

Table 3. Percentage of Cigarette Sticks Packed in 20s and 30s

Year	By 20s	By 30s
2000	99.54%	0.46%
2001	99.55%	0.45%
2002	99.36%	0.64%
2003	99.17%	0.83%
2004	98.95%	1.05%
2005	99.18%	0.82%
Source: BIR		

Table 4. Excisable Number of Cigarette Packs for Each Price Band

Year	Number of Cigarette Packs (in millions)			
	High 20s	Mid-priced 20s	Low	
			20s	30s
2000	543	2,277	680	2
2001	635	2,451	697	2
2002	733	2,457	709	3
2003	806	2,499	719	4
2004	907	2,418	698	5
2005	783	2,635	762	4

The tax rate for the respective cigarette price bands or categories from 2000 to 2004 is as follows:

High	Php 8.96 / pack
Mid-Priced	Php 5.6 / pack
Low 20s	Php 1.12 / pack
Low 30s	Php 0.448 / pack

However, according to RA9334, the 2005 tax rates for the respective price bands were increased as follows:

High	Php 10.35 / pack
Mid-Priced	Php 6.35 / pack
Low 20s	Php 2.00 / pack
Low 30s	Php 2.00 / pack

Subsequently, the tax rates are multiplied to the excisable number of packs (Table 4) in order to compute the potential cigarette industry excise tax collection figure for the years 2000 to 2005. Computation results are summarized in Table 5.

Table 5. Computed Potential Cigarette Industry Excise Tax Collection

Year	Price Band				Computed Potential Cigarette Industry Excise Tax Collection (millions of pesos)
	High	Mid-priced	Low		
			20s	30s	
2000	543	2,277	680	2	20,198
2001	635	2,451	697	2	21,124
2002	733	2,457	709	3	22,021
2003	806	2,499	719	4	22,449
2004	907	2,418	698	5	26,370
2005	783	2,635	763	4	20,198

By Cigarette Brand Using Available Brand Shares Data

The industry excise tax was estimated using the cigarette brand shares from 2001 to 2003 found in the Euromonitor (2005). The brand share values were multiplied to the production for domestic consumption (Table 1) to determine the domestic production volume (in million of packs) of each brand. The following section provides a more detailed description of the methodology.

The brands considered in the computation consist of Marlboro and Philip Morris from Philip Morris Philippine Manufacturing Inc.; Winston, Camel, Hope, Champion, and Fortune International manufactured by Fortune Tobacco Corporation; and Astro and Memphis from La Suerte Cigar and Cigarette Factory. Brands such as Lucky Strike, West, Capri, and Mild Seven are imported and are excised through Customs, and not through BIR. Therefore, imported brands are not considered in the computation of excise tax.

According to BIR, the brands are classified as premium, high, mid-priced, or low and taxed at the appropriate rates. According to Republic Act 8424 and the 12% increase in year 2000, premium brands are taxed at P13.44 per pack, high at P8.96 per pack, mid-priced at P5.60 per pack, and low at P1.12 per pack. However, based on BIR data, there are some brands in each price category that are assessed a higher tax rate compared to the tax rates specified in Republic Act 8424. In such cases, this higher tax rate was used to compute for the excise tax. For instance, the Winston brand is classified as mid-priced but has a tax rate of P5.85 per pack, instead of P5.6 per pack (as shown in Table 6). Brands like Winston, which previously pay a tax rate higher than that stated in RA 8424, will continue paying the higher tax rate.

Other cigarette brands were also classified into the price bands (premium, high, mid-priced, low). According to BIR, locally produced cigarettes do not contain the tobacco that is classified as premium. Therefore, the highest classification of local cigarettes is the high-priced. The low-priced cigarettes are either packed in 20's or 30's. Cigarettes packed by hand have 30 sticks per pack, while cigarettes packed by machine have 20 sticks per pack. Cigarettes packed by hand are taxed at P0.448 per pack (as shown in Table 6). In RA 8424, cigarettes packed by hand have a rate of P0.40 per pack, but because of the 12% increase in tax rates in 2000, this rate has increased to P0.448 per pack. Table 6 shows the constant tax rates from 2001 to 2004, but due to RA 9334, there was an increase in the tax rates for all classifications in 2005, and every two years thereafter.

Table 6. Brand Classification

Brand	Classification	Tax Rate (2001-2004)	Tax Rate (2005)
Marlboro	High	8.96	10.35
Hope	High	8.96	10.35
Philip Morris	High	8.96	10.35
Winston	Mid-priced	5.85	6.35
Camel	Mid-priced	5.6	6.35
Salem	Mid-priced	6.96	6.96
Astro	Mid-priced	5.6	6.35
Memphis	Mid-priced	5.6	6.35
Champion	Low	1.12	2
Fortune Int'l	Low	1.12	2
Others			
High	High	8.96	10.35
Mid-priced	Mid-priced	5.6	6.35
Low			
20s	Low	1.12	2
30s	Low	0.448	2

Source: Bureau of Internal Revenue

The market share from 2001 to 2005 of each brand is shown in Table 7. Euromonitor (2005) provided the brand shares from 2001 to 2003. The brand shares for 2004 and 2005 were estimated by using the average market share of each brand from 2001 to 2003. On the other hand, the other cigarette brands (specified as "others" in Table 7) were classified as high, mid-priced, and low (as shown in Table 7). The market share for each of these three price classifications was then obtained by multiplying the market share of "others" in Table 7 (4.20%, 5.00%, 5.90%, 5.03%, 5.03%) to the percentage distribution of cigarette sales according to price band in Table 8.

The values from 2001 to 2004 in Table 8 were obtained from Euromonitor (2005), while 2005 values were obtained by using the average of 2000 to 2004 (see Table 2). Again, the cigarettes classified as low can either be packed in 20's or 30's. Therefore, multiplying the percentage of 20's and 30's cigarettes produced (as shown in Table 3) to the percentages of low-priced cigarettes found in Table 7 (0.78%, 0.92%, 1.06%, 0.88%, 0.94%) will result in the market share for low-priced cigarettes packed in 20s and low-priced cigarettes packed in 30s for 2001 to 2005.

Table 7. Market Share of Cigarette Brands

Brand	Market Share				
	2001	2002	2003	2004	2005
Marlboro	27.40%	24.00%	25.90%	25.77%*	25.77%*
Hope	2.20%	2.30%	2.30%	2.27%*	2.27%*
Philip Morris	1.00%	0.90%	0.90%	0.93%*	0.93%*
Winston	20.70%	20.40%	20.00%	20.37%*	20.37%*
Camel	11.90%	11.70%	11.40%	11.67%*	11.67%*
Salem	0.20%	0.20%	0.20%	0.20%*	0.20%*
Astro	4.40%	6.90%	5.80%	5.70%*	5.70%*
Memphis	3.00%	3.50%	3.20%	3.23%*	3.23%*
Champion	1.40%	1.40%	1.40%	1.40%*	1.40%*
Fortune Int'l	0.60%	0.50%	0.50%	0.53%*	0.53%*
Others	4.20%	5.01%	5.90%	5.03%*	5.03%*
High	0.71%	0.94%	1.18%	1.13%	0.94%
Mid-priced	2.72%	3.15%	3.66%	3.02%	3.17%
Low	0.78%	0.92%	1.06%	0.88%	0.92%
20s	0.77%	0.91%	1.05%	0.87%	0.91%
30s	0.0035%	0.01%	0.01%	0.01%	0.01%

Source: Euromonitor International (2005)

* Values were obtained by averaging the market shares from 2001 to 2003

Table 8. Percentage Distribution of Cigarette Sales According to Price Band

Year	High	Mid-priced	Low
2001	16.80%	64.80%	18.50%
2002	18.80%	63.00%	18.30%
2003	20.00%	62.00%	18.00%
2004	22.50%	60.00%	17.50%
2005	18.72%*	62.96%*	18.36%*

Source: Euromonitor International (2005)

*Values were obtained by using 2000 to 2004 averages

The production for domestic consumption from 2001 to 2005, as shown in Table 1, is multiplied to the brand shares from 2001 to 2005 (as shown in Table 7) to determine the excisable number of cigarette sticks (in million of sticks) of each brand. In order to convert this amount into its equivalent number of packs, the number of sticks of each brand is divided according to the number of sticks in a pack; 20 sticks per pack for all the brands except the low-priced 30's, which have

30 sticks per pack. The excisable number of cigarette packs under each brand (in million of packs) is shown in Table 9.

Table 9. Estimated Excisable Number of Cigarette Packs of Each Brand (in millions)

Brand	Number of Packs				
	2001	**2002**	**2003**	**2004**	**2005**
Marlboro	1,036	936	1,044	1,038	1,078
Hope	83	90	93	91	95
Philip Morris	38	35	36	38	39
Winston	783	796	806	821	852
Camel	450	456	459	470	488
Salem	8	8	8	8	8
Astro	166	269	234	230	239
Memphis	113	137	129	130	135
Champion	53	55	56	56	59
Fortune Int'l	23	20	20	21	22
Other					
High	27	37	48	46	39
Mid-priced	103	123	147	122	133
Low	29	36	43	35	38
20s	29	35	42	35	38
30s	0	0	0	0	0

Excise tax can now be estimated by multiplying the excisable number of cigarette packs of each brand for each year (as shown in Table 9) to the appropriate tax rate of the particular cigarette brand (as shown in Table 6). For example, the excisable number of packs of Marlboro (1,036, see Table 9) in 2001 is multiplied to its specific tax rate (8.96, see Table 6) to determine the potential excise tax revenue generated from the Marlboro brand (9,285, see Table 10) for the year 2001. The computed potential excise tax revenue from each brand is

then summed up each year to obtain the estimated potential cigarette industry excise tax revenue for the years 2001 to 2005 as shown in the last row of Table 10.

Table 10. Computed Potential Cigarette Industry Excise Tax Collection

Brand	Computed Excise Tax				
	2001	**2002**	**2003**	**2004**	**2005**
Marlboro	9285	8387	9352	9304	11160
Hope	746	804	831	818	982
Philip Morris	339	314	325	337	404
Winston	4580	4654	4715	4802	5412
Camel	2520	2555	2573	2633	3100
Salem	53	54	56	56	58
Astro	932	1507	1309	1286	477
Memphis	635	764	722	730	271
Champion	59	61	63	63	117
Fortune Int'l	25	22	23	24	45
Other					
High	239	328	426	409	407
Mid-priced	576	688	826	682	842
Low					
20s	33	40	48	39	76
30s	0	0	0	0	1
Total Excise Tax	**20,022**	**20,179**	**21,268**	**21,183**	**23,351**

By Cigarette Price Category Using Consumption Data

Another way of computing the potential excise tax collection is by using the number of cigarettes consumed (as shown in Table 11) from the National Statistics Office. Since NSO provided consumption data (based on a survey) only until 2004, the number of cigarette sticks consumed for the year 2005 was forecasted using linear regression. The data used to forecast consumption spanned from 1999 to 2004.

Table 11. Cigarette Consumption

Year	Consumption (in millions of sticks)
2000	91,260
2001	91,780
2002	90,610
2003	89,246
2004	87,668
2005	88,480*
Source: NSO ** Value is forecasted by linear regression using 1999 to 2004 data.*	

The number of sticks belonging to the different price bands namely high, mid-priced, and low was determined using data obtained from a Euromonitor study. The study provided the percentage distribution of retail sales according to the aforementioned price bands (see Table 12). The percentages of the different price bands were then multiplied to the consumption data in order to obtain the excisable number of cigarette sticks (in millions) under each of the three price bands (high, mid-priced and low). The market share of the different price bands in 2005 was forecasted by averaging the market share from 2000 to 2004. Results of these computations are summarized in Table 12.

Table 12. Excisable Number of Cigarette Sticks for Each Price Band (in millions)

Year	Consumption (in millions of sticks)	Price Band		
		High	Mid-priced	Low
2000	91,260	15.50%	65.00%	19.50%
		14,145	59,319	17,796
2001	91,780	16.80%	64.80%	18.50%
		15,419	59,473	16,979
2002	90,610	18.80%	63.00%	18.30%
		17,035	57,084	16,582
2003	89,246	20.00%	62.00%	18.00%
		17,849	55,332	16,064
2004	87,668	22.50%	60.00%	17.50%
		19,725	52,601	15,342
2005	88,480	18.72%*	62.96%*	18.36%*
		16,563	55,707	16,245
	Source: NSO	Source: Euromonitor, 2005		
** Values are forecasted by averaging the market share from 2000 to 2004.*				

Since excise tax is assessed on a per-pack basis, then the unit of measure of excisable cigarettes (in millions of sticks) under each price band has to be converted into the equivalent number of packs. The excisable number of cigarette packs can be obtained by simply dividing the excisable number of cigarette sticks by 20, which is the usual number of cigarette sticks in

one pack. However, packs of cigarettes under the low price band can either have 20 sticks or 30 sticks. Using the percentage distribution of cigarette sticks packed in 20s and 30s (see Table 3) from data provided by the Bureau of Internal Revenue, the excisable number of low-priced cigarette sticks packed in 20's and 30's was computed.

The excisable number of low-priced cigarette packs is then obtained by dividing the excisable number of cigarette sticks by 20 or 30, depending on the number of sticks per pack. Computation results are shown in Table 13, which shows the excisable number of cigarette packs under each price band.

Table 13. Excisable Number of Cigarette Packs for Each Price Band

Year	Number of Cigarette Packs (in millions)			
	High 20s	Mid-priced 20s	Low	
			20s	30s
2000	707	2,966	886	3
2001	771	2,974	845	3
2002	852	2,854	824	4
2003	892	2,767	797	4
2004	986	2,630	759	5
2005	828	2,785	806	4

The tax rate for the respective price bands or categories from 2000 to 2004 is as follows:

High	Php 8.96 / pack
Mid-Priced	Php 5.6 / pack
Low 20s	Php 1.12 / pack
Low 30s	Php 0.448 / pack

However, according to RA9334, the 2005 tax rates for the respective price bands were increased as follows:

High	Php 10.35 / pack
Mid-Priced	Php 6.35 / pack
Low 20s	Php 2.00 / pack
Low 30s	Php 2.00 / pack

Subsequently, the tax rates are multiplied to the excisable number of packs (as shown in Table 13) in order to compute the potential cigarette industry excise tax collection figure for the years 2000 to 2005. Computation results are summarized in Table 14.

Table 14. Computed Potential Cigarette Industry Excise Tax Collection

Year	Price Band				Computed Potential Cigarette Industry Excise Tax Collection (millions of pesos)
	High	Mid-priced	Low		
			20s	30s	
2000	707	2,966	886	3	23,940
2001	771	2,974	845	3	24508
2002	852	2,854	824	4	24539
2003	892	2,767	797	4	24384
2004	986	2,630	759	5	24418
2005	828	2,785	806	4	27879

By Cigarette Price Category Using CGS Data from Financial Statements

Another way to solve for the potential cigarette industry excise tax figure is by using the cost of goods sold (CGS) from the financial statements. The cost of goods sold can be assumed to be the excisable amount (in pesos) since it represents the amount of cigarettes removed and sold by the cigarette manufacturers. This represents a fairly accurate estimate of removals since cigarette manufacturers are not likely to under-declare their CGS for income tax reasons.

However, the costs of goods sold in the financial statements are given in monetary value. Thus, computations are needed to obtain the excisable number of cigarette packs for each major cigarette manufacturer.

The formula that will be used to convert the CGS into equivalent number of cigarette packs removed/sold is as follows:

Number of Cigarette Packs Removed/Sold=CGS/(Manufacturer's Weighted Average Cost Per Pack)

The number of cigarette packs removed /sold is then converted into excisable number of cigarette packs using the following formula:

Excisable Number of Cigarette Packs = Number of Cigarette Packs Removed/Sold – Exported Number of Cigarette Packs

The goal here is to arrive at an average cigarette production cost value for each major manufacturer. This production cost value is referred to in this study as the manufacturer's weighted average cost per pack. Since cigarette manufacturers normally produce several brands of cigarettes, each of which costs differently to produce, then what needs to be done is to first determine the cost of producing each brand from 2001 to 2005. For consistency of calculations, the cost of producing a cigarette brand under this methodology will include excise taxes because CGS figures obtained from the manufacturers' financial statements are inclusive of excise taxes. Once the cost of producing each brand under a specific manufacturer has been computed and determined for 2001 to 2005, these costs are then multiplied to each brand's respective 2001 to 2005 market share in order to obtain the

manufacturer's weighted average cost per pack for each of those years. The market share of a brand under a specific manufacturer serves as the "weight" for the computed cost of the brand. Market share is computed by getting the ratio of the brand share to the manufacturer's market share for 2001 to 2005 as obtained from the Euromonitor study.

As discussed in the previous paragraph, the first step is to derive the cost of producing a cigarette brand. Since the wholesale price of different brands under each major cigarette manufacturer was made available through data collection, the cost of each brand for 2007 was obtained by working backwards. First, through interviews with cigarette distributors and also due to the confidentiality of such information, it was assumed that the wholesalers' or distributors' profit margin per cigarette pack is negligible. Next, we take out the value-added tax (VAT) imputed by the manufacturer in the given wholesale price per pack of the brand in order to obtain the price of a cigarette brand net of VAT. Since wholesale prices collected were 2007 prices, a 12% VAT value was used in the calculations. The formula to be used is given below and the results are shown in Table 15.

Cigarette Price Net of VAT = Wholesale Price per pack / (1 + VAT)

In order to determine the net-of-VAT cigarette brand prices from 2001 to 2005, the difference between the 2007 and 1997 net-of-VAT cigarette brand price was obtained. The BIR provided data on the 1997 Net Retail Price or NRP of major cigarette brands. However, NRP is exclusive of excise tax and VAT. Therefore, the 1997 net-of-VAT cigarette brand prices were computed by adding the applicable 1997 excise tax rate of a cigarette brand to the NRP data as shown in Table 16. The calculated difference between the 2007 and 1997 net-of-VAT cigarette brand prices was then divided by 10 to get the average yearly price increase over the 10-year period (1997 to 2007). This average yearly price increment is then added to each year across the 10 years to determine the net-of-VAT cigarette brand prices from 2001 to 2005. The computational results for the 2001 to 2005 net-of-VAT cigarette brand prices are shown in Table 17.

Table 15. 2007 Cigarette Brand Prices Net of VAT

Company	Brand	Price (per pack) of Cigarette Brands Net of VAT (2007)
Philip Morris	Marlboro	23.04
	Philip Morris	23.93
Fortune Tobacco	Winston	16.52
	Camel	16.07
	Hope Luxury	17.68
	Champion	8.29
	Fortune International	8.61
	Salem	58.04
La Suerte	Astro	11.16
	Memphis	6.61

Table 16. 1997 Cigarette Brand Prices Net of VAT

Company	Brand	Net Retail Price (1997)	BIR Tax Rate (1997)	Price (per pack) of Cigarette Brands Net of VAT (1997)
Philip Morris	Marlboro	6.81	8.96	15.77
	Philip Morris	7.44	8.96	16.40
Fortune Tobacco	Winston	5.50	5.85	11.35
	Camel	4.71	5.6	10.31
	Hope Luxury	7.37	8.96	16.33
	Champion	4.56	1.12	5.68
	Fortune International	4.46	1.12	5.58
	Salem	4.75	6.96	11.71
La Suerte	Astro	3.00	5.6	8.60
	Memphis	0.51	5.6	6.11

Table 17. Price (per pack) of Cigarette Brands Net of VAT

Company	Brand	Price (per pack) of Cigarette Brands Net of VAT				
		2001	2002	2003	2004	2005
Philip Morris	Marlboro	-	-	20.13	20.86	21.58
	Philip Morris	-	-	20.92	21.67	22.42
Fortune Tobacco	Winston	13.41	13.93	14.45	14.97	15.48
	Camel	12.61	13.19	13.77	14.34	14.92
	Hope Luxury	16.87	17.00	17.14	17.27	17.41
	Champion	6.73	6.99	7.25	7.51	7.77
	Fortune International	6.79	7.09	7.40	7.70	8.00
	Salem	30.24	34.87	39.51	44.14	48.77
La Suerte	Astro	9.62	9.88	10.14	10.39	10.65
	Memphis	6.31	6.36	6.41	6.46	6.51
Source: BIR, Suysing Commercial Inc., Welcome Supermart						

Data on Sales and CGS were obtained from the income statement of the cigarette manufacturers and the ratio of CGS to Sales for each of the major cigarette manufacturers from 2001 to 2005 was computed. For any given year, the CGS to Sales ratio represents the percentage of sales that corresponds to the cost of the different brands produced by a particular manufacturer. This ratio is multiplied to the price of a cigarette brand net of VAT for a given year in order to take out the cigarette manufacturer's mark-up (gross margin) and thus obtain the cost per pack of that particular cigarette brand.

CGS and Sales are shown in Table 18 while Table 19 shows the results of the computations. The formula to be used is given as:

Cost/pack of cigarette brand = (Cigarette Price Net of VAT)*(Manufacturer's CGS/Sales ratio)

Table 18. CGS and Sales of each Major Cigarette Manufacturer

	Philip Morris	Fortune Tobacco	La Suerte
Cost of Goods Sold			
2001		21,363,363,498.00	15,556,128,284.90
2002		22,791,714,242.00	16,845,668,147.71
2003	14,756,898,308.00	22,957,520,556.00	3,183,233,642.22
2004	20,555,361,800.00	26,044,274,595.00	1,730,240,368.76
2005	23,322,399,470.00	23,088,844,888.00	9,328,817,610.90
Sales			
2001		24,905,936,808.00	17,776,915,756.45
2002		26,758,558,714.00	19,205,062,394.07
2003	17,811,546,601.00	26,954,340,822.00	3,293,224,146.54
2004	25,380,233,301.00	30,121,565,199.00	1,431,381,376.59
2005	28,913,493,772.00	26,320,725,488.00	10,426,645,918.41

No CGS and Sales values in 2001-2002 for Philip Morris since it only started production of cigarettes by the end of 2002.

Table 19. Computed Cost per Pack of Cigarette Brands

Company	Cigarette Brand	Cost/pack				
		2001	2002	2003	2004	2005
Philip Morris	Marlboro	-	-	16.68	16.89	17.41
	Philip Morris	-	-	17.33	17.55	18.09
Fortune Tobacco	Winston	11.51	11.87	12.31	12.94	13.58
	Camel	10.82	11.24	11.73	12.40	13.09
	Hope Luxury	14.47	14.48	14.60	14.94	15.27
	Champion	5.77	5.95	6.17	6.49	6.82
	Fortune International	5.82	6.04	6.30	6.66	7.02
	Salem	25.94	29.70	33.65	38.16	42.78
La Suerte	Astro	8.42	8.67	9.80	12.56	9.53
	Memphis	5.52	5.58	6.19	7.81	5.82

After computing the cost per pack for the years 2001 to 2005, the weighted average cost per pack for each major cigarette manufacturer was determined as previously discussed. Sample computation is shown below and results are shown in Table 20.

Weighted Ave. Cost (Philip Morris, 2003) = [16.68 * (25.9/26.8)] + [17.33 * (0.9/26.8)]
= **16.70**

Table 20. Weighted Average Cost per Pack of Major Manufacturers of Cigarette Brands

Brand	2001		2002		2003		2004		2005	
	Market Share	**Cost per pack**	**Market Share**	**Cost per pack**	**Market Share**	**Cost per pack**	**Market Share**	**Cost per pack**	**Market Share**	**Cost per pack**
Philip Morris										
Marlboro	-	-	-	-	25.9	16.68	25.77	16.89	25.77	17.41
Philip Morris	-	-	-	-	0.9	17.33	0.93	17.55	0.93	18.09
Weighted Ave. Cost/Pack	-	-	-	-	-	**16.70**	-	**16.91**	-	**17.43**
Fortune Tobacco										
Winston	20.7	11.51	20.4	11.87	20	12.31	20.37	12.94	20.37	13.58
Camel	11.9	10.82	11.7	11.24	11.4	11.73	11.67	12.40	11.67	13.09
Hope Luxury	2.2	14.47	2.3	14.48	2.3	14.60	2.27	14.94	2.27	15.27
Champion	1.4	5.77	1.4	5.95	1.4	6.17	1.4	6.49	1.4	6.82
Fortune International	0.6	5.82	0.5	6.04	0.5	6.30	0.53	6.66	0.53	7.02
Salem	0.2	25.94	0.2	29.70	0.2	33.65	0.2	38.16	0.2	42.78
Weighted Ave. Cost/Pack	-	**11.23**	-	**11.62**	-	**12.06**	-	**12.69**	-	**13.33**
La Suerte										
Astro	4.4	8.42	6.9	8.67	5.8	9.80	5.7	12.56	5.7	9.53
Memphis	3	5.52	3.5	5.58	3.2	6.19	3.23	7.81	3.23	5.82
Weighted Ave. Cost/Pack	-	**7.25**	-	**7.63**	-	**8.52**	-	**10.84**	-	**8.19**

With the computed values, the number of cigarette packs removed/sold per major cigarette manufacturer for the years 2001 to 2005 can now be determined by dividing the manufacturer's CGS by the manufacturer's weighted average cost per pack. Results are shown in Table 21.

Table 21. Number of Cigarette Packs Removed/Sold

Company	2001		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	-	-	-
Fortune Tobacco	21,363,363,498.00	11.23	1,902,246,081
La Suerte	15,556,128,284.90	7.25	2,147,149,034
Total			**4,049,395,115**
	2002		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	-	-	-
Fortune Tobacco	22,791,714,242.00	11.62	1,961,432,491
La Suerte	16,845,668,147.71	7.63	2,208,870,815
Total			**4,170,303,305**
	2003		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	14,756,898,308.00	16.70	883,636,232
Fortune Tobacco	22,957,520,556.00	12.06	1,902,969,477
La Suerte	3,183,233,642.22	8.52	373,790,706
Total			**3,160,396,415**
	2004		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	20,555,361,800.00	16.91	1,215,221,948
Fortune Tobacco	26,044,274,595.00	12.69	2,052,125,441
La Suerte	1,730,240,368.76	10.84	159,592,366
Total			**3,426,939,755**
	2005		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	23,322,399,470.00	17.43	1,337,816,670
Fortune Tobacco	23,088,844,888.00	13.33	1,731,606,495
La Suerte	9,328,817,610.90	8.19	1,139,455,827
Total			**4,208,878,991**

The last step in this process is to remove exported cigarette packs from the number of cigarette packs removed/sold in order to obtain the excisable number of cigarette packs. Results are shown in Table 22.

Table 22. Excisable Number of Cigarette Packs

Year	Number of Cigarette Packs Removed/Sold	Exports (in packs)	Excisable Number of Cigarette Packs
2001	4,049,395,115	168,000,000	3,881,395,115
2002	4,170,303,305	150,000,000	4,020,303,305
2003	3,160,396,415	190,811,000	2,969,585,415
2004	3,426,939,755	530,073,550	2,896,866,205
2005	4,208,878,991	560,006,500	3,648,872,491

The percentage distribution of cigarette sales according to price band (obtained from Euromonitor study) is then multiplied to the excisable number of cigarette packs in order to get the excisable number of cigarette packs under each price band as shown in Table 23. However, packs of cigarettes under the low price band can either have 20 sticks or 30 sticks. Using the percentage distribution of cigarette sticks packed in 20s and 30s (see Table 3) obtained from the Bureau of Internal Revenue, the excisable number of low-priced cigarettes packed in 20's and 30's can be obtained. Computation results are shown in Table 23.

Table 23. Excisable Number of Cigarette Packs Under Each Price Band

Year	Excisable Number of Cigarette Packs (in millions)	Price Band			
		High	Mid-priced	Low (20's)	Low (30's)
2001	3,881	16.80%	64.80%	18.42%	0.08%
		652.07	2,515.14	714.83	3.23
2002	4,020	18.80%	63.00%	18.18%	0.12%
		755.82	2,532.79	731.01	4.71
2003	2,970	20.00%	62.00%	17.85%	0.15%
		593.92	1,841.14	530.09	4.44
2004	2,897	18.53%	63.27%	18.08%	0.19%
		536.79	1,832.85	523.70	5.56
2005	3,649	18.53%	63.27%	18.12%	0.15%
		676.14	2,308.64	661.18	5.47

Source: Euromonitor

The tax rate for the respective price bands is as follows:

High		Php 8.96 / pack
Mid-Priced		Php 5.6 / pack
Low	20s	Php 1.12 / pack
Low	30s	Php 0.448 / pack

Subsequently, the tax rates are multiplied to the excisable number of cigarette packs in order to compute the potential cigarette industry excise tax collection figure from years 2000 to 2005. Computation results are summarized in Table 24.

Table 24. Computed Potential Cigarette Industry Excise Tax Collection

Year	Excisable Number of Packs (in Millions) According to Price Band				Computed Potential Cigarette Excise Tax Collection (in millions of Php)
	High	Mid-priced	Low (20's)	Low (30's)	
2001	5,843	14,085	801	1	20,729
2002	6,772	14,184	819	2	21,777
2003	5,321	10,310	594	2	16,228
2004	4,810	10,264	587	2	15,663
2005	6,998	14,660	1,322	11	22,991

By Cigarette Brand Using Available Brand Shares Data (Without Price Protection)

Similar to the "By Cigarette Brand Using Available Brand Shares Data" methodology, the industry excise tax in this computational method was estimated using the cigarette brand shares from 2001 to 2003 found in the Euromonitor (2005). However, this methodology attempts to determine the potential cigarette industry excise tax collection figure that would have been collected had there been no price protection given to existing brands in 1997. Price protection is the law stating that "the classification of each brand of cigarettes based on its average net retail price as of October 1, 1996, as set forth in Annex "D", shall remain in force until revised by Congress" (RA 8424, 1997).

By disregarding the protection set forth by RA 8424, most of the brands would have had a different classification by now because of the increase in their net retail price over the past 10 years. In order to determine the true classification of these protected brands, the supposed net retail price (NRP) of each brand from 2001 to 2005 was computed using the following formula:

$$\text{Net retail price} = [\text{Wholesale price}/(1+\text{VAT})] - \text{BIR Tax Rate}$$

Note that the above formula ignores the distributors' or wholesalers' profit margin in computing for the net retail price. Again, just like the CGS method, it is assumed in this methodology that the wholesalers' or distributors' margin is insignificant.

The wholesale price per pack of each brand (as shown in Table 25) was obtained through data collection. BIR Tax Rate refers to the current tax rate applied by BIR on the different brands, and VAT is 12% of the manufacturer's gross selling price (NRP + BIR tax) since data collected were 2007 prices. Using the formula shown above, the NRP is determined for 2007.

For the other cigarette brands, the BIR tax rate will be applied since there is no way to identify those with protected prices. Other cigarette brands were also classified into the price bands (premium, high-priced, mid-priced, low-priced). According to BIR, locally produced cigarettes do not contain the tobacco that is classified as premium, therefore the highest classification of local cigarettes is the high-priced. The low-priced cigarettes are either packed in 20's or 30's. Cigarettes packed by hand are packed 30 sticks per pack, while cigarettes packed by machine are packed 20 sticks per pack. Cigarettes packed by hand are taxed at P0.448 per pack (as shown in Table 25). In RA 8424, cigarettes packed by hand have a rate of P0.40 per pack, but because of the 12% increase in tax rates in 2000, this rate increased to P0.448 per pack.

Table 25. Net Retail Price for Each Brand

Brand	Wholesale Price	BIR Tax Rate	VAT	Net Retail Price (2007)
Marlboro	25.8	8.96	0.12	14.08
Hope	19.8	8.96	0.12	8.72
Champion	9.29	1.12	0.12	7.17
Philip Morris	26.8	8.96	0.12	14.97
Winston	18.5	5.85	0.12	10.67
Camel	18	5.6	0.12	10.47
Astro	12.5	5.6	0.12	5.56
Memphis	7.4	1.12	0.12	1.01
Fortune Int'l	9.64	1.12	0.12	7.49
Other				
High		8.96		
Mid-priced		5.6		
Low				
20s		1.12		
30s		0.448		

In order to determine the NRP from 2001 to 2005, the NRP of 2007 is subtracted by the NRP of 1997 (obtained from BIR) and divided by 10 to get the increase in price across the 10 years. The increment is then added to each year across the 10 years, and the NRP from 2001 to

2005 is extracted from this data. The NRP is used to classify the brand as premium, high, mid-priced, or low.

According to RA 8424, from 2000 to 2004, premium brands have an excise tax rate of P13.44 per pack, high-priced brands have a rate of P8.96 per pack, mid-priced brands have a rate of P5.6 per pack, and low-priced brands have a rate of P1.12 per pack. In 2005, due to RA 9334, the tax rates for each of the classifications increased as follows: premium is taxed at P25 per pack, high-priced brands are taxed at P10.35 per pack, mid-priced brands are taxed at 6.35 per pack, and low-priced brands are taxed at P2 per pack.

The NRP and price classifications of the different brands are shown in Table 26. Table 27, on the other hand, shows the applicable tax rates of the different cigarette brands from 2001 to 2005 without the price protection policy.

Table 26. Net Retail Price from 2001 to 2005 by Brand

Brand	NRP	Band	NRP	Band	NRP	Band	NRP	Band	NRP	Band
	2001		2002		2003		2004		2005	
Marlboro	9.72	high	10.44	premium	11.17	premium	11.90	premium	12.62	premium
Hope	7.91	high	8.04	high	8.18	high	8.31	high	8.45	high
Champion	5.61	mid-priced	5.87	mid-priced	6.13	mid-priced	6.39	mid-priced	6.65	high
Philip Morris	10.45	premium	11.20	premium	11.96	premium	12.71	premium	13.46	premium
Winston	7.56	high	8.08	high	8.60	high	9.12	high	9.63	high
Camel	7.01	high	7.59	high	8.17	high	8.74	high	9.32	high
Astro	4.04	Low	4.30	low	4.55	low	4.80	low	5.06	mid-priced
Memphis	0.73	Low	0.78	low	0.82	low	0.87	low	0.92	low
Fortune Int'l	5.67	mid-priced	5.97	mid-priced	6.28	mid-priced	6.58	high	6.88	high

Table 27. Tax Rates from 2001 to 2005 by Brand

Brand	Tax Rate	Tax Rate	Tax Rate	Tax Rate	Tax Rate
Marlboro	8.96	13.44	13.44	13.44	25
Hope	8.96	8.96	8.96	8.96	10.35
Champion	5.6	5.6	5.6	5.6	10.35
Philip Morris	13.44	13.44	13.44	13.44	25
Winston	8.96	8.96	8.96	8.96	10.35
Camel	8.96	8.96	8.96	8.96	10.35
Astro	1.12	1.12	1.12	1.12	6.35
Memphis	1.12	1.12	1.12	1.12	2
Fortune Int'l	5.6	5.6	5.6	8.96	10.35

The market share from 2001 to 2005 of each brand is shown in Table 7. Euromonitor (2005) provided the brand shares from 2001 to 2003. The brand shares for 2004 and 2005 were estimated by using the average market share of each brand from 2001 to 2003. On the other hand, the other cigarette brands (specified as "others" in Table 7) were classified as high, mid-priced, and low (as shown in Table 7). The market share for each of these three price classifications was then obtained by multiplying the market share of "others" in Table 7 (4.20%, 5.00%, 5.90%, 5.03%, 5.03%) to the percentage distribution of cigarette sales according to price band in Table 8. The values from 2001 to 2004 in Table 8 were obtained from Euromonitor (2005), while 2005 values were obtained by using the average of 2001 to 2004. Again, the cigarettes classified as low can either be packed in 20's or 30's. Therefore, multiplying the percentage of 20's and 30's cigarettes produced (as shown in Table 3) to the percentages of low-priced cigarettes found in Table 7 (0.78%, 0.92%, 1.06%, 0.88%, 0.94%) will result in the market share for low cigarettes packed in 20s and low cigarettes packed in 30s for 2001 to 2005.

The production for domestic consumption from 2001 to 2005, as shown in Table 1, is multiplied to the brand shares from 2001 to 2005 (as shown in Table 7) in order to determine the excisable number of cigarette sticks (in million of sticks) of each brand. In order to convert this amount into its equivalent number of packs, the number of sticks of each brand is divided according to the number of sticks in a pack; 20 sticks per pack for all the brands except the low-priced 30's, which have 30 sticks per pack. The excisable number of cigarette packs under each brand (in million of packs) is shown in Table 9.

The excisable number of cigarette packs under each brand (in million of packs) is finally multiplied to the applicable tax rate of the cigarette brand (refer to Table 27 for the tax rates) in order to determine the potential cigarette industry excise tax collection figures from 2001 to 2005 (as shown in Table 28).

Table 28. Computed Potential Cigarette Industry Excise Tax Collection (in millions)

Brand	Computed Excise Tax				
	2001	**2002**	**2003**	**2004**	**2005**
Marlboro	9285	12580	14028	13956	26956
Hope	746	804	831	818	982
Champion	297	306	316	316	606
Philip Morris	508	472	487	506	976
Winston	7015	7129	7222	7354	8821
Camel	4033	4088	4116	4213	5053
Astro	186	301	262	257	1515
Memphis	127	153	144	146	271
Fortune Int'l	127	109	113	193	231
Other					
High	239	328	426	409	429
Mid-priced	576	688	826	682	834
Low					
20s	33	40	48	39	75
30s	0	0	0	0	0
Total Computed Excise Tax	**23,171**	**26,998**	**28,819**	**28,889**	**46,748**

By Cigarette Price Category Using CGS and Inventory Data From Financial Statements

This methodology is similar to the fourth method "By Cigarette Price Category Using CGS From Financial Statements". The two methods differ in the computation of the cigarette brand price net of VAT and the excisable number of packs. Unlike the fourth method where the wholesalers' or distributors' margin is assumed negligible, this method assumes a 1% wholesalers' or distributors' margin. The net-of-VAT cigarette brand price was therefore revised as follows:

$$\text{Cigarette Brand Price Net of VAT} = \frac{\text{Price per pack} * (1 - \% \text{ of Distributor's Margin})}{(1+\text{VAT})}$$

The cost per pack of a cigarette brand and the manufacturer's weighted average cost per pack are computed in the same manner as the fourth method. The formula for the number of cigarette packs removed/sold was then revised as follows:

$$\text{Number of Packs Removed/Sold} = \frac{\text{Manufacturer's CGS + Finished Goods Inventory}}{\text{Manufacturer's Weighted Ave. Cost Per Pack}}$$

The idea behind the addition of finished goods inventory in the numerator is to account for removed inventories that have been transferred to the manufacturer's warehouse facilities but have not yet been sold and charged as CGS in the company's income statement. Having

been removed, these inventories have been assessed excise taxes and should therefore be included in the computation of the manufacturer's excisable number of packs for the year.

Other than the above-mentioned differences, the rest of the calculations in this methodology are the same as the fourth method. The following tables (Table 29 to Table 37) were relevant in coming up with the potential cigarette industry excise tax figure under this methodology:

Table 29. Finished Goods Inventory of Cigarette Manufacturers

Year	Finished Goods Inventory	
	Philip Morris	Fortune Tobacco
2001	-	589,121,063
2002	-	584,982,447
2003	543,614,782	412,871,972
2004	888,751,310	61,710,310
2005	1,023,949,017	862,105,328

Note: La Suerte has no finished goods inventory

Table 30. Price (per pack) of Cigarette Brands Net of VAT

Company	**Brand**	Price (per pack) of Cigarette Brands Net of VAT				
		2001	**2002**	**2003**	**2004**	**2005**
Philip Morris	Marlboro	-	-	19.99	20.70	21.40
	Philip Morris	-	-	20.77	21.50	22.23
Fortune Tobacco	Winston	13.35	13.85	14.35	14.85	15.35
	Camel	12.55	13.11	13.67	14.23	14.79
	Hope Luxury	16.80	16.92	17.03	17.15	17.27
	Champion	6.69	6.95	7.20	7.45	7.71
	Fortune International	6.76	7.05	7.34	7.64	7.93
	Salem	30.01	34.58	39.16	43.73	48.31
La Suerte	Astro	9.58	9.82	10.07	10.31	10.56
	Memphis	6.28	6.32	6.37	6.41	6.45

Source: BIR, Suysing Commercial Inc., Welcome Supermart

Table 31. Sales and CGS of Major Cigarette Manufacturers

	Philip Morris	Fortune Tobacco	La Suerte
Cost of Goods Sold			
2001		21,363,363,498.00	15,556,128,284.90
2002		22,791,714,242.00	16,845,668,147.71
2003	14,756,898,308.00	22,957,520,556.00	3,183,233,642.22
2004	20,555,361,800.00	26,044,274,595.00	1,730,240,368.76
2005	23,322,399,470.00	23,088,844,888.00	9,328,817,610.90
Sales			
2001		24,905,936,808.00	17,776,915,756.45
2002		26,758,558,714.00	19,205,062,394.07
2003	17,811,546,601.00	26,954,340,822.00	3,293,224,146.54
2004	25,380,233,301.00	30,121,565,199.00	1,431,381,376.59
2005	28,913,493,772.00	26,320,725,488.00	10,426,645,918.41
No CGS and Sales values in 2001-2002 for Philip Morris since it only started production of cigarettes by the end of 2002.			

Table 32. Computed Cost per Pack of Cigarette Brands

Company	Cigarette Brand	Cost/pack				
		2001	2002	2003	2004	2005
Philip Morris	Marlboro			16.56	16.76	17.26
	Philip Morris			17.21	17.41	17.93
Fortune Tobacco	Winston	11.45	11.80	12.22	12.84	13.47
	Camel	10.77	11.17	11.64	12.30	12.97
	Hope Luxury	14.41	14.41	14.51	14.83	15.15
	Champion	5.74	5.92	6.13	6.44	6.76
	Fortune International	5.80	6.01	6.26	6.60	6.96
	Salem	25.74	29.46	33.35	37.81	42.37
La Suerte	Astro	8.38	8.62	9.73	12.47	9.45
	Memphis	5.50	5.55	6.15	7.75	5.77

Table 33. Weighted Average Cost per Pack of Major Manufacturers of Cigarette Brands

Brand	2001		2002		2003		2004		2005	
	Market Share	**Cost per pack**	**Market Share**	**Cost per pack**	**Market Share**	**Cost per pack**	**Market Share**	**Cost per pack**	**Market Share**	**Cost per pack**
Philip Morris										
Marlboro	-	-	-	-	25.9	16.56	25.77	16.76	25.77	17.26
Philip Morris	-	-	-	-	0.9	17.21	0.93	17.41	0.93	17.93
Weighted Ave. Cost/Pack	**-**	**-**	**-**	**-**	**26.8**	**16.59**	**26.7**	**16.78**	**26.7**	**17.28**
Fortune Tobacco										
Winston	20.7	11.45	20.4	11.80	20	12.22	20.37	12.84	20.37	13.47
Camel	11.9	10.77	11.7	11.17	11.4	11.64	11.67	12.30	11.67	12.97
Hope Luxury	2.2	14.41	2.3	14.41	2.3	14.51	2.27	14.83	2.27	15.15
Champion	1.4	5.74	1.4	5.92	1.4	6.13	1.4	6.44	1.4	6.76
Fortune International	0.6	5.80	0.5	6.01	0.5	6.26	0.53	6.60	0.53	6.96
Salem	0.2	25.74	0.2	29.46	0.2	33.35	0.2	37.81	0.2	42.37
Weighted Ave. Cost/Pack	**37**	**11.17**	**36.5**	**11.55**	**35.8**	**11.98**	**36.44**	**12.59**	**36.44**	**13.22**
La Suerte										
Astro	4.4	8.38	6.9	8.62	5.8	9.73	5.7	12.47	5.7	9.45
Memphis	3	5.50	3.5	5.55	3.2	6.15	3.23	7.75	3.23	5.77
Weighted Ave. Cost/Pack	**7.4**	**7.21**	**10.4**	**7.58**	**9**	**8.46**	**8.93**	**10.76**	**8.93**	**8.12**

Table 34. Number of Cigarette Packs Removed/Sold

Company	2001		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	-	-	-
Fortune Tobacco	21,952,484,561.00	11.17	1,964,442,337
La Suerte	15,556,128,284.90	7.21	2,156,855,348
Total			**4,121,297,685**
	2002		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	-	-	-
Fortune Tobacco	23,376,696,689.00	11.55	2,023,830,060
La Suerte	16,845,668,147.71	7.58	2,221,169,372
Total			**4,244,999,432**
	2003		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	15,300,513,090.00	16.59	922,521,461
Fortune Tobacco	23,370,392,528.00	11.98	1,950,619,972
La Suerte	3,183,233,642.22	8.46	376,235,501
Total			**3,249,376,934**
	2004		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	21,444,113,110.00	16.78	1,277,642,126
Fortune Tobacco	26,105,984,905.00	12.59	2,073,047,199
La Suerte	1,730,240,368.76	10.76	160,786,223
Total			**3,511,475,548**
	2005		
	CGS	**Wt. Ave. Cost per pack**	**Number of Cigarette Packs Removed/Sold**
Philip Morris	24,346,348,487.00	17.28	1,408,579,243
Fortune Tobacco	23,950,950,216.00	13.22	1,811,751,685
La Suerte	9,328,817,610.90	8.12	1,149,012,707
Total			**4,369,343,636**

Table 35. Excisable Number of Cigarette Packs

Year	Number of Cigarette Packs Removed/Sold	Exports (in packs)	Excisable Number of Cigarette Packs
2001	4,121,297,685	168,000,000	3,953,297,685
2002	4,244,999,432	150,000,000	4,094,999,432
2003	3,249,376,934	190,811,000	3,058,565,934
2004	3,511,475,548	530,073,550	2,981,401,998
2005	4,369,343,636	560,006,500	3,809,337,136

Table 36. Excisable Number of Cigarette Packs for Each Price Band

Year	Excisable Number of Cigarette Packs (in millions)	Price Band			
		High	Mid-priced	Low (20's)	Low (30's)
2001	3,953	16.80%	64.80%	18.42%	0.08%
		664.15	2,561.74	728.07	3.29
2002	4,095	18.80%	63.00%	18.18%	0.12%
		769.86	2,579.85	744.59	4.80
2003	3,059	20.00%	62.00%	17.85%	0.15%
		611.71	1,896.31	545.97	4.57
2004	2,981	18.53%	63.27%	18.08%	0.19%
		552.45	1,886.33	538.98	5.72
2005	3,809	18.53%	63.27%	18.12%	0.15%
		705.87	2,410.17	690.26	5.71

Source: Euromonitor International

Table 37. Computed Potential Cigarette Industry Excise Tax Collection

Year	Excisable Number of Packs (in Millions) According to Price Band				Computed Potential Cigarette Excise Tax Collection (in millions of Php)
	High	Mid-priced	Low (20's)	Low (30's)	
2001	5,951	14,346	815	1	21,113
2002	6,898	14,447	834	2	22,181
2003	5,481	10,619	611	2	16,714
2004	4,950	10,563	604	3	16,120
2005	7,306	15,305	1,381	11	24,002

Summary

There were six methods used to estimate the cigarette industry excise tax collection figure from 2001 to 2005. The results of the computations using these methods are shown in Table 38, as well as the actual excise tax collection and collection goal of BIR for these years.

Table 38: Summary of Excise Tax Computations

Year	Actual Excise Tax (in millions of Php)	Goal (in millions of Php)	Computed Excise Tax					
			Using Production less Exports	Using Brand Shares data by Euromonitor Study	Using Consumption	Using CGS from Financial Statements	Using Brand Shares data without price protection	Using CGS and Inventory from Financial Statements
2001	19,424	17,941	20,198	20,022	24,508	20,729	23,171	21,113
2002	19,884	18,570	21,124	20,179	24,539	21,777	26,998	22,181
2003	19,695	20,731	22,021	21,268	24,384	16,228	28,819	16,714
2004	23,076	21,537	22,449	21,183	24,418	15,663	28,889	16,120
2005	23,377	25,734	26,370	23,351	27,879	22,991	46,748	24,002
Total	105,456	99,463	112,162	106,003	125,728	97,388	154,625	100,130

V. Current Excise Tax Administration and Structure

There are four major components under tax administration that may contribute the variation in excise tax collections. These are:

- Revenue Officers on Premise (ROOP)
- Frontloading Practice of Cigarette Companies
- Advance Payment of Excise Tax by Cigarette Companies
- Tax Policies

ROOP

The ROOP are the BIR representatives assigned to a company for the purpose of monitoring the removal of goods from production for tax assessment purposes. They are also tasked to prepare regular production-related reports aimed at validating the regular reports submitted by the cigarette manufacturers to the BIR.

The presence of the ROOPS gives BIR the assurance that the cigarette manufacturing companies would comply with their tax obligations to the government. However, connivance between the ROOP and the company they monitor remains an issue that needs to be addressed if leakages are to be minimized, if not eliminated.

Frontloading

Frontloading is the act of producing and removing products from production ahead of schedule to prior to the effectivity of a scheduled increase in the excise tax rate for cigarettes. Most of the cigarette companies increase their production towards the end of the year before the excise tax increase would be imposed so that they can avail of the lower tax rates. Since the items were removed before the excise tax increase, the old rates still apply.

The BIR also reaps some short-term benefits from frontloading because they are able to collect a bigger amount of excise taxes. Frontloading of companies increases the chance for BIR to reach or even exceed its target tax collection for cigarettes since more items are produced and removed than what is expected. However, this also poses a problem for the BIR. The collection of excise tax on cigarettes is expected to go down sharply during the first few months of the following year as companies slow down their production to avoid huge inventories. With slower production, excise tax collection will inevitably miss its target.

Advanced Payment

Advanced payment functions like a debit card. A debit card is a plastic card which provides an alternative payment method to cash when making purchases. Physically, the card is an ISO 7810 card like a credit card, however its functionality is more similar to writing a check as the funds are withdrawn directly from the cardholder's bank account.

Paying for excise tax manually every time items are removed can be impractical especially for the cigarette companies located far away from the BIR. Now, the payment of excise tax is more convenient

for the cigarette companies because they just have to maintain an account that would be enough for the estimated removals within a specified period. Once items are removed from the warehouse, the assessed excise tax would be deducted from the available balance of the company. The companies cannot remove items with an assessed excise tax amount beyond their available balance since negative balances are not allowed by the BIR.

For the BIR, an obvious advantage is that the advanced payments collected jack up their actual collection figure for a specific period, enabling them to "seemingly" meet the collection goal. However, future collections are again affected and the goal is unmet as companies remove items against these deposits in future periods. Advanced payments also distort the actual collection performance of the BIR since the monetary collection figures reported do not represent the true excise tax value of the items removed.

Tax Policies

There were certain policies that could have affected the potential tax revenue collected by the government from the cigarette industry. The implementing guidelines surrounding the law that mandated the shift from ad valorem to specific tax may have been a potential source of tax leakage. As such, the succeeding paragraphs present a short description of the excise tax policies that govern the cigarette industry.

The Tax Reform Act of 1997 or Republic Act 8424 is the act stating the shift from ad valorem to specific tax. RA 8424 also states that "excise tax from any brand of cigarettes within the next three (3) years from the effectivity of R.A. No. 8240 shall not be lower than the tax, which is due from each brand on October 1, 1996." These brands are taxed at a higher rate because of their classification at the time it was registered in 1996, although the rates being implemented presently may be lower. The act also provides price protection for brands registered on Oct. 1, 1996. The classification of the brands registered in 1996 will remain, disregarding the increase in net retail price of the brand.

Revenue Regulation No. 17-99 implements the National Internal Revenue Code of 1997 (RA 8424) related to the increase of the Excise Tax on cigarettes packed by machine by twelve percent (12%) effective January 1, 2000.

Republic Act 9334, effective in 2005, is an act increasing the excise tax rates imposed on tobacco products, amending certain sections of the National Internal Revenue Code of 1997. As stated in RA 8424, tax rates will increase every two years beginning 2005. The tax rate for cigarettes packed by hand from 2000 to 2005 will shift from P0.448 per pack to P2.00 per pack. The tax rates for cigarettes packed by machine from 2000 to 2005 will shift; for premium from P13.44 per pack to P25.00 per pack, for high from P8.96 per pack to P10.35 per pack, for mid-priced from P5.60 per pack to P6.35 per pack, and for low from P1.12 per pack to P2.00 per pack.

VI. Analysis and Interpretation

The highest target collections among those presented in this report is that set through the fiscal accounts for targeted. Tax deviations can be grouped into two types generically called Tax deviation 1 and tax deviation 2.

Tax deviation 1 compares target collections with potential collections. These potential collections represent the computed tax collections from actual events such as production, consumption and removals. Tax deviation 1 may be attributed to inherent assumptions in target collections that include the following:

1. Historical data patterns and conditions are implicit in forecasted figures. If unrealized and unrealistic they may increase/decrease the targets.
2. Macroeconomic assumptions such as inflation, exchange rates and GDP growth projections similarly unrealistically adjust the targets.
3. Other forecasting errors include mathematical and theoretical assumptions on linearity, weighting and methods can affect targets.
4. Microeconomic adjustments given the same macroeconomic environment may not be equal for various sectors, regions and industries. Using simple percentages assume that microeconomic reactions are exactly the same.
5. Tax structure and policies may also change. In one instance, the positive effects of a bill to improve tax collections were integrated into the target collections without waiting for the bill's passing in the Congress.
6. The legal strategies of tax avoidance can also explain tax deviation. Targeted tax collections may be over estimated when details such as a protection and other incentives are not considered.

It may be noted that these assumptions can unrealistically raise or lower the target collections. It possible therefore that potential collection can be higher than targeted collections. This is explained by favorable conditions that affect demand and production that were not anticipated and integrated into the forecasts.

Figure 4 shows a diagram where tax deviation is positive and assumptions of the forecasts were not realized.

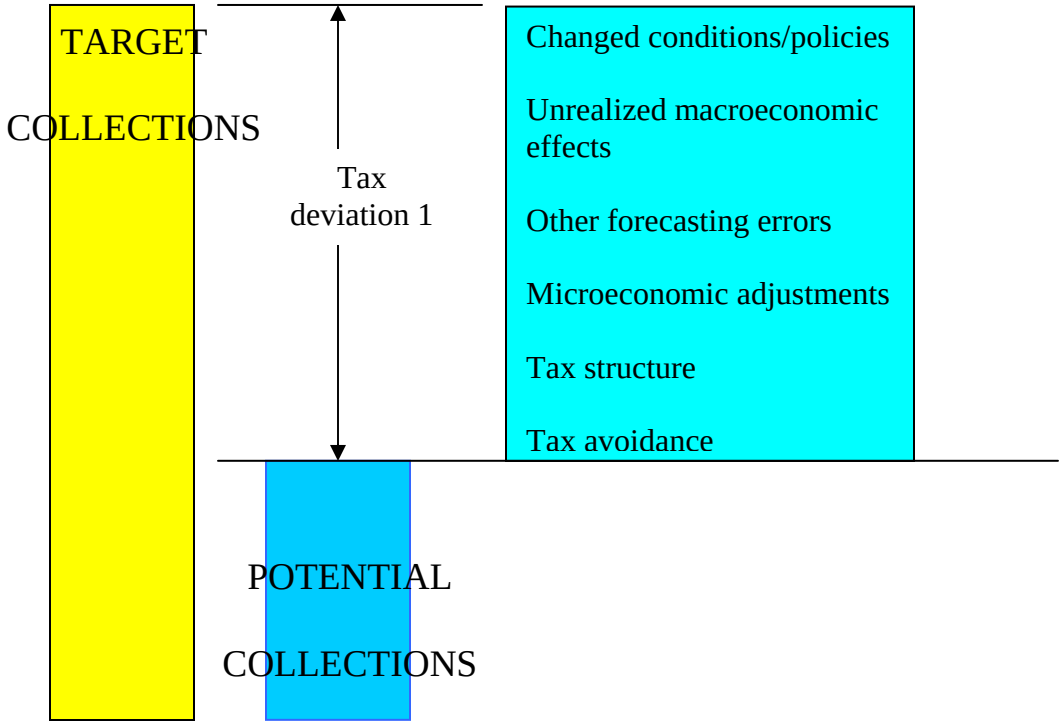


Figure 4. Breakdown of Tax deviation 1

Tax deviation 2, on the other hand, occurs between potential collections and actual collections. This difference may be attributed to tax avoidance and tax evasion. Figure 5 shows the breakdown of deviation 2

1. Tax avoidance in tax gaps represent the intentional and deliberate attempt by firms to avoid taxation using lawyers and accountants that exploit weaknesses in tax laws and policies. This may include advances to hedge on tax rate increases.
2. Tax evasion includes all illegal activities also intentionally and deliberately undertaken by firms to reduce their taxes. These can be done with or without collusion with BIR personnel.

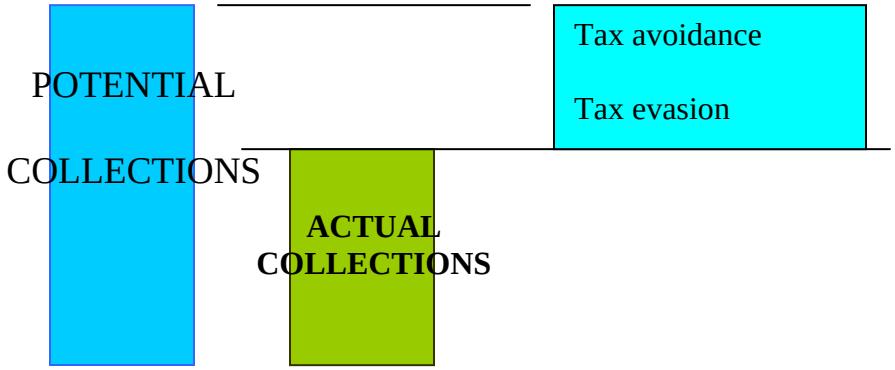


Figure 5.Breakdown of Tax deviation 2

VII. Conclusion

From the computations and analysis presented, it appears that the "tax evasion" portion of the gap or so called leakage, though still unquantified, seem to be insignificant for the cigarette industry compared to the deviations that may be due to tax deviation 1.

Appendix

Appendix 1. Master List of Registered Brands of Locally Manufactured Cigarettes

MASTERLIST OF REGISTERED BRANDS OF LOCALLY MANUFACTURED CIGARETTES

As of February 28, 2003

BRAND NAME	CLASS.	SPECIFICATION	PACKAGE	INTENDED MARKET		REMARKS	
				DOMESTIC SALE	EXPORT	STATUS	DATE OF LAST PRODUCTION
1. Asso. Anglo-American Tobacco Corp.							
Action M 100's	OB3		Soft pack in 20s	x		Inactive	1997
Asia Boston FK	VOB		Soft pack in 20s	x		Inactive	1997
Asia Boston Menthol 100's	OB1		Soft pack in 20s	x		Active	
Asia Boston Menthol King	VOB	85mm overall 74mm excl. filter	Soft pack in 20s	x		Active	
Balasang Filter King	VOB	85mm overall 70mm excl. filter	Soft pack in 30's	x		Inactive	2001
Balasang Matamis	OB1		Soft pack in 20s	x		Active	
Balita Filter	VOB	85mm overall 70mm excl. filter	Soft pack in 30's	x		Active	
Balita Matamis	OB1		Soft pack in 20s	x		Active	
Black Gold FK	OB3		Soft pack in 20s	x		Inactive	1997
Broadway Menthol	NB	85mm overall 64mm excl. filter	Soft pack in 20s	x		Inactive	
Canadian Club M 100's	OB		Soft pack in 20s	x		Inactive	1997
Casino Royal FK	OB1		Soft pack in 20s	x		Active	
Casino Royal M 100	OB1		Soft pack in 20s	x		Active	
Casino Royal MK	VOB		Soft pack in 20s	x		Active	
Cebu FK	OB3		Soft pack in 20s	x		Inactive	1997
Charter Lights FK	OB1		Soft pack in 20s	x		Inactive	2001
Chunghwa	NB	65mm excl. filter	Soft pack in 20s	x		Active	
Dallas Menthol 100	OB1		Soft pack in 20s	x		Active	
Dynasty M	OB3		Soft pack in 20s	x		Inactive	1997
Fiesta FK	OB3		Soft pack in 20s	x		Inactive	1997
Fighter M King	OB1		Soft pack in 20s	x		Inactive	
Freedom Select M 100	VOB3		Soft pack in 20s	x		Active	
Freedom Select MK	OB3		Soft pack in 20s	x		Active	
Glory International Filter King	VNB		Soft pack in 20s	x		Active	
Glory Menthol 100	NB		Soft pack in 20s	x		Inactive	1999
Glory Menthol King	VNB		Soft pack in 20s	x		Inactive	1999
GMA Filter King	NB	85mm overall 64mm excl. filter	Soft pack in 20s	x		Inactive	
Good Companion LFK	OB1		Soft pack in 20s	x		Inactive	1996
Goodwill Filter King	OB1		Soft pack in 20s	x		Inactive	
Governor FK	OB3		Soft pack in 20s	x		Inactive	1997
Greatwall Int'l. M 100	OB1		Soft pack in 20s	x		Inactive	2001
Guess M 100	OB3		Soft pack in 20s	x		Inactive	1997
Guess FK	OB3		Soft pack in 20s	x		Inactive	1997
Jockey Club M 100's	OB3		Soft pack in 20s	x		Inactive	1997
Kalayaan R. Largos	OB1		Soft pack in 20s	x		Inactive	1996
Light House Filter King	OB1		Soft pack in 20s	x		Inactive	
Liqun Filter	NB	85mm overall 64mm excl. filter	Soft pack in 20s	x		Active	
Marco Polo FK	OB3		Soft pack in 20s	x		Inactive	1997
Meidallon M 100's	OB3		Soft pack in 20s	x		Inactive	1997
Miracle Menthol 100	OB1		Soft pack in 20s	x		Active	
Ms. Asia FK	OB3		Soft pack in 20s	x		Active	
Mr. President	OB3		Soft pack in 20s	x		Inactive	1997
Nation M 100's	OB3		Soft pack in 20s	x		Inactive	1997
Navy Club FK	OB		Soft pack in 20s	x		Active	
Navy Club Menthol King 20s	VOB	85mm overall 74mm excl. filter	Soft pack in 20s	x		Active	
Navy Club Int'l. F King	VOB		Soft pack in 20s	x		Active	
Orient FK	OB3		Soft pack in 20s	x		Inactive	1997
Panda	NB	85mm overall 64mm excl. filter	Soft pack in 20s	x		Inactive	1997
Patriot M 100's	OB3		Soft pack in 20s	x		Inactive	1997
Pentagon Menthol 100	NB		Soft pack in 20s	x		Active	
Rambo M 100's	OB		Soft pack in 20s	x		Inactive	
Senate Filter King	OB1		Soft pack in 20s	x			
Shi shi Filter	NB	85mm overall 64mm excl. filter	Soft pack in 20s	x		Active	
Shuangxi	NB		Soft pack in 20s	x		Active	
Social Club FK	OB1		Soft pack in 20s	x		Active	

MASTERLIST OF REGISTERED BRANDS OF LOCALLY MANUFACTURED CIGARETTES							
As of February 28, 2003							
BRAND NAME	CLASS.	SPECIFICATION	PACKAGE	INTENDED MARKET		REMARKS	
				DOMESTIC SALE	EXPORT	STATUS	DATE OF LAST PRODUCTION
Social Club Menthol 100	OB1		Soft pack in 20s	x		Active	
Social Club Menthol King	OB1		Soft pack in 20s	x		Inactive	1997
Someone M 100's	OB1		Soft pack in 20s	x		Inactive	1996
Sportsman Menthol 100's	OB1		Soft pack in 20s	x		Active	
Sportsman Regular	OB1		Soft pack in 20s	x		Inactive	1996
Spotlight M 100's	OB		Soft pack in 20s	x		Active	
Spring Field	OB3		Soft pack in 20s	x		Inactive	1997
Strike FK	OB3		Soft pack in 20s	x		Inactive	1997
Triple A Freedom M 100s	OB		Soft pack in 20s	x		Active	
Triple A Freedom M King	OB1		Soft pack in 20s	x		Active	
Triumph M 100	OB3		Soft pack in 20s	x		Inactive	1997
United FK	OB3		Soft pack in 20s	x		Inactive	1997
Valentino M 100	OB1		Soft pack in 20s	x		Inactive	1998
Valentino M King	OB3		Soft pack in 20s	x		Inactive	1998
Valenzuela Filter King	OB1		Soft pack in 20s	x		Active	
Valenzuela Menthol	OB1		Soft pack in 20s	x		Inactive	1997
Venture M 100	OB3		Soft pack in 20s	x		Inactive	1997
VIP FK	OB3		Soft pack in 20s	x		Inactive	1997
Villa Escuadero MK	VNB		Soft pack in 20s	x		Active	
Villa Escudero FK	NB		Soft pack in 20s	x		Inactive	1998
Villa Escudero M 100s	VNB		Soft pack in 20s	x		Inactive	2000
Vision 2000 Filter King	OB1		Soft pack in 20s	x		Inactive	2001
Vision 2000 Menthol 100	VOB		Soft pack in 20s	x		Inactive	2001
Yunyan FK	OB3		Soft pack in 20s	x		Active	
2. Fortune Tobacco Corporation							
Baron Filter King	NB	84mm overall 64mm exl. Filter	Soft pack in 20s	x		Inactive	
Best Int'l. Filter King	NB	84mm overall 64mm exl. Filter	Soft pack in 20s	x		Inactive	
Boss Filter King	VOB		Soft pack in 20s	x		Active	
Boss KS	OB		Soft pack in 20s	x		Active	
Boss M 100	VOB		Soft pack in 20s	x		Active	
Camel Filter	VOB		Soft pack in 20s	x		Inactive	2000
Camel Filter King	OB		Soft pack in 20s	x		Active	
Camel KS	OB		Soft pack in 20s	x		Active	
Camel Lights	VOB		Soft pack in 20s	x		Inactive	2001
Champion Int'l.	OB		Soft pack in 20s	x		Inactive	
Champion Int'l. M 100	OB		Soft pack in 20s	x		Active	
Champion Lt.	OB		Soft pack in 20s	x		Active	
Champion Lts. KS	OB		Soft pack in 20s	x		Active	
Champion M 100	OB		Soft pack in 20s	x		Active	
Champion MK	OB		Soft pack in 20s	x		Active	
Evergreen M 100's	OB		Soft pack in 20s	x		Active	
Fortune Int'l M KS	OB		Soft pack in 20s	x	x	Active	
Fortune Int'l. FK	OB		Soft pack in 20s	x		Active	
Fortune Int'l. Extra FK	VOB	84mm overall 64mm excl. filter	Soft pack in 20s	x		Active	
Fortune Int'l. Extra M 100	VOB	100mm overall 75mm excl. filter	Soft pack in 20s	x		Active	
Fortune Int'l. Extra MK	VOB	84mm overall 64mm excl. filter	Soft pack in 20s	x		Active	
Hope Lux. M 100's	OB		Soft pack in 20s	x	x	Active	
Hope Lux. M KS	OB		Soft pack in 20s	x	x	Active	
Ice Menthol 100s	OB	84mm overall 64mm excl. filter	Soft pack in 20s	x		Inactive	
Jackpot M 100's	OB		Soft pack in 20s	x		Active	
Liberty M 100's	OB		Soft pack in 20s	x		Active	
Mark M 100's	OB		Soft pack in 20s	x		Active	
Mark Premium M K	OB		Soft pack in 20s	x		Inactive	1998
Maverick Filter King	OB	84mm overall 64mm excl. filter	Soft pack in 20s	x		Inactive	

MASTERLIST OF REGISTERED BRANDS OF LOCALLY MANUFACTURED CIGARETTES							
As of February 28, 2003							
BRAND NAME	CLASS.	SPECIFICATION	PACKAGE	INTENDED MARKET		REMARKS	
				DOMESTIC SALE	EXPORT	STATUS	DATE OF LAST PRODUCTION
Mild Seven KS Sp 20's	NB	84mm overall 57mm excl. filter	Soft pack in 20s		x	Active	
Mild Seven Lights KS Sp 20's	NB	84mm overall 57mm excl. filter	Soft pack in 20s		x	Active	
Montreal F King	OB		Soft pack in 20s	x		Inactive	1997
More Premium Int'l	OB		Soft pack in 20s	x		Active	
More Premium M 100's	OB		Soft pack in 20s	x		Active	
Peak M 100's	OB		Soft pack in 20s	x		Active	
Plaza M 100's	OB		Soft pack in 20s	x		Active	
Sahara Filter 100s	NB	100mm overall 75mm excl. filter	Soft pack in 20s		x	Inactive	
Sahara Lights Filter 100's	NB	100mm overall 75mm excl. filter	Soft pack in 20s		x	Inactive	
Sahara Lights M 100's	NB	100mm overall 75mm excl. filter	Soft pack in 20s		x	Inactive	
Sahara Menthol 100s	NB	100mm overall 75mm excl. filter	Soft pack in 20s		x	Inactive	
Sahara Ultra Lights Filter 100's	NB	100mm overall 75mm excl. filter	Soft pack in 20s		x	Inactive	
Salem M King	OB		Soft pack in 20s			Active	
Salem Lights KS	OB		Soft pack in 20s	x		Inactive	2001
Salem M 100	OB		Soft pack in 20s	x		Inactive	2001
Vantage Filter King	NB	84mm overall 64mm excl. filter	soft pack in 20s		x	Inactive	
Vantage Lights	NB	84mm overall 64mm excl. filter	soft pack in 20s		x	Inactive	
Westpoint Filter King	OB		Soft pack in 20s	x		Active	
Winston Filter King	OB		Soft pack in 20s	x		Active	
Winston Lts. KS	OB		Soft pack in 20s	x		Active	
Winston Red KS	OB		Soft pack in 20s	x		Active	
Winter M 100's	OB		Soft pack in 20s	x		Active	
3. La Suerte Cigar and Cigarette Factory							
Aspen Filter King	NB		Soft pack in 20s	x		Inactive	1999
Aspen Menthol 100	NB		Soft pack in 20s	x		Inactive	1999
Aspen Menthol King	NB		Soft pack in 20s	x		Inactive	1999
Astro Filter King	NB		Soft pack in 20s	x		Active	
Astro Menthol 100	NB		Soft pack in 20s	x		Active	
Astro Menthol King	NB		Soft pack in 20s	x		Active	
Cannon M 100's	OB		Soft pack in 20s	x		Active	
Cannon M KS	OB		Soft pack in 20s	x		Inactive	1997
Forbes Extra	OB		Soft pack in 20s	x		Inactive	2000
Forbes FK	OB		Soft pack in 20s	x		Inactive	1996
Forbes KS	OB		Soft pack in 20s	x		Inactive	1997
L&M Filter King	OB		Soft pack in 20s	x		Inactive	2000
Marlboro King	OB		Soft pack in 20s	x		Active	
Marlboro King Flip Top (20'S)	OB3		Hard Pack in 20s	x		Active	
Marlboro King Flip Top (2x10'S)	OB1		Hard Pack in 10s	x		Inactive	
Marlboro Lts.	OB		Soft pack in 20s	x		Active	
Marlboro Lts. KS	OB		Soft pack in 20s	x		Inactive	26-Dec-02
Marlboro Lts. M	OB		Soft pack in 20s	x		Active	
Marlboro Lts. M KS	OB		Soft pack in 20s	x		Inactive	26-Dec-02
Marlboro Lts. Flip Top	OB		Hard Pack in 20s	x		Active	
Marlboro Menthol King	VOB	84mm excl. filter	Soft pack in 20s	x		Inactive	2001
Marlboro Red KS	OB		Soft pack in 20s	x		Inactive	26-Dec-02
Memphis Filter King	NB		Soft pack in 20s	x		Active	
Memphis Menthol 100	NB		Soft pack in 20s	x		Active	
Philip Morris KS	OB	69mm excl. filter	Soft pack in 20s	x		Inactive	26-Dec-02
Philip Morris M 100's	OB		Soft pack in 20s	x		Active	
Philip Morris M K	OB		Soft pack in 20s	x		Inactive	1996
Philip Morris 100's Lts	OB		Soft pack in 20s	x		Inactive	2001

MASTERLIST OF REGISTERED BRANDS OF LOCALLY MANUFACTURED CIGARETTES

As of February 28, 2003

BRAND NAME	CLASS.	SPECIFICATION	PACKAGE	INTENDED MARKET		REMARKS	
				DOMESTIC SALE	EXPORT	STATUS	DATE OF LAST PRODUCTION
4. Mighty Corporation							
Alhambra Especial	OB1		Soft pack in 30s	x		Active	
Alhambra Excelente	OB1		Soft pack in 30s	x		Active	
Alhambra Excelsior	OB1		Soft pack in 30s	x		Active	
Alhambra Majeste	OB1		Soft pack in 30s	x		Active	
Alhambra Superior	OB1		Soft pack in 30s	x		Active	
Blue Seal m 100'S	OB		Soft pack in 20s	x		Active	
Campanilla Matamis	OB1		Soft pack in 30s	x		Active	
Corona Matamis	OB1		Soft pack in 30s	x		Active	
Cortos B-29	OB1		Soft pack in 30s	x		Active	
Durian Lights	OB1		Soft pack in 30s	x		Active	
Fate	OB1		Soft pack in 30s	x		Active	
Gallo KS	OB		Soft pack in 20s	x		Active	
Kings 100	OB3		Soft pack in 20s	x		Inactive	2001
Kings 85's	OB3		Soft pack in 20s	x		Inactive	2001
L.A.	OB3		Soft pack in 20s	x		Active	
L.A. Lights	OB3		Soft pack in 20s	x		Active	
L.A. Special M 100's	OB		Soft pack in 20s	x		Inactive	
La Campana Largos	OB1		Soft pack in 30s	x		Active	
La Campana Matamis	OB1		Soft pack in 30s	x		Active	
La Dicha Payat	OB3		Soft pack in 30s	x		Active	
La Dicha Regaliz	OB1		Soft pack in 30s	x		Inactive	1997
La Flor de Luzon	OB1		Soft pack in 30s	x		Active	
Magkaibigan Blanco	OB1		Soft pack in 30s	x		Active	
Magkaibigan Matamis	OB1		Soft pack in 30s	x		Active	
Malaya Largos	OB1		Soft pack in 30s	x		Active	
Marvel M 100's	OB		Soft pack in 20s	x		Active	
Marvel Red KS	OB		Soft pack in 20s	x		Active	
Mas Full Flavor King Size	NB	69mm excl. filter	Soft pack in 20s	x		Active	
Mighty 100's	NB		Soft pack in 20s	x		Active	
Mighty 85's	NB		Soft pack in 20s	x		Active	
Miss Philippines Mataba	OB1		Soft pack in 30s	x		Active	
Move Filter King	NB		Soft pack in 20s		x	Active	
Miss Philippines Payat	OB1		Soft pack in 30s	x		Active	
Right M 100's	OB		Soft pack in 20s	x		Inactive	2001
Rosalina Matamis	OB1		Soft pack in 30s	x		Inactive	2001
Sixty 8 Full Flavor 85's	NB		Soft pack in 20s		x	Inactive	2001
Sixty 8 Menthol 100's	NB		Soft pack in 20s		x	Inactive	2001
Sixty One KS	NB		Soft pack in 20s		x	Active	
5. Philip Moris Philippines Mfg. Inc.							
Marlboro Lights Flip Top Box	VOB	57mm excl. filter	Hard Pack	x		Active	
Marlboro Lights Menthol Soft Pack	VOB	57mm excl. filter	Soft pack in 20s	x		Active	
Marlboro Lights Soft Pack	VOB	57mm excl. filter	Soft pack in 20s	x		Active	
Marlboro Red Flip Top Box	VOB	63mm excl. filter	Hard Pack	x		Active	
Marlboro Red Soft Pack	VOB	36mm excl. filter	Soft pack in 20s	x		Active	
Philip Moris Menthol 100 Soft Pack	VOB	72mm excl. filter	Soft pack in 20s	x		Active	

Legend:

OB – included as attachment in the Tax Code of 1997
VOB – variant of an old brand
OB1 – included in implementing regulations (RR 1-97)
OB3 – not included in the Tax Code of 1997 nor in its implementing regulations but included in the tax collection report prior to 1997
NB – new brand registered on or after January 1, 1997
VNB – variant of a new brand

Source: (**http://www.lawphil.net/administ/bir/rmo/rmo06_03anxa1.pdf, 2003)**

Appendix 2. Historical Data on Annual Production, Consumption, Exports and Imports

Year	Cigarette Production (million of sticks)	**Estimated Consumption (million of sticks)	Exports (million of sticks)	Imports (million of sticks)
1960	19,541	19,547	5	11
1961	20,364	20,376	4	16
1962	20,793	20,799	2	8
1963	22,887	22,889	2	4
1964	25,442	25,449	2	9
1965	27,665	27,680	2	17
1966	30,301	30,433	2	134
1967	32,559	32,811	2	254
1968	36,968	37,412	3	447
1969	37,808	37,904	4	100
1970	39,671	39,777	6	112
1971	41,988	42,104	6	122
1972	45,777	45,812	12	47
1973	51,194	51,239	18	63
1974	41,453	41,535	13	95
1975	49,158	49,208	31	81
1976	50,950	51,102	12	164
1977	51,373	51,484	6	117
1978	50,920	51,135	3	218
1979	55,273	55,476	2	205
1980	58,810	59,005	5	200
1981	61,843	62,104	4	265
1982	70,025	70,195	121	291
1983	57,812	58,070	85	343
1984	58,562	58,348	379	165
1985	62,335	61,915	805	385
1986	60,722	60,104	777	159
1987	64,710	64,109	809	208
1988	66,850	65,895	1,165	210
1989	69,700	68,924	1,104	328
1990	71,750	68,386	3,840	476
1991	70,710	68,160	3,150	600
1992	67,710	67,145	1,400	835
1993	71,350	76,520	1,700	6,870
1994	65,100	77,549	1,531	13,980
1995	57,000	60,508	897	4,405

1996	79,000	77,779	2,279	1,058
1997	68,550	69,201	975	1,626
1998	75,000	75,000	1,500	1,500
1999	68,620	71,620	1,500	4,500
2000	73,156	72,665	3,105	2,614
2001	79,000	81,190	3,360	5,550
2002	81,000	84,000	3,000	6,000
2003	84,000	87,100	3,400	6,500
2004	84,000	87,100	3,400	6,500

Source: United States Department of Agriculture (USDA)

** Consumption was calculated using the following formula:
Cigarette Production + Import – Less Export = Consumption

Appendix 3. List of Government Regulations or policies related to the Tobacco and Cigarette Industry from 1990 to 2005.

Regulation	Brief	Date of Issue
RA 6956	An act modifying the excise tax on distilled spirits, wines, fermented liquor and cigarettes	June 18, 1990
RA 8240	An act shifting the excise tax rate from *ad valorem* tax to specific tax	January 1, 1997
RA 8424	An act defining the excise tax on tobacco products. Cigarettes packed by hand shall be levied, assessed and collected on cigarettes packed by hand a tax of Forty centavos (P0.40) per pack. While cigarettes packed by machines shall be levied, assessed and collected on cigarettes packed by machine a tax at the rates according to its net retail price.	January 1, 1998
RA 8749 or Clean Air Act of 1999	Smoking inside a public building or an enclosed public place, including vehicles and other means of transport, or in any enclosed area outside of one's private residence, private place of work or any duly designated smoking area is hereby prohibited under this Act.	June 23, 1999
RR No. 17-99	An act implementing the National Internal Revenue Code of 1997 (RA 8424) relative to the increase of the Excise Tax on cigarettes packed by machine by twelve percent (12%) effective January 1, 2000	January 1, 2000
RR No. 9-2003	Amends certain provisions of RR No. 1-97 and RR No. 2-97 relative to the excise taxation of alcohol products, cigars and cigarettes for the purpose of prescribing the rules and procedures to be observed in the establishment of the current net retail price of new brands and variants of new brands of alcohol and tobacco products *(published in Manila Bulletin on February 27, 2003)*	February 26, 2003
RMO No. 6-2003	Prescribes the guidelines and procedures on the establishment of current net retail prices of new brands of cigarettes and alcohol products	March 13, 2003
RA 9211 or Tobacco Regulation Act of 2003	An act promoting a smoke-free environment, eventual banning of tobacco advertisements starting January 2007 and sponsorship starting January 2008, regulation of labeling of tobacco products, regulation of tobacco promotions, and smoking ban in public places	June 23, 2003

RR No. 22-2003	Implements the revised tax classification of new brands of cigarettes and variants thereof based on the current net retail prices *(published in Philippine Star on Aug. 16, 2003)*	August 13, 2003
RR No. 12-2004	Provides the revised tax rates on alcohol and tobacco products introduced on or before December 31, 1996, and those enumerated under RR Nos. 22-2003 and 23-2003 *(published in Manila Standard on Dec. 31, 2004)*	December 29, 2004
RA 9334	An act raising the excise tax on tobacco and alcohol products	January 1, 2005
RR No. 3-2006	Prescribes the implementing guidelines on the revised tax rates on alcohol and tobacco products pursuant to the provisions of Republic Act No. 9334, and clarifies certain provisions of existing Revenue Regulations relative thereto	January 5, 2006

Appendix 4. Excise Tax Rates from various Government Regulations

Effective Date	Government Regulations	Excise Tax Rates
Jan 1, 1990	RA 6956	• Locally manufactured cigarettes with foreign brand: 55% tax rate • Other locally manufactured cigarettes: 45% tax rate • Existing registered wholesale price, including tax, does not exceed P4.00 per pack: 20% tax rate
Jan. 1, 1998	RA 8424	Cigarettes packed by machines: • Net retail price per pack above P10.00: tax of P12.00 per pack • Net retail price per pack exceeds P6.50 but does not exceed P10.00: tax of P8.00 per pack • Net retail price per pack is P5.00 but does not exceed P6.50: tax of P5.00 per pack • Net retail price per pack is below P5.00: tax of P1.00 per pack
Jan. 1, 2000	RR 17-99	• 12% increase on all tax rates of RA 8424 effective Jan. 1, 2000
Jan. 1, 2005	RA 9334	Cigarettes pack by machine: • Net retail price per pack is below P5.00: tax is P2.00 per pack • Net retail price per pack is P5.00 but does not exceed P6.50: tax is P6.35 per pack • Net retail price per pack exceeds P6.50 but does not exceed P10.00: tax is P10.35 per pack • Net retail price per pack is above 10.00: tax is P25.00
Jan. 1, 2007		Cigarettes pack by machine: • Net retail price per pack is below P5.00: tax is P2.23 per pack • Net retail price per pack is P5.00 but does not exceed P6.50: tax is P6.74 per pack • Net retail price per pack exceeds P6.50 but does not exceed P10.00: tax is P10.88 per pack • Net retail price per pack is above 10.00: tax is P26.06 per pack
Jan. 1, 2009		Cigarettes pack by machine: • Net retail price per pack is below P5.00: tax is P2.47 per pack • Net retail price per pack is P5.00 but does not exceed P6.50: tax is P7.14 per pack • Net retail price per pack exceeds P6.50 but does not exceed P10.00: tax is P11.43 per pack • Net retail price per pack is above 10.00: tax is P27.16 per pack
Jan. 1, 2011		Cigarettes pack by machine: • Net retail price per pack is below P5.00: tax is P2.47 per pack • Net retail price per pack is P5.00 but does not exceed P6.50: tax is P7.56 per pack • Net retail price per pack exceeds P6.50 but does not exceed P10.00: tax is P12.00 per pack • Net retail price per pack is above 10.00: tax is P28.30 per pack

Appendix 5. Summary of Programs/Campaigns Against Smoking

Year	Programs/Campaigns
1987	Non-Comm Disease Control Service created & tasked to develop the National Smoking Control Plan as part of CVD program.
	World No Tobacco Day created
1988	Philippine Airlines introduced a nonsmoking policy on all its domestic flights
1989	Phil's 1st anti-smoking ordinance in QC
1992	Warning label on cigarette packs (Consumers' Act)
1993	A.O. #8 prohibiting smoking in DOH
	The month of June of year is declared as "National No Smoking Month"
1994	Nationwide implementation of the DOH Smoking Control Program
	Yosi Kadiri media campaign launched.
1995	Tobacco Free Philippines (an NGO) was formed
1997	Smoking cessation clinic at LCP
1999	Tobacco Control Secretariat created
	Tobacco Control Program Framework & National Plan of Action developed
	Clean Air Act (sec.24, art.5)
	WHO mobilization for Framework Convention on Tobacco Control (FCTC)
	Orchid for Ashtray Movement
2000	1st Children & Tobacco Congress held
	Tobacco Control Circle formed (multi-sectoral)
	Traveling exhibit "Be Smart, Don't Ever Start"
	"Smoke-free Kids" advertisement
	Valenzuela City: Tobacco Free City
2001	I.R.R. for Clean Air Act released
	Framework Convention Alliance formed
	Smoking cessation manual produced
	More LGU initiatives in support of tobacco control (Muntinlupa, Pateros,Cabadbaran, Agusan, Cebu City, etc.)
2002	Tobacco Control Management Team created
	Global Youth Tobacco Survey
	Smoke-free Sports MOA with PSC
	Memo to PMA to police its ranks
	Memo to PHIC to integrate TC in accreditation schemes
	Clean Air for DOH facilities
	Anti-Smoking Ordinance of Makati enacted
	More LGU initiatives
2003	Anti-Smoking Drive in Davao City
	Smoking Cessation Program
2005	Clean Air Ordinance (City Ordinance No.279) in Puerto Princesa

Source: Tobacco Control in the Philippines (DOH)

Appendix 6. Financial Status of Different Cigarette Companies

Year	Financial Information	Associated Anglo-American	Fortune Tobacco Corporation	La Suerte Cigar and Cigarette Factory	Mighty Corporation	Philip Morris Philippines Manufacturing Inc.
1998	Total Assets ('000)		19,223,749	3,293,158	240,728	-
	Total Liabilities ('000)		14,219,179	1,357,482	287,232	-
	Stock Holders' Equity ('000)		5,004,570	1,935,676	48,200	-
1999	Total Assets ('000)		21,021,702	3,028,432	290,178	-
	Total Liabilities ('000)		15,402,018	846,712	356,644	-
	Stock Holders' Equity ('000)		5,619,684	2,181,720	(66,465)	-
2000	Total Assets ('000)		22,416,487	4,103,664	317,300	-
	Total Liabilities ('000)		16,097,796	1,351,913	199,839	-
	Stock Holders' Equity ('000)		6,318,690	2,751,751	117,462	-
2001	Total Assets ('000)		21,631,728	5,149,950	331,824	-
	Total Liabilities ('000)		14,534,934	1,315,188	375,734	-
	Stock Holders' Equity ('000)		7,096,794	3,834,762	(433)	-
2002	Total Assets ('000)		22,637,094	5,991,491	358,888	-
	Total Liabilities ('000)		14,326,045	1,148,683	397,368	-
	Stock Holders' Equity ('000)		8,139,038	4,842,808	(38,480)	-
2003	Total Assets ('000)		24,377,923	5,047,611	395,644	17,438,500
	Total Liabilities ('000)		15,352,338	256,120	427,179	9,299,462
	Stock Holders' Equity ('000)		9,025,585	6,313,615	(31,535)	8,139,038
2004	Total Assets ('000)	355,837	29,587,786	4,674,419	382,025	20,686,306
	Total Liabilities ('000)	322,008	19,750,312	245,264	402,564	11,469,214
	Stock Holders' Equity ('000)	33,829	9,837,475	4,429,156	(20,539)	9,217,092

Source: Securities and Exchange Commission