

The Economics of Tobacco and Tobacco Taxation in the Philippines

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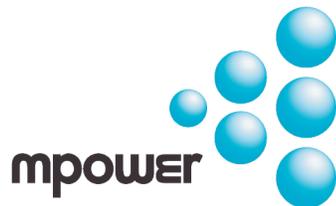
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“Eliminating the price classification freeze and applying a uniform specific tax of 28.30 pesos per pack, which is further indexed for inflation, could avert over 3.5 million premature deaths in the current population while raising 53.8 billion pesos (US\$ 1.2 billion) annually in excise tax revenues.”



- Monitor** tobacco use and prevention policies
- Protect** people from tobacco smoke
- Offer** help to quit tobacco use
- Warn** about the dangers of tobacco
- Enforce** bans on tobacco advertising, promotion and sponsorship
- Raise** taxes on tobacco

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Executive Summary

The Philippines is one of the largest consumers of tobacco in the Western Pacific Region. Prevalence of tobacco use has remained high for many years and significant numbers of Filipino youth are smokers. As a result of the high levels of tobacco use, the Philippines faces considerable adverse health and economic consequences from tobacco. Given the existing low tobacco product taxes and prices in the Philippines, significant increases in tobacco taxes will reduce tobacco use and its harmful health and economic consequences while simultaneously generating new revenues.

Tobacco Use and Its Consequences

Nearly 30% of adult Filipinos use some form of tobacco product, with 27.9% smoking manufactured cigarettes and 22.5% reporting daily smoking. Nearly half of men and about one in ten women are tobacco users. Given current population estimates, roughly 19 million adults consume tobacco in the Philippines. Socioeconomic gradients in smoking prevalence are strong in the Philippines, with those in lower socioeconomic groups two or more times as likely to smoke as those in higher socioeconomic groups.

Youth tobacco use is a significant problem in the Philippines with 22.7% of 13 to 15 year olds in 2007 reporting using some tobacco product, and 17.5% reporting cigarette smoking. Tobacco use among girls has been on the rise, raising concerns about significantly increased prevalence among women in future years. Most Filipino youth are regularly exposed to tobacco smoke at home (54.5%) or in public places (64.5%).

About 87,600 deaths in the Philippines each year are attributable to tobacco. As in other countries, the majority of these deaths result from lung and other

cancers, strokes, ischemic heart and other cardiovascular diseases and respiratory disease. In 2003, as much as 44.6 billion pesos (US\$ 858 million in 2003) was spent to treat the four major diseases caused by smoking, while the morbidity and mortality caused by smoking resulted in lost productivity of nearly 270 billion pesos (US\$ 5.2 billion in 2003).

Tobacco Growing and Manufacturing

The Philippines has long been a major tobacco growing country. Tobacco is grown in 27 provinces throughout the country, but most tobacco farming is concentrated in 5 provinces. The Philippines is a net exporter of tobacco leaf, with half or more of tobacco production exported in recent years. Both the acreage devoted to tobacco growing and the quantity of tobacco grown in the Philippines have been falling for much of the past two decades. Only 0.4% of total agricultural employment is accounted for by tobacco farming.

In 2010, the two largest cigarette manufacturers in the country, Fortune Tobacco Corporation (FTC) and Philip Morris Philippines Manufacturing Incorporated (PMI) formed a joint venture, creating a near monopoly on cigarette manufacturing. British American Tobacco left the Philippine cigarette market in 2009, but a variety of other local and international tobacco companies continue to have a presence in the Philippines, including Japan Tobacco International (JTI), Mighty Corp, La Suerte Cigar & Cigarette Factory, and Imperial Tobacco.

Cigarette production has increased over the past decade, with nearly all of the increased production accounted for by increased cigarette exports. Less than 0.3% of total manufacturing employment in the Philippines is in tobacco product manufacturing.

Tobacco Control Efforts

The Philippines is a signatory to the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC), signing this global public health treaty in September 2003 and ratifying it in June 2005. While the Philippines' tobacco control policies fall short of those called for by the FCTC, as with many low-to-middle income countries, they have become increasingly comprehensive over time. These policies include restricted tobacco company marketing activities, youth sales restrictions, smoking prohibitions in public places and on public transportation, and efforts to implement graphic warning labels. Stronger, more comprehensive and better-implemented policies would be effective in reducing tobacco use and its consequences in the Philippines.

Tobacco Taxes, Prices and Demand

Tobacco products sold in the Philippines bear both an excise tax and a value added tax. The excise tax system is tiered rather than uniform, with some brands bearing a tax that is less than one-tenth of the tax per pack levied on other brands. The excise tax is applied to cigarettes based on the net retail price (price less excise and value-added tax). The tax applied to most brands is based on their net retail price in 1996 rather than based on the current price. Termed a "price classification freeze," this has the effect of widening gaps in prices between brands.

Cigarette excise taxes in the Philippines account for 24.1% of retail cigarette prices on average, while total taxes on cigarettes account for 36.1% of retail prices. This is well below the level of tobacco taxation in countries that have taken a comprehensive approach to reducing tobacco use, where taxes account for 70% or more of price. While the specific excise tax rates have increased over time, the increases have not been enough to maintain the real price of cigarettes. As a result, cigarette prices in the Philippines are among

the lowest in the world. At the same time, increases in real incomes over much of the past decade have made cigarettes increasingly affordable.

Extensive research from a growing number of countries has documented the inverse relationship between cigarette prices and consumption. The Philippines is no exception. Existing evidence as well as new estimates produced for this report clearly indicate that falling cigarette prices lead to increases in cigarette consumption, while rising cigarette prices will reduce consumption, all else constant. These estimates indicate that a 10% increase in average cigarette prices in the Philippines will lead to about a 5% reduction in cigarette consumption. In addition, both the existing and new evidence show that rising incomes will lead to significantly more smoking in the Philippines unless steps are taken to counter the trend.

Impact of Tax Increases on Public Health and Tax Revenues

Based on estimates of the responsiveness of cigarette demand to price, simulations eliminating the price classification freeze and the tiered tax structure and imposing higher uniform specific tobacco taxes were conducted.

Taxing all cigarettes at the current maximum excise tax rate of 28.30 pesos per pack would result in excises accounting for 53.8% of retail prices on average and average prices would increase by nearly 84%. This tax induced price increase would reduce consumption by almost 43%. In addition, the price increase would lead over 4 million current Filipino smokers to quit smoking, while preventing over 4.2 million Filipino youth from taking up smoking. Together, these reductions in smoking will prevent over 3.5 million premature deaths caused by tobacco use in the current population cohort. At the same time, because of the inelasticity of cigarette demand, the tax increase will generate 53.8 billion pesos (US\$ 1.2 billion — A spot exchange rate of 1 USD = 43.86 PhP for 15 January

2012 was used throughout except where specified) in new cigarette tax revenues.

Further increasing the cigarette tax to 30 pesos would lead to even larger reductions in smoking among adults and youth and in the premature deaths caused by smoking — 4.4 million current smokers would quit, and 4.6 million youth would be prevented from taking up smoking. Taken together, a 30 peso uniform specific cigarette tax could prevent some 1.5 million premature deaths in current smokers and 2.3 million premature deaths in youth who avoid taking up smoking, or 3.8 million premature deaths in the current population cohort, while also generating over 53.5 billion pesos (US\$ 1.2 billion) of excise tax revenues.

Recommendations

1. Eliminate the artificial price classification freeze and the use of historical net retail prices as the tax base.
2. Adopt a uniform (unitary) specific cigarette excise tax that significantly raises cigarette prices and reduces tobacco use.
3. Strengthen tobacco tax administration, increase enforcement, and tax duty free sales of tobacco products in order to reduce tax evasion and avoidance.
4. Implement annual adjustments to the specific tax rates so that they retain their real value over time.
5. Implement annual adjustments to cigarette tax rates so that they result in increases in tobacco product prices that are at least as large as increases in incomes.
6. Increase taxes on cigars, water pipe tobacco and other tobacco products to be equivalent to cigarette taxes and to reduce the use of these products.
7. Earmark tobacco tax revenues for health purposes, including health promotion and tobacco control.
8. Earmark tobacco tax revenues for programs that help those employed in tobacco-dependent sectors make the transition to alternative livelihoods.

I. Introduction

Cigarette smoking and other forms of tobacco use impose a large and growing public health burden globally and in the Philippines. Globally, tobacco use currently causes 5.4 million premature deaths each year, and if current trends continue unchecked, one billion people will die from tobacco-related causes in the 21st century.¹ Tobacco use imposes considerable economic costs, both in the form of the health care expenses incurred to treat the diseases caused by tobacco use and from the lost productivity resulting from tobacco-related illnesses and premature death. The Philippines is one of the largest tobacco consuming countries in the Western Pacific region, with over 19.5 million persons ages 15 and older consuming tobacco products, including nearly half of all men and 10% of women.² Cigarette smoking accounts for almost all tobacco use in the Philippines, with 28.3% of adults smoking tobacco, while 2% consume smokeless tobacco products; the vast majority of tobacco smokers smoke manufactured cigarettes. In addition, a significant number of Filipino youth are taking up tobacco use, with 28.3% of boys and 17.5% of girls ages 13 through 15 consuming some tobacco product.³

The growing recognition of the health and economic consequences of tobacco use have led many to call for the adoption and implementation of strong tobacco control measures, prompting some policy makers to introduce a variety of legislation. To date, however, these efforts have been met with strong opposition from the tobacco industry, and existing policies are relatively weak. While the Philippines has signed and ratified the WHO Framework Convention on Tobacco Control,⁴ it does not meet most of the obligations and guidelines of the treaty. Smoke-free policies are limited to health care and educational facilities and do not cover public or private workplaces, restaurants, bars, public transport and many other public places. Tobacco advertising is banned on

television and radio, in local magazines and newspapers, on billboards and outdoors, but is allowed at the point of sale. Tobacco company sponsorship of public events is banned, but promotional discounts and distribution of free samples are allowed. Health warnings are required, but do not include graphic images. Tobacco excise taxes have increased gradually over time, but significant tax increases have not been adopted to curb tobacco use. The existing tobacco tax structure is complex, keeping some products relatively affordable while creating opportunities for tax avoidance and tax evasion. The Philippine cigarette market is highly concentrated, with Fortune Tobacco Company (FTC) the largest domestic producer, controlling over 48% of the market and Philip Morris International (PMI) the largest multinational, accounting for nearly one-third (31.6%) of the market in 2009. The recent joint venture between the two companies creates a near monopoly (81.6% market share in 2010).

In this report, we briefly describe the tobacco environment in the Philippines, beginning with a discussion of tobacco use and its health and economic consequences, followed by a brief review of the supply of tobacco and tobacco products. We then provide a short description of tobacco control policies in the Philippines, followed by a more detailed discussion of cigarette taxes and prices. Existing evidence on the effects of prices on cigarette smoking is presented and this evidence is used to estimate the impact of alternative cigarette tax increases on cigarette consumption, cigarette excise tax revenues, smoking prevalence, and future deaths from smoking among those in the current population cohort. The report concludes with recommendations for future tax policy in the Philippines.

Data Sources

Epidemiological data on prevalence used in this report was derived primarily from the 2009 Philippines Global Adult Tobacco Survey (GATS). Aggregate and

per capita cigarette sales figures, company and brand shares, and cigarette export and import figures were derived from Euromonitor International, a commercial data source and corroborated with official sources wherever possible. FAOSTAT was used for agricultural output and trade data. Official government data sources were used for employment figures and for historical and currently applied tax rates. Historical cigarette price data used to understand trends over time were sourced from the Economist Intelligence Unit (EIU) database.

Price data used to derive baselines for policy simulations can be difficult to locate in the absence of detailed and standardized surveys. The latest available price data from Euromonitor and EIU were used for the purpose; the derivation of an average baseline price is described in the report. Population data was derived from the CIA World Factbook. GDP per capita data and consumer price index (CPI) data used to convert nominal Philippine peso (PhP) values to real PhP values derived from the World Bank's database.

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II. Tobacco Use and Its Consequences in the Philippines

The Philippines is one of the largest consumers of tobacco in the Western Pacific Region. Smoking prevalence has not declined over the past fifteen or more years, while cigarette consumption per smoker has fallen slowly, and total sales have trended up over the last decade. A significant number of Filipino youth consume tobacco products, and use among girls has risen over the past twenty years. This chapter describes the levels of and trends in tobacco use and the resulting health and economic consequences.

Country Profile

The Philippines is geographically divided into 17 regions made up of 81 provinces, each of which constitutes the primary administrative division in the country's hierarchy of local government units. Provinces are further subdivided into cities and municipalities, which are in turn made up of barangays. The barangay is the smallest local government unit.

The Philippines' estimated population in mid 2012 is over 100 million. The population is relatively young, with about one-third under the age of 15 years compared to less than 5% ages 65 years or older. With a per capita national income of US\$ 2060 in 2010, the Philippines is classified by the World Bank as a lower middle-income country. Over one quarter of the population lives in poverty, with poverty rates higher in rural areas than in urban areas. Literacy, however, is high, with the literacy rate in 2008 estimated at 95% for those ages 15 years and older.

Adult Tobacco Use

Based on data from the Global Adult Tobacco Survey conducted in 2009, 29.4% of those ages 15 and

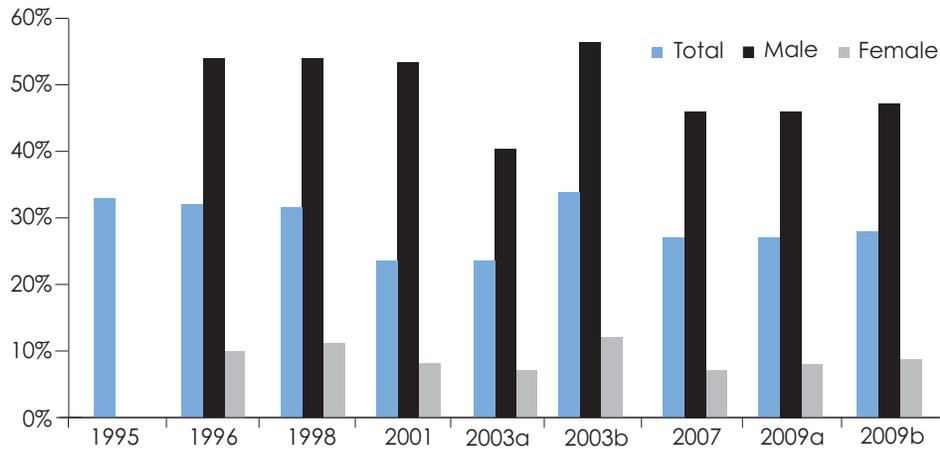
The prevalence of smoking in adults is 28.3% in the Philippines, and 27.9% reporting cigarette smoking. 47.7% of men smoke...there are over 19 million smokers in the Philippines.

older consume some type of tobacco product. The vast majority of tobacco users are smokers, with 28.3% of adults reporting tobacco smoking, 27.9% reporting cigarette smoking, and 22.5% reporting daily tobacco smoking. Men are much more likely than women to use tobacco products. 47.7% of men smoke while 9% of women smoke. 91.8% of tobacco users in the Philippines smoke manufactured cigarettes, while relatively few smoke other tobacco products (4.4% of tobacco users) or use smokeless tobacco products (6.8% of users). Most who smoke other tobacco products smoke hand-rolled cigarettes (1.9% overall prevalence), while a few smoke pipes (0.1% prevalence) or cigars, cheroots, or cigarillos (0.3% prevalence). Given an estimated population age 15 and older of over 68 million in mid 2012, these prevalence rates suggest that there are nearly 20 million tobacco users in the Philippines, including over 19 million smokers.

Smoking prevalence in the Philippines has been assessed since the late 1980s; while survey methods and samples vary across surveys and over time, these surveys suggest that cigarette smoking prevalence has been both high and relatively flat for the past fifteen years, with male prevalence estimated at above 45% in nearly all of these surveys (see Graph 2.1).

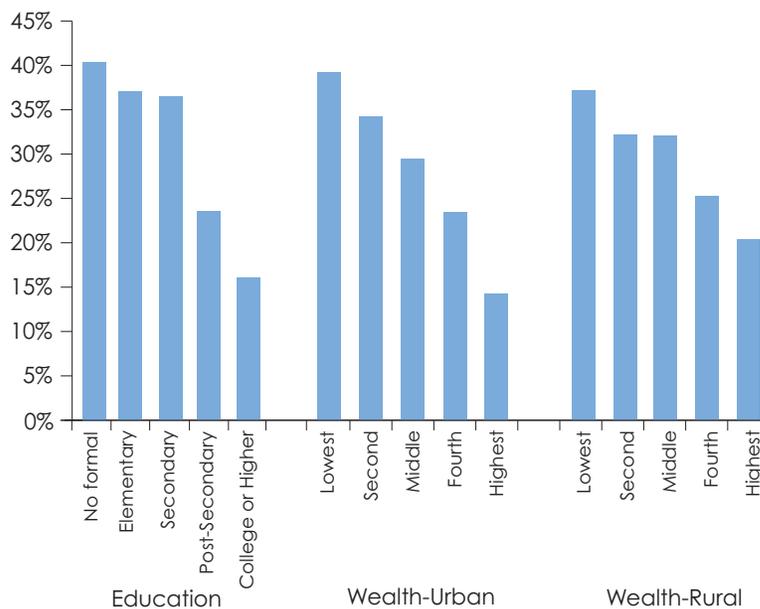
About 4 in 5 smokers smoke daily, while 19.7% of male smokers and 23.3% of female smokers smoke less frequently. As in high-income countries, as well as a growing number of low and middle-income countries,

**Graph 2.1: Cigarette Smoking Prevalence, Total and by Gender
Philippines, Multiple Surveys, 1995-2009**



Notes: Data are from the following surveys:
 1995 - 18 and older, Department of Health
 1996 - Social Weather Stations
 1998 - 20 and older, National Nutrition and Health Surveys
 2001 - 18 and older, Department of Health - University of the Philippines, Manila
 2003a - 18 and older, World Health Survey
 2003b - 20 and older, National Nutrition and Health Surveys
 2007 - 20 and older, Social Weather Stations
 2009a - 18 and older, Social Weather Stations
 2009b - 15 and older, Global Adult Tobacco Survey
 Source: Philippines GATS (Global Adult Tobacco Survey) 2009- Country Report⁵

Graph 2.2: Smoking Prevalence by Education and Wealth — Urban/Rural Status, Philippines, 2009



Source: Philippines GATS (Global Adult Tobacco Survey) 2009- Country Report⁵

smoking prevalence falls with income and education, as shown in Graph 2.2. The socio-economic gradients in smoking prevalence are stronger for women than for men, with 25.1% of women with no formal education smoking compared to only 4.5% of those with college or higher education, versus 58.6% and 29.7% for men, respectively.

Smoking cessation is not uncommon in the Philippines, with about 28.5% of ever smokers and 21.5% of ever daily smokers reporting having successfully quit smoking. Nearly half of former smokers (47.5%) have stayed smoke-free for more than ten years, while about one in eight stopped in the past year. Quit rates among women are much higher than they are among men — 39.9% and 25.9%, respectively. Similarly, less than daily smokers are much more likely to have quit successfully than daily smokers. Those with more education and/or greater wealth are more likely to have successfully quit smoking. This is a socio-economic gradient seen in other countries, and often reflects a greater access to knowledge of the health consequences of smoking and higher potential losses from the diseases caused by smoking. In addition, many current smokers want to quit smoking, with nearly half making a quit attempt in the past year and over 60% indicating that they are interested in quitting. This interest appears at least in part spurred by advice to quit from health professionals, with more than three-fourths of smokers reporting having been advised by a health care provider in the past year to quit smoking.

While most smokers in the Philippines smoke daily, cigarette consumption per smoker is relatively modest, with more than one-third of daily smokers consuming 5 or fewer cigarettes per day and another 35.1% consuming between 6 and 10 cigarettes per day. Men who smoke daily consume an average of 11.3 cigarettes per day, while daily female smokers smoke 7.0 cigarettes per day. Cigarette consumption

generally rises as smokers age, before falling after middle-age.

Youth Tobacco Use

Youth tobacco use is a significant problem in the Philippines. Based on data from the 2007 Global Youth Tobacco Survey, the prevalence of tobacco use among in-school youth ages 13 to 15 years old was 22.7%, with cigarette smoking prevalence of 17.5%. This was up sharply from the 15.9% tobacco use prevalence rate reported in the 2004 GYTS. Another 12.9% of youth who have never smoked indicated that they were likely to start smoking in the next year. Young tobacco users consume a variety of tobacco products, with 7.7% of youth surveyed in 2007 reporting current use of tobacco products other than cigarettes. Interest in cessation was also reported to be high among young smokers, with 88.1% of current smokers reporting that they wished to stop smoking and 86.0% having tried to quit at some point in the year leading up to the survey.

Of particular concern is the relatively high prevalence of tobacco use among girls ages 13 to 15 years old — 17.5% in 2007, significantly greater than the 10% prevalence rate for women 15 and older. GATS data indicate that most male smokers (86.3%) began smoking after they turned 15 years old, and that adult females smokers took up smoking at later ages than men. The high prevalence rates among 13 to 15 year

In 2007, the prevalence of tobacco use among in-school youth ages 13 to 15 years old was 22.7%, with cigarette smoking prevalence of 17.5%. This was up sharply from the 15.9% tobacco use prevalence reported in 2004.

olds suggest that future adult prevalence rates may be considerably higher than they are currently. Similarly, the relatively higher prevalence ratio for girls (relative to women) as compared to boys (relative to men) suggests that female tobacco use prevalence in future adult cohorts will rise rapidly in coming years if left unchecked.

Also of concern are the high rates of youth exposure to secondhand smoke, with more than half of youth (54.5%) reporting having been exposed at home, nearly the same numbers that report having at least one parent who smokes (54.1%). Additionally, almost two-thirds (64.5%) of youth report exposure outside the home. Most youth (70.8%) are aware of the risk of exposure to secondhand smoke and the vast majority (90.9%) support banning smoking in public places.

Nearly half (49.3%) of young smokers buy their cigarettes from stores and, of these, nearly 60% who bought cigarettes in stores were not refused sale despite being underage. Exposure to tobacco company advertising is high, with 87.4% of 13 to 15 year olds reporting having seen billboard advertising and 84.5%

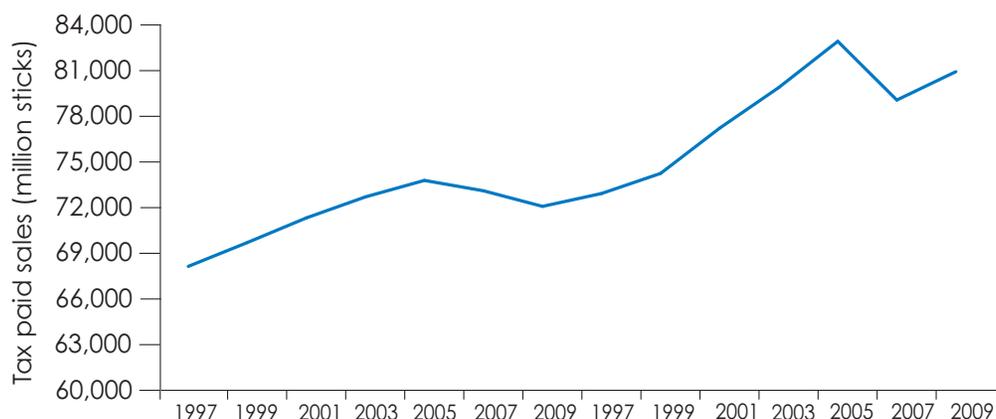
Nearly 60% of young smokers who bought cigarettes in stores were not refused sale despite being underage.

reporting seeing ads in newspapers or magazines in the month prior to the survey. Encouragingly, 87.7% of youth reported that they had seen anti-smoking messages in the media in the past month and 71.2% reported having been taught in school during the past year about the dangers of smoking.

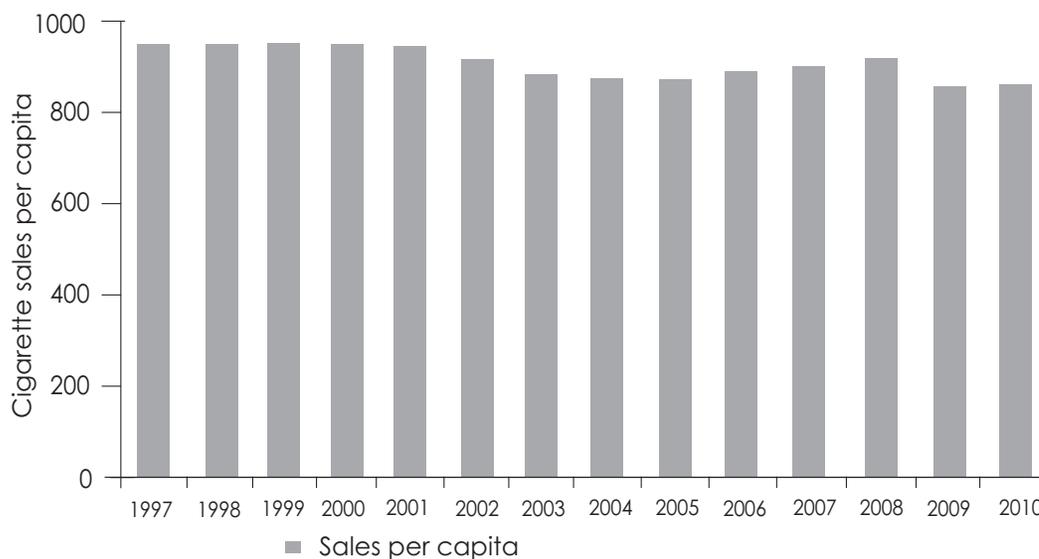
Tobacco Product Consumption

Cigarettes are the most widely consumed tobacco product in the Philippines, accounting for over 99% of total sales value. Overall cigarette consumption has been rising over time, but per capita and per smoker consumption has been falling.⁶ Between 1997 and 2010, tax paid cigarette sales rose by nearly 19%, from over 64.1 billion cigarettes to more than 80.9 billion cigarettes (Graph 2.3), while per capita consumption

Graph 2.3: Tax Paid Cigarette Sales, Philippines, 1997-2010



Source: Euromonitor, 2011 and official statistics.

Graph 2.4: Tax Paid Cigarette Sales, Per Capita, Philippines, 1997-2010

Source: Euromonitor International, 2010.

The number of smokers is rising faster than the population, characteristic of a country with a growing youth population and high smoking initiation rates among the youth.

fell by over 9% and per smoker consumption fell by more than 22% (Graph 2.4). The more rapid decline in sales per smoker relative to sales per capita suggests that the number of smokers is rising faster than the population, as might be expected in a country with a growing youth population and high initiation rates among the youth. Male smokers consume a little over 11 cigarettes per day, while female smokers consume an average of 7 cigarettes per day.

Virtually all cigarettes sold in the Philippines are filter-tipped, with over 99% of these using an American blend of tobacco.⁵ High tar cigarettes account for over 80% of the market. Low tar brands have gained market

share over time, but still account for less than 0.2% of the market. Menthol brands account for over 56% of the market. Over 90% of cigarettes are sold in packs of 20, with 10-packs account for about 9% of the market.

About one in seven tobacco users in the Philippines consumes tobacco in some form other than manufactured cigarettes. These other products include cigars, hand-rolled cigarettes, waterpipe, and smokeless tobacco products, with many of those who consume these products also smoking manufactured cigarettes. While there are many Filipinos who use these products, the overall value of their sales is minimal.

Health and Economic Consequences of Tobacco Use

Currently, tobacco use causes nearly six million deaths per year worldwide — more than one in ten adult deaths. About 70% of current tobacco-attributable deaths occur in low and middle-income countries.⁷ Given current trends, tobacco-attributable deaths are expected to rise to 8.3 million by 2030.⁸

While deaths caused by tobacco are expected to fall in high-income countries, they are expected to double to 6.8 million in low and middle-income countries by 2030.⁷ About half of all tobacco deaths occur between the ages of 35 and 69, resulting in a loss of 20 to 25 years of life for smokers versus nonsmokers.⁷ Quitting smoking, however, is effective in reducing the health consequences of smoking, with those who quit before middle age avoiding almost all of the excess health risks associated with continued smoking.^{7,9}

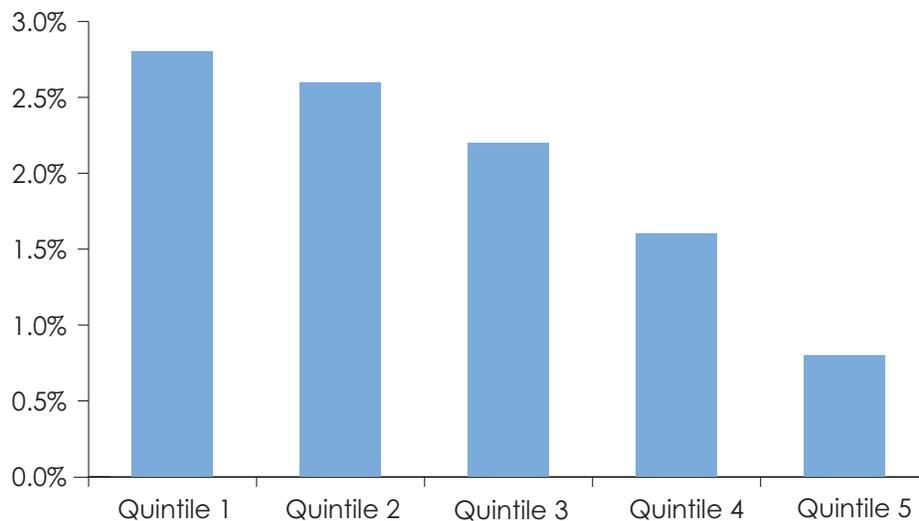
Strong evidence shows that nearly one-half of regular smokers will die prematurely as a result of their addiction.¹⁰ About one-third of these deaths result from cancers caused by tobacco, with tobacco-attributable cardiovascular and respiratory diseases accounting for about 30% each.⁷ In the Philippines, tobacco use is estimated to kill approximately 87,600 people each year — about 240 every day.

As in other countries, the majority of these deaths result from lung and other cancers, strokes, ischemic

heart and other cardiovascular diseases, and respiratory diseases. Estimates indicate that, in 2003 in the Philippines, there were between 188,000 and 302,000 new cases of lung cancer, cerebro-vascular disease, coronary artery diseases, and chronic obstructive pulmonary disease caused by smoking.¹¹ Given the numerous diseases caused by tobacco use, the health care costs of treating these diseases are substantial. Estimates for 2003 indicate that between 26.1 and 44.6 billion pesos (US\$ 501-858 million at 2003 exchange rates) were spent to treat the four major diseases caused by tobacco use.¹¹ These are almost certainly underestimates given spending on health care to treat the many other diseases caused by smoking in the Philippines.

In addition to the sizable health care costs resulting from tobacco use, the premature deaths and disability caused by smoking result in significant lost productivity. In most high-income countries, these costs are about the same or slightly higher than the

Graph 2.5: Share of Tobacco Expenses to Household Income, by Quintile, 2003



Source: *Tobacco and Poverty in the Philippines*, World Health Organization, 2008

health care costs caused by smoking.¹² In the Philippines, these lost productivity costs are estimated to greatly exceed the health care costs. In 2003, lost productivity from tobacco-attributable premature deaths caused by the four major diseases caused by smoking were estimated to be as much as 260 billion pesos (US\$ 5 billion in 2003), with the smoking-attributable lost productivity from these diseases estimated to be up to another 9.6 billion pesos (US\$ 185 million in 2003). Taken together, these

economic costs of smoking in the Philippines were over 7% of GDP in 2003.

With tobacco use prevalence being higher among those with a lower socioeconomic status in the Philippines (Graph 2.2), and with lower income groups spending higher fractions of their income on tobacco products (Graph 2.5), evidence suggests that a disproportionate burden disease, lost productivity and health expenses are incurred by the most economically vulnerable.

Endnotes for Chapter II

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III. Supply of Tobacco and Tobacco Products in the Philippines

The Philippines has long been a major tobacco growing country, beginning with the introduction of the tobacco plant by Spanish colonists in the 16th century. As a result, tobacco has a significant place in the country's history, economy, and politics. Most tobacco farming is concentrated in 5 provinces. Over 60% of the tobacco grown in the Philippines is Virginia tobacco, with burley tobacco the next most common (24.2%). The Philippines is a net exporter of tobacco leaf, with half or more of tobacco production exported in recent years.

In 2010, the two largest cigarette manufacturers in the country, Fortune Tobacco Corporation (FTC) and Philip Morris Philippines Manufacturing Incorporated (PMI) formed a joint venture, creating a near monopoly on cigarette manufacturing. British American Tobacco left the Philippine cigarette market in 2009, but a variety of other local and international tobacco companies continue to have a presence in the Philippines, including Japan Tobacco International (JTI), Mighty Corp, La Suerte Cigar & Cigarette Factory, and Imperial Tobacco.

This section briefly describes the supply side of the tobacco leaf and tobacco product markets in the Philippines, highlighting recent changes in these markets.

Tobacco Farming

Tobacco has been grown in the Philippines since the 16th century. Spanish colonists brought tobacco to the islands and Filipino farmers were forced to grow tobacco in order to generate revenue for Spain. Tobacco is currently the most widely grown non-food commercial crop in the Philippines, grown in 27 of the country's provinces. While grown throughout the Philippines, nearly 90% of tobacco production comes

from 5 major tobacco growing provinces: Ilocos Sur, Ilocos Norte, La Union, Pangasinan, and Isabela.

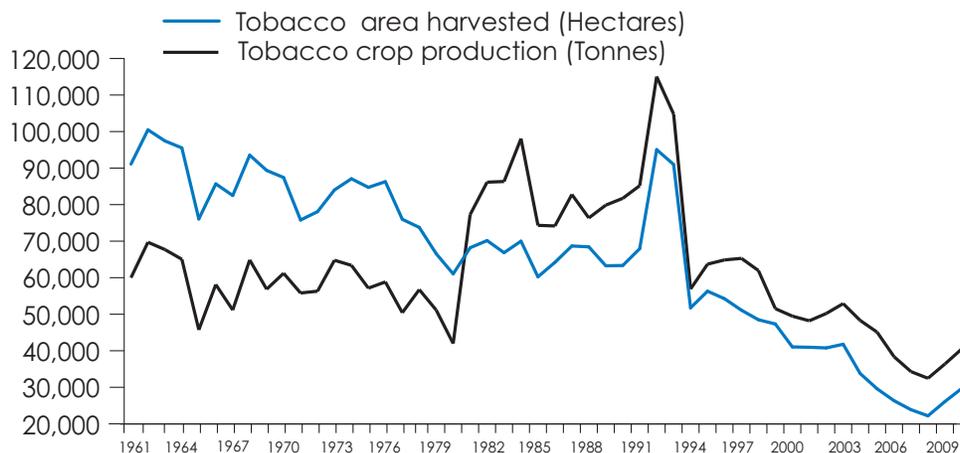
Both the acreage devoted to tobacco growing and the quantity of tobacco grown in the Philippines have been falling for much of the past two decades, before increasing somewhat in recent years (Graph 3.1). In 2010, total acreage used in tobacco growing and the volume of tobacco leaf grown was roughly 1/3 of their peak levels in 1992. The decline in tobacco farming has been attributed to conversion of agricultural lands into residential lands and the shifting of farmers from tobacco into more profitable crops.¹¹

As shown in Graph 3.2, there is considerable trade in tobacco leaf both in and out of the Philippines. For many years, imports and exports of unmanufactured tobacco were similar. Over the past decade, both have grown, with imports growing by relatively more than exports. The growth in tobacco leaf imports likely reflects the increased manufacturing presence of multinational tobacco companies in the Philippines, as discussed below.

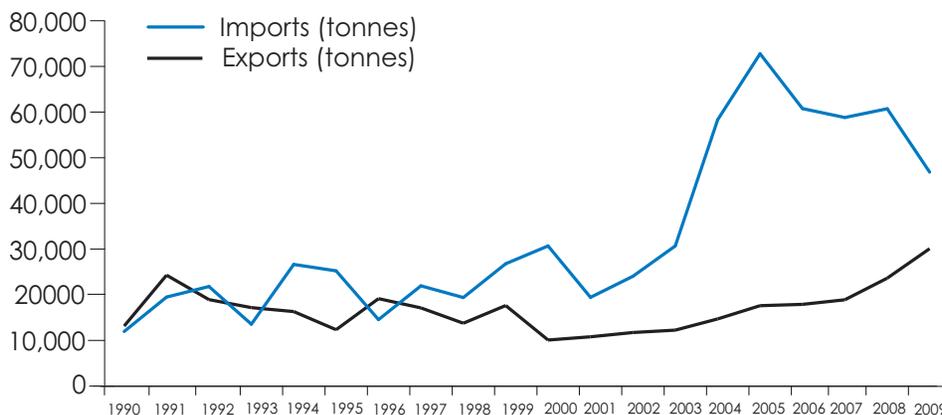
According to the National Tobacco Administration, 50,278 persons were employed in tobacco farming in 2010.¹³ Given that one-third of the over 36 million individuals employed in the Philippines in 2010 worked in the agricultural sector, tobacco farming accounted for 0.4% of total agricultural employment. This is likely a continuation of the downward trend in employment in tobacco farming reported by Austria and Asuncion (2008), consistent with the long term downward trends in acreage used for tobacco farming and volume of tobacco leaf grown in the Philippines.

Tobacco growing has long been subsidized by the Philippine government. For many years, 15% of the total tax revenues generated from Virginia tobacco have been returned to provinces growing Virginia tobacco.

In 2010, tobacco farming accounted for 0.4% of total agricultural employment.

Graph 3.1: Tobacco Farming in the Philippines — Area and Production, 1961-2010

Source: FAOSTAT, 2011

Graph 3.2: Tobacco Leaf Imports and Exports, 1990-2009

Source: FAOSTAT, 2011

Since 2004, 15% of the new revenues generated from the tobacco excise tax increases that took effect that year has been returned to provinces growing burley or native tobacco. These funds are used to support a variety of activities, including efforts to improve tobacco farming and infrastructure development.

By contrast, few resources have historically been dedicated to programs that would help tobacco farmers make the transition to other economically viable alternative livelihoods. From 2003 through

2008, a modest program funded by general revenues provided assistance to tobacco farmers interested in moving out of tobacco farming. This short-lived program appears to have had little impact in reducing the number of tobacco farmers.¹⁴

Cigarette Manufacturing

There are a mix of local and multinational tobacco companies manufacturing cigarettes in the Philippines. Historically, multinational companies

were unable to manufacture or distribute cigarettes themselves, instead having to operate through licensing agreements with one of the local tobacco companies. Over the past decade, however, the market has changed as these licensing agreements expired and multinationals began operating independently.

Fortune Tobacco Corporation (FTC), founded in 1966, was for several years the largest cigarette manufacturer in the Philippines. For many years, FTC had a licensing agreement with Japan Tobacco International (JTI) and manufactured and distributed JTI's brands in the Philippines. Between its own brands and those of JTI, FTC controlled well over half of the Philippine cigarette market (see Table 3.1). That licensing agreement expired in 2008 and JTI took over its own operations in the country. However, in February 2010, FTC agreed to join forces with Philip Morris Manufacturing Incorporated (PMI) to create Philip Morris Fortune Tobacco Company (PMFTC). In 2010, the new company nearly monopolized the Philippine cigarette market, with a market share of 81.6%.

Another long-time Philippine cigarette manufacturer, La Suerte Cigar & Cigarette Factory held the license to manufacture and distribute Philip Morris brands from 1955 until 2002. In 2003, Philip Morris began manufacturing and distributing its own brands through Philip Morris Manufacturing Incorporated. In 2004, La Suerte entered into a licensing agreement with British American Tobacco (BAT) to manufacture

and distribute BAT's Pall Mall brand, but BAT withdrew from the Philippines in 2008. In addition to La Suerte and the firm Mighty Corp, there are a variety of other small, domestic cigarette producers in the Philippines, with combined market share of around 5%.

PMI and JTI are the major multinational tobacco companies producing in the Philippines. Their presence in the market has evolved over time, from operating through licensing agreements with domestic manufacturers to independent operations in more recent years. The 2010 agreement between PMI and FTC to create PMFTC continues the trend towards consolidation in the world's tobacco markets.

The dominance of FTC and PMI, and the new PMFTC is reflected in brand shares in the Philippine cigarette market, as shown in Table 3.2. Fortune International and Marlboro are by far the two most popular cigarette brands in the Philippines, accounting for more than half of all cigarettes consumed in 2010, up significantly from less than one third in 2001. The top 5 cigarette brands in 2010 are all produced by PMFTC, accounting for more than 3/4 of all cigarettes consumed in the Philippines. This growth likely reflects the significantly increased market power of PMFTC and greater focus of the new company on its flagship brands.

All cigarettes produced and sold in the Philippines are filter-tipped, with the vast majority of these king

Table 3.1: Cigarette Company Market Shares, Philippines, 2001-2010

Company	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
PMFTC	-	-	-	-	-	-	-	-	-	81.6%
Fortune	41.6%	40.3%	40.6%	43.1%	42.2%	44.5%	45.3%	45.6%	48.2%	-
PMI	28.6%	29.1%	29.3%	30.2%	32.2%	31.1%	29.0%	29.4%	31.5%	-
JTI	12.0%	12.1%	11.6%	11.8%	12.0%	11.8%	15.5%	11.5%	7.1%	6.1%
La Suerte	5.4%	4.3%	3.6%	2.1%	1.6%	1.1%	1.6%	1.7%	1.6%	1.5%
Mighty	1.6%	2.7%	3.7%	4.0%	4.8%	4.2%	4.7%	4.9%	4.9%	4.9%
Others	10.8%	11.3%	10.8%	8.4%	6.9%	6.9%	6.6%	6.7%	6.5%	5.7%

Source: Euromonitor International, 2011

Notes: PMI licensed by La Suerte through 2002; JTI licensed by FTC through 2008.

size (85 mm) length. The market share of long cigarettes (100 mm) has been falling in recent years. Over half of all cigarettes consumed are menthol. Over 83% of cigarettes consumed are high-tar cigarettes, with mid-tar cigarettes accounting for nearly all of the remainder.

Cigarettes are sold through a variety of channels in the Philippines. Particularly important are the sari-sari stores (small convenience type stores often located in the owner's house) which account for more than one-third of overall sales. Also important are street vendors who account for nearly one-quarter of cigarette sales. These small retailers routinely sell individual cigarettes (singles from a larger 20-pack) rather than full packs. The significant presence of these informal distribution channels creates significant opportunities for tax avoidance and evasion. Most of remaining sales take place through supermarkets or groceries.

Sales of smaller packs have gained considerable market share in recent years. Sales of 10-packs, introduced in the late 1990s, now account for almost 10% of cigarettes sold. The success of the 10-packs led

Sales of smaller packs of 10 and 5 sticks have gained market share in recent years...The marketing of these smaller packs appears targeted at lower-income smokers.

to the introduction of a 5-packs in 2009. The marketing of these smaller packs appears targeted at lower-income smokers while at the same time appears aimed at discouraging purchase of individual cigarettes.⁶

Over the past decade, cigarette exports have become increasingly important to cigarette manufacturers based in the Philippines, as shown in Graph 3.3, accounting for 15-20% of production in recent years. The sharp growth in exports took place after PMI established its local production facilities, which serve as a base for exports of its brands to other countries in the region, particularly Thailand. This was further accelerated by the implementation of the ASEAN Free Trade Agreement that significantly reduced tariffs and removed non-tariff barriers to trade between participating countries. Over time, exports have fallen somewhat as PMI has established a manufacturing presence in several other countries in the region. By contrast, there are almost no cigarettes imported into the Philippines in recent years. The disappearance of imports likely reflects the greater local presence of multinational tobacco companies.

Much of the growth in cigarette production in recent years has been exported so that domestic cigarette consumption (domestic production + imports – exports) has changed little over the past decade (Graph 3.4).

Employment in tobacco manufacturing was relatively stable through the mid-2000s. Austria and

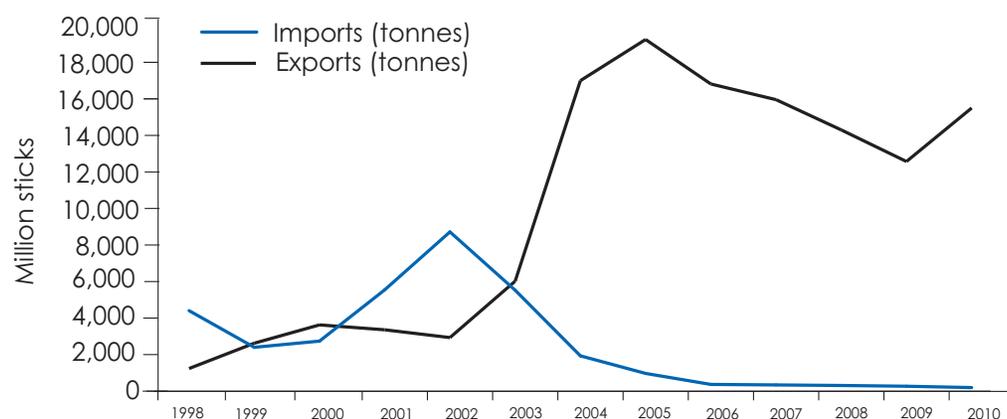
Table 3.2: Cigarette Brand Shares, Philippines, 2001-2010

Brand	Company	2001	2005	2010
Fortune International	FTC/PMFTC	11.9%	18.6%	28.5%
Marlboro	PMI/PMFTC	20.7%	24.1%	25.7%
Hope	FTC/PMFTC	10.6%	11.4%	10.7%
Philip Morris	PMI/PMFTC	7.9%	7.8%	6.8%
Champion	FTC/PMFTC	14.9%	7.2%	6.6%
Winston	JTI	10.6%	10.9%	5.1%
Mighty	Mighty	1.6%	4.8%	4.9%

Source: Euromonitor International, 2011

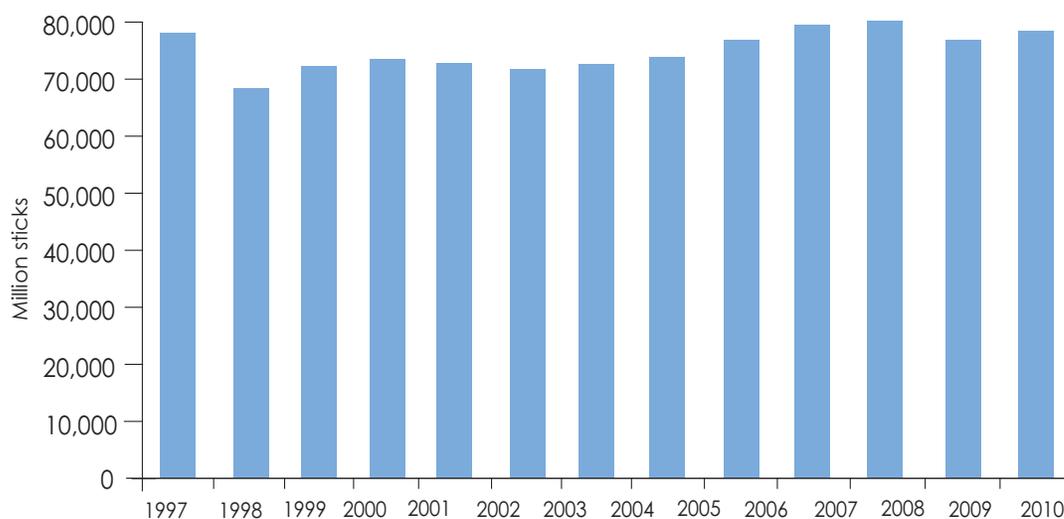
Notes: PMI licensed by La Suerte through 2002; JTI licensed by FTC through 2008.

Graph 3.3: Cigarette Imports and Exports, Philippines, 1990-2009



Source: Euromonitor International, 2011.

Graph 3.4: Net Domestic Cigarette Consumption, Philippines, 1998-2010



Source: Euromonitor International, 2011.

Asuncion (2008) estimate that total employment in cigarette manufacturing was 7,172 in 2005.¹⁵ With over 2.5 million persons employed in manufacturing

in the Philippines in 2005, the share of tobacco-employment in all manufacturing employment was less than 0.3%.

Endnotes for Chapter III

¹³ National Tobacco Administration. Industry Performance. 2011. Available at: www.nta.da.gov.ph/publications_industry.html. Accessed December 29, 2011.

¹⁴ World Health Organization. Joint National Capacity Assessment on the Implementation of Effective Tobacco Control Policies in the Philippines. Geneva, Switzerland: World Health Organization, Tobacco Free Initiative. 2011.

¹⁵ Austria MS, Asuncion RCO. Measuring Employment in the Tobacco Industry: The Case of the Philippines. Bangkok, Thailand: Southeast Asia Tobacco Control Alliance. 2008.

IV. Tobacco Control in the Philippines

In addition to the substantial public health case for tobacco control, a strong economic rationale exists for government intervention to reduce tobacco use.^{16,7} This section reviews the market failures that provide the economic rationale for government intervention to reduce tobacco use and describes the tobacco control environment in the Philippines.

Rationale for Government Intervention

The notion of consumer sovereignty — the principle that an individual makes the best choices for himself or herself — depends on two key assumptions: that an individual fully understands the costs and benefits of these decisions and that an individual bears all of the costs and receives all of the benefits of his or her decisions. Tobacco use clearly violates both of these assumptions, resulting in market failures that justify government intervention.^{16,7}

In general, consumers have imperfect information about the health and other consequences of tobacco use. Many users do not fully understand the health hazards associated with tobacco use, and those who do have a general understanding of the risks do not adequately internalize these risks.⁷ This is particularly true in the Philippines, where many smokers are less than fully aware of the health consequences of smoking. For example, while 92.7% of Filipino smokers believe smoking causes lung cancer, only 75.7% were aware that smoking causes heart attacks and 69.2% were aware that smoking causes strokes.²

This imperfect information is complicated by the fact that most tobacco users initiate use as youths. As noted above, millions of Filipino youth begin using tobacco by age 15, with many starting at younger ages. Children’s and adolescents’ ability to make fully informed, appropriately forward looking decisions is limited at best, leading governments to intervene with

respect to youth in many areas such as mandating and enforcing legal ages for driving and minimum ages for drinking alcohol.

The problems of imperfect information are further complicated by the addictive nature of tobacco use, which is poorly understood and underappreciated, particularly among those initiating tobacco use. Addiction makes quitting smoking very difficult, even among young users, as illustrated by the nearly 90% of Filipino youth tobacco users who want to quit and the 86% who tried unsuccessfully to quit in the past year.³

There are also significant externalities associated with tobacco use. Nonusers’ exposure to the smoke generated by tobacco users results in various cancers, respiratory and cardiovascular diseases, and other diseases.¹⁷ More than half of Filipino youth are exposed to tobacco smoke at home and nearly two-thirds are exposed in public places. Similarly, more than half of adult Filipinos are exposed to tobacco smoke at home and on public transportation, while more than one-third of Filipino workers are exposed in the workplace.² Additionally, there are financial externalities that result from publicly financed health care to treat diseases caused by tobacco use, given that about 8 in 10 Filipinos are covered by the government through the PhilHealth program. A more recent strand of literature has emphasized a different type of market failure, the “externalities” that arise as consequences of time inconsistencies in preference. The immediate gratification and addictive nature of smoking lead even users who are aware of the longer run harms of smoking to smoke more than they would like to.¹⁸

Tobacco Control Policy in the Philippines

A variety of tobacco control policies and programs can be used to address the failures inherent in the markets for tobacco products. The WHO’s Framework Convention on Tobacco Control (FCTC), the world’s first public health treaty, calls for governments to adopt comprehensive policies to curb tobacco use. The

Philippines signed the FCTC on 23 September, 2003, and ratified the treaty less than two years later, on 6 June, 2005.

As with many low and middle-income countries that have signed and ratified the treaty, tobacco control policies in the Philippines fall short of those called for by the FCTC.¹⁹ However, these policies have become increasingly comprehensive since the early 1980s and the country's ratification of the FCTC suggests that this trend will continue in coming years. This section reviews the Philippines' tobacco control policies, with the exception of tobacco taxation which is covered in the next section.

Beginning with the Clean Air Act of 1999, several pieces of legislation have been adopted with the intent of protecting nonsmokers by restricting smoking in public places. Republic Act 8749 (1999) prohibited smoking in enclosed public places including on public transportation, but left it up to local governments to implement the legislation. The Tobacco Regulation Act of 2003 (R.A. 9211) prohibited smoking in schools, recreational facilities, hospitals and other medical facilities, airplanes, public transportation, restaurants and other public facilities, but allowed for the creation of designated smoking areas, limiting the effectiveness of the policy. Over the next few years, various government agencies adopted policies that aimed to make specific venues smoke-free, and extending some of the protections contained in earlier legislation (e.g. the Department of Education's order banning smoking in open or covered areas around public school buildings). In 2010, a Department of Health memorandum encouraged local governments to adopt smoke-free policies. While a number of local governments have adopted strong ordinances and/or effectively implemented the national policies, nonsmokers continue to be regularly exposed to tobacco smoke. As noted above, nearly two-thirds of youth report being exposed to tobacco smoke in public places, over half of adults report being exposed in

public transportation, more than one-quarter of adults report being exposed in government buildings, and 36.9% report being exposed in the workplace (including 13.9% exposed in workplaces that prohibit smoking in enclosed areas).

R.A. 9211 mandated health warning labels on tobacco product packaging, calling for rotating text warnings in English or Filipino that take up 30% of the front of the pack. The warnings provide general statements about the health consequences of tobacco use, stating that: "cigarette smoking is dangerous to your health"; "cigarettes are addictive"; "tobacco can harm your children"; and "smoking kills." Efforts to adopt legislation that would strengthen the warnings by requiring larger, rotating graphic warnings have been unsuccessful. This led the Department of Health to adopt an administrative order in 2010 requiring graphic warning labels in order to comply with the WHO FCTC. This administrative order was immediately challenged by the tobacco industry and graphic warnings labels are currently on hold. The general nature of the existing text warnings, along with the frequent purchases of single cigarettes, likely contribute to the less than full understanding about the specific risks from tobacco use among Filipino smokers described above. Other public education efforts, including mass-media campaigns to inform smokers of the risks from smoking, are spotty at best and have limited reach among the least educated and lowest income Filipinos.

R.A. 9211 also banned most tobacco product advertising, including on television and radio, in print, and outdoors, as well as tobacco company sponsorship of events, as of 1 July 2008. However, point-of-sale advertising is allowed, as are promotions and sampling to Filipinos over 18 years of age. Despite the somewhat comprehensive ban, the vast majority of Filipinos reported being exposed to tobacco company advertising in 2009, with 71.2% reporting exposure to any cigarette advertising. The exemption of the point-

71.2% of adults reported being exposed to tobacco company advertising in 2009...The exemption of the point-of-sale from the advertising ban accounts for much of this.

of-sale from the advertising ban accounts for much of this, with 53.7% of individuals surveyed reporting noticing advertising in stores. Similarly, the exemption for promotions to those over 18 is also important, with 29.1% reporting noticing cigarette promotions.

The sale of tobacco products to persons under 18 years of age was also prohibited by R.A. 9211. However, as reported in Chapter II, minors have little trouble purchasing cigarettes, with nearly half (49.3%) of 13-15 year olds reporting buying cigarettes in stores and 59.6% of those who buy cigarettes in stores not being refused sale because of their age. The numerous small tobacco product vendors, particularly the sari-sari stores and street vendors, make effective enforcement of the prohibition on sales to minors nearly impossible.

The Philippines has a national tobacco control strategy and, in 2010, created a National Tobacco Control Coordinating Office, based in the Department

of Health's National Centre for Health Promotion. Resources, however, are limited. Cessation programs are available, but tend to have limited reach and there are no national cessation practice guidelines or models. There is no national quitline to support cessation and only limited availability of pharmacotherapies, including nicotine patches and varenicline, and these medication are not on the essential drug list.

Evidence from high-income countries and a growing number of low and middle-income countries demonstrates that strong tobacco control policies will lead to significant reductions in tobacco use, while relatively weak policies will have a limited impact at best.^{20,7} To date, the Philippines' partial and uneven restrictions on tobacco company marketing, incomplete restrictions on smoking in public places and workplaces, weakly enforced ban on sales to minors, limited efforts to raise awareness about the consequences of tobacco use and minimal resources dedicated to tobacco control appear to have had little effect on tobacco use, with smoking prevalence changing little over time, even as policies have become somewhat more comprehensive. Stronger and more comprehensive policies would complement higher taxes in reversing the upward trends in tobacco use in the Philippines.

Endnotes for Chapter IV

- ¹⁶ Jha P, Musgrove P, Chaloupka FJ, Yurekli A. The economic rationale for intervention in the tobacco market. In: Jha, P, Chaloupka FJ, eds. Tobacco Control in Developing Countries. Oxford: Oxford University Press. 2000.
- ¹⁷ U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2006.
- ¹⁸ Gruber J, Kőszegi B. A Modern Economic View of Tobacco Taxation. Paris: International Union Against Tuberculosis and Lung Disease. 2008.
- ¹⁹ World Health Organization. WHO Report on the Global Tobacco Epidemic, 2011: Implementing Smoke-Free Environments. Geneva: World Health Organization. 2011.
- ²⁰ Jha P, Chaloupka FJ, editors. Tobacco Control in Developing Countries. Oxford: Oxford University Press. 2000.

V. Cigarette Taxes and Prices in the Philippines

Structure of Tobacco Taxes and Trends

Tobacco taxes that translate into price increases are widely considered the single most effective option for reducing tobacco use.²⁰⁻²² Significant increases in taxes that raise the prices of tobacco products will reduce their consumption, while at the same time generating substantial increases in revenues.

The Philippines imposes a variety of taxes on tobacco products, including excise taxes on cigarettes and other tobacco products, duties on imported tobacco products, and a value added tax on the excise tax-inclusive retail prices of tobacco products. The National Internal Revenue Code (or the Tax Code) enacted in 1939, among its many provisions, sets policy pertaining to tax rates and tax administration in the Philippines. It covers the imposition of excise and value-added taxes on certain goods, properties, and services, including tobacco products.

Excise taxes are the most relevant for tobacco control since they are levied exclusively on tobacco products and are an important policy tool to ensure relative price increases of tobacco products. Over the years, sections of the Tax Code have been amended several times to keep up with changes in the economy, including the sections pertaining to tobacco excise taxes. Excise taxes in the various versions of the law were either specific (a peso value per pack) or *ad valorem* (a percentage of the price of a pack), but in a few cases, a combination of both types.

The relevant tax laws implemented in the past fifteen years are the Tax Reform Code of 1997 (R.A. 8424), in effect until 2004, and the Sin Tax Law of 2004 (R.A. 9334), which sought to make the consumption of alcohol and tobacco products a more costly proposition. Under R.A. 9334, excise tax rates on tobacco products, cigars, and cigarettes were

increased on a staggered basis every two years beginning 2005 until 2011. Table 5.1 shows the tax rates levied under these laws.

Net Retail Price and the “Price Classification Freeze”

A key aspect of the Sin Tax Law is that excise taxes are based on the net retail price (NRP) per pack of cigarettes. The NRP is determined by the Bureau of Internal Revenue (BIR) through a price survey to be conducted by the BIR, or the National Statistics Offices (NSO) when deputized for that purpose by the BIR. As defined by the law, “the ‘net retail price’, shall mean the price at which the cigarette is sold on retail in at least twenty (20) major supermarkets in Metro Manila (for brands of cigarettes marketed nationally), excluding the amount intended to cover the applicable excise tax and the value-added tax. For brands which are marketed only outside Metro Manila, the ‘net retail price’ shall mean the price at which the cigarette is sold in at least five (5) major supermarkets in the region excluding the amount intended to cover the applicable excise tax and the value-added tax.”

The Sin Tax Law explicitly determines the NRPs of all cigarette brands already existing in the Philippine market on or before October 1996, and a schedule of the NRPs of these brands, effective through 2011, is annexed to the law. Only a Congressional bill can amend these prices and there is no provision in the law that adjusts NRPs for inflation. This “price classification freeze” fixes the tax rate, based on the brands’ NRPs as of 1 October 1996, regardless of what has happened to the NRP since then. This favors the brands produced by companies that have operated in the Philippines cigarette markets for many years, including the multinational companies operating under licensing agreements with domestic cigarette companies. Given that these brands comprise over 90% of the market, the price classification freeze creates a significant entry barrier since new brands are taxed according to their NRP at the time of their entry.

Table 5.1: Tobacco Tax Regulations and Tax Rates, 1997-2011

	R.A. 8424 (1997)	R.A. 9334 (2004)
Tobacco		
i) Tobacco twisted by hand or reduced into a condition to be consumed	P0.75 per kilogram	P1 per kilogram
ii) Tobacco prepared/ partially prepared with/ without the use of any machine/instruments		
iii) Fine-cut shorts, refuse, scraps, etc. of tobacco (provided these are to be exported or used in the manufacture of other tobacco products)		
(iv) Tobacco specially prepared for chewing so as to be unsuitable for use in any other manner	P0.60 per kilogram	P0.79 per kilogram
<i>Note: Rates increased by 6% every two years from Jan. 1, 2007-Jan. 1, 2011.</i>		
Cigars and Cigarettes		
i) Cigars	P1 per cigar	10% <i>ad valorem</i> tax for net retail price of P500 or less per cigar P50 plus 15% of net retail price in excess of P500
ii) Cigarettes packed by hand (each pack with 30 pieces)	P0.40 per pack	P2 per pack beginning Jan. 2005 P2.23 per pack beginning Jan. 2007 P2.47 per pack beginning Jan. 2009 P2.72 per pack beginning Jan. 2011
iii) Cigarettes packed by machine (each pack with 20 pieces)		
<i>for net retail price below P5 per pack</i>	P1 per pack	P2 per pack beginning Jan. 2005 P2.23 per pack beginning Jan. 2007 P2.47 per pack beginning Jan. 2009 P2.72 per pack beginning Jan. 2011
<i>for net retail rice of P5 to P6.50 per pack</i>	P5 per pack	P6.35 per pack beginning Jan. 2005 P6.74 per pack beginning Jan. 2007 P7.14 per pack beginning Jan. 2009 P7.56 per pack beginning Jan. 2011
<i>for net retail price above P6.50 to P10 per pack</i>	P8 per pack	P10.35 per pack beginning Jan. 2005 P10.88 per pack beginning Jan. 2007 P11.43 per pack beginning Jan. 2009 P12 per pack beginning Jan. 2011
<i>for net retail price of above P10 per pack</i>	P12 per pack for net retail price of above P10	P25 per pack beginning Jan. 2005 P26.06 per pack beginning Jan. 2007 P27.16 per pack beginning Jan. 2009 P28.30 per pack beginning Jan. 2011

Source: Adapted from Department of Health (2006).

This significant competitive disadvantage for new brands helps explain why BAT's foray into the Philippines cigarette market was short-lived.

Historical Context

The convoluted tobacco tax system employed in the Philippines and the resulting tobacco product market structure trace their roots to the crony capitalism* characteristic of the Philippine economy under President Marcos from 1965 to 1986. The dominant domestic firm, Fortune Tobacco Corporation (FTC), played a significant role in influencing tobacco taxation in the country, particularly the different levels at which domestic and international brands were taxed. Prior to the enactment of a tiered system, FTC was able to evade and hinder tax changes and convinced Congress to stay with a two-tiered *ad valorem* tax system which gave FTC a pricing advantage over its competitors.²³

FTC's dominance over its close competitors was reinforced and sustained through discriminatory pricing advantages that allowed its international brand names to be classified as local brands thus reducing tax duties. Tax avoidance by manufacturers extended to the establishment of "dummy marketing companies" in the 1990s as the computation of the excise tax levied was based on a percentage of the ex-factory price. These dummy companies were the first link in the distribution chain and minimized price increases.²³

Under the Ramos administration an attempt was made to break up large monopolies, including those in the tobacco industry, through legislation. Political economy considerations, however, served to limit the bill's effectiveness.²³ The result was the Sin Tax Law of

The Sin Tax Law of 2004 maintained the price classification freeze and adopted modest increases in tax rates every two years.

2004 which maintained the price classification freeze and adopted modest increases in tax rates every two years.

In addition to excise taxes, R.A. 8424 levied a 10% VAT on the sale of goods or properties, including tobacco products. In July 2005, given the government's fiscal problems, R.A. 9337 raised the VAT to 12%. This tax is applied to the sum of the NRP and applicable excise tax.[†]

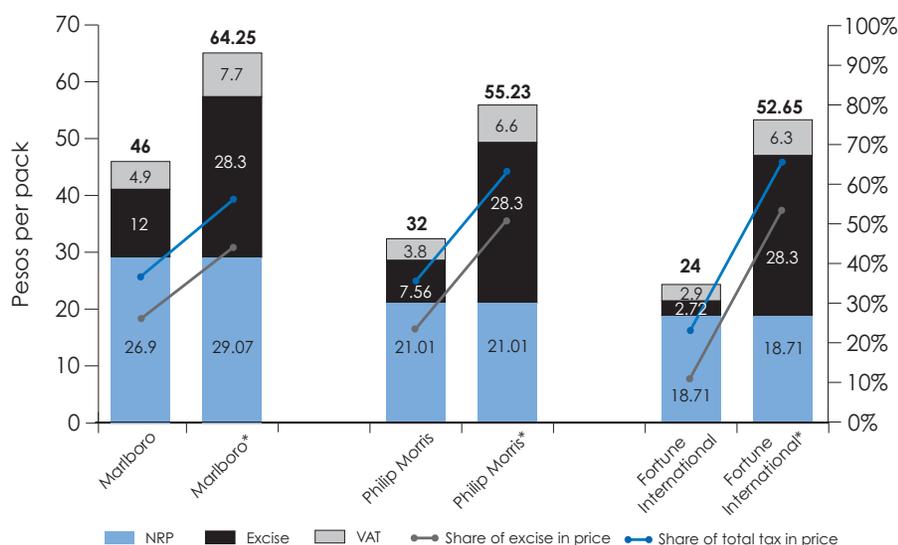
Cigarette Prices

Graph 5.1 shows the current composition of cigarette prices for three popular brands, based on taxes imposed as a result of the price classification freeze based on their Net Retail Prices in 1996 versus what prices would have been had taxes been levied based on their actual NRPs in 2011. As an example, Fortune International king sized cartons retailed at 24 Pesos per 20 pack in January 2011, but bore an excise tax of 2.72 Peso under the Sin Tax Law, reflecting the fact that the brand was priced at less than 5 Pesos per pack in 1996. Subtracting this excise tax and the applicable VAT results in an NRP of 18.7 Pesos. As Table 5.1 indicates, the currently applicable excise tax for cigarettes with an NRP of 18.7 Pesos is 28.3 pesos, over 10 times the excise tax applied to Fortune International. Adding the VAT brings the total prices to 52.6 pesos per pack, more than double the current market price.

* An economic system characterized by close relationships between businessmen and the state. Instead of the profitability of business decisions being determined by a free market and the rule of law, the success of a business is dependent on the favoritism that is shown to it by the ruling government in the form of tax breaks, government grants, and other incentives (adapted Investopedia, available online at <http://www.investopedia.com/terms/c/cronycapitalism.asp> on June 24, 2008).

† Since the 12% rate is applied to retail price excluding VAT, value added tax amounts to a smaller percentage, (10.72%) of retail price.

Graph 5.1: Cigarette Prices in 2011 vs. Prices Computed Eliminating the Price Classification Freeze^(*)



Sources: Euromonitor International, 2011 and authors' calculations.

Notes: Prices are for January 2011. 'Fortune International' represents Fortune International Extra Menthol King, Folding Cartons, sold in a convenience store; 'Philip Morris' represents the average for a pack of Philip Morris King Size Menthol, Folding Cartons, sold in a convenience store and supermarket/hypermarket; and 'Marlboro' represents a pack of Marlboro Red, Paper, sold in a supermarket/hypermarket.

The graph depicts cigarette prices current for 2011, and as they would be (*) if excise taxes were applied based on the current-as-of-2011 Net Retail Price and applicable tax rate.

If the price classification freeze were eliminated, the share of excise taxes in price for Marlboro would increase from 26.1% to 44%, for Philip Morris King Size Menthol from 23.6% to 51.2%, and for Fortune International from 11.3% to 53.7%.

Similarly, the share of total taxes in price would increase from 36.8% to 56% for Marlboro, from 35.6% to 63.2% for Philip Morris King Size Menthol, and from 23.3% to 65.7% for Fortune International.

Cigarette prices in the Philippines are 40 to 120% below what they would be in the absence of the price classification freeze.

The tiered excise tax structure combined with the price classification freeze results in several problems, from a tobacco control perspective. First, as illustrated in Graph 5.1, cigarette prices are well below what they would be in the absence of the price classification freeze. Marlboro prices, for example, would rise by almost 40% if they were taxed in the highest tax tier. Price increases for lower priced brands would be even

greater; the price for Fortune International, the most popular low-priced brand, would rise by nearly 120%.

Second, the tiered tax structure based on 1996 Net Retail Prices results in significant price gaps between premium and discount brands, with the price of

Eliminating the price classification freeze would effectively eliminate the tiered tax structure and move all or nearly all brands into the top tax tier. This would significantly reduce the relative price gaps.

Marlboro almost 92% higher than that of Fortune International. Eliminating the price classification freeze would effectively eliminate the tiered tax structure and move all or nearly all brands into the top tax tier. This would significantly reduce the relative price gaps; in this example, Marlboro would be only 22% more expensive than Fortune International if the price classification freeze were done away with.

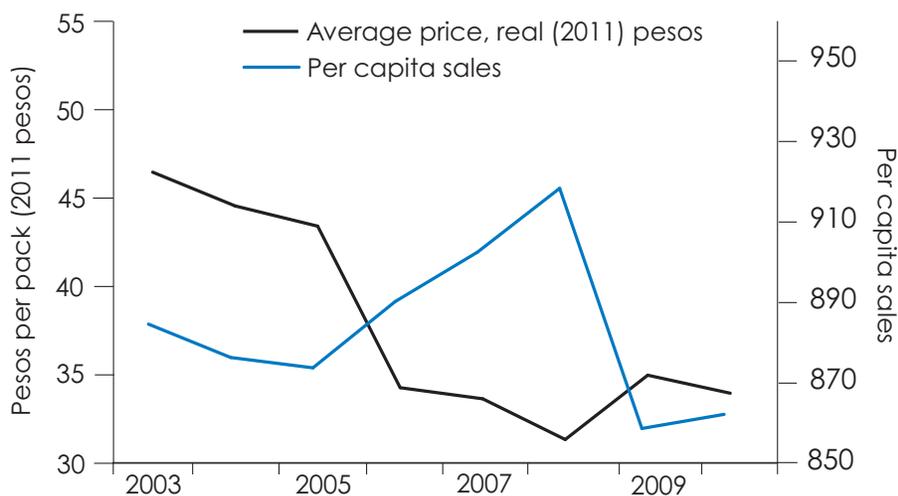
Third, across all brands, taxes as a percentage of retail cigarette prices are well below the levels recommended by international organizations. In 1999, the World Bank, for example, recommended that taxes should account for between two-thirds and four-fifths of retail prices.²⁰ Under the existing tax structure, total taxes on cigarettes account for far less than this, averaging 36.1% of price. More recently, the World Health Organization (WHO) identified excise taxes that account for at least 70% of retail prices as a best

practice in tobacco taxation.²⁴ On average, cigarette excise taxes in the Philippines currently account for 24.1% of retail prices. Eliminating the price classification freeze and taxing all cigarettes at the highest rate would bring the Philippines closer to these targets, raising the average share of excise tax in price to 53.8% and the total tax share to 65.8%.

Graph 5.2 illustrates an additional consequence for tobacco control of the Philippine tobacco tax system. While nominal excise tax rates have been increased every two years since the Sin Tax Act went into effect,

While nominal excise tax rates have been increased every two years since the Sin Tax Act went into effect, these tax increases have not kept pace with inflation.

Graph 5.2: Inflation Adjusted Cigarette Prices and Per Capita Cigarette Sales, Philippines, 2003-2010



Sources: Euromonitor International, 2011; Economist Intelligence Unit, 2011; World Bank, 2011; and authors' calculations.
 Note: Price in this graph is the average price of an international brand (typically Marlboro) and a popular local brand of cigarettes obtained from the EIU database. Nominal prices were adjusted for inflation using the consumer price index reported by the World Bank and presenting inflation adjusted prices in 2011 pesos. Per capita sales data is from Euromonitor.

Increasing affordability of cigarettes from 2005 through 2008 is a key factor in the rise in per capita sales over those years.

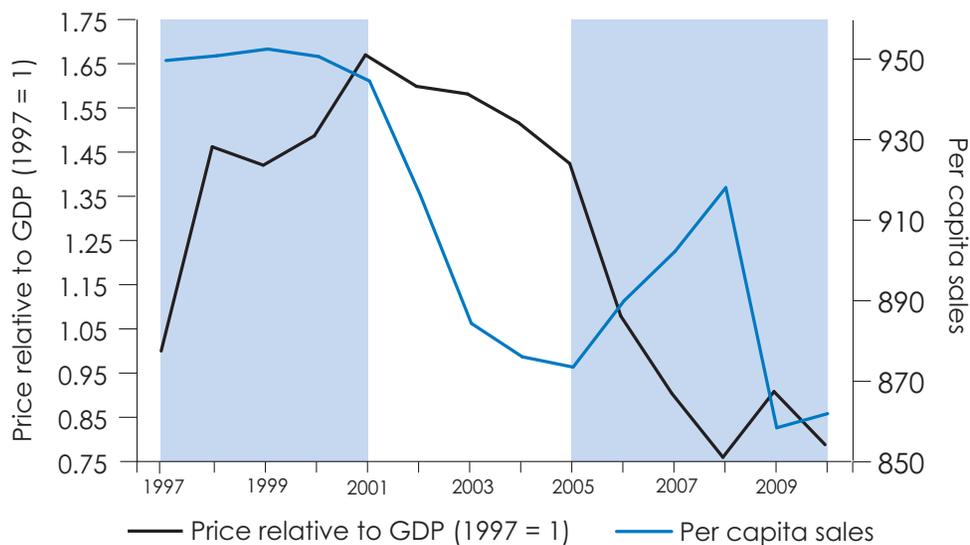
these tax increases have not kept pace with inflation, particularly for brands in higher tax tiers. As a result, the inflation adjusted price of cigarettes has fallen for most of the past two decades. The sharp decline in real prices from 2005 through 2008 appears to be a particularly important factor in explaining the rise in per capita cigarette sales over this period.

The relationship with cigarette sales is clearer when taking into account the expensiveness of cigarettes, as measured by the ratio of average cigarette pack price to per capita income, as illustrated in Graph 5.3. Cigarettes became increasingly expensive in the

Philippines in the years leading to the millennium, as incomes fell. This reduction in affordability contributed to the declines in per capita cigarette sales during this period. Similarly, increasing affordability of cigarettes from 2005 through 2008 is a key factor in the rise in per capita sales over those years. The recession of 2009 made cigarettes less affordable, likely accounting for some of the drop in per capita sales that year, while the subsequent economic recovery and increasingly affordable cigarettes partially reversed that trend in

Excise taxes account for only 24.1% of retail cigarette prices on average in the Philippines. Total taxes on cigarettes account for just over 36.1% of retail prices.

Graph 5.3: Cigarette price relative to GDP, and Per Capita Cigarette Sales, Philippines, 1997-2010



Sources: Euromonitor International, 2011; Economist Intelligence Unit, 2011; World Bank, 2011; and authors' calculations.
 Note: Price relative to GDP (sometimes termed an affordability index) is computed using the average price of an international brand (typically Marlboro) and a popular local brand of cigarettes obtained from the EIU database, and by dividing the average price by annual GDP per capita, then indexed relative to the value in 1997. The index rises when cigarette prices rise by more than GDP per capita, that is, when cigarettes become more expensive, and falls when cigarette prices rise by less than GDP per capita.

2010. The fact that per capita sales declined between 2001 and 2004 even as cigarettes became more affordable is likely to be explained by non-price aspects affecting the demand for cigarettes, including the adoption and implementation of other tobacco control policies that reduced smoking by more than the greater affordability of cigarettes would have increased it.

Cigarette Taxes and Prices in Comparison with Other Countries in the Region

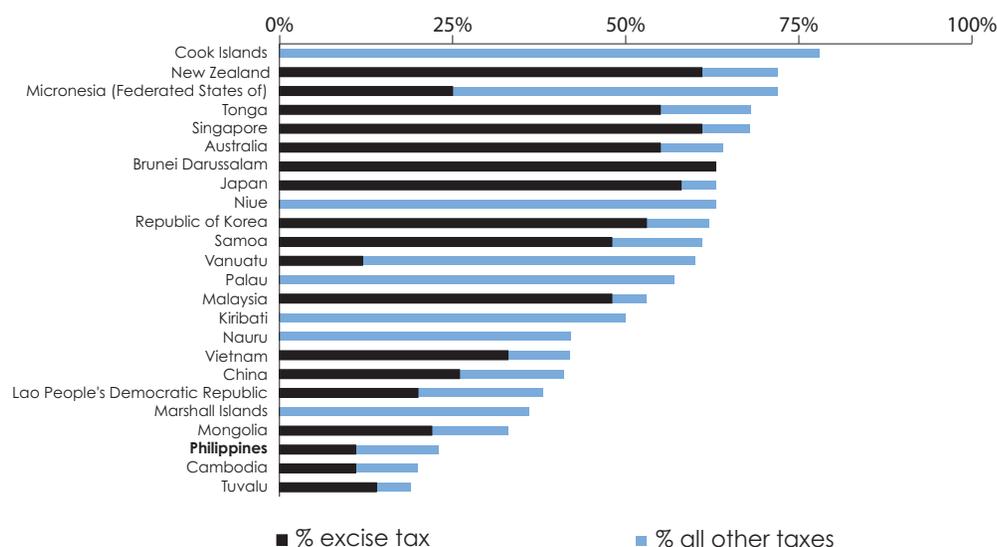
Compared to other countries in the Western Pacific region, cigarette taxes in the Philippines are among the lowest as a percentage of the retail prices of cigarettes (Graph 5.4). The low taxes combined with low industry prices make cigarette prices in the Philippines the lowest in the region (Graph 5.5), as well as among the lowest in the world.

Compared to other countries in the Western Pacific region, cigarette taxes in the Philippines are among the lowest as a percentage of retail price. Cigarette prices in the Philippines are the lowest in the region.

Tax Structure: Specific vs. Ad Valorem Taxes

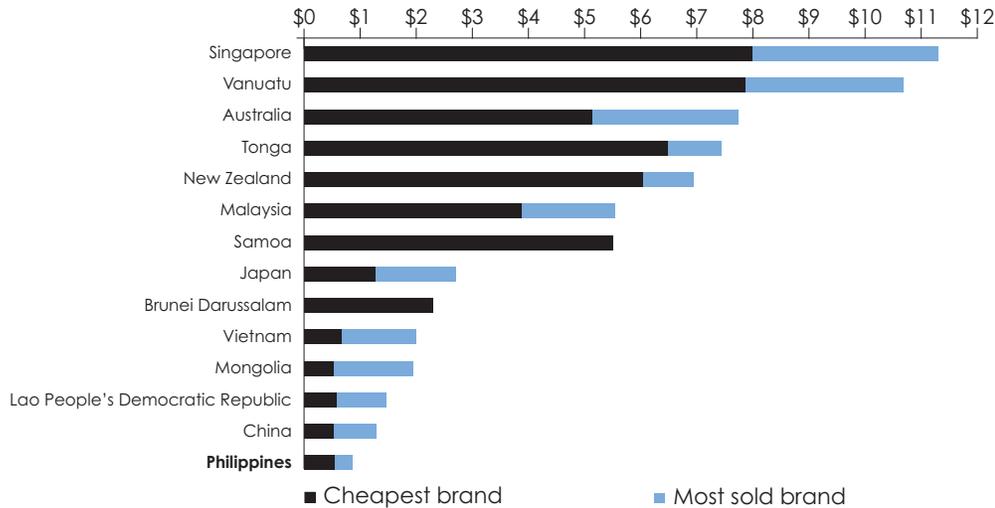
There are two basic types of tobacco excise taxes – specific excises (taxes that are fixed amounts based on quantity or weight and that are independent of price) and *ad valorem* excises (taxes assessed as a percentage of price). Each type of tax has its strengths and

Graph 5.4: Share of Total and Excise Taxes in the Price of a Pack of the Most Sold Brand of Cigarettes, Western Pacific Region, 2010



Source: WHO, Report on the Global Tobacco Epidemic, 2011.
 Notes: Data not reported/not available for: Fiji, Papua New Guinea and Solomon Islands. Data for the Philippines are based on data from Euromonitor International, the Economist Intelligence Unit, and authors' calculations instead of the data reported by WHO.

Graph 5.5: Prices of Pack of Most Sold and Cheapest Brands of Cigarettes in International Dollars, Western Pacific Region, 2010



Source: WHO, *Report on the Global Tobacco Epidemic, 2011*.

Notes: Data not reported/not available for: Fiji, Papua New Guinea and Solomon Islands.

PPP not available for: Cambodia, Cook Islands, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Niue, Palau, Republic of Korea and Tuvalu. Data for the Philippines are based on Marlboro and Fortune International brand prices rather than the prices reported by WHO.

weaknesses in terms of tax administration and its impact on public health and on revenues.

Cigarette excise taxes in the Philippines are specific taxes, but because the amount of the tax is based on NRP, with the tax rising as NRP rises, it shares some of the features of an *ad valorem* tax.

With *ad valorem* excises, the tax per unit rises with prices so that the tax and the revenues it generates are more likely to keep pace with inflation, in contrast to specific taxes where the real value of the tax and resulting revenues will fall with inflation unless regularly adjusted upward. Specific taxes do not have this advantage, requiring regular increases to keep pace with inflation. As noted above, the biennial increases in the Philippines' specific tax rates on cigarettes have not been sufficient to offset the erosion in their value over time. Indexing specific excise taxes

Indexing specific excise taxes to the general consumer price index is a way to offset the erosion in the real value of tax revenues over time.

to the general consumer price index is a way to offset the erosion in the real value of tax revenues over time. Some countries have addressed the problem of inflation eroding the value of a specific tobacco tax by creating mechanisms for annual or other administrative adjustments to specific tax rates that maintain the real value of the tax over time.

With respect to their impact on tobacco product prices, *ad valorem* taxes result in greater differentials in prices between high and low priced products than is the case for a single specific tax. This creates more

opportunities for users to switch down to cheaper brands in response to tax induced and other price increases, reducing the impact of tax and price increases on tobacco use. Because of the potential for substitution to lower priced brands, manufacturers of premium brands (often multinational tobacco companies) generally prefer specific taxes to *ad valorem* taxes that tend to favor low priced brands (that are often produced by locally based manufacturers). In this respect, the Philippines' system of tiered specific taxes that increase with NRP has the disadvantage usually associated with an *ad valorem* tax—it resulted in a larger price differential between high and low priced brands than would have existed with a uniform (unitary) specific rate and created incentives for smokers to substitute to cheaper brands rather than quit as real prices rose and/or cigarettes became less affordable. In addition, this type of tiered tax structure also tends to result in manufacturers' prices for various brands clustering at or near the top of the range of prices in each tier to which taxes are applied.

In terms of revenues, tobacco tax revenues will be more stable and predictable with a uniform specific tax than with an *ad valorem* tax or, for that matter, a

The Philippines' system of tiered specific taxes... resulted in a larger price differential between high and low priced brands than would have existed with a unitary specific excise tax rate.

tiered specific tax. With an *ad valorem* tax, the amount of the tax varies with industry prices, implying that the industry can reduce the revenue and public health impact of a tax increase by lowering its prices in response. In addition, any industry price cut will result in a tax per unit reduction, leading to a larger retail price reduction than accounted for by the industry price cut alone.

With respect to tax administration, specific excise taxes tend to be easier to administer than *ad valorem* excises given that they are based on quantity rather than value. With *ad valorem* excises, firms have a greater opportunity to game the system when the taxes are based on ex-factory prices. For example, firms can reduce their tax liability by setting an artificially low price at which they sell to their own distributors who then raise prices significantly before selling to wholesalers and/or retailers. The potential for this problem could be avoided by the application of a uniform specific tax.

A mixed specific and *ad valorem* tax structure, such as that used in European Union countries, combines the strengths of both types of taxes while limiting their weaknesses. The overall tax will be less eroded by inflation given the significant *ad valorem* component; however, the specific component will need to be regularly increased to keep pace with inflation for the overall tax to retain its real value. Similarly, given the significant uniform specific component, the price gap between premium and lower-priced brands will be smaller than it would be under a uniform *ad valorem* tax.

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VI. The Demand for Cigarettes in the Philippines

Considerable empirical evidence from high-income countries and growing evidence from low- and middle-income countries demonstrates that higher tobacco product taxes and prices lead to reductions in tobacco use.²² These result from increased cessation, fewer former users restarting, less initiation, and reductions in consumption among continuing users. This section briefly reviews existing global evidence, with an emphasis on that from low- and middle-income countries, as well as the limited existing evidence for the Philippines. This is followed by new estimates of the impact of price, income, and other factors on cigarette demand in the Philippines.

Global Evidence

Many studies have employed aggregate data to examine the impact of cigarette and other tobacco product taxes and prices on overall tobacco use.²² Before 2000, nearly all of these studies came from high-income countries including the United States, Canada, the United Kingdom, Australia, and several others. These studies consistently find that increases in taxes and prices on tobacco products lead to reductions in tobacco use. Most studies have focused on cigarette smoking, given that cigarettes account for the nearly all tobacco use in high-income countries. While these studies have produced a wide range of estimates of the magnitude of the effects of price on overall cigarette consumption, the vast majority of these studies estimate price elasticities in the range from -0.25 to -0.5 , with most of these clustered around -0.4 , suggesting that a 10% increase in (real) cigarette prices will, on average, bring about a 4% reduction in consumption. As expected, models that account for the addictive nature of tobacco use find that demand is more responsive to price in the long run than it is in the short run.

Over the past decade, a growing number of studies have examined the impact of taxes and prices on tobacco use in low and middle-income countries. These studies have estimated a wide range of price elasticities, with most, but not all, indicating that demand for tobacco products is more responsive to price in low and middle-income countries than it is in high income countries. For example, Hu and Mao (2002) estimate that the price elasticity of cigarette demand in China ranges from -0.50 to -0.64 , while John (2008) estimates price elasticities in the range from -0.86 to -0.92 for bidis and -0.18 to -0.34 for cigarettes in India.^{24,25} As in studies for high-income countries, studies from low and middle-income countries that account for the addictive nature of tobacco use find that demand responds more to price in the long run. For example, Aloui (2003) estimates short run price elasticities for tobacco use in Morocco in the range from -0.51 to -0.73 , and estimates long run elasticities that range from -1.36 to -1.54 .²⁷

Findings from studies based on individual-level survey data on adult tobacco use indicate that taxes and prices influence both tobacco use decisions (prevalence) and the frequency and amount of tobacco product consumption. In general, the estimates from high-income countries suggest that about half of the impact of price on tobacco use results from its effect on prevalence. Given that relatively little initiation occurs during adulthood, these changes largely result from cessation among adult users. This is confirmed by a small number of studies which find that increases in prices lead a number of current users to try to quit, with some successful in doing so in the long run.

Studies using survey data from low- and middle-income countries similarly find that price affects prevalence, although the relative impact on prevalence and consumption varies considerably across studies and countries. For example, Adioetomo and colleagues (2005) find no impact of price on the prevalence of smoking in Indonesia, while at the same time

estimating an elasticity for conditional cigarette demand (changes in consumption of cigarettes by current smokers) of -0.62 .²⁸ In contrast, Kyaing (2003) estimates a prevalence price elasticity of -1.28 and a conditional demand elasticity of -0.34 in Myanmar.²⁹

Several studies based on survey data have examined the differential responses of various population subgroups to changes in the prices for tobacco products, including those based on age, gender, income, education, race/ethnicity, and location (urban vs. rural). Findings for gender, race/ethnicity and location vary across countries, while consistent patterns are more evident with respect to age and socioeconomic status (as measured by income and/or education). In general, most studies for different age groups find that tobacco use among younger persons is more responsive to price than is tobacco use among older persons. Similarly, as predicted by economic theory, sub-populations registering a lower socioeconomic status are more responsive to price than are sub-populations with a higher socioeconomic status. For example, Sayginsoy and colleagues (2002) estimate cigarette demand elasticities of -1.33 , -1 and -0.52 for low, middle and high income populations in Bulgaria.³⁰ Similarly, van Walbeek (2002) estimates elasticities by income quartile ranging from -1.39 for the lowest quartile to -0.81 for the highest quartile in South Africa.³¹

Finally, several studies examine the potential for substitution among tobacco products in response to changes in the relative prices of these products. In general, these studies find that part of the reduction in the use of one tobacco product in response to an increase in its price will be offset by increased use of other products if the prices of these products are not also increased. For example, Laxminarayan and Deolalikar (2004) find that changes in relative prices for cigarettes and rustic tobacco in Vietnam will lead to substitution between the two, particularly for

substitution from cigarettes to rustic tobacco in response to an increase in the relative price of cigarettes.³² This potential for substitution highlights the importance of increasing taxes and prices for all tobacco products if the public health benefits of higher prices are one of the motives for tobacco tax increases.

Tobacco Demand in the Philippines – Existing Evidence

To date, relatively few studies have examined the demand for tobacco products in the Philippines. As part of the Tobacco and Poverty in the Philippines project, a time series model of demand using annual data from 1970 through 2004 was estimated using three alternative specifications, a very simple model that controlled for price and income only, a model that added an indicator for the years when health warnings were issued, and a model that added lagged cigarette consumption.¹¹ Estimated price elasticities from these models were in the range of -0.15 to -0.20 , on the low end of the range obtained in other demand studies from the region and for low- and middle-income countries. The authors went on to use their price elasticity estimates as well as less inelastic values to simulate the revenue and health impact of cigarette tax increases, concluding that tax increases would generate significant new revenues while reducing smoking and its consequences.

More recently, Leonen and colleagues (2010) also simulated the health and revenue impact of increases in cigarette taxes in the Philippines in their *Taxing Health Risks* study.³³ They also employed alternative estimates for the price elasticity of cigarette demand in the Philippines, from a low estimate of -0.253 cited as the estimate obtained by the Department of Finance, to a high estimate of -0.5 based on the regional and global evidence. Given the low share of tax in price in the Philippines and the inelastic demand estimates, they too predict that tax increases would generate significant new revenues, while at the same time

Given the low share of tax in price in the Philippines and inelastic demand, tax increases would generate significant new revenues, while at the same time reducing smoking prevalence and its public health consequences.

reducing smoking prevalence and its public health consequences.

Cigarette Demand in the Philippines — New Estimates

Using cross-sectional household survey data taken from the nationally representative 2003 Family Income and Expenditure Survey (FIES), we estimate the demand for cigarettes in the Philippines and arrive

at the elasticities shown in Table 6.1 and discussed in the annex.*

Cigarette price is found to have a negative and statistically significant impact on household cigarette consumption, both for the overall sample and for each of the four income groups. The estimated price elasticity for the full sample is -0.87 , higher than that obtained in the NCTC (2008) study based on time series data, and near the upper end of the range obtained in studies from other low and middle-income countries.¹¹ Income is found to have a positive and significant impact on household cigarette demand, with an estimated income elasticity of 0.66 in the full sample, suggesting that a 10% increase in real household income would result in cigarette consumption rising almost 7%.

Consistent with economic theory, cigarette demand among lower income households is more responsive to changes in price and income than is demand in higher income households. The estimated price elasticity for the lowest income group (-1.09) is

Table 6.1: Estimates of Price and Income Elasticity of Household Consumption of Cigarettes

Independent Variables	Income Deciles				
	ALL Coefficient	1st - 3rd Coefficient	4th - 6th Coefficient	7th-9th Coefficient	10th Coefficient
Price elasticity of demand	-0.87	-1.09	-0.80	-0.74	-0.52
Income elasticity of demand	0.66	1.03	0.87	0.40	0.24

Note: the price and income elasticities are coefficients of an econometric model estimated on cross sectional data from the 2003 Family Income and Expenditure Survey. The sample size was 21942 households. All coefficients were statistically significant at the 5% level.

* An econometric model of the demand for cigarettes was estimated as follows: the quantity of cigarettes consumed by households in the FIES was regressed on the average price of cigarettes in a household's province, the annual household income, and household-level controls. The average provincial price measure is obtained from the National Statistics Office and is based on a nationwide survey of retail cigarette prices. The cigarette consumption measure is derived by dividing household expenditures on cigarettes by the average price in the province in which the household is located. The household characteristics used as controls included age, sex, employment status, and education of the head of household and an indicator for any expenditures on insurance as a proxy for risk taking. Standard econometric techniques (instrumental variables) were used to address the systematic correlation of price with unobserved variables.

In addition to estimating demand for the full sample, demand for subsamples defined in four income groups was also estimated. Price and income elasticity estimates are presented in Table 6.1. Additional details on the data, methods, and estimates are contained in the web annex to this report.

more than double that estimated for the highest income group (-0.52), with demand becoming increasingly price inelastic as incomes rise. A similar pattern is observed for income elasticities, with cigarette demand for low income households most responsive to income and income elasticities falling in higher income groups.

Together, the estimates imply that the past decade's general trend towards increasingly affordable cigarettes, the combined effect of reductions in cigarette prices and increases in household income, has led significantly higher cigarette smoking in the Philippines than would have been the case had cigarettes remained less affordable.

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VII. Impact of Cigarette Tax Increases in the Philippines

Using the estimates of price elasticity of demand described in Chapter VI, we simulate the effects of cigarette tax increases in 2012 on several outcomes related to cigarette smoking in the Philippines, including overall cigarette consumption, government tax revenues, the number of current and future smokers, and deaths caused by smoking. Finally, we briefly discuss other impacts of tax increases, including their effects on the poor, illicit trade, and employment in the Philippines.

Several assumptions are used in these simulations. First, all other factors, most notably per capita income, are being held constant; to the extent that income is rising, the tax increases we model will generate smaller reductions in tobacco use, but larger increases in revenues than predicted, given that increases in income result in greater consumption. Second, we assume that there is no substitution between tobacco products in response to the simulated tax and price increases. Third, we assume that the increases in taxes are fully passed through to consumers so that price rises by at least the amount of the tax increase. Fourth, we assume that the price elasticities are constant across the entire range of prices. Finally, we assume that there is no increase in tax avoidance or evasion as a result of increased taxes. These assumptions are fairly strong. Allowing for tax evasion, or allowing for substitution to other tobacco products when cigarette taxes increase might reduce the revenue projected. On the other hand, price changes may work in the direction of even further consumption reductions if cigarette producers increase price by more than the amount of the tax increase.

Impact of Tax Increases on Cigarette Consumption and Tax Revenues

For the baseline, we assume that the average price of cigarettes was 28.7 pesos (US\$ 0.65) per pack of 20 cigarettes, based on averages of prices within price tiers and the share of the market accounted for by each tier*; that, on average, cigarette excise taxes were 24.1% of total retail price (6.9 pesos or US\$ 0.16 per pack): and that total tax-paid cigarette sales were just under 4.2 billion packs per year. At these values, total cigarette excise tax revenues were estimated to be just over 28.7 billion pesos (US\$ 0.65 billion).

For each of the simulations, we consider a fundamental change from the current system, analyzing the situation when price-based differences in tax rates are eliminated and instead a higher uniform (also termed a unitary) specific tax is imposed. Monetary peso values for prices, taxes and revenues are current for 2011; it is assumed that taxes will be adjusted for general inflation to ensure higher cigarette prices relative to other goods, and to preserve the real value of cigarette tax revenues over time.

Our first analysis (Scenario 1) simulates the impact of replacing the current tiered tax structure with a uniform cigarette excise tax that raises the percentage of average retail cigarette prices accounted for by excise tax to 50%. We estimate that this tax increase will raise average retail prices to 47.6 pesos (US\$ 1.10) per pack — an almost 68% increase in price — and that the average tax would rise to 23.8 pesos (US\$ 0.55) per pack.

Scenario 2 simulates the impact of taxing all brands at the current maximum tax rate of 28.3 pesos (US\$ 0.65) per pack, an increase in the cigarette tax that raises the share of excise tax in retail price to

* The weighted average was computed from the three category average prices as on January 2011 (for economy, mid-price and premium brands segments) using 2010 market shares (45.1%, 20.4% and 34.5%). Market shares of these segments are assumed to be unchanged when prices increase as the result of higher taxes.

A uniform specific tax of 30 pesos will raise the share of excise tax in price to 55%; the average retail price would rise by nearly 90%.

53.8%. At this tax level, the average retail price, inclusive of taxes, would rise to 52.6 pesos (US\$ 1.20), an over 83% increase in the average price over the baseline.

Our third analysis (Scenario 3) simulates the impact of adopting a uniform specific tax of 30 pesos (US\$ 0.68) per pack, raising the percentage of the price accounted for by the excise tax to 55%. At this tax level, the average retail price would rise by nearly 90% to 54.5 pesos (US\$ 1.24) per pack.

At the midpoint (−0.51) of the elasticity range (−0.15 to −0.87) obtained from the estimates described above, we estimate that a uniform excise tax accounting for 50% of the average retail price (Scenario 1) will reduce overall cigarette consumption by almost 34%, while at the same time generating substantial new revenues. At the new, lower level of consumption, we estimate that cigarette tax revenues would increase by 52.6 billion pesos (US\$ 1.2 billion). We estimate that taxing all brands at 28.3 pesos per pack of retail cigarette prices (Scenario 2) would cut cigarette consumption by almost 43% while increasing revenues by nearly 54 billion pesos (US\$ 1.2 billion) above the

Eliminating the price classification freeze and applying a uniform specific tax of 28.30 pesos per pack, which is further indexed for inflation, could avert over 3.5 million premature deaths in the current population while raising 53.8 billion pesos (US\$ 1.2 billion) annually in excise tax revenues.

baseline. Finally, levying a uniform specific excise tax of 30 pesos per pack (Scenario 3) would reduce consumption by 46% while raising 53.3 billion pesos (US\$ 1.2 billion) in new revenues. These estimates are presented in Table 7.1.

Impact of Tax Increases on Public Health

In addition to estimating the impact on smoking and tax revenues, we simulate the impact of the three tax increases described above on the number of smokers and on future deaths caused by smoking among the current population cohort in the Philippines. Estimates based on the range of elasticities estimated for this report are also presented in Table 7.1. Given current population and smoking prevalence estimates, just over 19 million persons ages 15 and older in the Philippines are smokers. Estimates indicate that more than one in two lifetime smokers will die prematurely from diseases caused by cigarette smoking.³⁴ Based on this evidence, we assume that half of long-term smokers will die prematurely as a result of their addiction. Correspondingly, we estimate that a little over 9.5 million adults in the current population cohort will die prematurely from a disease caused by smoking. Assuming that the current cohort of youth in the Philippines will take up smoking at the same rates as in the current adult cohort, we estimate that over 9.9 million youth ages 0 through 14 will become smokers as adults and that nearly 5 million of them will die prematurely from diseases caused by smoking.

A uniform excise tax of 30 pesos per pack would lead to an even larger reduction — almost 4.4 million — in the number of adult Filipino smokers ...and would reduce premature deaths by over 1.5 million.

Table 7.1: The Impact of Increasing Cigarette Excise Taxes on Smoking, Smoking-Attributable Mortality and Government Revenue

Model parameters, baseline			
Current smokers (millions)			19.0
Premature deaths in current smokers (millions)			9.5
Expected future smokers (millions)			9.9
Premature deaths in future smokers (millions)			5.0
Average cigarette excise tax (PhP)			6.9
Average cigarette price (PhP)			28.7
Excise tax as a percentage of price			24.1%
Price elasticity			-0.51
Model projections			
	Scenario 1	Scenario 2	Scenario 3
	Tiers eliminated, Excise Tax amounts to 50% of average retail price	Tiers eliminated, Excise Tax at current maximum rate	Tiers eliminated, Excise Tax at 30 PhP per pack
Increased average cigarette tax per pack (PhP)	23.8	28.3	30.0
Increased average cigarette pack price (PhP)	47.6	52.6	54.5
Cigarette excise tax as a percentage of price	50.0%	53.8%	55.0%
Reduction in number of current smokers (millions)	3.20	4.05	4.37
Reduction in premature deaths caused by smoking among current smokers (millions)	1.12	1.42	1.53
Percentage of premature deaths in current smokers averted by higher taxes	11.8%	14.9%	16.1%
Reduction in number of future smokers (millions)	3.35	4.24	4.57
Reduction in premature deaths caused by smoking among future smokers (millions)	1.67	2.12	2.29
Percentage of premature deaths in future smokers averted by higher taxes	33.7%	42.6%	46.0%
Total reduction in number of smokers (millions)	6.55	8.29	8.95
Total reduction in premature deaths in the current population caused by smoking (millions)	2.79	3.54	3.82
Percentage of premature deaths in the current population averted by higher taxes	19.3%	24.4%	26.4%
Additional excise tax revenues (PhP billions)	52.6	53.8	53.3
Additional excise tax revenues (US\$ billions)	1.20	1.23	1.21

Global evidence suggests that about half of the impact of price on overall smoking among adults results from a reduction in smoking prevalence.²² Given this, we estimate that the average prevalence

elasticity implied by the estimates described in this report is -0.25 . Based on this estimate, the price increase resulting from replacing the current tax system with a uniform cigarette excise tax that

accounts for 50% of average retail prices (Scenario 1) will reduce adult smoking prevalence by about 16.8%, amounting to about 3.2 million adult smokers quitting smoking. Taxing all cigarettes at the highest current rate as in Scenario 2, where there is an increase in the excise tax to 53.8% of retail price, would bring the total reduction in smoking prevalence to 21.3%, or over 4 million fewer adult smokers. Raising the tax further, to 30 pesos per pack as in Scenario 3, would lead to an even larger reduction — almost 4.4 million — in the number of adult Filipino smokers.

Given the evidence on the health benefits of smoking cessation, we estimate that 70% of those who would have otherwise died prematurely from diseases caused by smoking avoid premature death by quitting. Based on the assumption that half of long term smokers will die prematurely, we estimate that the price increase that would result from a uniform excise tax that, on average, accounts for 50% of retail price (Scenario 1) will reduce the number of premature deaths expected among current adult smokers by over 1.1 million. A further increase that adopts a uniform tax of 28.3 pesos per pack and raises the excise tax to 53.8% of retail price (Scenario 2) would bring the total reduction in premature deaths among current adult smokers to over 1.4 million. Finally, a uniform specific tax of 30 pesos per pack (Scenario 3) would reduce deaths caused by smoking in the current adult population cohort by over 1.5 million.

Considerable research shows that youth smoking is more responsive to price than adult smoking, with estimates from high-income countries, as well as emerging evidence from low and middle-income countries, suggesting that price elasticity of cigarette demand among youth is two or more times higher than it is among adults.²²

Assuming that youth smoking in the Philippines is twice as sensitive to price as is adult smoking, we estimate that a uniform excise tax accounting for 50%

A uniform specific tax of 30 pesos would prevent nearly 4.6 million youth from taking up smoking and avert almost 2.3 million deaths among youth that would have otherwise been caused by smoking.

of retail cigarette prices (Scenario 1), on average, will reduce youth smoking prevalence by 34%, preventing almost 3.4 million Filipino youth from taking up smoking. All smoking attributable premature deaths will be avoided among youth prevented from starting. Based on the assumption that half of long-term smokers will die prematurely because of their smoking, this implies a reduction of nearly 1.7 million deaths among youth who do not initiate smoking as a result of this tax increase.

Further increasing the tax by taxing all brands at the current maximum of 28.3 pesos per pack (Scenario 2) would result in a larger reduction in youth smoking prevalence, to 43%, and prevent over 4.2 million Filipino youth from taking up smoking. The health impact would be significant, with over 2.1 million deaths prevented among youth who do not initiate smoking as a result of this tax increase.

An even larger increase in the tax, to 30 pesos per pack (Scenario 3), would lead to even larger reductions in youth smoking and its consequences. We estimate that this tax increase would prevent nearly 4.6 million youth from taking up smoking and avert almost 2.3 million premature deaths in the future among these youth that will otherwise result from their initiating smoking.

Impact on the Poor

Concerns about the impact of tobacco tax increases on the poor are often raised in opposition to

higher cigarette taxes. As described above, we find that smoking in lower income households is considerably more responsive to changes in cigarette prices than is smoking in high income households. These estimates imply that the reductions in smoking among the poor that result from higher tobacco taxes will be larger than those that occur among rich so that the health benefits that result from a tax increase will be progressive. Moreover, the differences in price sensitivity imply that the relative burden of an increase in the tax will fall more heavily on richer households, given that a tax increase will reduce smoking by more in poorer households than in richer households.

To the extent that concerns remain about the impact of tobacco tax increases on the poor, these can be at least partly addressed by spending the new tax revenues generated by the tax increase in a progressive manner. Using the new revenues to increase government spending on education, health care, and social assistance programs that benefit the poor can offset any negative impact of higher taxes on low income smokers who continue to smoke, as well as provide new benefits to low income, non-smoking households.

Illicit Trade

The tobacco industry argues that increased tobacco taxes result in extensive illicit trade. Existing evidence indicates that a variety of other factors are important determinants of large scale, organized smuggling, individual tax avoidance, counterfeiting, and other illicit cigarette trade.²² For example, while differences in cigarette taxes can contribute to the smuggling of cigarettes from low tax to high tax jurisdictions, pre-tax price differences are often substantial and create a financial incentive to smuggle. Other researchers have found that the level of corruption in a county explains at least as much of the extent of smuggling as is explained by tax and price levels.³⁵ Other important determinants include the

presence of an informal distribution network for cigarettes within a country, poor technology and communications at customs, weak or non-existent enforcement, and minimal penalties for those caught trading illegally in cigarettes.^{22,35}

In the Philippines, illicit trade in cigarettes is problematic, with some estimates suggesting that untaxed cigarettes might account for about 20% of overall cigarette consumption in recent years.³⁶ Several factors contribute to illicit trade in the Philippines, most notably the absence of a tax stamp on most cigarettes, the re-importing of cigarettes marked as intended for export or sale in duty free shops, poor monitoring of cigarette production, the sizable informal distribution network that includes numerous sari-sari stores and street vendors, and the lack of regional partnerships aimed at curbing illicit trade in tobacco products.¹⁴ These factors suggest that cigarette tax increase of the magnitude described above would likely lead to increased tax avoidance and evasion that would reduce, but not eliminate the public health and revenue impact of tobacco tax increases.

Strengthened tax administration would help keep problems with increased illicit trade in tobacco products to a minimum.²⁴ One key step is the adoption of a tax stamp for all cigarettes, not just imported cigarettes, ideally the new, more sophisticated stamp that is being used in an increasing number of jurisdictions, that is more difficult to counterfeit, and allows better tracking and tracing of tobacco products from the manufacturer to the retailer. Additionally, tax authorities in the Philippines could adopt state-of-the-art production monitoring technologies, such as those employed in Turkey and Brazil, coupled with other pack markings to facilitate tracking and tracing of cigarettes through the distribution chain. In addition, imposing swift, severe penalties for those caught engaging in illicit cigarette trade, and substantially enhancing enforcement efforts would be effective in deterring illicit tobacco trade. Requiring licenses for all

engaged in tobacco product manufacturing, distribution, and retailing would facilitate such enforcement efforts. The additional revenues generated from these activities would almost certainly more than pay for them many times over.²⁴

Employment

As described in Chapter III, relatively few jobs in the Philippines are dependent on tobacco, with tobacco farming accounting for 0.4% of total agricultural employment and tobacco manufacturing accounting for less than 0.3% of manufacturing employment. Together, tobacco farming and tobacco product manufacturing account for less than 0.16% of overall employment in the Philippines. Given this, reductions in tobacco use that result from tax increases or other tobacco control activities will have little impact on

overall employment in the Philippines as the funds once spent on tobacco products are spent on other goods and services and as the government spends new tax revenues on more labor intensive activities, creating new jobs that offset any loss of tobacco-dependent jobs. This has been demonstrated empirically for many countries, where reductions in tobacco use that result in job losses in the tobacco sectors are offset or more than offset by increases in jobs in other sectors.²²

To the extent that there are concerns about job losses in more tobacco-dependent sectors or provinces, using a portion of new tobacco tax revenues generated by a tax increase to move tobacco farmers into other crops and/or to retrain those employed in tobacco product manufacturing for work in other sectors can alleviate these concerns.

Endnotes for Chapter VII

- ³⁴ U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.
- ³⁵ Merriman D, Yurekli A, Chaloupka FJ. How big is the worldwide cigarette smuggling problem? In: Jha, P, Chaloupka FJ, eds. *Tobacco Control in Developing Countries*. Oxford: Oxford University Press. 2000.
- ³⁶ Euromonitor International. *Philippines: Country Sector Briefings*. London: Euromonitor International. 2011.

VIII. Summary and Recommendations

Summary

The Philippines is one of the largest tobacco consuming countries in the Western Pacific Region. Nearly 30% of adult Filipinos use some form of tobacco product, with 27.9% smoking manufactured cigarettes. Nearly half of men and about one in ten women are tobacco users. A significant number of Filipino youth consume tobacco products, and use among girls has been on the rise, raising concerns about significantly increased prevalence among women in future years. Given the high levels of tobacco use, the Philippines faces considerable health and economic consequences.

The growing recognition of these problems has led to changes in the tobacco control environment in the Philippines, including the adoption of limits on tobacco advertising and promotion, some restrictions on tobacco use in public places, and, efforts to implement graphic warning labels. However, these policies are not comprehensive, are often poorly implemented and enforced, and require considerable strengthening to reduce tobacco use in the Philippines.

At the same time, cigarette prices in the Philippines are among the lowest in the world and real cigarette taxes and prices have been falling in recent years. Moreover, increases in real incomes over much of the past decade have made cigarettes increasingly affordable.

Extensive research from a growing number of countries has documented the inverse relationship between cigarette prices and consumption. The Philippines is no exception. Existing evidence as well as new estimates produced for this report clearly shows that falling cigarette prices lead to increases in cigarette consumption, while rising cigarette prices

will reduce consumption, all else constant. These estimates indicate that a 10% increase in average cigarette prices in the Philippines will lead to about a 5% reduction in cigarette consumption. In addition, both the existing and new evidence show that rising incomes will lead to significantly more smoking in the Philippines.

Cigarette tax structure in the Philippines is complicated, with a tiered structure that imposes different specific excise taxes based on net retail price (NRP) and most brands taxed based on their NRP in 1996 rather than based on the current level (the “price classification freeze”). Cigarette excise taxes in the Philippines account for 24.1% of retail cigarette prices on average, while total taxes on cigarettes account for just over 36.1% of retail prices. This is well below the level in countries that have taken a comprehensive approach to reducing tobacco use, where taxes account for 70% or more of price. Based on existing and new estimates, we estimated the impact of changes in the existing tax structure and rates.

Eliminating the price classification freeze and taxing all cigarettes at the top current rate of 28.3 pesos per pack, so that the cigarette excise tax would account for 53.8% of retail prices on average would raise average prices by almost 84% and reduce cigarette consumption by nearly 43%. In addition, this tax and price increase will lead over 4 million current Filipino smokers to quit smoking, while preventing over 4.2 million Filipino youth from taking up smoking. Together, these reductions in smoking will prevent over 3.5 million premature deaths caused by tobacco use in the current population cohort. At the same time, because of the inelasticity of cigarette demand, the tax increase will generate almost 54 billion pesos (US\$ 1.2 billion) in new cigarette tax revenues. A further increase in cigarette tax would lead to even larger reductions in smoking among adults and youth and in the premature deaths caused by smoking.

Recommendations

Given this evidence, we make the following recommendations:

(1) Eliminate the artificial price classification freeze and the use of historical net retail prices as the tax base.

Doing so would raise excise tax shares to 53.8% of average retail prices, given current pack prices. The loss of tax revenue over the past decade that has resulted from the price classification freeze is substantial, with simulations suggesting that eliminating the freeze would raise revenues by 53.8 billion pesos. Cigarettes priced at less than 5 pesos in 1996 retailed at more than 4 times that amount in 2011 while also yielding considerably less revenue per pack in inflation-adjusted terms. The public health costs of this system are substantial. Simulations suggest the price increase from using current rather than historic NRPs would encourage over 4 million adults to quit and prevent over 4.2 million youth from initiating smoking, averting more than 3.5 million premature deaths in the current population of the Philippines.

(2) Adopt a uniform (unitary) specific cigarette excise tax that significantly raises cigarette prices and reduces tobacco use.

The current tax structure which applies different specific taxes to cigarette based on net retail price and that taxes most brands based on their net retail price in 1996 results in very low cigarette prices and large differences in prices between high and low priced brands. One consequence of this is that increase in cigarette tax rates will have less of a public health impact than they would if a single specific tax was applied to all cigarettes, since the large price differences create an incentive to switch down to cheaper cigarettes in response to tax increases. Replacing the Philippines' existing

multi-tiered specific cigarette excise tax structure with a uniform specific tax on all cigarettes would eliminate opportunities for tax avoidance through misclassification of brands, do away with the existing price classification freeze, and send the clear message that all cigarettes are equally harmful, while reducing the incentives for substitution to less expensive cigarettes in response to a tax increase.

An appropriate short run target, at the very least, would be to eliminate the price classification freeze and tax all cigarettes at at least the current maximum specific tax of 28.3 pesos per pack or more. This would significantly increase average cigarette and other tobacco product taxes in the Philippines, particularly those on the lowest priced products which have benefited from the use of the historical NRP and the associated low tax rates. By raising prices, such tax increases will prevent smoking initiation, promote cessation, lower consumption among continuing smokers, and reduce the death, disease, and economic costs that result from smoking, while at the same time raising significant new revenues, as described in the first recommendation above.

(3) Strengthen tobacco tax administration, increase enforcement, and tax duty free sales of tobacco products in order to reduce tax evasion and avoidance.

Tax avoidance and tax evasion in the Philippines cost the government considerable revenue and adversely affect public health. Several steps should be undertaken to strengthen tobacco tax administration in the Philippines. First, a well established monitoring system should be put in place that employs new technologies for monitoring the production and distribution of tobacco products. These new technologies include adoption of: a state-of-the-art production monitoring system; the new generation of more

sophisticated, hard to counterfeit tax stamps; and a tracking-and-tracing system that can follow tobacco products through the distribution chain. The government's initial investment in these technologies would almost certainly more than pay for itself through the revenues collected on products for which taxes would otherwise not have been paid.

Philippine tax administrators' capacity for tracking and tracing can be further strengthened by licensing all involved in tobacco production and distribution and resources should be allocated to enforcing tax policies. When done in combination with the adoption of the technologies discussed above, licensing would be highly useful in enforcement efforts and allow customs to more easily identify illicit product and to identify those higher up in the distribution chain that are responsible. Severe administrative penalties should be imposed on those caught engaging in tax evasion so as to significantly increase the swiftness and severity of these penalties, making them a greater deterrent. The government's investment in enhanced enforcement efforts would almost certainly more than pay for themselves through the increased taxes collected from previously untaxed products.

All taxes should be applied without exception to tobacco products sold in duty free outlets. Doing so increases the public health impact of higher tobacco taxes by raising all tobacco product prices and by reducing opportunities for tax avoidance and evasion, while at the same time generating additional revenues.

(4) Implement annual adjustments to the specific tax rates so that they retain their real value over time.

One caveat associated with specific taxes is that the real value of these taxes is eroded over time by

inflation unless they are regularly adjusted. In the Philippines, despite biennial increases in specific tax rates, the real value of cigarette taxes has been falling. The decline in the real value of these taxes has contributed to falling real cigarette prices that result in higher levels of cigarette consumption, together with its health and economic consequences.

(5) Implement annual adjustments to cigarette tax rates so that they result in increases in tobacco product prices that are at least as large as increases in incomes.

Previous research and new evidence provided in this study clearly shows that cigarette demand in the Philippines rises with incomes. Over the past decade, the combination of falling real cigarette prices and rising incomes has led to cigarettes becoming much more affordable in the Philippines. This increasing affordability results in more cigarette smoking than would have otherwise been the case. In addition to raising taxes to offset the effects of inflation, further increases in excise taxes that reduce the affordability of cigarettes are needed in order to improve public health by reducing smoking.

(6) Increase taxes on cigars, water pipe tobacco and other tobacco products to be equivalent to cigarette taxes and to reduce the use of these products.

Equalizing taxes on all tobacco products reduces incentives to substitute from higher taxed products to lower taxed products, maximizing the health and revenue impact of these taxes.

Specific taxes on these products should be annually increased so that they keep pace with inflation and do not fall in real terms over time. In addition to indexing, over time taxes should be regularly increased with the long run goal of

tobacco excise taxes accounting for at least 70% of average retail prices, as recommended by WHO (2010).²⁴ Once that goal is achieved, subsequent increases should be adopted that are sufficient to further reduce the affordability of tobacco products.

(7) Earmark a portion of tobacco tax revenues for health purposes, including health promotion and tobacco control

Higher tobacco taxes will generate significant new revenues. Using these revenues to support programs that help existing tobacco users quit, particularly among the poor, and that support other programs targeting the poor will reduce any potentially regressive impact of the higher taxes on the large segment of the Filipino population that lives in poverty. Moreover, earmarking of tobacco tax revenues for health purposes increases public support for tax increases and adds to the impact of these tax increases on health and development. This includes dedicating a portion of tobacco tax revenues for comprehensive tobacco control programs that include, but are not limited to, support for community level interventions, mass media public education campaigns about the harms

from tobacco use, provision of support for smokers trying to quit smoking and efforts to prevent young people from taking up tobacco use.

(8) Earmark a portion of tobacco tax revenues for programs that help those employed in tobacco-dependent sectors make the transition to alternative livelihoods

Acreage devoted to tobacco growing in the Philippines has been declining over time and local tobacco companies are increasingly using imported tobacco leaf in the manufacture of tobacco products. At the same time, tobacco product manufacturing has become increasingly capital intensive. Nevertheless, concerns about the impact on tobacco farmers and those employed in tobacco manufacturing and distribution of the reductions in tobacco use that result from higher tobacco product taxes are a significant barrier to tax increases, particularly in provinces that are more economically dependent on tobacco growing. As demonstrated by experiences in other countries, earmarking a portion of tobacco tax revenues for programs that help tobacco farmers and others employed in tobacco-dependent sectors make the transition to alternative livelihoods minimizes the impact of higher tobacco taxes.

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