ASEAN Excise Tax Reform:
A Resource Manual

Asia-Pacific Tax Forum

Table of Contents

Foreword....2
Introduction....3
Acknowledgments....4
Section 1. Introduction....5
Chapter 1. Using Excise Reform for Economic Growth and Higher Revenues in the ASEAN Region....5
Section 2. Excise Taxation Reform – Best Practice Excise Tax Policy and Design in Key Products....14
Chapter 2. Alcohol Products....15
Chapter 3. Automobiles....29
Chapter 4. Tobacco Products....51
Section 3. Excise Taxation Reform – Best Practice Excise Tax Policy and Design in Other Products....71
Chapter 5. Fuel Products....72
Chapter 6. Non-Alcoholic Beverages....84
Section 4. Administering Excises....95
Chapter 7. Excise Administration....95
Bibliography....125

Foreword

ASEAN Excise Tax Reform: A Resource Manual represents the final phase of the most comprehensive analysis of excise taxation of the ASEAN region ever undertaken. The purpose of this publication is to act as a resource manual for policymakers and a roadmap to excise tax reform. In addition to this *Resource Manual*, experts have developed the "ASEAN Excise Working Tariff Schedule" which maps out the taxation of all excisable goods and services in the 10 member states, including links to all the relevant national excise tax legislation and a comprehensive "Discussion Paper." All documents relating to this *Resource Manual* are available at: http://www.iticnet.org/programs/asia-pacific/ASEANExciseTaxStudyGroup.

The *Resource Manual* is a result of over two years of active engagement between Ministry of Finance policymakers and excise tax administrators from the member states and the *Asia-Pacific Tax Forum* expert team. As with most ASEAN undertakings, it was a collaborative effort. The end result provides policymakers with a roadmap to excise taxation in a more closely integrated region.

Standardization will become increasingly important as the region moves towards the ASEAN Economic Community (AEC), which is due to commence on 31 December 2015. Harmonization and standardization of areas such as the definitions of both the key goods subject to excise and their tax bases will improve the intra-regional trade and investment of excisable goods around the region, as well as in many cases, improve compliance in the distribution and reduction of tax evasion.

This new *Resource Manual* fully respects national tax sovereignty. The authors focus on how to improve the existing tax regimes that are diverse in their approach and range of goods and services covered, to provide a path for reform, standardization, and the adoption of best practice excise tax systems. These reforms, if carried out correctly, can help foster economic growth and higher budget revenues in each of the ASEAN member states. This comprehensive *Resource Manual* will provide policymakers with the resources to develop and implement such policies in each of their countries.

Dr. Suthad Setboonsarng

Senior Advisor, International Tax and Investment Center and former ASEAN Deputy Secretary General

Introduction

Since our founding in 1993, the International Tax and Investment Center (ITIC) has worked on excise taxes, which if designed and implemented correctly, can be a stable and predictable source of government revenues. Our first conference in Asia in 2005, *Excise Taxation in Asia, was* hosted by Singapore Customs. From this conference, a book titled *Excise Taxes in Asia*, was published. At the conclusion of the conference, there was a consensus to continue the dialogue between tax policymakers, administrators, academic experts, and industry representatives. This was the founding of what is known today as the *Asia-Pacific Tax Forum* (APTF).

While the APTF agenda has been diversified to address direct taxation, VAT, and property tax, it continues to include a research and education component on excise taxation. At the eighth APTF meeting in Bali in 2011, hosted by the Ministry of Finance of Indonesia, we discussed the interrelationship between indirect taxation, notably excise taxation, and the closer economic integration between the ASEAN member states. This interrelationship gave birth to the idea to create the *ASEAN Excise Tax Study Group*. The *Study Group* was formally launched, with agreement by all ASEAN member states, at the ninth APTF meeting in 2012 in Manila, hosted by the Department of Finance of the Philippines.

Phase I resulted in the development of an "ASEAN Excise Working Tariff Schedule," containing the excisable goods and services with respect to duty rates, from all ASEAN member states. It also includes a reference library, regularly updated by APTF, of ASEAN excise tax law - a reference tool that contains all primary and subordinate legislation as it relates to the taxation and administration of the 10 ASEAN member states' excise tax systems.

Phase II resulted in a detailed analysis of the information collected during Phase I, and was presented in the form of a "Discussion Paper" drafted by the technical advisors and reviewed and responded to by the *Study Group* members.

The work of the past two years has now culminated with the publication of this *Resource Manual*, *ASEAN Excise Tax Reform: A Resource Manual.* The purpose of this *Resource Manual* is to serve as a resource for policymakers and a roadmap to excise tax reform that is simplified, equitable, and non-discriminatory. The *Resource Manual* is intended to help answer the question: "how should we reform our excise regime as ASEAN becomes more closely integrated?"

We hope we have provided policymakers with the roadmap to implement excise reform that leads to higher economic growth, higher revenues, and enhanced free trade in the ASEAN region. We believe such reforms can fully respect the tax sovereignty of each member state, while also fostering growth and creating prosperity for the whole ASEAN region.

Mr. Daniel Witt

President, International Tax and Investment Center

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Country	Agency Represented	Ministry Represented
Brunei Darussalam*	Customs & Excise Department	Finance
Cambodia	General Department of Taxation	Economy & Finance
	General Department of Customs & Excise	Economy & Finance
Indonesia	Fiscal Policy Office	Finance
Lao PDR	Tax Department	Finance
Malaysia	Treasury	Finance
	Customs & Excise Department	Finance
Myanmar	Internal Revenue Department	Finance & Revenue
Philippines	Domestic Finance	Finance
Singapore*	Inland Revenue Authority	Finance
Thailand	Fiscal Policy Office	Finance
	Excise Department	Finance
Vietnam	Tax Policy Department	Finance

*Participation only for Phase I.

Without this level of regional cooperation and support, the project would not have achieved such substantial outcomes. We encourage you to use all the resources created throughout the project, including this *Resource Manual,* as well as the "ASEAN Excise Working Tariff Schedule" and the "ASEAN Excise Legislation Catalogue." All resources can be found on the ITIC's website in the *Asia-Pacific Tax Forum* library: http://www.iticnet.org/programs/asia-pacific.

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Section 1. Introduction

Chapter 1. Using Excise Reform for Economic Growth and Higher Revenues in the ASEAN Region

1.1. Towards an ASEAN Economic Community

The Association of Southeast Asian Nations (ASEAN) is forging closer economic integration between its 10 member states[1] to support its vision of creating *"a stable, prosperous, and highly competitive region with equitable economic development, and reduced poverty and socio-economic disparities."*[2] This goal will be pursued by creating an ASEAN Economic Community (AEC) by 31 December 2015.

The key characteristics of the AEC are intended to be:

- A single market and production base;
- A highly competitive region;
- A region of equitable economic development; and
- A region fully integrated into the global economy.

The single market and production base will be an enhanced free trade area where the majority of goods will be traded free of import duties and non-tariff barriers. Additionally, the AEC aims to achieve a free flow of services, investment and skilled labor, and freer flow of capital, across ASEAN. The free flow of goods will be achieved through:

- A reduction in import duty rates on most tariff lines by 2015 (ASEAN CMLV[3] by 2018) to a zero rate, although in most cases, import duty rates are already low (see below);
- The removal of non-tariff barriers (including those in any excise tax system) and increased trade facilitation from the simplification and standardization of customs and trade processes;
- Enhanced rules of origin for facilitating greater use of preferential tariffs for ASEAN goods;
- Greater levels of transparency in customs and trade procedures; and
- Greater levels of cooperation in customs and trade.

Regional competitiveness will be promoted by stronger competition policy, improved protection for consumers and intellectual property, and infrastructure investment. ASEAN members can therefore look to the region as one market for their products, rather than trying to insulate or artificially support certain domestic industries or sectors against neighboring imports. Equitable economic development will be supported by the growth of small and medium-sized enterprises (SMEs) and through the "Initiative for ASEAN Integration."[4] As a consequence, it is intended that ASEAN will become an increasingly dynamic and outward-looking region, a stronger segment of the global supply chain and continue to be attractive for foreign investment.

The creation of the AEC is a recognition that regional integration is a key driver of economic growth and prosperity. Across the region, ASEAN accounts for 625 million people and has the cumulative strength to be a major center of economic growth in the 21st Century. While the ASEAN grouping has many strengths, the diversity of development and incomes across the 10 countries poses unique challenges for regional policymakers.

The objective is that, as is the case with the European Union, the AEC can better capture the economic development cycle. Integrated regional production should enable member countries to sustain the "trickle-down effect" of economic development, with lower-income ASEAN countries well-placed to capture production previously undertaken in higher-income countries. As such, production can stay within ASEAN longer, rather than heading "off shore" completely to other investment destinations outside the region.

The AEC is being built on the principles of *"an open, outward-looking, inclusive, and market-driven economy."*[5] Free trade and competition are therefore vital mechanisms within the AEC. To foster them, the AEC Blueprint aspires to standardize and open much of intra-regional trade. But as well as

removing import duties and non-tariff barriers, it is also vital that competition is not distorted by protectionist tendencies, including discriminatory domestic tax systems. Together, the ASEAN's combined capital, labor market and natural resources will enable the region to better compete with other locations, such as China and the other BRICS[6] countries, as a preferred investment destination.

This has important implications for excise tax policy in ASEAN, which should aim to facilitate the objectives of the AEC without compromising the tax sovereignty of the individual ASEAN member states. Such reform will require a common strategic vision, careful policy design and a balanced strategy that:

- Follows best practice to improve the environment for investment and trade in excisable goods in ASEAN, and help facilitate efficient allocation of resources.
- Recognizes the wide differences in current levels of economic development and institutional capacity across ASEAN.
- Aims to provide a level of standardization of key areas of excise taxation, such as the classification and defining of goods subject to excise taxation.
- Coordinates the development of tax regimes that ensure transparency, equal conditions for competition and no distortions by discriminatory tax systems (i.e. tax neutrality).
- Seeks to minimize the costs imposed on tax administrations and tax payers.

The purpose of this *Resource Manual* is to provide a practical guide to excise tax reform in the context of the AEC, drawing on experience across the ASEAN region and internationally. It is organized as follows:

- The remainder of this Chapter provides an overview of the key considerations that should guide excise policy development in the context of the AEC, and considers the key tax administration and compliance strategies that can prevent excise tax evasion in a context of increasing intra-regional trade and thereby protect growing domestic revenue bases.
- Section 2 looks at best practice excise tax policy and design for alcoholic beverages, automobiles and tobacco products. In each case, it considers how products and tax bases should be determined and designed, and discusses the optimal taxation approach with regard to both structure and rates, illustrated by case studies from both inside and outside the region.
- Section 3 looks at excise tax policy and design for fuel products and non-alcoholic beverages. These products are not subject to excise tax in all ASEAN member states, so in these cases it is important to consider the policy basis for retaining or introducing such taxes, as well as looking at issues relating to product and tax base definition and optimal tax policy.
- Finally, Section 4 discusses key elements of best practice for tax administration in the context of the AEC. It looks in depth at supply chain control to protect revenue in the context of increased intra-regional trade flows, such as licensing and record keeping; and the management of excise duty liabilities, including duty suspension, payment and reporting.

What do we mean by excise taxation?

It is important to define what we mean by "excise taxation" as this is not a term used by all members of ASEAN despite the fact they all levy "excise-type" taxes. For the purpose of this *Resource Manual*, we use the term "excise" to refer to a form of indirect taxation that is applied to a narrow base of goods that are primarily "consumer based" in nature.

This approach is consistent with the classification of "excise taxes" by the OECD (2004) which considers excise taxes to be those taxes that are: *"levied on particular products, or on a limited range of products...imposed at any stage of production or distribution and are usually assessed by reference to the weight or strength or quantity of the product, but sometimes by reference to the value."*[*]

The OECD definition above means that there are a number of special taxes levied by ASEAN governments that should be considered as excise taxes for the purposes of this *Resource Manual*. These include, among others, the "Special Consumption Tax" in Vietnam, the "Commercial Tax" in Myanmar, the "Specific Tax on Certain Merchandises and Services" in Cambodia, and the "Liquor Tax" and "Tobacco Tax" in Thailand.

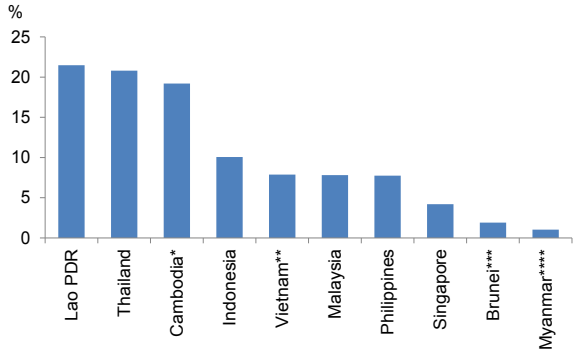
**Organisation for Economic Co-operation and Development (2004). "Classification of taxes and interpretative guide," OECD, Paris*

1.2. Key considerations in excise policy development

Excise taxes currently represent different priorities across the 10 members of ASEAN, as reflected in the different range of goods and services subject to excise, and approaches to levying excise. Moreover, excise taxes are designed to serve a range of objectives, which can vary widely from country to country across ASEAN. In addition to raising revenue, excise taxes may be designed to meet health, environmental, economic, employment or other social policy objectives which differ across member states.

That said, excise taxes represent a very important source of tax revenue across most ASEAN member states. For example, excise taxes account for around 21% of total tax revenue in Lao PDR and Thailand, and almost 19% in Cambodia. In Indonesia, Malaysia, the Philippines and Vietnam they account for 8-10% of total revenue (Chart 1).

Chart 1: Excise duty revenue as a proportion of total tax revenue by country in 2013(a)



*Sources: Haver Analytics (2013), *IMF Government Finance Statistics (2012), **Vietnam Ministry of Finance (2014), ***Cnossen (2013), and ****IMF Government finance Statistics*

It is therefore critical that any reform of excise taxes in the context of the AEC is undertaken with great care so that government budgets are not undermined. Moreover, while the elimination of any elements of discriminatory taxation is critical in the context of creating a genuine single market, the creation of the AEC does not mean that radical changes to excise tax policy for all excisable goods are needed in most ASEAN member states, for three reasons:

- While the AEC Blueprint states that there will be the creation of a single market with the free flow of goods, this does not mean that there will be unrestricted movements across intra-regional borders as border controls will remain in place between member states. Individual countries will maintain enforcing limits on the volumes of excisable goods that travelers can bring into their country. These "personal allowance limits" restrict the potential for large-scale cross-border purchasing by consumers which could otherwise distort tax collections. Nevertheless, as discussed below, countries will still need to be mindful of excise duty rates in neighboring countries when setting their own tax levels because of the potential for high tax differentials to encourage illicit trade.
- While the creation of the AEC will to a large extent lead to the elimination of import duties on intra-ASEAN trade, this will not result in major duty rate reductions for some excisable goods. For example, in the case of alcoholic beverages, excisable goods have been "excluded" from some member states ASEAN Trade in Goods Agreement (ATIGA) tariff reduction commitments. For these items, import duties will continue to remain on intra-ASEAN trade – for example, the import duty for whisky will remain at MYR 58 per liter in Malaysia, and the import duty for distilled spirits will remain at IDR 125,000 per liter in Indonesia.
- In the case of cigarettes, import duty rates for cigarettes have been excluded from the ATIGA duty reduction schedule by Vietnam. Hence very steep import duty rates of 135% (MFN bound rate) and 100% (AANZFTA) remain in place. However, cigarette import duty rates are already zero to 5% in all other ASEAN countries.[7] The abolition of import duty rates under the AEC will therefore not in itself lead to an across-the-board change in the cost of imported cigarettes from other ASEAN member states. In the case of cigarettes, comprehensive excise duty reform is therefore not generally needed to protect market stability or government revenues from a sudden "flood" of cheap imports from elsewhere in ASEAN.

The creation of the AEC therefore does not mean that there should be moves to excise tax harmonization across ASEAN. Indeed, any such moves would risk creating "tax shocks" – i.e., sharp increases in tax rates – that can destabilize markets and vital government revenues, especially given the very marked differences in consumer living standards across member states (as discussed further below).

Rather, the AEC should be seen as an opportunity

for sensible reform of excise taxation that introduces greater standardization across member states in a way that facilitates more open trade. It can also act as a spur for ASEAN member states to move increasingly towards international best practice in excise tax policy. But such moves should be carefully judged and assessed, and this *Resource Manual* provides guidance for policymakers in that process.

In designing a program of excise tax reform, there are six broad principles that should guide policy:

- The tax sovereignty of nations is critical to the policy process and should be fully respected;
- Coordination does not mean a *"one size fits all"* approach to excise tax policy;
- Excise tax policy should be the remit of fiscal policy experts in the Ministry of Finance, and tax administration experts in Customs and Excise departments;
- Stakeholder engagement is valuable to policymakers if reform is to be effective;
- Policy stability is important; and
- Revenues from excise products should be part of the general government budget (i.e., within the "consolidated revenue" account), rather than earmarked for specific spending purposes.

We discuss each of these in turn.

1.2.1. The tax sovereignty of nations is critical to the policy process and should be fully respected

Further progress towards ASEAN economic integration will logically entail a degree of cooperation and coordination on excise tax policies. However, that should not alter the principle that it remains the sovereign right of each member state to set its own tax policy based on its judgment of its own best interests. In the case of excise taxes, that right relates to the choice of goods and services to be subject to excise tax; the definition of the tax base and structure; and the level of excise duty rates. The only constraint is that excise taxation should not be discriminatory between domestic goods and those imported from other countries – including fellow ASEAN members.

Aside from the question of political legitimacy, there are important economic reasons for this principle to be respected. Each ASEAN member state faces a different macroeconomic situation that affects its potential to generate tax revenues. There are cross-country differences in the efficiency of tax administration, enforcement and collection rates. Member states also have different attitudes towards public service provision and government expenditure priorities. And factors that dictate revenue needs, such as the performance of the economy and scale of government expenditure priorities, will change over time. Successful AEC cooperation must not undermine each member state's ability to achieve its own fiscal, economic, social, and other objectives.

For all of these reasons, there is an inevitable tension between the imperatives of free trade and those of national sovereignty. The optimal policy is one that undertakes a degree of coordination to avoid differences in tax policy from skewing consumers' purchasing decisions and firms' production location decisions in a way that undermines competition and trade within the AEC (so-called "tax neutrality"), while allowing member states sufficient flexibility to set excise taxes appropriate to their needs.

As Cnossen (2013) argues in his analysis of indirect taxes and their likely reform under the ASEAN free trade area: *"…the crucial question regarding tax coordination is not, it appears, how the various taxes can be equalized as soon as possible, but rather how much diversity can be permitted without interfering with the establishment of a free trade area, and beyond that, perhaps an economic community (p.612)."*[8]

Central to the AEC value proposition is the understanding that a better-integrated and coordinated regional market will drive additional investment and economic activity within ASEAN. Much of this investment would be less likely to occur within a less-coordinated and more disparate region, as greater complexity can be a disincentive to companies when making investment decisions.

1.2.2. Coordination does not mean a *"one size fits all"* approach to excise tax policy

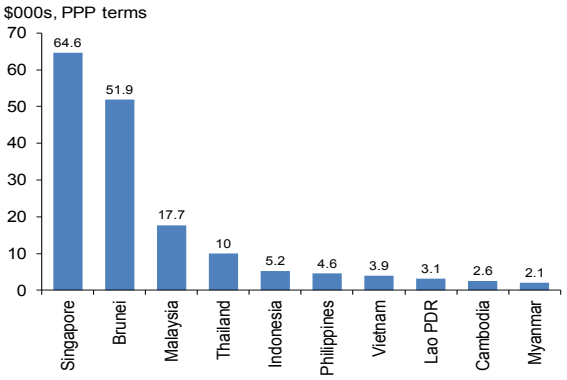
It is important that the need for diversity in excise tax policy across ASEAN is respected not only on political grounds but also to ensure stability of markets for excisable goods and associated tax revenues. As noted above, there are wide differences in current levels of economic development across ASEAN nations, as well as cultural, social and political factors that must be taken into account in determining excise tax policy. The coordination of policy needed to facilitate the AEC does not mean that simple *"one size fits all"* rules can be applied in determining excise tax structures and rates.

This is a widely endorsed view, including

recently by two OECD economists, Blecher and Drope (2014), who comment: *"Technical, political and economic idiosyncrasies create multiple, and often conflicting, constraints on tax harmonization and clearly shows that there is no "one size fits all" approach" (p.1).*[9]

In particular, there are wide disparities in consumer incomes across the ASEAN nations. Looking at GDP per head, for example, shows that the bloc encompasses countries that are among the most wealthy and least wealthy in the world. GDP per person in Purchasing Power Parity (PPP) terms stood at just over $2,000 in Myanmar in 2013, compared to almost $65,000 in Singapore (Chart 2). Levels of excise tax that are sustainable in countries such as Singapore, for example, would make these goods prohibitively expensive for consumers in the poorer member states, some of whose average incomes are less than 5% of those in Singapore.

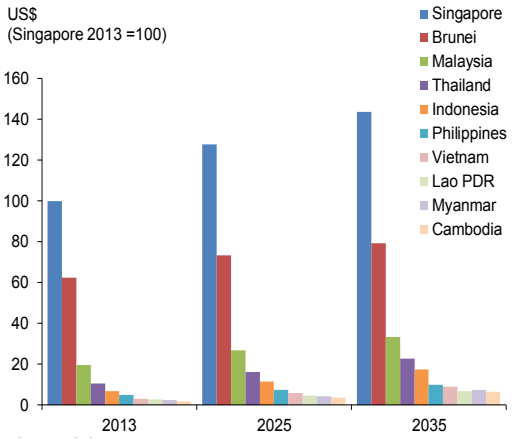
Chart 2: Per capita GDP across ASEAN members in 2013



Source : Oxford Economics/Haver Analytics

Moreover, such differences in average income levels are likely to persist for many years. Oxford Economics' forecasts, for example, show that GDP per capita in Myanmar will still be around 97% lower than the level for Singapore in 2025, and around 95% lower even by 2035. Similarly, GDP per capita in Cambodia is projected to be approximately 96% lower than in Singapore in 2035; that in Lao PDR 95% lower; Vietnam 94% lower; and even the Philippines and Indonesia are set still to be approximately 93% and 88% lower, respectively, by 2035 (Chart 3).

Chart 3: GDP per capita over time across ASEAN member states



Source: Oxford Economics

These very persistent differences in economic development must be reflected in the way in which excise tax policy is coordinated in ASEAN. Steps towards standardized product definitions will be helpful in facilitating intra-regional trade, as will coordination on approaches to tax administration. But any discussions with regard to coordination of excise tax rates must be very gradual, in line with convergence in relative living standards. Furthermore, reforms within individual member states towards best practice policy will also require careful planning, such as policy reform roadmaps, to articulate the reform process.

A gradualist approach to excise policy coordination will allow tax sovereignty to be maintained and give time for disparate economies to develop and adjust. It will also give each member state time to monitor the effects of different policies and adapt them, if necessary. The formulation of such a balanced approach to excise tax policy should be built on an assessment of:

- *Tax-bearing capacity, as reflected in the affordability of excisable products.* The pace of any adjustment in excise tax rates should be assessed against changes in consumers' purchasing power. International experience shows that sharp deteriorations in the affordability of excisable goods as a result of steep tax hikes can encourage consumers to switch to cheaper sources of supply, including illicit products (e.g. smuggled or counterfeit). Avoiding such "tax shocks" is important to maintaining stable markets and government revenue.

- *The scale of the existing illicit trade in excisable products and the risks of stimulating it further.* Where high levels of tax-paid compliance exist, policymakers should avoid drastic tax changes that encourage the large-scale entry of illicit trade. Once illicit production and supply networks have become established, they are very costly and difficult to curtail, in terms of police and customs resources.
- *Excise tax levels and the price of excisable products in countries that border the bloc.* Large differentials raise the rewards to illicit behavior and therefore, if allowed to widen further, would threaten further erosion of member states' excise tax bases.
- *The benefits of a simple and transparent architecture for excise taxation.* This will reduce administrative costs for governments and compliance costs for firms, as well as limiting opportunities for tax avoidance and tax evasion. The result will be higher and more sustainable tax revenue.
- *The compliance and enforcement capabilities of Customs and Excise and other agencies.* A well-designed tax system is not sufficient if the tax administration agencies lack the technical and human resources needed to implement and enforce it.

1.2.3. Excise tax policy should be the remit of fiscal policy experts in the Ministry of Finance, and tax administration experts in Customs and Excise departments

An important question in the setting of excise policy and tax administration is where in the machinery of government the power to control these levers should reside. Best practice is that tax policy should be determined by fiscal policy experts within Ministries of Finance, and administration left in the hands of Customs and Excise departments. This does not exclude input from health, industry or environmental experts in their respective departments, but leaves final tax design clearly in the hands of Ministries of Finance.

Policy control by fiscal experts, in particular, is important for two main reasons. First, excise duties are just one form of taxation. On which product categories they are levied, and at what rate, should be part of a consolidated assessment - usually as part of an annual budgetary process. This assessment should consider how much revenue the government needs to raise given its expenditure plans, debt financing capability and the state of the economy. This judgment is therefore best undertaken centrally, by the ministry with responsibility for the budget. If control or undue influence over excise tax policy is instead given to one of the spending or other ministries, this runs the risk that decision-making will be inconsistent with overall budgetary strategy and macroeconomic objectives, and hence economically damaging.

Second, it is important that the costs and benefits of any potential excise tax policy change are appropriately modeled in advance of decisions being taken. How behavior actually changes after the policy reform should also be continually monitored and evaluated by customs and excise officials, so that policy development is based on evidence.

This assessment should be comprehensive, including an appraisal of whether the policy achieved the desired outcomes (both in terms of the impact on revenues and also on any other objectives, such as health or environmental goals), and highlighting any unintended consequences (such as stimulating illicit trade, which may undermine other goals). The necessary modeling and analysis should ideally be consistently undertaken across various forms of excise duties. The analytical skills required to perform these important functions are those possessed by fiscal policy experts.

1.2.4. Stakeholder engagement is a valuable input for policymakers

Other government stakeholders can play an important advisory role to Ministries of Finance in the development of successful excise tax policy. For example, advice from experts in other government departments can help to ensure that taxes imposed with health, environmental or other policy goals in mind will achieve their aims. Similarly, fiscal and statistics experts should cooperate closely to design and collect reliable and widely accepted statistics about tax receipts and market volumes.

But policymakers should also look to stakeholders beyond government in determining excise tax policy.

Engagement with the private sector and industry associations can bring access to additional market information. This may include: quantitative data about the sales volumes of the goods on which the excise tax is being levied; retail price information to assess the extent to which excise tax changes are passed on to customers; and market-based estimates of the size of the illicit market. More

qualitative information about market participants' perceptions of consumer responses to excise policy changes, and intelligence they may have about tactics being employed by smugglers and counterfeiters, are also likely to be useful.

Input from industry is also likely to be helpful in gauging the administrative burden to businesses that any potential change in excise policy may entail. Excessive administrative burden could inadvertently raise the retail prices of excisable goods, spurring illicit activity and undermining policy aims. Firms will always have greater knowledge about their operating systems than government policy experts, and may be able to suggest a superior or less costly alternative that achieves the same policy goals. As with any interaction with market participants, fiscal policy experts need to be alert to firms' incentives, and seek to verify market anecdotes with robust data.

Constructive tax reform should involve an open and structured consultation process with key stakeholders, including industry. A well-designed and transparent consultation process affords stakeholders the opportunity for input into the entire reform process. A comprehensive process can include a public submission process, circulation of policy discussion papers and formal seminars/conferences that bring local and international experts into the public policy process.

1.2.5. The importance of tax policy stability

Excise tax policy should be formulated for the medium to long term, so that it is both predictable and stable. In contrast, ad-hoc tax policies or temporary tax laws and tax shocks are likely to lower compliance rates and raise costs of collection for the authorities.

Under a stable regime, companies know the goods on which excise has to be paid, how much should be paid, and how the payment should be made to the authorities. This stability helps to improve the efficiency of compliance for taxpayers and facilitate more efficient tax administration and enforcement for Customs and Excise officials.

Medium- to long-term tax planning also increases the certainty of the economic environment. This improves the confidence with which companies can make investment and employment decisions, and thereby supports economic growth. By contrast, ad hoc tax policies lower investment as potential investors perceive a higher level of commercial or sovereign risk. All of this harms the economy in the long run, and hampers the ability of individual countries within a regional context to better integrate their economies.

From a tax perspective, a sound approach to creating policy stability is for fiscal authorities to adopt automatic indexation of tax levels, or to set out clear multi-year plans so that market participants have a degree of clarity on the future path of excise rates. Such an approach creates certainty for both the government and industry/ investors, including other businesses along the supply chain that seek to expand their operations across the region.

1.2.6. Tax revenues from excisable products should be part of the general government budget and not earmarked to particular purposes

A final aspect of the design of domestic policymaking machinery relates to the uses to which excise revenues are put. Most forms of taxation are levied to generate what is termed "general tax revenues," which are collected into a "consolidated revenue" account. These are defined as a large central pool of funding under the control of the country's Ministry of Finance or Parliament Budget Committee. The elected government determines how to allocate these funds across competing obligations (education, defense, healthcare, etc.) according to its expenditure priorities.

But not all excise duties in ASEAN member states form part of general tax revenues. Some have "earmarked" (or "hypothecated") components that can only be spent on the designated purpose that has been legislated for in advance. An elected government is therefore not easily able (at least not without changing the law) to use the funds for other types of expenditure. Typically in these cases, the receipts from an earmarked tax go into a separate fund under the control of a particular ministry or other government agency. The recipient ministry or agency then determines how those revenues are spent, within legislative parameters.

Most fiscal experts do not recommend the approach of earmarking taxes to particular spending for a number of reasons:

- First, earmarking distorts decisions on overall funding levels, so that spending is allocated not on the basis of need or value for money compared with other programs, but by default through the earmarking regime. As a result, earmarking may result in excessive spending on the associated programs.

- Second, this structure weakens public scrutiny of the value and effectiveness of government spending. The case for spending on programs funded by earmarked tax revenues typically does not have to be justified as carefully as that for other forms of public spending. When consolidated revenue accounts are used, different ministries will be competing for budget allocations against other departments. This enables governments to holistically plan their expenditure priorities, and enhances public scrutiny of the budget expenditure allocation process.
- Third, earmarked taxes and spending that impose restrictions on the ability of finance ministers to set budgets also circumscribe their ability to use fiscal policy to support macroeconomic objectives. This restricts the ability of governments to plan for long-term needs, which is critical for successful economic growth in developing economies.

Finally, as well as introducing inflexibility and weakening the accountability for overall government taxation and expenditure, earmarking typically has unintentional distributional impacts. These may be judged as adverse when, as in the case of alcohol and cigarettes, consumption is heavier amongst less affluent members of society, while those groups often do not benefit from the earmarked government expenditure.

With these principles in mind, appropriate excise tax reform as discussed in detail in this *Resource Manual* can support the development of the AEC as a catalyst to boost economic growth across the region by stimulating trade and competition.

1.3. Preventing excise tax evasion through improved administration and compliance

A related aspect of policy that will be at the heart of AEC deliberations on excise tax policy will be the question of how to prevent tax evasion and fight illicit trade. Illicit trade in excisable goods can have wide-ranging and hugely damaging effects on a country's economy and society. First, it robs governments of much needed revenue by undermining the tax base. This, in turn, inhibits governments' capacity to foster economic development. Second, it undermines business investment and job creation in the legitimate industry. Third, the proceeds of illicit activity fund organized crime, and may fund terrorism, adding new costs for governments and risks for their citizens. Finally, illicit trade can undermine governments' health objectives in relation to some excisable goods, for example by allowing consumers access to uncontrolled, unregulated products.

Much of this damage is hidden from view, but its scale is potentially vast. One recent study suggests that illicit cigarettes account for 9.1% of consumption across the 10 ASEAN countries, costing the affected governments $2.1 billion in lost tax revenue.[10] Meanwhile, the World Health Organization (WHO) has estimated that almost a quarter of alcohol consumed globally is either illicit or informally produced[11]. Furthermore, international surveys indicate that the non-tax paid market for distilled spirits alcohol beverages can be as high as 90% of the total market within some ASEAN countries.

The resulting unstable tax bases inhibit the effectiveness of the tax system to deliver the vital revenues needed to service the needs of rapidly growing economies across ASEAN. But tackling illicit trade requires a comprehensive approach from government, and close cooperation at the international level and with stakeholders in industry.

A critical step in an effective strategy is to have a balanced tax policy. As highlighted above, sudden, sharp increases in excise tax rates can trigger the emergence and rapid growth of illicit trade. International experience has shown that the success of any given anti-illicit strategy is largely dependent on having a sound basis to work from in terms of the tax environment.

But there is much for ASEAN member states to do to achieve an effective and comprehensive anti-illicit strategy as the AEC develops. A three-pronged strategy should:

- Monitor the scale of the illicit trade;
- Implement effective legislation and regulations; and
- Pursue robust and internationally coordinated enforcement across the region.

In each element of the strategy to counter illicit trade, the need to build and strengthen national and international partnerships is of paramount importance. Big tax differentials and inconsistencies in legislation and enforcement regimes across countries tend to magnify the opportunities for illicit activity. Meanwhile, ensuring the accuracy and easy exchange of data on illicit trade activity between partner countries is an important part of a comprehensive enforcement strategy to suppress illicit activity.

Progress towards the AEC therefore represents an important opportunity to tackle the problem through strong regional cooperation of ASEAN members on these issues.

1.4. Conclusions

The creation of the AEC should energize trade and investment across the ASEAN region and enhance its ability to compete in global markets and attract international capital. Good excise tax policy, design and administration can help to facilitate that vision, removing frictions that currently discourage trade, hamper effective competition and undermine the efficiency of the region's manufacturers and traders.

Reforms to excise taxation where necessary must occur in a framework that respects each member state's tax sovereignty; takes into account the different levels of economic development across ASEAN members; recognizes the importance of excise tax to government budgets and as a tool to achieve other economic and social objectives; provides clarity and stability that will encourage investment; and is alert to the risk that illicit trade poses to the stability of markets and tax revenues.

Government officials in Ministries of Finance and Customs and Excise departments have the key responsibility for overseeing and implementing excise tax reform. This *Resource Manual* is designed to be a tool to which these officials can turn for best practices to draw on the lessons of other countries' experience both in the region and around the world.

Endnotes

[1]Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

[2]See "Roadmap for an ASEAN Community 2009-2015," Association of Southeast Asian Nations, p. 21.

[3]Cambodia, Myanmar, Lao PDR and Vietnam.

[4]The ASEAN Heads of State at their Summit in 2000 launched the Initiative for ASEAN Integration (IAI) with the objectives of narrowing the development gap and accelerating economic integration of the newer members of ASEAN, namely Cambodia, Lao PDR, Myanmar, and Vietnam.

[5]See "Roadmap for an ASEAN Community 2009-2015," p. 21.

[6]Brazil, Russia, India, China and South Africa.

[7]Under ATIGA, Myanmar applies a 5% rate; however, cigarettes imports are de-facto banned.

[8]Cnossen (2013), "Reform and Coordination of Indirect Taxes in the ASEAN Free Trade Are," *Tax Notes International*, Vol. 69, #6.

[9]Blecher and Drope (2014), "The rewards, risks and challenges of regional tobacco tax harmonization," *Tobacco Control*, Published Online on March 7 2014, Tob Control doi: 10.1136/tobaccocontrol-2013-051241.

[10]"Asia-14 Illicit Tobacco Indicator 2013," International Tax and Investment Center and Oxford Economics, September 2014.

[11]http://www.who.int/substance_abuse/publications/global_alcohol_report/msb_gsr_2014_1.pdf?ua=1.

[12]"Controlling the Zone: Balancing facilitation and control to combat illicit trade in the world's Free Trade Zones," International Chamber of Commerce, May 2013.

[13]Article 11.2 of the World Customs Organization (WCO) "Model provisions for national legislation to implement fair and effective border measures consistent with the agreement on trade-related aspects of intellectual property rights" provides one source of guidance for such legislation (http://www.tafar.org.tw/forum/20110816/20110816WCOModelLawfinal.pdf).

Section 2. Excise Taxation Reform – Best Practice Excise Tax Policy and Design in Key Products

Section 2 of this resource relates to "key" products, or those products that are currently subject to excise taxation in all 10 ASEAN member countries and include automobiles, alcoholic beverages and tobacco products. It looks at providing information, insights and examples of best practice excise taxation in these products from within and outside the region. This section seeks to assist excise tax policymakers whose role is to design excise taxes and who require a reference point to access information on such "best practice."

An accepted key principle in good tax policy is that the objective of an indirect tax should be neutrality, or the principle that the tax rate, tax base and tax structure should not impact markedly on investment, production or consumption. It certainly should not be used to "target" or to "favor" one particular industry, one particular product, or one particular tax payer over another.

Tax policy can, however, in certain limited circumstances, include the need to levy "special" or "discriminatory" taxes such as excise, in response to the externalities (or harm) associated with the consumption of certain goods and services. These types of goods and services that we associate with excise on these grounds are usually alcohol, tobacco, motor vehicles, and gambling.[1]

Therefore, the main objective of this chapter is to stress the benefits of moving towards standardized approaches to the ways in which the region defines, classifies and treats "like" products as well as standardized approaches to the way in which they are taxed such as applying and defining a tax base. The approaches outlined in this section are taken from many sources and represent what the study group considers as "best practice;" they should be utilized by excise tax policymakers as a 'starting point" as they consider future reforms of their national excise tax systems.

This section thus relies on analysis of the following key topics:

- Identification and appropriate defining of products and product categories;
- Identification and appropriate defining of tax base options; and
- What is the optimal taxation approach for structure and tax base?

Endnotes

[1]Cnossen (2005), "Theory and Practice of Excise Taxation," p. 3-5.

Chapter 2. Alcohol Beverages

SUMMARY OF KEY BEST PRACTICE

- *Policy justification.* Excise on alcohol beverages should acknowledge the primary consideration of generating a stable revenue base and correcting negative externalities associated with risky or harmful consumption. These primary considerations should also take into account the realities of the current tax and regulatory policy environment within each ASEAN country.
- *Simple classification for tax purposes.* Looking forward, policymakers should rationalize classification categories for alcohol beverages within the alcohol tax system. Modern excise systems should classify beverage products according to alcohol strength, to ensure fair and equal treatment of goods with similar characteristics (e.g. alcohol strength).
- *Specific taxes are best practice.* Policymakers should transition towards alcohol taxes based on alcohol strength alone. This greatly simplifies the excise system, and enables more transparent production, import and export of alcohol beverages across ASEAN. Greater use of specific taxes will mitigate problems associated with tax base erosion due to under-declaring ("under-invoicing") the value of the goods. Greater use of specific taxes is also a key feature of recent alcohol excise reforms across ASEAN.
- *Transparency in determining tax bases.* It is likely that policymakers retain a value-based component (ad valorem) throughout an excise reform/transition period towards a specific tax system. Where possible, the ad valorem component should utilize existing commercial values (such as the CIF or ex-factory value). Where new valuation is required, the process should be simple and transparent.
- *Roadmap for reform.* A gradual reform from current alcohol excise systems towards simple, transparent and sustainable best-practice will minimize disruption or "tax shocks" for taxation authorities, industry and consumers. In the interim, policymakers can utilize a "mixed" system, where ad valorem taxes are gradually phased out while greater use of specific taxes is phased in.

2.1. Introduction

Alcohol beverages are one of the key products that is subject to excise, or equivalent indirect tax, on production and importation across the 10 ASEAN countries. Internationally, excises are commonly applied to alcohol beverages as a means to raise government revenues, and as a means to address the impacts on society associated with risky and high-risk consumption ('negative externalities').

Across ASEAN, excise taxes on alcohol carry various titles and sit in different taxation regimes within governments. Formal titles for alcohol taxes across ASEAN include:

- *Excise:* as defined in Indonesia, Singapore, Brunei Darussalam, Lao PDR, Malaysia, and Philippines;
- *Liquor Tax:* as defined in Thailand;
- *Law on Excise Tax:* as defined in Vietnam[1];
- *Specific Tax on certain merchandise and services:* as defined in Cambodia;
- *Commercial Tax:* as defined in Myanmar.

Alcohol taxation across ASEAN varies in terms of application and complexity. Numerous factors influence the design and application of alcohol taxation in the region. These include:

- *Alcohol market characteristics.* Consumption preferences, climate and local supply chains;
- *Socio-economic factors.* Median incomes and income dispersal;
- *Domestic law.* Factors influencing policy design and practical administration of the law;
- *Beverage industry profile.* The level of domestic alcohol production and the level of alcohol beverage importation; and
- *Emerging regional industry supply chains.* Greater vertical integration of local alcohol beverage industries into the ASEAN-wide, Asia-Pacific, and global beverage industry.

The above factors, among others, have contributed to the development of alcohol taxes over recent years. Furthermore, many of these factors continue to influence recent changes and developments to alcohol taxation within several ASEAN countries. Striking an effective balance between multiple policy objectives is the key challenge faced by policymakers. At the heart of this challenge are two conflicting key objectives that motivate alcohol taxation:

1. Generating revenue; and
2. Correcting negative externalities.

The design factors outlined above contribute to the political realities that underpin current alcohol excise structures across ASEAN. Excise tax structures have evolved over time to take account of issues such as divergent levels of economic development (i.e. rural areas versus major cities), the legacy of former state-owned enterprises and piecemeal development of administrative procedures. As such, the journey towards alcohol excise reform outlined in this chapter diverges considerably from many current alcohol tax systems across ASEAN. *While these reforms may seem like a 'huge leap' from the outset, the principles of good alcohol tax design enable policymakers to develop a roadmap that gradually transitions tax authorities, industry taxpayers and consumers through the journey.*

Internationally, alcohol taxes are levied as a means of either discouraging consumption, or more specifically, to recover the costs of harmful consumption on society. In a World Bank policy research working paper, John F. Due remarks that excises that are designed to discourage consumption *"are deliberately discriminatory against users of the products."*[2]

With this clear objective in mind, leading policy experts globally are in almost unanimous agreement that alcohol should be taxed in a simple fashion – with alcohol content as the primary factor determining the social costs of consumption on society. It is also important that the design and application of alcohol taxes is structurally separate from other regulatory frameworks for alcohol beverages – such as licensing producers, traders and retailers. This is explained in greater detail below.

2.2. Products and Tax Base

2.2.1. Definitions of alcohol beverage products – primary beverage types

While consumption practices vary considerably across the ASEAN region, the classification of alcohol beverages within domestic law is generally consistent with internationally accepted norms. In general, alcohol beverage classification centers around three primary types:

- Beer/malt beverages;
- Wine/fermented beverages (non-beer); and
- Distilled spirits.

Across ASEAN, and indeed globally, local production practices vary, with different varieties of beer, wine and spirits produced for domestic consumption and, in some cases, for export to other markets. The historical trade of alcohol beverages has necessitated a universal classification framework for each of the above categories. As such, each beverage type has been allocated a heading (at the 'four-digit' level) within the World Customs Organization (WCO) Harmonized System Tariff (HS) nomenclature. These headings are reflected in the ASEAN Harmonized Tariff Nomenclature (AHTN) 2012. These four headings are outlined in Table 1.

Table 1: AHTN Tariff headings classification for alcohol beverages (as of August 2014)

Beverage Type	AHTN Heading/s	AHTN Heading title (verbatim)
Beer/malt beverages	22.03	Beer made from malt
Wine/ fermented beverages	22.04	Wine of fresh grapes, including fortified wines; grape wine must other than that of 20.09
	22.05	Vermouth and other wine of fresh grapes flavored with plants or aromatic substances
	22.06	Other fermented beverages (for example, cider, perry, mead); mixtures of fermented beverages and mixtures of fermented beverages and non-alcoholic beverages, not elsewhere specified or included
Distilled Spirits	22.07	Undenatured ethyl alcohol of an alcoholic strength by volume of 80 % vol. or higher; ethyl alcohol and other spirits, denatured, of any strength
	22.08	Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80 % vol.; spirits, liqueurs and other spirituous beverages.

Within the AHTN nomenclature, certain beverages are classified within sub-headings (at the "six-digit level") within the categories above. The following six-digit sub-headings are some of the beverage classifications featured in the AHTN, and as such in the customs tariff schedule of ASEAN member countries:[3]

Table 2: AHTN Tariff sub-heading classification for alcohol beverage categories (as of August 2014)

Beverage Type	AHTN Heading/s	Sub-heading (beverage category classification)
Beer/malt beverages	22.03	2203.00.10 *Stout or porter*
Wine/ fermented beverages	22.04	2204.10.00 *Sparkling wine*
	22.06	2206.00.10 *Cider or Perry*
		2206.00.20 *Sake*
		2206.00.30 *Toddy*
		2206.00.40 *Shandy*
Distilled Spirits	22.08	2208.20 *Fermented grape wine spirits (including brandy)*
		2208.30 *Whiskies*
		2208.40 *Rum and other spirits from fermented sugar cane*
		2208.50 *Gin and Geneva*
		2208.60 *Vodka*

Source: AHTN Tariff Nomenclature 2012, HS Tariff Nomenclature 2012, World Customs Organization (WCO)

The universal classification of individual alcohol beverages within the HS has taken place over many years, and several iterations of the HS nomenclature. The individual sub-category classifications reflect the different raw materials and production techniques used to produce different alcohol beverages.

2.2.2. Recognition of alcohol beverage characteristics within domestic law

With the development of alcohol beverage products internationally over many hundreds of years, production techniques and the raw materials required for production are often enshrined within domestic law. Such legal recognition is designed to protect the integrity of the beverage production process, and ensure consistency of standards for alcohol beverage consumers. Such recognition within domestic law (other than a country's customs tariff schedule), can include:

- *Production classification.* Setting general standards for the use of barley for the production of "whisky," and the use of wood for maturation purposes; and
- *Distinctive products classification.* Recognizing and protecting the unique characteristics (especially the name) of alcohol beverages produced in a specific geographic location. Such "geographical indications" include, among others, "Champaign" sparkling wine, which should only be produced in the Champaign region of France, and "Scotch Whisky," which should only be produced in Scotland, northern United Kingdom.[4]

Distinctive products such as those outlined above are generally protected within the domestic laws of their country of origin. Furthermore, the WTO provides a level of protection to geographical indications within Article 23 of the *Agreement on Trade Related Aspects of Intellectual Property* (TRIPS). New comprehensive regional trade agreements such as the Trans-Pacific Partnership (TPP) and the Regional Comprehensive Economic Partnership (RCEP) seek to provide a framework for non-tariff issues such as intellectual property. *With this in mind, the AEC provides an opportunity for ASEAN member countries to ensure that the classification of alcohol beverages within their domestic law is consistent with international standards and international law.*

International classification standards are important for alcohol beverages, especially for designing and administering regulatory frameworks such as licensing, trade and marketing requirements. Clear and consistent product definitions allow effective regulation of different alcohol beverages in the market. For example, a clear, concise definition for "beer," with its lower alcohol strength than other products, enables policymakers and regulators to differentiate between it and other higher alcohol strength beverages and to ensure safer access by

willing consumers to lower-strength beverages in the market.

While product definitions are important for regulatory purposes such as licensing, ***such product classification should not be a design feature for the alcohol tax system.***

2.2.3. Excise tax base for alcohol beverage products

The *APTF ASEAN Excise Study Group* has identified that ASEAN member countries currently utilize a broad, and evolving, range of alcohol tax structures. From a tax system design perspective, ASEAN countries presently utilize one or more of the three methods for calculating excise tax payable on locally produced or imported alcohol beverages:

- *Specific/volumetric taxation.* According to alcohol strength of the product measured in liters of pure alcohol (LPA);
- *Unitary taxation.* According to the total volume of liquid in the product; and
- *Ad valorem taxation.* Dependent on the value of the product.

ASEAN members utilize different excise calculation methods. In some circumstances, countries utilize one method, and in other circumstances multiple methods are used within complex tax systems. Table 3 outlines the application of excises as of August 2014. This example examines the application of alcohol taxes to distilled spirits beverages:

Table 3: Basis of excise taxation of distilled spirits alcohol beverages in ASEAN (as of August 2014)

Specific	Singapore
Unitary	Indonesia
	Brunei Darussalam
Specific + Ad valorem	Philippines[5]
Specific, Unitary + Ad valorem	Thailand
	Malaysia
Ad valorem	Cambodia
	Myanmar
	Lao PDR
	Vietnam

Source: APTF ASEAN Excise Working Tariff - survey

These systems vary greatly and range from very simple (such as in Singapore) to very complex (such as in Thailand and in Malaysia). In recent years, several ASEAN countries including Indonesia, the Philippines and Thailand have significantly simplified their alcohol excise systems. While further reform is encouraged to help shift these regimes closer to best practice, simplification of the alcohol tax system is a step in the right direction towards better adapting to a more integrated regional economy within the AEC 2015.

2.2.4. Classification of alcohol beverages across ASEAN

Simplification of alcohol excise tax structures across ASEAN in recent years has primarily involved a rationalization of product classification in the alcohol tax system. The APTF ASEAN Excise Study Group 2013 Discussion Paper ('the Discussion Paper') concluded that policymakers should apply alcohol excises in an equal fashion to products with similar characteristics: *"Given the diversity of alcohol beverage products across the ASEAN region, excise structures based on alcohol strength alone would greatly simplify the trade of these goods across ASEAN. Such an approach would greatly lessen the compliance burden on taxation authorities, producers and traders alike."*[6]

A simpler and more transparent alcohol market across ASEAN will lessen complexity associated with production and trade across the region. This is consistent with the international best practice principle that "alcohol is alcohol;" however, it also makes administrative sense for government and commercial sense for producers and importers. Alcohol tax systems that afford different treatment to products with almost identical characteristics open the door to administrative problems and a poor performing revenue base due to tax avoidance activities. Examples of product classification issues include:

- *Distilled spirits.* Different classification for spirit beverage products, such as "whisky" and "vodka," or different classification for beverage type, such as "white spirits" and "brown spirits;"
- *Wine.* Different classification for beverage products, such as different rates for "still wine" and "sparkling wine," or different classification for beverage type such as "grape wine" or "fruit wine;" and
- *Low-alcohol beverages (including beer).* Different classification and rate for traditional "beer" products compared to products with a similar alcohol content such as ready-to-drink (RTD) alcohol beverages.

As a narrow-based indirect tax focused on correcting negative externalities, alcohol excise is intended to distort consumption patterns in the market. As such, different product classification categories applying different rates to products of a similar alcohol strength will further distort production, consumption and (sometimes unintentionally) excise revenues collected by government. Furthermore, high and complicated excise rates on alcohol beverages also lead to unintended consequences for society, including consumers. Such consequences include high levels of smuggling, resulting in alcohol beverages entering domestic consumption via unregulated and non-tax paid channels.

Of even greater concern, alcohol excises that are too complex and create too high a tax burden on the consumer also incentivize the production of counterfeit illicit liquor. The consumption of tainted illicit liquor can have tragic results, as evidenced in poisoning deaths attributed to illicit liquor across ASEAN, including by international tourists. As is the case for much of the economy, a sound and rational tax policy will have positive economic multiplier effects across the broader economy by lessening the adverse impact of smuggled and illicit alcohol on legitimate retail, tourism and hospitality businesses.

With this in mind, the Discussion Paper concluded that internationally recognized classification systems such as the WCO HS Tariff Nomenclature and the World Health Organization (WHO)/ UN Food and Agriculture Organization (FAO) *Codex International Food Standard* (CODEX)[7] are **not appropriate for alcohol excise taxation classification purposes**. That is, classifications for customs duty purposes should not be used as the basis of classification for domestic excise taxation purposes. Very few ASEAN countries utilize customs classifications as the basis of excise taxation.

There are significant simplification opportunities for governments and industry in adopting a simplified excise classification system in line with global best practice

2.2.5. Best practice for alcohol beverage classification

The Discussion Paper concluded that best practice alcohol classification should not reference any beverage category, production techniques or raw materials used. For alcohol, policymakers should utilize a simple three-tiered approach, based purely on alcohol content. This adopts the overarching infrastructure of the alcohol tax system in Indonesia, and also partially takes into consideration the classification structure in Vietnam (for wine and spirits products).[8] This is outlined in Table 4 as follows:

Table 4: Simplified tiered approach to alcohol product classification

Tier	Alcohol Content
Tier 3	> 20° abv
Tier 2	> 5° abv ≤ 20° abv
Tier 1	≤ 5° abv

Source: APTF ASEAN Excise Study Group Discussion Paper

The practical effect of this approach is that the major alcohol categories fall within the relevant tiers, as follows:

- Tier 1: beer, cider and ready-to-drink (RTD) alcohol products of similar alcohol content;
- Tier 2: wine, liqueurs and lower-strength distilled spirits;
- Tier 3: distilled spirits (including brandy, whisky, gin, vodka, rum, etc).

There are significant simplification and administrative benefits from such a tiered approach. This approach removes any requirement for detailed technical definitions regarding what is "beer," "wine" or "spirits."It also removes any opportunities for products to be specifically developed (in terms of ingredients and/or mode of production) to manipulate definitional weaknesses or "loopholes" in order to obtain tax advantages not intended by the designers of the excise legislation, regulations or determinations.

2.2.6. Recent classification simplification across ASEAN

Recent alcohol tax reforms across ASEAN have simplified the classification process for alcohol beverages. Each of the reforms below has removed categories from the alcohol taxation system, streamlining the process for administrators and lessening the potential for activities such as tax avoidance. These reforms include the following:

- *Indonesia (2010).* Reduction from five primary alcohol excise categories based on a.b.v. strength to three categories *(note: as of August 2014 different rates apply to imported Category B and C products compared to domestic products*[9]*)*;
- *Philippines (2012).* Removal of four product categories, based on either product

characteristics or price, with one single classification for all distilled spirits products (*see Case Study below*); and

- *Thailand (2013).* Removal of distilled spirits product classification categories for 'Blended' liquor, 'Specially Prepared' liquor and 'Special' liquor categories, which previously resulted in different applied Liquor Tax rates for domestic spirits to imported spirits. The 2013 reforms partially harmonized the classification structure, with all spirits in the market, other than local white spirits, in a single taxation category (*These reforms also introduced specific taxation to all beverages in the system).*

Case Study: Simplifying alcohol excise classification for distilled spirits in the Philippines (2012)

Prior to December 2012, the Philippines utilized a complex excise structure for alcohol beverages. In the case of distilled spirits, goods were levied an excise depending on whether they fell into one of four different bands within the two main categories, which were:

- *Category One*: one band with a low excise rate for goods produced locally from local ingredients (predominantly domestic goods); and
- *Category Two*: three bands with much higher excise rates for all other distilled spirits (predominantly imports).

While the excise law did not explicitly reference "domestic" or "imported" products in defining these four bands, the WTO found that the application of the system resulted in a discriminatory excise regime, which afforded protection against imports.

In December 2012, the Philippines introduced a new alcohol excise system, that includes only one category for all distilled spirits. This structure utilizes a combination of specific rates (on a per-proof liter basis) and an ad valorem component.

*It is envisaged that the ad valorem component is designed as a **transition measure**, ensuring a degree of progressivity in the excise system in the short term as the **Philippines shifts towards a greater use of specific taxes on alcohol** in the long term.*

2.3. Optimal Approach: Shifting towards best practice – specific taxes on alcohol

2.3.1. Global best practice

Specific taxation is applied internationally as a best practice approach. The WHO recognizes a specific tax system as best practice as such a system correlates the level of alcohol in the product to the tax payable.[10] A specific tax system is a feature of industrialized economies, with a majority of OECD economies currently employing such a system.

Specific taxes on alcohol have long been considered a smart policy reform to enable a better-functioning economic community. Arguably the most relevant example is the EU, whose member countries are required to ensure that their domestic tax laws adhere to the requirement that alcohol beverages are levied under a volumetric excise system. While individual EU countries retain the right to set different excise rates, EU membership carries with it a requirement to adopt the volumetric methodology.

The EU's modern and transparent tax and revenue policy systems are built around this principle of common methodology. *Directive 92/84/EEC* and *Directive 92/83/EEC* demonstrate that specific taxation is not only a benchmark, but a requirement in this comprehensive economic community: *"the most appropriate basis for levying duty on ethyl alcohol is the volume of pure alcohol"* - EU Directive 92/84/EEC of 19 October 1992.[11]

A greater use of Specific Tax has been a central feature of alcohol tax reform in non-ASEAN counties within the Asia-Pacific region. Australia reformed its alcohol tax system in 2000 as part of a comprehensive reform of its tax system. This is outlined in the following case study.[12]

Case Study: Reforms towards specific taxes on alcohol in Australia (2000)

Prior to July 2000, Australia levied both an excise duty and a wholesale sales tax (WST) on alcohol beverages. WST was one of several direct and indirect taxes removed in an effort to improve the stability and efficiency of Australia's tax system. Driven by the overarching objective of price stability, Australia increased its specific excise rates on alcohol beverages to offset the differential between the new 10 per cent GST and the old WST rate, which was considerably higher. Key reform features were:

- *Limited product definitions*: "beer" varieties and "brandy" are the only beverage categories defined in the tax system. All other non-wine products are defined as "other excisable beverages;" and
- *Exclusion of wine:* policymakers decided to keep wine out of the excise system, instead retaining a sales tax known as the "wine equalization tax" (WET). This applies to wine products and other non-malt fermented beverage categories such as cider, perry and mead.

2010 – Henry Tax Review recommends single specific tax on alcohol

There is considerable support within Australia to transition wine taxation from an ad valorem system to a specific system. Australia's 2010 Future Tax System Review ("the Henry Review") recommended:

- Replacing the ad valorem WET with a specific excise; and
- Gradually transitioning the multiple alcohol excise rates in Australia to a single specific rate. The rate should be determined by the 'net marginal spillover cost' of alcohol consumption to society.

While these reforms were still to be enacted as of August 2014, the Australian Government is committed to a comprehensive review of the tax system throughout 2015.

2.3.2. Ad valorem taxes – an antiquated alcohol taxation method

International best practice literature (the key premise of this *Resource Manual*) establishes that there are two primary types of excise:

- *Externality correcting excises.* Should be levied according to units of consumption (or production) that the tax seeks to address; and
- *Revenue-raising excises/luxury-type excises.* Primarily target high-value goods produced or imported into a particular jurisdiction (e.g., automotive excises).

Policymakers are almost unanimous – particularly in their public statements – in linking excise taxation to harm associated with risky consumption. This justification generally transcends boundaries associated with culture, market dynamics and national income. Over the years, however, countries have traditionally started with ad valorem excise taxes on alcohol, before transitioning across to a primarily or wholly specific system. The removal of ad valorem taxes on alcohol is a feature of economic development as countries modernize their tax policy and administration to ensure greater levels of policy sophistication, revenue sustainability and administrative compliance.

2.3.3. Shifting towards best practice

ASEAN policymakers also recognize the long-term benefits associated with specific taxes on alcohol. In addition to international examples, such as Australia, reforms in Indonesia (2010), Philippines (2012), Thailand (2013), and Vietnam, (2010), all involved the partial phase-out of ad valorem taxes in favor of a greater use of specific taxes:

- *Vietnam (2010).* Removal of ad valorem excise rate for beverages >40° a.b.v.; [13]
- *Indonesia (2010).* Removal of ad valorem luxury sales tax (LST), which was replaced with increased unitary (per liter) excise rates across the board. This reform recognized that alcohol beverages are primarily a fast moving consumer good (FMCG), and not suitable for treatment under 'luxury' tax policy regimes;
- *Philippines (2012).* While it did not utilize an ad valorem excise regime prior to 2012, the Philippines alcohol excise structure did previously utilize price-based thresholds in determining product classification. As such, higher-value products were levied a higher rate than lower value products. The

2012 simplification removed the price-based structure, retaining a single specific excise rate with a residual ad valorem component; and

- *Thailand (2013).* Prior to September 2013, specific taxes were primarily levied on domestically produced beverages, with many premium products (mostly imports) levied with a higher ad valorem rate.[14] Furthermore, given the dynamic of the alcohol market, most beer products in the market were levied an ad valorem Liquor Tax (excise) as opposed to the specific method. The 2013 reforms extended the use of specific Liquor Tax (excise) to all products in the market, with all beverages levied a volumetric (per LPA) component, a unitary (per liter) component as well as an ad valorem component. As with the Philippines reforms in 2012, the 2013 changes in Thailand removed price as the sole determining factor for the tax payable on many beverages in the Thai alcohol market.

While each of the above-mentioned countries can still further simplify and modernize their alcohol tax systems, **policymakers across ASEAN should be commended for recognizing the benefits of greater specific taxation on alcohol beverages.**

In addition to being consistent with international best practice, a key benefit of the shift away from ad valorem alcohol taxation is the lessening of the value of the good as a determining factor in the setting and collection of excise on alcohol beverages. This is particularly the case within a multi-jurisdiction region with shared borders, as highlighted in the seminal 1999 International Tax and Investment Center (ITIC) publication, the *Guidebook for the Taxation of Distilled Spirits*, which noted that: *"tax revenues are vulnerable to illegal imports and cross-border purchasing by consumers if governments try to maintain tax rates that are high in comparison with those in neighboring countries."*[15]

The AEC 2015 is an opportunity for policymakers across ASEAN to carefully consider the need to balance tax sovereignty with the needs and realities of an economic community with increasingly open and porous borders.

2.3.4. Avoid earmarking of alcohol tax revenue to expenditure programs

Best practice tax policy separates the revenue collection and expenditure functions of government. Governments have a mandate to allocate expenditure across competing obligations, depending on the government's expenditure priorities. Hypothecated or "earmarked" taxes depart from this principle by requiring that the revenue of certain taxes can only be spent on a designated purpose.[16]

Earmarked taxes contradict best-practice policy as they impact the ability of government to efficiently and effectively allocate tax revenue to specific programs. The International Monetary Fund (IMF) refers to earmarking as a "budget rigidity," as it restricts the ability of policymakers to efficiently allocate expenditure between competing public policy objectives. Earmarking certain tax revenues for particular purposes, such as education, health and social initiatives, dilutes the overall role of government in the development and implementation of public policy.

Policymakers have introduced earmarking on alcohol beverages in the past in an effort to demonstrate a commitment to public health policy. While earmarked taxes constitute a visible (and often popular) commitment by government to public expenditure, international experience demonstrates their limitations. An example is South Korea, where earmarked funds comprised 28.8 per cent of both central and local government tax revenue in 2011.[17] As such, policymakers have lost direct control of nearly one-third of this government revenue, which otherwise could be utilized to achieve immediate government objectives.

Renowned scholars Richard Bird and Joosung Jun noted this point: *"Experience in Korea, as elsewhere, thus suggests that earmarking, like many fiscal instruments is sometimes good in principle and sometimes bad, that sometimes it is used well and sometimes badly, and that there is not always a neat mapping from good earmarking in principle to good earmarking in practice."*[18]

Counter-intuitively, earmarking tax revenues for specific purposes such as public health inadvertently creates a reliance on increased market consumption to maintain funding for such programs. In the case of alcohol beverages, earmarking is contrary to best-practice policy, and is not recommended as a feature for excise tax policies within a more integrated ASEAN. Retaining existing earmarking, or introducing new earmarking in the future, will simply lessen the agility of policymakers to adapt to the changing needs of society.

Alcohol-specific factors and principles	Key design steps in AEC 2015 context
Sustainability: alcohol taxes should enable a stable and growing revenue base for government	**Greater use of specific taxes** ensure a reliable alcohol excise base that is easy to calculate, pay and collect.
Consistency: the alcohol tax system should provide certainty to tax payers and consumers	A **roadmap for reform**, and ongoing **market-based rate adjustments** (i.e. indexation) ensure predictability in future payment by taxpayers
Efficiency: alcohol tax policy should avoid unnecessary administrative burdens on tax payers and revenue officials	Any **ad valorem alcohol excises should be as simple as possible**, utilizing existing commercial values for tax bases (Cost plus Insurance and Freight (CIF) or ex-factory values). Where new valuation is required, the process should be simple, transparent and robust.
Equity: the alcohol tax system should not distort the alcohol market and encourage tax avoidance (i.e., through "under-invoicing" or "trading down" by consumers)	Different **product categories in the tax system should be limited**, ensuring a level playing field for similar products and limiting tax avoidance through categorization arbitrage.
Simplicity: the alcohol tax system should be simple and easy to understand. Complexity is a disincentive for increased commerce and investment.	Alcohol tax systems should be simple, predictable and non-discriminatory. A simple structure should be solely based on product alcohol strength, with minimum rate tiers utilizing rates that are not prohibitively high (to discourage non-compliance).

2.3.5. Transitioning alcohol taxes across ASEAN - Transition does not mean harmonization

As outlined in Chapter 1, this *Resource Manual* does not recommend a "*one size fits all*" approach for excise taxation across ASEAN. Each individual member country across the region has its own needs and objectives that will influence the ultimate shape of its alcohol taxation system. In the context of a regional community, however, **there are several principles and design steps that can help policymakers to retain adequate control of alcohol taxation policy and revenue.**

2.3.6. Key tax principles and design steps in a regional economic community

As outlined earlier, alcohol beverages are a unique commodity with numerous factors contributing to policy design. The following table outlines key factors and principles for alcohol tax, with design steps that can help policymakers to mitigate risks to policy and tax revenues (see chart on p. 28).

The factors and design steps listed below build on recent policy reforms, and provide a framework for further simplification in the AEC 2015 context.

Five reform steps are recommended:

- Step 1: Greater use of specific taxes
- Step 2: Roadmap for alcohol tax reform and ongoing market-based adjustments
- Step 3: Ensuring a simple and transparent ad valorem excise system
- Step 4: Greater equity through fewer alcohol excise product categories
- Step 5: Greater simplicity through a simple, predictable and non-discriminatory system

Step 1: Greater use of specific taxes

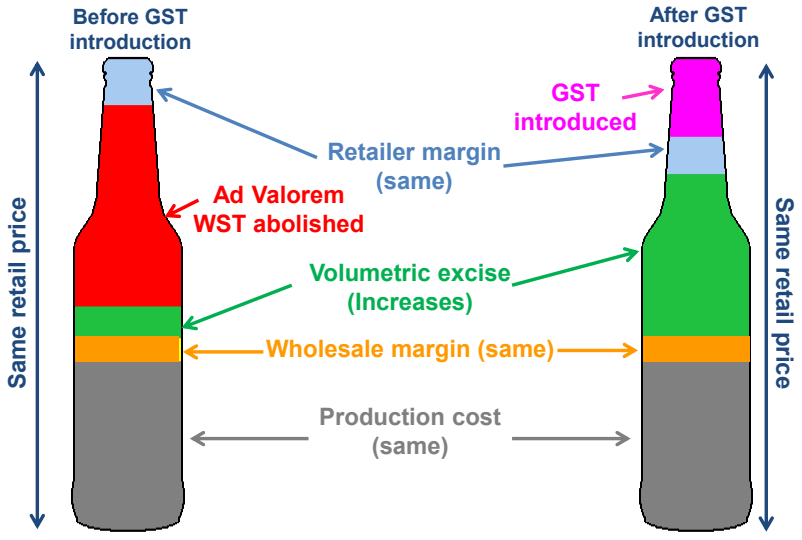
Transition towards a specific tax on alcohol is a hallmark of most reforms to excise structures internationally and within ASEAN. Specific taxes ensure that the excise provides a price signal that is linked to the alcohol in the beverage for consumption, rather than the value of the beverage.

Choosing the right rate

One of the key first steps for policymakers is to determine suitable short-term and long-term specific excise rates based on the overarching tax policy objectives of the government, which can include:

- *Revenue neutrality.* Ensuring that current tax revenues are maintained into the new system;
- *Price neutrality.* As was the case in Australia in 2000, policymakers may choose to set a rate that results in a very minimal impact on retail prices for consumers; or

Figure 1: Maintaining price stability in Australia's 2000 alcohol tax reforms



Source: Asia-Pacific Tax Forum (APTF) – February 2012

- *Increased revenue.* Policymakers may seek to increase overall alcohol excise revenues. (*Policymakers will need to note the risk associated with increasing excises on goods that already have high tax burdens, which can push tax paid volumes into non-tax paid channels*).

Each of these options, and other strategic objectives, will require careful economic modeling that takes into consideration the price-elasticity and substitution impacts in the market as prices change. Figure 1 demonstrates the concept of "price neutrality," utilizing the example of beer in the Australian case study outlined earlier. The graphic demonstrates the reform to the specific excise rate, within the overarching framework of a consistent retail price from the old tax system to the new system.

Gradual reform to a specific rate

Given the diverse levels of economic development across ASEAN, it is not realistic for policymakers to immediately shift alcohol excises from an ad valorem system to a specific system. This is not realistic given the price-sensitivity dynamic of alcohol markets and the divergence in tax burdens between economy (low value) and premium (high value) products in a wholly ad valorem system.

Step 2 outlines how a reform roadmap can help transition an alcohol excise system towards international best practice over time.

Step 2: Roadmap for alcohol tax reform and ongoing market-based adjustments

Stable alcohol tax reform should ensure adequate ongoing certainty for tax payers (producers and importers), as well as other operators within the supply chain, including wholesale distributors and retailers. As evidenced in recent alcohol excise reforms in the Philippines (2012) and Thailand (2013), forward-looking reform should gradually reduce the role of the product value in determining the total tax burden on alcohol beverages.

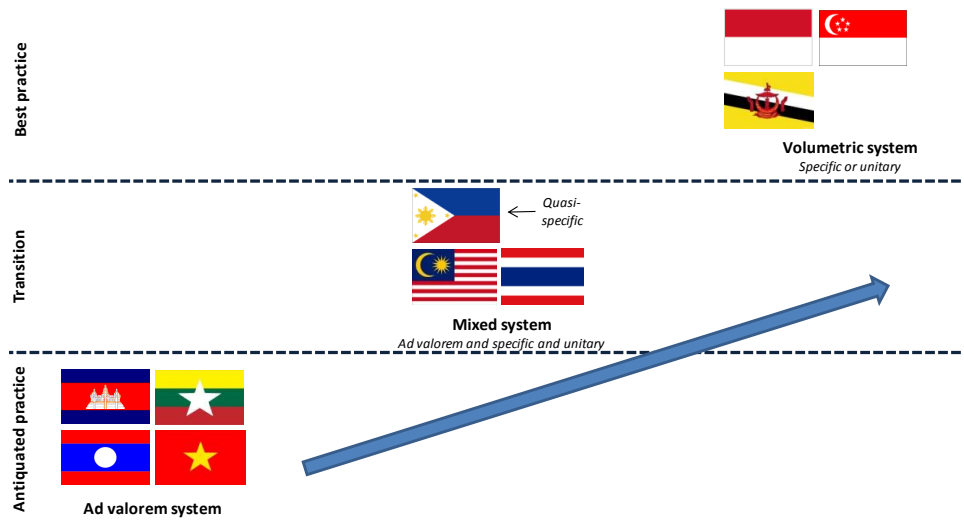
Gradual transition from the ad valorem method to the specific method has cumulative policy benefits for policymakers. In the first instance, this shift begins to remove the incentive for "under-invoicing" product values to minimize excise payable. On the other hand, the new emerging price signal in the tax system is linked to alcohol consumption, which will better enable the tax system to aid government objectives linked to alcohol consumption.

The gradual shift by policymakers towards specific taxes sees a greater use of "mixed" alcohol tax systems across ASEAN. These systems are complex, and their application is not considered as best practice in the long term. However, a mixed system is a sensible reform approach in the short to mid- term as a roadmap for reform towards greater use of specific taxes.

Figure 2 demonstrates the current use of "mixed" alcohol excise tax systems for spirits across ASEAN.

The transition from the antiquated wholly ad valorem system, currently utilized by less-developed countries, to a wholly specific system, utilized by more developed countries, is consistent with broader tax and economic reforms associated with economic development.

Figure 2: Transitioning towards greater specific taxes across ASEAN – Example: Distilled Spirits



Ensuring good practice during the transition process – getting the ad valorem component right

Given the continuing use of an ad valorem alcohol excise component throughout the transition, it is important that policymakers ensure an effective system to manage price-related dynamics, such as determining the ad valorem tax base.

Step 3 outlines factors for consideration in the ad valorem process to ensure maximum possible efficiency and transparency in the system.

Step 3: Ensuring a simple and transparent ad valorem excise system

One of the key factors impacting ad valorem excises is the method used to determine the tax base. As articulated earlier in this *Resource Manual* and in the 2013 Discussion Paper, excise tax bases can be set in several ways. As a tax on production (and by extension on the importation of like goods), best practice indicates that excise should be levied as early in the supply chain as possible, once the good has entered the domestic market for domestic consumption. As such, the most common ad valorem excise tax bases continue to be:

- *For domestic goods.* The good's "ex-factory" value once it has left the production facility;[19] and
- *For imported goods.* The "Cost plus Insurance plus Freight" (CIF) value of a good, as determined by Customs, plus any customs duty paid before the goods clear the customs zone (i.e. wharf) for domestic consumption.[20]

This approach continues to be best practice for ad valorem excise on alcohol. Tax bases early in the supply chain best reflect the production or importation cost of the good and utilize commercial transaction values used by producers and importers in the supply chain when selling their goods (usually to wholesalers/distributors). Most importantly "ex-factory" and "CIF plus customs duty" values best reflect true values at the point of collection in most countries across ASEAN. This is due to the fact that taxation authorities maximize efficiency by collecting excise at the point of production or importation, often in partnership with other agencies such as the Customs authority.

With the enactment of Free Trade Agreements (FTAs) continually reducing customs duties collected across the ASEAN region, excise collection authorities are facing declining ad valorem excise bases on imported products. With this in mind, some policymakers continue to consider alternative points in the supply chain to calculate the ad valorem tax base. Such options include:

- *Wholesale Price* (such as the Last Wholesale Price currently used in Thailand); and
- *Retail Price* (as mandated in the Philippines).

As they presently apply, wholesale and retail price-based tax bases have to be used for duty calculations that determined early in the supply chain, once the good leaves the factory or port. This results in the need **for excise authorities to intervene in the process of determining prices, *which adversely impacts the simplicity and transparency*** of the ad valorem alcohol excise system.

Figure 3: Ad valorem excise calculation points within the supply chain

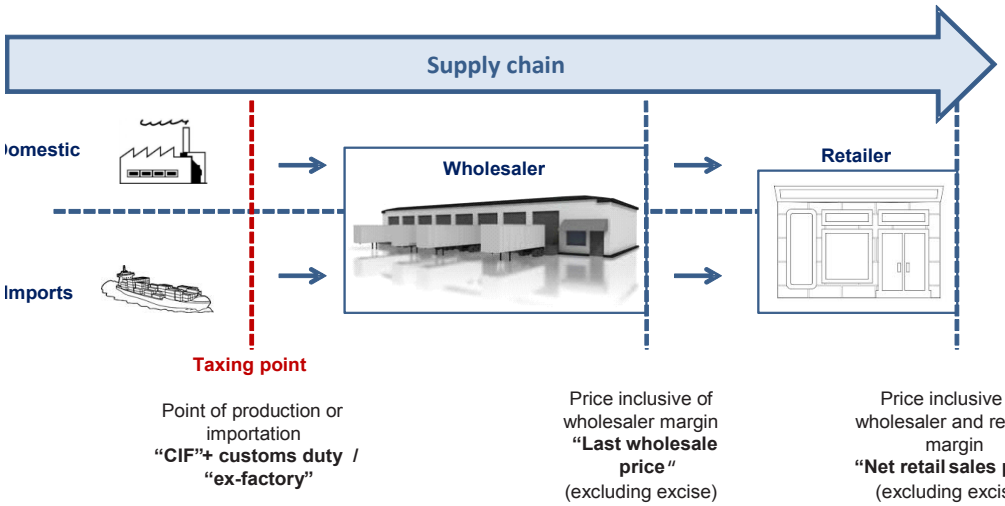


Figure 3 articulates alternative tax base calculation points within the supply chain, while highlighting that the collection point remains early in the supply chain.

Problems associated with mandated tax bases

Calculating a tax base at a point in the supply chain later than the point of payment lessens the commercial transparency of the excise system. Tax bases down the supply chain can only be calculated in a commercially transparent way if the actual tax liability shifts along the supply chain with the good – and hence the collection point shifts to the next point, such as the wholesaler or retailer. This method can only work where there is an administrative system in place to manage the taxation liability, i.e. a "quoting" or "bonded warehouse" system.

While sophisticated tax systems can manage this approach for indirect taxes (such as Australia's *Wine Equalisation Tax* system), most existing or contemplated last-wholesale or net-retail price systems will utilize a nominal value agreed in advance between authorities and tax payers. This behind-the-scenes process reduces transparency and greatly lessens the simplicity of the tax system. This is particularly the case for wholesale prices, where there is little to no public visibility of pricing that can provide clarity and certainty regarding the appropriateness of agreed pricing. Furthermore, multiple wholesalers often exist within a supply chain, which impacts complexity and the difficulty of calculating the tax base.

A retail sales price (RSP) is the value of a good that applies at the point of its retail sale to the consumer. While self-explanatory, it is axiomatic that there is no single accepted definition of an RSP for the purposes of an ad valorem tax base. This point is highlighted in international customs and trade literature, such as the *World Customs Journal*: *"... retail pricing for the same goods can vary largely depending on point of sale; for example, the price differential between a can of soda purchased at a supermarket and a restaurant can vary between four and five times. As such, for an RSP-based excise to be applied successfully there needs to be a means of setting that RSP which is equitable, simple and transparently fair across like products in the market."*[21]

A workable system based on retail prices requires considered thought by taxation authorities, including factors such as notional pricing strategies, means to survey and verify prices, and a robust strategy to avoid double taxation (i.e. excise-exclusive tax bases); and taxpayers should have recourse to a legally binding process, such as a formal ruling arrangement, for establishing prices in order to protect taxpayers from retrospective adjustments to liabilities.

Any use of alternative ad valorem tax base calculation methods should only be a temporary measure, as part of a staged transition towards greater use of specific alcohol excises.

Step 4: Greater equity through fewer alcohol excise product categories

It is important for policymakers and regulators to recognize internationally accepted alcohol beverage definitions in their (non-tax) regulatory framework. However, product classification should not underpin alcohol excise taxation, and a key component of alcohol excise reforms should involve the removal of multiple beverage categories within the tax system. Such changes, as per the recent reforms in Indonesia, Philippines

and Thailand, will help remove the ability for under-invoicing as a result of category arbitrage. Policymakers should consider the following:

- As a starting point, there should only be one tax category for each of the major internationally recognized beverage types – beer, wine and full-strength distilled spirits;
- Where possible, the tax structure should preference alcohol strength over beverage type when categorizing goods – i.e. pre-mixed RTD alcoholic beverages should be treated like similar-a.b.v. beer, rather than higher-a.b.v. full-strength spirits; and
- Policymakers should avoid concessional rates determined by other characteristics such as packaging, flavors or additives.

Step 5: Greater simplicity through a simple, predictable and non-discriminatory system

Step 5 is essentially an extension of Step 4. As outlined in the 2013 Discussion Paper, a best practice classification approach does not require any classification of goods for excise tax purposes, other than determining the alcohol strength of the goods. Ongoing alcohol excise systems should enshrine the following:

- A simple alcohol excise system should ensure minimum tax bands/tiers and ensure that rates are not set at a prohibitively high level that would discourage compliance;
- The excise regime should be predictable, where specific rates are subject to consistent adjustments over time (such as annual indexation based on inflation). From an administrative perspective, excise liabilities should be easy for taxpayers and authorities to calculate with regular payment and collection using transparent and reliable information technology infrastructure; and
- A non-discriminatory structure that ensures long-term compliance with international trade law. In particular, the alcohol excise system should afford equal treatment between domestic and imported products.

Endnotes

[1]Alcohol beverages formerly levied a "Special Consumption Tax" (SCT), which may still be referenced on some official websites as of August 2014.

[2]Due (1994), "Excise Taxes," Policy Research Working Paper 1251, The World Bank Public Economics Division, p. 3.

[3]Note: this is not an exhaustive list and other six-digit subheading classifications exist within the AHTN for the above-mentioned headings. Furthermore, the sub-heading titles outlined in this table are not the verbatim titles used in the AHTN 2012 schedule; however the actual titles are very similar. "Brandy" has its own eight-digit level subcategory within the AHTN 2012 (2208.20.50).

[4]Article 23, Section 3, Part II of the Trade Related Aspects of Intellectual Property (TRIPS) agreement – http://www.wto.org/english/tratop_e/trips_e/t_agm3b_e.htm#3

[5]The Philippines utilize a "per-proof liter" methodology for the "specific" excise calculation method. This differs from the generally-accepted "per liter of pure alcohol (LPA)" methodology as outlined above. Furthermore, the Philippines also utilize a "percentage of a product's Net Retail Price (NRP) per proof liter" methodology for its "ad valorem" excise component. This is classified as a "mixed" excise system for the sake of this analysis, however, it can also be classified as a "quasi-specific" alcohol taxation system.

[6]"APTF ASEAN Excise Study Group Discussion Paper," 23 July 2013, p. 14.

[7]Codex Alimentarius Commission, www.codexalimentarius.org (accessed 4 July 2013).

[8]"APTF ASEAN Excise Study Group Discussion Paper," 23 July 2013.

[9]The different (higher) excise rates on Category B (including wine) and Category C (full strength distilled spirits) products are potentially in breach of the World Trade Organization's (WTO) "National Treatment" provision, as enshrined in Article III of the General Agreement on Tariffs and Trade (GATT) 1994.

[10]"Global strategy to reduce the harmful use of alcohol," WHO, Geneva, 2010, p. 16.

[11]Articles 3, 9 and 21 (beer, wine and spirits respectively) of EU Directive 92/83/EEC of 19 October 1992.

[12]Australia's primary objective was relative price stability, through no more than a 1.9 per cent increase to the price of "ordinary beer." The "net marginal spillover cost" is the cost associated with alcohol consumption to society, minus the cost of consumption to the individual.

[13]As of August 2014, Vietnam does not utilize specific taxes on alcohol beverages.

[14]Goods previously classified in the Liquor Act 1950 as "White Distilled Ethyl Alcohol" (White Liquor) or "Blended Distilled Ethyl Alcohol" (Blended Liquor) or "Specially Prepared Ethyl" alcohol (Specially Prepared Liquor) or "Special Distilled Ethyl Alcohol" (Special Liquor).

[15]"Guidebook for the Taxation of Distilled Spirits," International Tax and Investment Center (ITIC), Washington, DC, 1999, p. 39.

[16]"Are earmarked taxes on alcohol and tobacco a good idea? Evidence from Asia," International Tax and Investment Center (ITIC), Washington, DC, 2013, p. 1.

[17]Ibid, p. 7.

[18]Bird and Jun (2007), "Earmarking in Theory and Korean Practice," Phua (ed.), Excise Taxation in Asia, Centre for Commercial Law Studies, National University of Singapore, p. 102.

[19]The most commonly used valuation base for domestically produced products is "ex-factory." While this is a common term in excise tax systems, the term is defined differently across different countries that utilize it. In most cases, "ex-factory" values are linked to the producer's invoice selling price to their customer. In an attempt to deal with non-arm's length transactions, some countries use more subjective definitions (the "open market price") or mandate the values.

[20]CIF is a standard costing methodology used internationally to value imported goods. The cost component is generally the invoice value. The CIF value is declared by the importer, subject to a robust methodology that is broadly enshrined in international agreements such as the WTO Customs Valuation Agreement.

[21]Preece (2012). "Excise taxation of non-alcoholic beverages in Thailand: products, approaches, rates and administration," *World Customs Journal*, Volume 6, Number 2, p. 64.

Chapter 3. Automobiles

SUMMARY OF KEY BEST PRACTICE

- *Policy justification:* Excise on automobiles can be justified on the grounds of correcting certain negative externalities relating to CO_2 emissions, energy security, traffic congestion, and "wear and tear" on roads, with the excise system representing an economically efficient way to address externalities from drivers.
- *Coordinated policy:* National regulation and standards are driving technology towards producing lower CO_2 emission and more fuel efficient vehicles. Excise taxation should be coordinated with, and support by, these policies rather than create inefficiencies for the industry.
- *Avoid market distortion:* Care needs to be taken in excise tax policy when using the excise system to attract investment so as not to create over-supply, not to create inefficient technologies and not to enter competitive races with neighboring manufacturing countries. This will cost revenue and is unlikely to lead to long term, sustainable products.
- *Best-practice tax policy:* Automotive excise regimes should adhere to basic principles of tax design, including:
  - Equality in the treatment of like products, instead of looking to favor or target one product over another or one manufacturer over another or domestic manufacturing over imports;
  - Simplicity in terms of categories and sub-categories of products and in relation to the size and number of tax tiers;
  - Transparency in excise tax classifications and assessments for duty;
  - Rules and regulations (such as safety testing, CO_2 emissions testing, or homologation certifications) are not setting up effective trade barriers; and
  - Impact of reduced demand on other tax revenue sources.
- *Transparency and non-discrimination:* Excise tax design can achieve equality in a transparent manner via an engine displacement structure acting as a proxy for a range of externalities as follows:
  - Minimum number of engine size tiers (limited to say HS code categories); and
  - Ad valorem rates based on an ex-factory valuation, or CIF + duty for imports of CBUs.
- *Adherence to adequate international standards:* Excise tax design can (and increasingly will) take into account CO_2 emissions but will require:
  - CO_2 emissions testing against an internationally accepted standard;
  - CO_2 emissions tiers to be reflective of government policy and market conditions and not to favor or target any particular models or manufacturers;
  - Coordination with other non-tax regulatory agencies with jurisdiction over vehicle emissions.

3.1. Introduction

The AEC 2015 represents a significant opportunity for the ASEAN members to coordinate across a range of policy areas and to build a leading automobile production region which is highly competitive globally. Today the ASEAN region is producing less than 4% of the world's passenger motor vehicles and less than 2% of commercial vehicles.[1] Therefore, significant potential exists to grow this figure and share in the wealth it creates. This resource is focused on excise taxation which will be one of the policy areas that will need coordinating in order to help the region attain the aspiration of becoming a global production center.

3.1.1. Regional opportunities for the automobile sector

The challenge for the existing and emerging automobile producing members of ASEAN is to move away from creating "specialized" categories of motor vehicles, or creating special classification criteria for which substantial excise tax discounts will be applied that are not available for "like"" vehicles. This creation of "national favorites" often leads to "competition" between ASEAN members at a time when the region has an opportunity to work together to increase wealth.

Discounting of excise rates to support "national favorites" has other negative consequences including:

- The potential losses of excise revenue from reduced excise rates on favored categories;
- Deterrence to potential overseas investment;
- Inefficiencies in production to meet "special criteria;" and
- Distortion of markets, including over-supply, where special criteria may include minimum production levels.

In some cases, the establishment of "favorite" categories within an excise system can effectively result in the creation of "non-tariff" barriers to international trade. While possibly seen as "populist" in individual countries, the overall effect can be negative as trading partners "retaliate" with similar non- tariff barriers, or hold back on investment opportunities. Non-tariff barrier elimination has rightly been seen as an important element of the "free flow of goods" component of the AEC 2015.

3.1.2. Considerations for automobile excises in terms of products, tax structures and tax bases

As outlined in the introduction, the underlying principle of good tax policy is that taxes should be neutral, or in other words the tax rate, tax base and tax structure should not impact markedly on investment, production or consumption. It certainly should not be used to "target" or to "favor" one particular industry, one particular product, or one particular tax payer over another. However, in certain circumstances there can be justification to levy "special" taxes or discriminatory taxes such as excise, to correct negative externalities associated with the consumption of certain goods. In this case we are addressing automobiles.

Automobile excise taxes have been justified on several grounds. There are some similarities and, in some cases, a direct relationship with fuel tax policies, so there should be some consistency by governments in this respect. This chapter should also be read with Chapter 5 "Fuels" where governments have or are considering fuel excise taxes.

However, in terms of what the literature says in relation to the objectives of automobile excise, the following provides a summary of the main factors which justify these special taxes on automobiles:

- Cost of operating public roads which is seen as an economic charge on road users and would extend to addressing revenues required for road building, as well as ongoing operations such as traffic lights, road signage, rescue and recovery, etc.[2]
- Costs of maintaining roads from damage caused during normal road usage;
- Emissions of CO_2 contributing to negative environmental impacts such as immediate air quality in urban areas and the broader impacts associated with climate change; and
- Traffic congestion from the growing number of automobiles on the road and the increased volumes of trips being made by those vehicles, particularly at certain peak periods. This is particularly the case when road infrastructure is unable to support the volume of vehicles. There are also connections with other environmental costs, as emissions double from idling vehicles then when they are moving.[3] There is also an economic cost from increased times taken for workers and businesses to move people and goods via road in terms of "travel cost", "additional business operating costs" and lost productivity.[4]

Notwithstanding, with these externality factors, the simple raising of revenue also remains an important aspect in automobile tax policy, particularly in developing economies. In such cases, owning a motor vehicle is seen as a "luxury" and the excise tax system is used to capture this concept and will figure in policy considerations. It is important to note that rising living standards is seeing an increase in car ownership, as middle class populations increase and cars also become more affordable.

However, policy considerations will not be confined to revenue and the correction of negative externalities, particularly where the country concerned is an automobile manufacturer. In this case, it is usual for the automobile industry to contribute substantially to that country's GDP and, as such, be of significant economic benefit.[5] The automobile sector covers the entire supply chain adding value from "upstream" industries such as mining and metals, rubber, plastics, glass, etc. – through to "downstream" industries such as distribution including retail, service and repairs, marketing, finance, insurance, rentals and fuel products. It is not limited to component production and vehicle assembly. Value is added at each point of the automobile supply chain, employing many people across the economy.

Just as important to the economy is the development of new technologies and other intellectual property (IP). The value that this creates can be significant and ensures the long term position of the automobile sector. This can also create potentially large export income opportunities for the country. In addition, some of the next technology or IP created in the industry can be utilized in other industries, further expanding the value of this sector. Increased levels of advanced manufacturing is a hallmark of economic progress. The AEC can provide opportunities for the region to augment production and value chain to account for strengths in particular markets.

In this context, excise policy considerations should be focused on designing a simple, fair and transparent tax system that provides the certainty and equity that facilitates investment decisions and allows for a sustainable flow of revenue for the government from a strong and viable industry that is contributing to the whole economy.

3.2. Determining and defining the products and tax bases

The best place to start this section is to look at how the industry views the products it trades and the important distinctions between these categories which will then apply throughout the remainder of this Chapter.

3.2.1. Terminology in how automobiles are traded

In the trade setting, the automobile industry looks at products in terms:

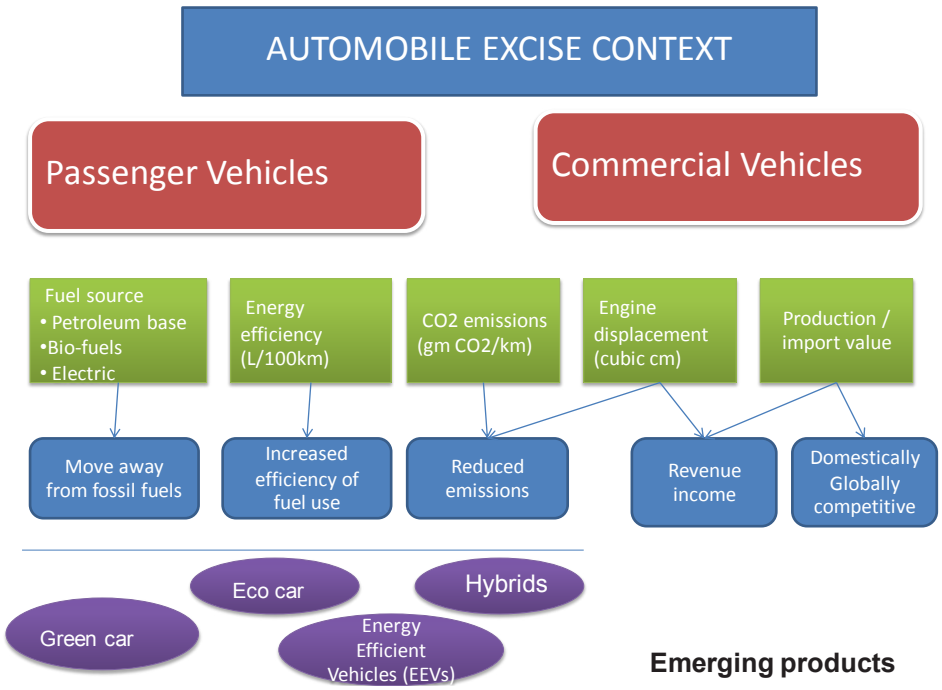
- Completely Built Up (CBU): a state of finished assembly and ready for distribution and sale;
- Completely Knocked Down (CKD): Comprising of components that are assembled as a finished unit, ready for sale. In other words a "kit" which in some cases provides for more cost efficient transportation such as in shipping containers, and further often facilitates tax advantages at the destination from reduced import values declared at Customs, or from incentives for undertaking some local value add processes; and
- Semi Knocked Down (SKD): similar to CKD, but the kit is not completely knocked down to individual (i.e., some assembly has occurred or remains) and less assembly is required at the destination.

In terms of CBU, CKD and SKD, the differentiation applies primarily to customs and import classification and tariff policy. CBU classifications often attract higher rates of import duty than imported kits. This reflects the economic benefits of the local value add which takes place when the kits are assembled for delivery into the market.

CBU and knock-down kits should be attracting the same excise duties as the final product being taxed. However, given that most of the regions automobile excises are fully ad valorem and import valuations are mostly[6] based on a customs CIF valuation/customs duty sum, there is a connection between import and excise tax policies in this context to consider. However, given that the following chapter is focused on excise taxation, discussion will be at the CBU level, unless otherwise indicated.

For the purposes of the Chapter, and consistent with the automobile market, automobile products will be divided into two broad categories – "Passenger Motor Vehicles," and "Commercial Motor Vehicles." This Chapter will also look at the main product categories falling within each of

Figure 1: Outline of Automobile Excise – areas to categorize, standardize and define



these broader categories and propose a number of definitions taken from the literature which best reflect the specifications of the product contained within each.

This is seen as one the key outcomes of the Chapter, as the study of excise taxation in the region to date has often found a lack of clear definitions of automobile categories and products. Where definitions are available, there are often differences that make cross-border analysis difficult. The concept of moving to adopt "standard" definitions will further facilitate trade in excisable goods in the region.

The Chapter looks to align much of the current and emerging policy considerations in automobile excise taxation and the future direction of these by highlighting a number of new products being established in response to these emerging policies.

A snapshot of the outline of this Chapter is found in Figure 1 which looks at some of the main drivers of excise taxation and their objectives, as well as the emerging products which result from developments in the automobile sector. The Chapter then looks at the key product categories of the market and discusses how these categories are defined in the sources studied. Discussion of likely product categorization and definitions then follows before the Chapter moves into the main drivers of automobile excise taxation.

3.2.2. Broadly defining product categories

In this section, a number of sources have been utilized and combined including the Harmonized System (HS) nomenclature to provide the most comprehensive and "useful" definitions for use in local policy development.[7] However, for clarification, at this point there is a need to define "motor vehicle" for which the following is proposed from the *Phase II Discussion Paper*: *"Motor vehicle" any power-driven vehicle which is normally used for carrying persons or goods by road or for drawing, on the road, vehicles used for the carriage of persons or goods.*

Starting with two broad product categories "passenger motor vehicles" and "commercial motor vehicles" to reflect the different purposes of the vehicles (and possible different tax policy treatments) a number of sub-product categories have then been identified within both passenger and commercial vehicles. Table 1 captures this output.

3.2.3. Excise related specifications in classifying automobiles

The region needs to manage the issue of recent trends of automobile excise tariffs restructuring to reflect certain government policies in relation to energy, environment, and investment. The result is that new or additional product items and sub-items are being added to existing automotive tax

Table 1: Standard High Level Automobile Definitions for Excise Policy Development

Broad Product Category (HS Reference)	Definition	Sub-Product	Definition
Passenger Motor Vehicles **(Chapter 87)**	Motor cars and other motor vehicles principally designed for the carriage of persons (less than 10), including the driver (8703)	**Passenger Cars**	Road motor vehicle, other than a motor cycle, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver).
		Sports Utility Vehicles (SUV)	Includes vehicles designed as off road vehicles with four wheel drive capability (or two wheel where other specifications of this definition are met), high ground clearance and a wagon body type, seating up to nine people (including the driver).
		Passenger Pick Up Vehicles (PPV)	Pick-up vehicles designed with an extended or dual cab for the carriage of no more than nine people (including the driver)
		Other	Reserved
Commercial Motor Vehicles **(Chapter 87)**	Motor vehicles principally designed for the carriage of goods, or persons (10 or more), including the driver or special purposes	**Pick Up Vehicles**	Any vehicle which contains both a passenger compartment designed for the carriage of less than four persons and open cargo bed for the carriage of goods
		Van	Any vehicle with a closed cargo bay designed for carriage of goods with no more than two axles
		Bus	A vehicle designed for the carriage of 10 or more persons including the driver
		Truck	A vehicle with a power unit and either a permanently fixed or detachable cargo carrying capability with two or more axles
		Truck Tractor	A non-cargo carrying vehicle designed to tow trailers and other devices.
		Special Purpose	Including vehicles with specific purposes such as fire-fighting, ambulances, spraying, concrete mixing, mounted cranes, etc.

categories creating excise duty rate differentials to give effect to these policies.[8]

This section will now discuss these policy considerations and the impact they have on excise policy, so that recommendations can be made in relation to appropriate tax bases and the need to refine or create standard definitions for emerging products. What is important to note is the often high level of "cross-over" between these policy areas, which for this section of the *Resource Manual* will include:

- Energy policy (including energy security) and need for alternate and renewable fuel sources;
- Fuel efficiency in vehicles;
- Reducing emissions into the atmosphere from motor vehicles; and
- Engine displacement, which is often seen as proxy for several key externalities.

3.2.4. Energy Policy Considerations

A country's energy policy may have several components, including a need to address energy consumption in the context of finite fossils fuels and the issues of reducing reliance on fossil fuel as a long term energy source. This can be achieved in several ways:

- Increasing the fuel efficiency in the design of new vehicles;
- Increasing the use of alternate fuels including renewable; or
- Encouraging the continued development of alternate energy sources such as electric cars, use of hydrogen fuel cells, gaseous fuels such as LNG, or CNG.

In terms of fuel efficiency, there is a full discussion below as to its potential role in automobile excise tax policy considerations. However, it is also worth noting that fuel efficiency is also an area of increasing subject to government regulation, and thus excise tax policy needs to be consistent with and support those regulations. Otherwise, the drive towards more fuel efficient technologies is best left out of the excise systems and left to regulation that incentivizes industry and consumers to reduce their emissions intensity.

The issue of alternate and renewable fuels is also discussed later in this *Resource Manual*, and indeed a mechanism to support these industries can be applied through the fuel tax system. The question is whether the automobile excise tax system is also the most appropriate place to support fuel policy by applying excise rate discounts to vehicles using such fuels.

The area of developing new technologies for alternate fuel sources is considered in several places throughout this Chapter. Currently, the drivers here are around manufacturers having the right environment in which to invest in designing and developing the new technologies that will produce consumer accepted (including affordable) vehicles which can capture a market share to ensure on-going viability. As a result, vehicles of alternate fuel source technology are generally not subject to excise taxes. However, if they are, they are given significant, discounted rates.[9]

The other outcomes from greater fuel efficiency and greater use of alternate fuels and fuel sources relate to the environment. This is a positive and desirable outcome, and again is dealt with more fully in the discussions below relating to emissions and in the fuel tax section.

Therefore, the question to address in this section is whether "fuel type" is an appropriate means in which to classify automobiles for excise taxation policy purposes. The study of the literature on this area finds that classification by fuel type is not a common attribute of automobile excise systems, although it is seen currently in the region in Thailand.

The European Union (EU), apart from Cyprus, does not use automobile excise taxation. Energy use and environmental-based objectives (including those encouraging the use of alternate fuels) are delivered through energy taxation and road use taxation policies. In other words, they are delivered through fuel taxation and initial/annual vehicle registrations levies. It should be noted that the EU is trying to eliminate initial vehicle registrations in favor of "circulation" (or annual taxes) to avoid market distortions from member states having different registration levies and open borders.

One example of circulation tax is the United Kingdom's "Vehicle Excise Duty" (VED)[10] system, which classifies vehicles primarily by their CO_2 emissions. It then applies a rate depending on whether the vehicle uses petrol/diesel or "alternate fuels." However, it should be noted that VED is actually an annual road tax despite being levied on the vehicle owner (even though the tax is called an "excise").

The other approach is "non-tax" and through standards and regulations used in the United States (US). Through its 2007 Energy Independence & Security Act, the Government extended a current fuel efficiency level target from 2016 to 2025. The result is forecast to almost double current

fuel efficiency requirements by 2025, with an aspiration for motorists to be using 2 million less barrels of oil per day, and in turn, significantly reduce dependence on oil imports.[11]

Similar to the US and EU, this *Manual* does not see a strong need to create excise structures, or to complicate existing excise structures by incorporating product categories or sub-categories related to specific fuel types. Fuel tax policy and regulation may be more appropriate places to capture these energy security and energy supply issues. Environmental issues can also be captured through fuel taxation and regulation, but may also have a place in automobile taxation.

Alternatively, those same policy issues surrounding energy and environmental outcomes may also be considered separately in terms of automobile initial registration and/or annual circulation taxes. However, both of these taxes are currently outside the scope of this *Manual*.

3.2.5. Fuel Efficiency

An emerging area of automobile excise policy is the importance of developing a higher level of fuel efficiency in vehicles. This is seen being related to the other key policy area around CO_2 emissions. In a growing number of countries, there are moves to go beyond the use of excise taxation as a fiscal instrument, and to look at regulation in respect to standards for fuel efficiency (and CO_2 emissions) for new vehicles.[12]

"Fuel efficiency" relates to a vehicles consumption of fuel and is generally measured as liters per 100 kilometers. At this point, no formal universal standard or benchmark exists to define "a fuel efficient" vehicle and this is set in local legislation dependent upon local policy objectives. Minimizing fuel consumption is an ongoing aspiration for manufacturers to be able to market products with a growing demand for fuel efficient vehicles.

The standard of "fuel efficiency" is also changing with governments often revising downwards the liters needed to be consumed per a set distance as these standards evolve. As outlined above, the US will almost halve the current fuel consumption requirements rising from the current 29 mile per gallon, to 35.5 miles per gallon by 2017 and eventually 54.5 miles per gallon by 2025. To illustrate the differences in approaches and standards, the following case study box highlights a number of examples of locally set "fuel efficiency" definitions.

Case Study: What is fuel efficient - the different approaches?

Australia (Simple)

- Increased tax free threshold if fuel consumption does not exceed 7 liters per 100km[13]

European Union (Fuel type)[14]

- Petrol – 2015 target of 5.6 liters per 100km (2021 target of 4.1 liters /100km)
- Diesel – 2015 target of 4.9 liters per 100km (2021 target of 3.6 liters / 100km)

Malaysia (Curb weight – Kilograms)[15]

- Up to 800 – 4.5 liters per 100km
- 801-1,000 – 5.0 liters per 100km
- 1,001-1,250 – 6.0 liters per 100km
- 1,251-1,400 – 6.5 liters per 100km
- 1,401-1,550 – 7.0 liters per 100km
- 1,551-1,800 – 9.5 liters per 100km
- 1,801-2,050 – 11.0 liters per 100km
- 2,051-2,350 – 11.5 liters per 100km
- 2,351-2500 – 12.0 liters per 100km

The main reasons that "fuel efficiency" would be used by excise tax policymakers is to reduce energy use and dependence on imports of energy, and to achieve environmentally positive outcomes from reduced burning of fuels.

Use of energy efficiency in automobile excise taxation is not common and where it does occur it is used with other criteria to effectively create a "sub-category" or "special product." Where it is used, "energy efficiency" is a measure by which a reduction or discount is applied to a "benchmark" excise tax rate.

As in the case study, Australia's Luxury Car Tax regime provides a higher tax free threshold for fuel efficient cars. The minimum value threshold for those vehicles is set at values that are 20% higher than other luxury cars. Another example is from Cyprus, which is the only member state of the EU to have an automobile excise tax. The Cyprus automobile excise system is comprised of a "base excise" dependent upon model, engine displacement, and CO_2 emissions. In addition to the base component, reductions in excise can be obtained by secondhand vehicles and/or vehicles deemed to have high levels of fuel efficiency.[16]

Fuel efficiency is not seen as an appropriate basis on which to structure an automobile excise tax system. Where it is a key policy objective of the government, fuel efficiency can be used as a criterion to access certain incentives within that excise system. However, if fuel efficiency is part of the excise classification criteria, it becomes essential that fuel efficiency is measured in an open and transparent manner and applied equally to all vehicles and vehicle manufacturers. This is an important excise administrative issue and applies equally to the testing of CO_2 emissions (and likely at the same time) and will be discussed in more detail later in this Chapter.

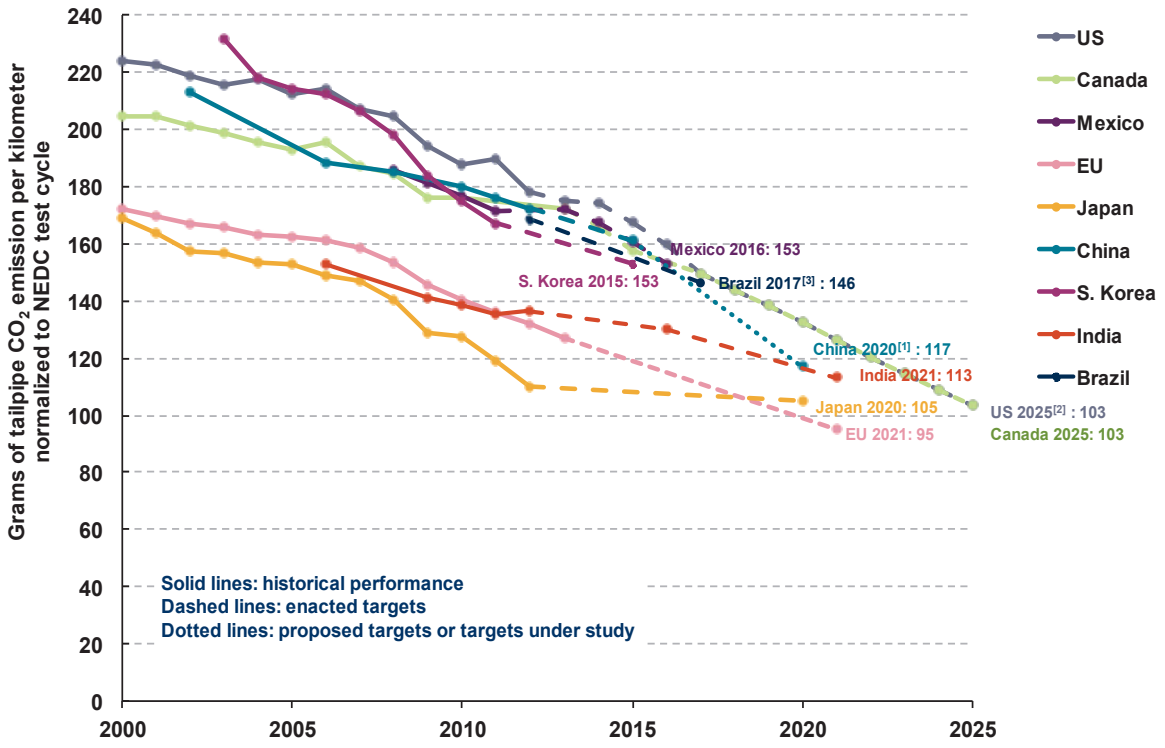
3.2.6. Emissions based approaches

The literature in relation to CO_2 emissions from vehicles shows that it is priority, with leadership coming from the EU and US. There is a trend towards automobile excise taxation adopting the level of CO_2 emissions as part of the classification criteria or tax design. As found with fuel efficiency, however, shifts towards CO_2 emission reductions are primarily a result of regulations and standards being applied to manufacturers (although in some cases, this was, or will be, supported by certain tax measures).

CO_2 emissions are principally measured in grams per kilometer (gm/km). However, the actual measurement process has often led to some debate, as there are several testing methodologies and processes which have been adopted by different countries. In the context of regionally coordinated taxation, it will be important to adopt an appropriate standard CO_2 emissions test. The issue of testing CO_2 emissions on new vehicle products for tax (and regulatory) purposes will be examined in greater detail below with the discussion focusing on the United Nations Economic Commission for Europe (UN ECE) standards which have greater global usage.

CO_2 standard emissions are based on a "fleet wide" survey of new vehicle products rather than individual cars or models. This recognizes that a manufacturer will have a mix of products to offer for different markets. This mix of products (depending on size, weight and displacement) will have different emission levels. This is an issue in the use of CO_2 as an excise base, as manufacturers look to meet CO_2 emission standards on a "fleet wide" basis rather than individual models. As such, different policy approaches can bring environment and tax policies into conflict.

Figure 2: Reducing CO_2 emissions in new vehicles[19]



[1] China's target reflects gasoline vehicles only. The target may be higher after new energy vehicles are considered.
[2] US fuel economy stadards set by NHTSA reflecting tailpipe GHG emission (i.e. exclude low-GWP refrigerant credits).
[3] Gasoline in Brazil contains 22% of ethanol (E22), all data in the chart have been converted to gasoline (E00) equivalent
[4] Supporting data can be found at: http://www.theicct.org/info-tools/global-passenger-vehicle-standards.

Target CO_2 emission standards will also generally be set slightly higher for commercial vehicles then for passenger vehicles.

In terms of regulation, there are positive outcomes being observed already in the major economies, with current and future emission levels in new vehicles being driven down through this regulatory approach. Currently Japan has the lowest emission standards at 110gm/km, with plans to reach 105gm/km by 2020. The EU is currently at 130gm/km, with plans to reach 95 gm/km by 2021. Presently, the US emission standards sit at approximately 156 gm/km, falling to 103 gm/km by 2015.[17]

Figure 2 shows the current standards for levels of CO_2 emissions in new vehicle fleets, as reported by the International Council for Clean Transportation.[18] The analysis includes major economies around the world and the future direction of these standard levels in to the 2020s. At the time of writing, most CO_2 emission levels appear to sit between 160 and 180 gm/km.

In this context, it is important to look at how the excise system is designed to support these standards and be consistent with government environment policies. There are several ways to deliver this. However, the main priorities are to avoid building complexity into the automobile excise tax structure and equally avoid creating tax structures. This section will now look at several options.

One option is to build CO_2 emission tiers for each of the various product categories. This approach has been utilized in terms of initial and annual registration taxes, rather than excise taxes. The EU's excise taxation for automobiles is rarely used by member states, but the community has a strong desire to reduce CO_2 emissions. This discussion will return to the EU below, where such CO_2 emission tiers are utilized in conjunction with several member states on a "fee-bate" approach.

In terms of creating CO_2 based tiers, Thailand from 1 January 2016 will adopt this approach for vehicles under engine displacements of 3000cc (3250cc for Passenger Pick-up vehicles). As can be seen from Figure 3, the various product categories each have a set of CO_2 based emission tiers, although the tiers are set at different levels for each product type.

Figure 3. Thailand: New automobile excise structure from 1 January 2016

Vehicle Type	Category (CO2 emissions)
Passenger cars not more than 10 seats	≤ 100 g/km
	101 - 150 g/km
	151 - 200 g/km
	> 200 g/km
	> 3,000 cc
Space-cap Pickup	**Cab type: Rate differs for Double, Space, or Single**
	≤ 200 g/km
	> 200 g/km
Passenger Pickup Vehicle (PPV)	≤ 200 g/km
	> 200 g/km
Space-cap Pickup & PPV	> 3,250 cc
Eco Cars	< 100 g/km
	101 – 120 g/km
Electric vehicle / fuel cell / hybrid	≤ 3,000 cc
	> 3,000 cc
OEM Natural Gas Vehicle (NGV)	≤ 3,000 cc
	> 3,000 cc

Source: AHTN Tariff Nomenclature 2012, HS Tariff Nomenclature 2012, World Customs Organization (WCO)

Figure 3 details the new Thai automobile excise system. The following points should be noted:

- The CO_2 emission range bands for commercial vehicles are higher than for passenger vehicles (reflecting larger engines needed for commercial uses);
- CO_2 emission bands for "eco" car are lower than for other passenger vehicles (to capture discounted rates) and non / low CO_2 emission vehicles remain taxed on engine displacement; and
- CO_2 emissions are based on individual models, and not on "fleet wide" averages as CO_2 emission standards are based. As such, this approach has the potential of creating "winners" and "losers" in terms of models in the market. This risk needs to be managed so this does not occur.

These are typical policy issues needing to be addressed if moving towards a CO_2 emissions based excise, as well as the "certification" of CO_2 emissions for tax purposes which is discussed below.

Another approach to recognizing CO_2 emission levels is to use "surcharges" in existing or new automobile excise tax design. By "surcharging," a "base" excise rate applies an additional amount of duties that are calculated when emissions exceed a policy target level.

This type of approach is currently seen in South Africa, and to some limited extent in Cyprus' automobile excise system.[20] The Cypriot excise tariff is slightly different because there are two categories of vehicles based on the HS codes. Passenger vehicles and light commercial vehicles are exempt from paying excise if CO_2 emissions are below 120gm/km. Once above this threshold, vehicles are levied by increasing the "base excise" and surcharge rates according to a table of emission tiers. The other category is "other commercial vehicle," which pays a flat rate of €0.26 per c.c. It is also important to note that Cyprus has a fully specific rate excise system for automobiles, levied by a monetary amount per unit (vehicle), rather than as a percentage of the value of unit (ad valorem system).

To highlight this type of approach, Figure 4 outlines these two examples from South Africa and for passenger vehicles/light commercial vehicles in Cyprus.

Finally, building from the CO_2 emissions-based "surcharging" method, is an approach sometimes referred to as "fee-bates." According to the United Nations Environment Program (UNEP) "fee bates" are based on fiscal measures levying "fees" on inefficient vehicles and "rebates" on efficient vehicles based on a policy "pivot point." This determines the cross over between efficient and inefficient vehicles in terms of CO_2 emissions and fuel economy.[21] "Fee-bates" can be seen today in the EU, China and Canada and can be applied either as a form of subsidy to manufacturers or to initial (and annual) vehicle registration taxes. Where applied as forms of subsidies to manufacturers, the "fee" can also be considered a "negative rebate" with manufacturers required to contribute a tax or levy for inefficient vehicles produced.

However, while the "fee-bate" concept is not applied directly in an excise tax system (and in the case of China operates with the excise system), the principles could equally apply, and could be legitimately considered in excise tax design. "Target" or "standard" CO_2 emission levels can be set and then additional tax burdens can be added to those vehicles which exceed the standard CO_2 emission level. Conversely, the excise tax burden can be reduced for those vehicles that are below the standard emission level. The excise tax rate increases, linked to CO_2 emission levels that can be exponentially applied if so desired. Furthermore, excise rates can all reduce exponentially for lower emitting vehicles to further incentivize through the excise system. In such cases, effective excise rates increase significantly the higher the CO_2 emissions levels are, or decrease significantly the lower the CO_2 emissions are.

Figure 4: South Africa and Cyprus: emission based "surcharge"

South Africa	Cyprus (Passenger/Light Commercial)
Ad valorem excise according to engine displacement[22] Plus "Environmental levy" set at a specific rate per gram of CO2 exceeding: • 120 gm/km = R90 per gm of CO_2 emissions exceeding 120gm/km; and • 175 gm/km = R125 per gm of CO_2 emissions exceeding 175/km[23]	• For vehicles with carbon dioxide (CO^2) emissions (combined cycle) less or equal to 120 gm/km: "Zero": • For vehicles with carbon dioxide (CO^2) emissions (combined cycle) exceeding 120 gm/km but not exceeding 150 gm/km: €25 per gm/km of carbon dioxide (CO_2) emissions over 120 gm/km. • (For vehicles with carbon dioxide (CO_2) emissions (combined cycle) exceeding 150 gm/km but not exceeding 180 gm/km: €750 plus €50 per gm/km of carbon dioxide (CO_2) emissions over 150 gm/km • For vehicles with carbon dioxide (CO_2) emissions (combined cycle) exceeding 180 gm/km: €2250 plus €400 per gm/km of carbon dioxide (CO_2) emissions

The following case study illustrates "fee-bating" within a tax setting. The following examples include the registration tax in Denmark, and a bonus / penalty payment on new car sales in France. In effect, the approach impacts the retail price for new cars and therefore, consumer demand. The objective is to shift that demand towards lower emission (and fuel efficient) vehicles. As such, these case studies are not dissimilar to the effect of excise taxation, which is also widely used internationally to impact price and influence consumption.

Case Study: Use of Fee-Bates in the European Union

Denmark – *registration tax*

In addition to a (heavy) tax based on vehicle purchase price, a CO_2 based correction is applied.

Reductions in tax: For petrol-powered cars the registration tax is reduced by DKK 4,000 for every km that the car covers more than 16 km/liter fuel (equivalent to 145 g CO_2/km). For diesel-powered cars the registration tax is reduced by DKK 4,000 for every km that the car covers more than 18 km/liter fuel (equivalent to 147.2 g CO_2/km).

Increases in tax: For petrol-powered cars the registration tax is raised by DKK 1,000 for every km that the car covers less than 16 km/liter fuel. For diesel-powered cars the registration tax is raised by DKK 1,000 for every kilometer that the car covers less than 18 km/liter fuel.

France – *bonus payment/penalty tax on new car sales*

Pays buyers of new cars a "bonus" for low emission vehicles and applies a "penalty tax" on higher emission vehicles as follows:

Figure 2.5: "Fee Bate" examples

Class of vehicle	CO_2 Emissions (gm/km)	Rebate €"s
A+	Up to 60	5,000
A-	61-100	1,000
B	101-120	700
C+	121-130	200
C-	131-140	0
D	141-160	0
E+	161-165	-200
E-	166-200	-750
F	201-250	-1,600
G	>251	-2,600

In terms of using CO_2 emissions as a criterion for taxation, several issues arise. First, as we saw above, CO_2 emissions policy is set on a "fleet wide" average and not for individual models. This results in greater tax burdens falling on certain manufacturers depending on their product mix. The second issue is in regards to the process of certifying the CO_2 emissions of the vehicle itself. Certification is increasingly required for environmental purposes, consumer information purposes and now, increasingly, for tax purposes. This requires alignment and consistency between those agencies who oversee environmental policy, oversee manufacturing standards (i.e. issue vehicle type approval) and now those who oversee excise taxes. These issues are discussed more fully below.

3.2.7. Displacement (as a proxy for "all" policy objectives)

Engine displacement is the most common criteria to classify automobiles for excise duty purposes, and it is used to classify all imports of CBU, CKD and SKD vehicles. The primary benefit of this approach is that engine size can act as a proxy for many of the other negative externalities discussed above. If we look at these:

- *Energy policy.* Governments are increasingly conscious of the need to secure sufficient fuel reserves. This takes into consideration greater fuel efficiency in new vehicles, greater use of alternate fuels (particularly renewables), and greater investment in alternate fuel sources (such as electric vehicles). In conjunction with fuel use, it can be generally considered that there is a relationship between fuel use and displacement, with larger engine sizes generally consuming greater fuel. Thus larger engine sizes will be attracting higher effective excise rates.
- *Fuel Efficiency.*[24] One of the primary factors governing fuel efficiency is engine size. Manufacturers have been continually improving fuel efficiency, with initiatives such as new technology, new aerodynamic designs and weight reductions. Furthermore, the way a vehicle is driven contributes to fuel use. However, engine size remains a main factor. Thus again, larger engine sizes have generally attracted higher effective excise rates.
- *CO_2 emissions.* Again, manufacturers are continually improving emissions from new model vehicles. However, the level of CO_2 emissions still relate to the amount of fuel which is burned and the larger engines consume larger quantities of fuel. As with fuel efficiency, engine size has played a part

in seeing higher effective rates being applied to larger engine vehicles.

- On top of fuel efficiency and emissions, a further factor is that of "wear and tear" on public roads which itself often relates to the weight of the vehicle. Larger engine vehicles will likely carry more weight than vehicles with a smaller engine size.

There is a clear trend in the automotive industry to improve fuel efficiency and reduce emissions. There is also a correlation between more new vehicle models having smaller and more efficient engines.[25] Some vehicle types may retain a large overall body size given their primary purpose or demand in the market for larger vehicles. However, even such larger vehicles are increasingly utilizing smaller and more efficient engines.

The combination of the drive to improve fuel consumption, and reduce emissions, including through alternate fuels, has seen the emergence of new "sub-categories" appearing in industry (and in some cases excise and other taxes) terminology. We are seeing examples of these in the ASEAN region, including:

- "Eco Car" – Thailand
- "Electric Car" – Thailand, Vietnam
- "Energy Efficient Vehicle" – Malaysia
- "Low Cost Green Car" - Indonesia

The creation of these new sub-categories is generally linked to some form of favorable tax treatment (including excise), which in turn stimulates demand for these more environmentally-friendly vehicles. The categories are also being used outside of excise taxation and for other forms of tax and investment incentives, to attract the production of these new products locally.

Including some or all of these new sub-categories into an excise system risks adding to the complexity of the system through the need to add additional (and defined) items to existing taxable categories. Complexity will arise when a vehicle is manufactured (or planned to be manufactured) or imported and can fit into several possible excise tariff items – each likely to have different duty rates. In summary, excise tax policymakers need to be aware of the following risks:

- What criteria will be used to differentiate between a small car and an eco-car or other categories;
- How will those criteria be established;
- Whether all manufacturers and importers will be able to meet the criteria;
- How the criteria will be confirmed, including testing issues (see below); and
- What the "fall back" position will be if criteria are not met.

This *Manual* supports the use of an excise system to encourage the production of "greener cars" and continue the trend of smaller and more efficient engine technology. Keeping within the key principles of simplicity and equity, engine displacement remains a good proxy for an excise tax structure with rate adjustments and discounts for vehicles which meet certain policy priority criteria. This will be further discussed below as part of a standardized approach to automobile excise structure.

3.3. Fuel Efficiency and CO_2 Emissions Testing – Issues for excise classification

When a government decides to utilize CO_2 emissions (and/or possibly fuel efficiency) as either part of the classification criteria or setting of the effective excise rate, the measurement of CO_2 emissions and fuel efficiency then becomes a critical part of the excise system. A number of agencies may have an interest, and indeed regulations to administer, in relation to CO_2 emissions and fuel consumption. These types of interests may include:

- Being part of the certification process to issue a "vehicle type approval" which indicates that the vehicle has met the "standards" (also known as homologation);
- Production of a "label" to be affixed to new vehicles for consumers to note fuel efficiency and CO_2 emissions; and
- Determination of tax classification and tax payments.

In this context, it is important for the testing regime to be consistent and consistently applied against the following key principles:

- Be based on a widely accepted international set of standards;
- Not designed to "favor" a particular product, product type or manufacturer;
- Not designed to discriminate against imports and recognize the homologation processes of trading partners where applicable; and

- Be an efficient process to minimize the costs on industry.

The main issues around the testing process, and which cause some debate globally, can be summarized as follows:

- What test cycles (or simulated vehicle running patterns) are to be measured for CO_2 emissions and fuel efficiency (e.g., what combinations of urban stop/start, country cruising, idling, etc.) should be used in the cycle;
- What testing methodologies and processes are used (e.g. chassis dynamometer, tail pipe capture, start with cold engine, start with warm engine, etc.);
- What happens if national laboratories cannot conduct accurate testing. For example, should manufacturers specifications be used? Should automobile association data be used?; and
- Whether some testing requirements can be utilized to "favor" certain vehicles, and/or discriminate against others to the point of creating "non-tariff" trade barriers.

These questions have not been answered at a global level and no one true global standard for testing is in place. The UN Economic Commission for Europe (UN ECE) has for some time had a "working group" on developing a set of global standards of vehicle regulations, including CO_2 emissions and fuel efficiency (and its testing) to facilitate international trade in vehicles.[26] These regulations cover CBU, CKD and SKD categories.

Non-European nations may be signatories to the regulations, and at present some 58 countries have now "signed on," including Thailand and Malaysia from the ASEAN region. Furthermore, Japan and South Korea, both major auto manufacturing countries with trade agreements with ASEAN, have also signed on. The United States, Canada and China are major auto producing nations who are not signatories and operate their own developed test standards.

Given the broad international acceptance of the UN ECE's regulations, adoption of these standards is seen as moving towards "best practice" testing as opposed to trying to develop a coordinated testing regime between various agencies for national markets. *This chapter is not a technical document relating to CO_2 emissions and fuel efficiency test design, rather an automobile excise tax design resource.*

Ministries of Finance are unlikely to, and indeed should not, be involved in CO_2 emission and fuel efficiency testing design. Conversely, they should be advocating the relevant technical agencies to adopt internationally accepted best practices that are in line with best practice in tax design. These principles include equity, non-discrimination and ensuring minimal financial impact on industry / disruption to the economy. In short, excise tax policy in relation to certifying CO_2 emission levels for tax purposes should be linked to a widely accepted international standard as part of the classification process.

Therefore, for information for excise tax policymakers, below is a "high level" summary of the relevant UN ECE Regulations - 101 and 83.

UN ECE: CO_2 Emissions and Fuel Efficiency Testing

High Level Outline: CO_2 Emission Testing

Extracted from Regulation 101 and Regulation 83 of the UN ECE

Regulation 101

For internal combustion engines

- CO_2 emissions measured as grams per kilometers;
- Fuel consumption measured as liters per 100 kilometers (Natural gas meters cubed per 100 kilometers);
- Test as per Annex 6, which for CO_2 emissions will be per Type I Test of Annex 4 of Regulation 83.

Regulation 83

Type I Test

- Urban cycle (representing city driving) x 4
- Extra-urban cycle (representing non-city driving)
- Vehicles on dynamometer, emissions captured and measured
- Vehicle type approval granted by testing authority
- International standard identification of approval for UN ECE signatories

Type II – Type VI Tests (not applicable)

- Other emissions (i.e. not CO_2)

Conformity of Production (COP)

- Representative vehicle tested
- Minimum 3 more cars chosen at random to ensure conformity across vehicle type
- Can select more if sample cars outside a tolerance of emission levels and fuel consumption of representative vehicle

3.4. What are the optimal taxation approaches for structure and tax base?

3.4.1. Tax bases in automobile taxation

Automobile excise taxes are primarily levied on an ad valorem basis, and given the nature of the product, ad valorem taxes remain the most appropriate tax base for automotive products.

In relation to specific or unitary tax rates, there are no real or equitable tax bases to use:

- *Per car* would be quite regressive and not recognize the differentials in externalities from larger vehicles;
- *Per cylinder*, or *per cubic centimeter* does not recognize or incentivize any move towards technology which increases fuel efficiency and reduces emissions; and
- *Per gram/km of CO_2 emissions* would leave no revenue from certain vehicles with very low or zero emissions.

As such, ad valorem taxation is seen as the most appropriate. However, some discussion is required with respect to the appropriate taxable value (tax base). Generally excise taxes are levied on an ex-factory basis (or Cost + Insurance + Freight + Import duty for imports), and this is still seen as appropriate provided that certain areas are addressed in the taxable value.

These areas of discussion are the treatment of certain costs when establishing an "ex-factory" value and the confirmation of ex-factory values when the manufacturer sells to a related party distributor or retailer of the vehicle.

One source to start looking at the issues of "ex-factory" is that of Customs laws on valuation. Such law is comprehensive and backed by global agreements and conventions. These provide guidance on import valuations, including those between related parties. Customs law and conventions can provide guidance to revenue authorities and taxpayers where there values are not clear – offering several possible methods to deduce the value.[27] However, one principle is clear in customs law: no customs agency should assign an arbitrary value over imported goods. *This principle should carry over to excise valuation processes.*

3.4.2. What is "ex-factory?"

The Study Group in Phase II looked at this question and at the main issues that have arisen with its usage. The main concern was that "ex-factory" is a largely undefined term across the region and subject to wide interpretation and application.

The way in which the term "ex-factory" is interpreted in a business context is not dissimilar to way in which the WTO applies the term in international trade.[28] There are a number of important distinctions, some of which are very relevant to the automobile industry. Ex-factory means:

- The price of the goods when they leave the factory;
- No other costs are included past that delivery;
- Buyer is accepting responsibility and has ownership from the delivery; and
- Commercial invoice from the seller reflects the price at this point of delivery from the factory.

It is suggested that these four aspects form part of national procedures for setting out ex-factory valuation procedures. The exception to this, however, is non-arms length or related parted sales ex-factory. In this case, the revenue agency will always have concerns that the relationship between the manufacturing and distribution entities will have allowed for a shifting of certain costs to the distributors and a subsequent reduction of the excisable value (via a smaller ad valorem excise tax base).

3.4.3. Ex-factory sales to related parties

In the cases of a manufacturer selling vehicles to a wholly owned or related distribution company, it is important to confirm that the relationship between the manufacturer and distributor has not influenced the price. There are a number of factors the revenue agency can consider in conjunction with the manufacturer to help establish if the

price has been so influenced by the relationship, and again there is some guidance in customs valuation practices.

When applying customs valuation concepts to excise valuation and whether or not an ex-factory price to a related party has been influenced by the relationship, excise authorities can undertake the following considerations:

- The ex-factory price of the vehicle has been settled in a manner consistent with normal practices for pricing in the industry;
- The ex-factory price has been settled in a manner consistent with other customers of the manufacturer;
- The ex-factory prices is adequate to ensure recovery of all costs and includes a profit which is consistent with the manufacturers overall profit margins across all areas of its business for sales of vehicles; and/or
- Review of any evidence that the ex-factory price represents a fair market price in relation to sales of similar vehicles by similar manufacturing entities in similar markets which are not related party sales.

Where the revenue agency is still not satisfied with the excise valuation, there needs to be a process of reviewing commercial documentation in relation to cost builds and profit margins in conjunction with the manufacturer and a formal and binding "agreed valuation" reached. Where the excise law allows for private rulings or valuation advices, then the agreed value will be subject to this process and both the manufacturer and revenue agency are bound to that value. Where excise law does not provide for private rulings or valuation advices, then it is recommended that a "ruling" type process be established in procedures and that both the manufacturer and the revenue agency adhere to the "informal" findings of such rulings.

3.5. The "benchmark rate"

A principle of this Resource Manual is that all countries retain their sovereign right to set tax rates, while at the same time providing those countries with information on how best to define products, and structure an excise tax system.

When setting excise duty rates the first requirement is to determine a "benchmark" rate which will then represent the "starting point" for all excise rates on products. The benchmark rate is the rate that the government wishes to levy on automobiles. Where government policy is then to provide an exemption or preferential treatment to a particular product, excise rate exemptions or discounts are made to the benchmark rate to set a "policy effect rate" and are treated as "tax expenditures," in recognition that some revenue has been foregone by that policy. In short, the benchmark rate should be set first then discounts made to that rate for policy considerations such as smaller engine displacement, lower CO_2 emissions, and / or greater fuel efficiency, etc.

In terms of setting this benchmark rate for automobiles, it is generally seen that commercial vehicles will have lower excise rates than passenger vehicles, as this reflects the desire to reduce input costs for business. However, this will be a policy decision for each country and will require that commercial vehicles do not become substitutes for passenger vehicles so that excise duties are avoided.

Other considerations follow the priority objectives previously outlined in this Chapter, as with general internal tax policy considerations at the national level. For automobile excise taxation we saw these including (in no priority order):

- Raising of revenue;
- Reduction of CO_2 emissions;
- Increasing fuel efficiency;
- Development of technologies to reduce CO_2 emissions and increase fuel efficiency; and
- Attraction of investment including technology development.

3.6. Aligning categories, definitions, and policies for excise tax design

In this final part of the Chapter, the policy issue discussions above are bought together and captured in a table format. Table 2 represents a starting point in capturing a standardized automobile excise structure for policymakers to consider and applies to CBU, CKD and SKD products. The table represents:

- *Two product categories:* passenger and commercial vehicles, with associated differentiations via standard definitions;
- *Four product sub-categories* within the passenger vehicle category and six within the commercial vehicle category differentiated via standard definitions;
- Classification of individual vehicle models via engine displacement, aligned with HS codes (petrol displacement HS categories for passenger vehicles and diesel displacement HS categories for commercial vehicles);

- Excise duty based on an ad valorem rates applied on an ex-factory basis (for domestically produced vehicles) or CIF + Customs Duty basis (for imports);
- Benchmark rate expressed as "A%" with differential rates which decrease as engine displacement decreases (B, C and D%) for passenger vehicles;
- Benchmark rate expressed as "E%" with differential rates which decrease as engine displacement decreases (F, G and H%) for commercial vehicles; and
- Adjustments to excise duty rates to apply when one or more criteria are met as they relate to either CO_2 emissions, fuel consumption, or alternate fuel sources, including hybrid models utilizing two fuel sources.

Table 2 attempts not to propose standards in terms of categories, definitions and adjustments, but rather to keep the structure and design relatively "simple." While not intended to be a "recommendation" for any country's automobile excise tax system, it sets out a range of useful information. In terms of simplicity, the structure keeps away from creating new "designer" products (e.g., the eco car, the EEV, the LCGC, etc.). Instead, these types of products are classified by their specifications and local policies then set the adjusted rate.

For example, an "eco car" as defined in the Thai excise laws includes:

- Engine size less than 1300cc (<1400cc diesel);
- Minimum of 5 lt / per 100km; and
- CO_2 emissions less than 120 gm/km

In this case, any product falling into 1a1) or 1a2) and which met the adjustment criteria would be subject to the policy rate for "eco cars" as defined in Thailand.

Table 2: Possible Standard Automobile Excise Structure

Product Category	Product Sub-Category	Classification By displacement measured in cubic centimeters (cc)	Excise Duty Ex-Factory	Adjustments to Excise Duty Rates A, B, C & D
1. Passenger Motor Vehicles Motor cars and other motor vehicles principally designed for the carriage of persons (less than 10), including the driver	**1a. Passenger Cars** Road motor vehicle, other than a motor cycle, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver).	**1a1)** up to 1000 **1a2)** 1001 - 1500 **1a3)** 1501 - 3000 **1a4)** above 3000	D% C% B% A%	Discounts to policy rate • For CO_2 < gm/km meet local policy target And/or • For Fuel < target lt/100km Discount to policy rate: electric car Discount to policy rate: hybrid (2 fuel source)
	1b. Sports Utility Vehicles (SUV) Includes vehicles designed as off road vehicles with four wheel drive capability (or two wheel where other specifications of this definition are met), high ground clearance and a wagon body type, seating up to nine people (including the driver).	**1b1)** up to 1000 **1b2)** 1001 – 1500 **1b3)** 1501 - 3000 **1b4)** above 3000	D% C% B% A%	Discount to policy rate: for fuel cell
	1c. Passenger Pick Up Vehicles (PPV) Pick-up vehicles designed with an extended or dual cab for the carriage of no more than nine people (including the driver)	**1c1)** up to 1000 **1c2)** 1001 - 1500 **1c3)** 1501 - 3000 **1c4)** above 3000	D% C% B% A%	
	1d. Other	**1d1)** up to 1000 **1d2)** 1001 - 1500 **1d3)** 1501 - 3000 **1d4)** above 3000	D% C% B% A%	

Table 2: Possible Standard Automobile Excise Structure (continued)

Product Category	Product Sub-Category	Classification By displacement measured in cubic centimeters (cc)	Excise Duty Ex-Factory	Adjustments to Excise Duty Rates A, B, C & D
2. Commercial Motor Vehicles Motor vehicles principally designed for the carriage of goods, or persons (10 or more) including the drive, or special purposes.	**2a. Pick Up Vehicles** Any vehicle which contains both a passenger compartment designed for the carriage of less than four persons and open cargo bed for the carriage of goods	**2a1)** up to 1000 **2a2)** 1001 - 1500 **2a3)** 1501 - 3000 **2a4)** above 3000	H% G% F% E%	Discounts to policy rate • For CO_2 < gm/km meet local policy target And/or Discounts to policy rate • For Fuel < target lt/100km Discount to policy rate: electric car Discount to policy rate: hybrid (2 fuel source) Discount to policy rate: for fuel cell
	2b. Van Any vehicle with a closed cargo bay designed for carriage of goods with no more than two axles	**2b1)** up to 1000 **2b2)** 1001 – 1500 **2b3)** 1501 - 3000 **2b4)** above 3000	H% G% F% E%	
	2c. Bus A vehicle designed for the carriage of 10 or more persons, including the driver	**2c1)** up to 1000 **2c2)** 1001 - 1500 **2c3)** 1501 - 3000 **2c4)** above 3000	H% G% F% E%	
	2d. Truck A vehicle with a power unit and either a permanently fixed or detachable cargo carrying capability with two or more axles	**2d1)** up to 1000 **2d2)** 1001 - 1500 **2d3)** 1501 - 3000 **2d4)** above 3000	H% G% F% E%	
	2e. Truck Tractor A non-cargo carrying vehicle designed to tow trailers and other devices.	**2e1)** up to 1000 **2e2)** 1001 - 1500 **2e3)** 1501 - 3000 **2e4)** above 3000	H% G% F% E%	
	2f. Special Purpose Including vehicles with specific purposes such as fire-fighting, ambulances, spraying, concrete mixing, mounted cranes, etc.	**2f1)** up to 1000 **2f2)** 1001 - 1500 **2f3)** 1501 - 3000 **2f4)** above 3000	H% G% F% E%	Possible exemption for emergency vehicles and other priority policy category vehicles

Appendix 1. Globally Accepted CO_2 Emissions and Fuel Efficiency Testing

United Nations Economic Commission for Europe

Regulation 101

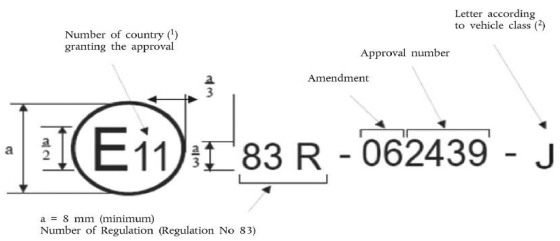
Uniform provisions concerning the approval of passenger cars powered by internal combustion engine only, or powered by a hybrid electric power train with regard to the measurement of the emission of carbon dioxide and fuel consumption and/or the measurement of electric energy consumption and electric range and of categories M1 and N1 vehicle powered by an electric power train only with regards to the measurement of electric energy consumption and electric range.

Regulation 83

Uniform provisions concerning the approval of vehicles with regards to the emissions of pollutants according to engine fuel requirements

Key Areas

- Paragraph 3 Reg 101 “Application for Approval”
  - Application for vehicle type approval submitted by manufacturer
  - Testing by an vehicle type approval “authority”
  - Full specification details, and representative vehicle submitted for testing
- Paragraph 4 Reg 101 “Approval” and Annex 3 Regulation 83
  - Where CO_2 emissions, fuel efficiency or electric usage measured per Paragraph 5, vehicles type approval granted
  - Vehicles to be marked with following “E” in a circle symbol with details of country, Regulation used, approval numbering and vehicle type



- Paragraph 5 Regulation 101 “Specification and Tests” and Annex 4A Regulation 83
  - CO_2 emissions expressed as grams per kilometer, fuel efficiency expressed as liters per 100 kilometers (or cubic meters per 100 kilometers)
  - Annex 6 testing as follows:
    - > Type I
    - > Part A – “Urban cycle” broken down into a number of phases
    - > Run for 195 seconds over a distance of 1.013 km - average speed 19 km/hour
    - > Run 4 times

Breakdown by phases:

	Time (s)	per cent	
Idling	60	30,8	35,4
Deceleration, clutch disengaged	9	4,6	
Gear-changing	8	4,1	
Accelerations	36	18,5	
Steady-speed periods	57	29,2	
Decelerations	25	12,8	
Total	195	100	

Breakdown by use of gears:

	Time (s)	per cent	
Idling	60	30,8	35,4
Deceleration, clutch disengaged	9	4,6	
Gear-changing	8	4,1	
First gear	24	12,3	
Second gear	53	27,2	
Third gear	41	21	
Total	195	100	

    - > Part B – Extra -urban cycle broken down into a number of phases
    - > Run for 400 seconds over a distance of 6.955 km - average speed 62.8 km/hour
    - > Maximum speed 120 km/h

Breakdown by phases:

	Time (s)	per cent
Idling	20	5
Deceleration, clutch disengaged	20	5
Gear-shift	6	1,5
Accelerations	103	25,8
Steady-speed periods	209	52,2
Decelerations	42	10,5
Total	195	100

Breakdown by use of gears:

	Time (s)	per cent
Idling	20	5
Deceleration, clutch disengaged	20	5
Gear-shift	6	1,5
First gear	5	1,3
Second gear	9	2,2
Third gear	8	2
Fourth gear	99	24,8
Fifth gear	233	58,2
Total	400	100

> Test vehicle requirements and test fuel requirements as follows:

3.2. Test vehicle

3.2.1. The vehicle shall be presented in good mechanical condition. It shall have been run-in and driven at least 3000 km before the test.

3.2.2. The exhaust device shall not exhibit any leak likely to reduce the quantity of gas collected, which quantity shall be that emerging from the engine.

3.2.3. The tightness of the intake system may be checked to ensure that carburation is not affected by an accidental intake of air.

3.2.4. The settings of the engine and of the vehicle's controls shall be those prescribed by the manufacturer. This requirement also applies, in particular, to the settings for idling (rotation speed and carbon monoxide content of the exhaust gases), for the cold start device and for the exhaust gas cleaning system.

3.2.5. The vehicle to be tested, or an equivalent vehicle, shall be fitted, if necessary, with a device to permit the measurement of the characteristic parameters necessary for chassis dynamometer setting, in conformity with paragrah 5 of this Annex.

3.2.6. The technical service responsible for the tests may verify that the vehicle's performance conforms to that stated by the manufcaturer, that it can be used for noaml driving and, more particularly, that it is capable of starting when cold and when hot.

3.3. Test fuel

3.3.1. The appropriate reference fuel has defined in Annex 10 to this Regulation shall be used for tecting.

3.3.2. Vehicles that are fuelled either with petrol or with LPG or NG/biomethane shall be tested according to Annex 12 with the appropriate reference fuel(s) as defined in Annex 10a.

3.4. Vehicle installation

3.4.1. The vehicle shall be approximately horizontal during the test so as to avoid any abnormal distribution of the fuel.

- Type II – Type VI Tests

Type II (carbon monoxide emission at idling speed);

Type III (emission of crankcase gases);

Type IV (evaporation emissions);

Type V (durability of anti-pollution devices);

Type VI (verifying the average low ambient temperature carbon monoxide and hyrocarbon exhaust emissions after a cold start;

- Conformity of Production (COP)

8.2. Checking the conformity of the vehicle for a Type I test

8.2.1. The Type I test shall be carried out on a vehicle of the same specification as described in the type approval certificate. When a Type I test is to be carried for a vehicle type approval that has one or several extensions, the Type I tests shall be carried out either on the vehicle described in the information package relating to the relevant extension.

8.2.2. After selection by the Approval Authority, the manufacturer shall not undertake any adjustment to the vehicles selected.

8.2.2.1. Three vehicles shall be selected at random in the series and tested as described in paragraph 5.3.1. of this Regulation. The deterioration factors shall be used in the same way. The limit values are set out in paragraph 5.3.1.4, Table 1.

8.2.2.2. If the Approval Authority is satisfied with the production standard deviation given by the manufacturer, the tests shall be carried out according to Appendix 1 of this Regulation. If the Approval Authority is not satisfied with the production standard deviation given by the manufacturer, the tests shall be carried out according to Appendix 2 of this Regulation.

8.2.2.3. The production of a series shall be deemed to conform or not to conform on the basis of a sampling test of the vehicles once a pass decision is reached for all the pollutants or a fail decision is reached for one pollutant, according to the test criteria applied in the appropriate appendix.

When a pass decision has been reached for one pollutant, that decision shall not be changed by any additional tests carried out to reach a decision for the other pollutants.

If no pass decision is reached for all the pollutants and no fail decision is reached for one pollutant, a test shall be carried out on another vehicle (see Figure 2).

Endnotes

[1]European Automobile Manufacturer's Association, 2013, p. 39 (adjusted for Australia and Taiwan).

[2]Cnossen (2005), p. 598.

[3]http://www.islington.gov.uk/services/parks-environment/sus_pollute/air_quality/Pages/Vehicle-air-pollution.aspx.

[4]Weisbrod, Vary and Treyz (2003), p. 3.

[5]For example: Thailand 12% (Board of Investment), Malaysia 3.2% (EXIM Bank), China and India 7% and globally approximately 3% (Jain, Padhi and Maloo (2003)).

[6]The Philippines valuation for excise is based upon a net selling price (of either the manufacturer or importer) under RA 9224.

[7]Including: World Customs Organization (WCO) Harmonized System (HS) notes Chapter 87; United States Code of Federal Regulations (CFR) 40 CFR chapter 1and 23 CFR Part 658.17; Australian Bureau of Statistics Catalogue 9314.0 "Sales of New Vehicles" January 2014; New South Wales Government (Australia) Categorization of Motor Vehicles - Definitions; and United Nations Economics Commission for Europe's "Classification and Definition of Motor Vehicles."

[8]For example, Thailand's rate differentials exist for vehicles less than 3000cc that run on ethanol, electric batteries, fuel cells, Natural Gas, and Hybrids as well as a category known as the "eco car." Vietnam applies a rate of 50% of headline rate for vehicles running on biofuels, a rate of 70% of the headline rate for Hybrids, and discounts for electric vehicles dependent on passenger capacity.

[9]For example, Thailand applies 10% excise for electric and fuel cell vehicles rather than the benchmark 50%. Vietnam applies rates between 10% and 25% for electric vehicles rather than the benchmark rates of between 45%-60%.

[10]"Vehicle Excise Duty," UK Driver and Vehicle Licensing Agency, 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/299797/V149__2014-15.pdf.

[11]http://www.whitehouse.gov/the-press-office/2012/08/28/obama-administration-finalizes-historic-545-mpg-fuel-efficiency-standard.

[12]Anderson, Parry, Sallee and Fischer (2010). "Automobile Fuel Economy Standards: Impacts, Efficiency, and Alternatives Resources for the Future," Washington, DC.

[13]"A New Tax System (Luxury Car Tax)," Commonwealth of Australia, 1999, Section 25.1.

[14]http://ec.europa.eu/clima/policies/transport/vehicles/cars/index_en.htm.

[15]"Malaysia National Automobile Policy (NAP) 2014."

[16]Customs & Excise Department, Republic of Cyprus, http://www.mof.gov.cy/mof/Customs/customs.nsf/l/56C4D9A3AB5A5B0AC2257488003A6B03?OpenDocument.

[17]Converted from grams per mile by multiplying by 0.625.

[18]Vehicle fleets means an average CO2 emission target across all makes and models of a manufacturer.

[19]http://www.theicct.org/info-tools/global-passenger-vehicle-standards.

[20]Excise is only applied to vehicles imported from outside the European Union, those imported from inside the European Union can claim excise duty relief (along with customs duty relief).

[21]http://www.sars.gov.za/AllDocs/LegalDoclib/SCEA1964/LAPD-LPrim-Tariff-2012-06%20-%20Schedule%20No%201%20Part%202B.pdf.

[22]http://www.sars.gov.za/AllDocs/LegalDoclib/SCEA1964/LAPD-LPrim-Tariff-2012-11%20-%20Schedule%20No%201%20Part%203D.pdf.

[23]Global Fuel Economy Initiative, United Nations Environment Protection (UNEP) agency, http://www.unep.org/transport/gfei/autotool/approaches/economic_instruments/fee_bate.asp.

[24]http://www.carfuelconsumption.com.

[25]"Global Automotive Executive Summary 2012," KPMG International; Tuttle (2010), "Size Matters: Now Automakers Brag About How Small Their Engines Are," TIME, http://business.time.com/2012/04/23/size-matters-now-automakers-brag-about-how-small-their-engines-are/; Tuttle (2011), "Why Small Economy Cars Make Economic Sense for Automakers," TIME, http://business.time.com/2011/07/22/why-small-economy-cars-make-economic-sense-for-automakers/.

[26]http://www.unece.org/trans/main/welcwp29.html.

[27]Article VII of the GATT, and WTO Customs Valuation Agreement.

[28]Adapted from UNCTAD training program on WTO antidumping procedures.

Chapter 4. Tobacco Products

SUMMARY OF KEY BEST PRACTICE

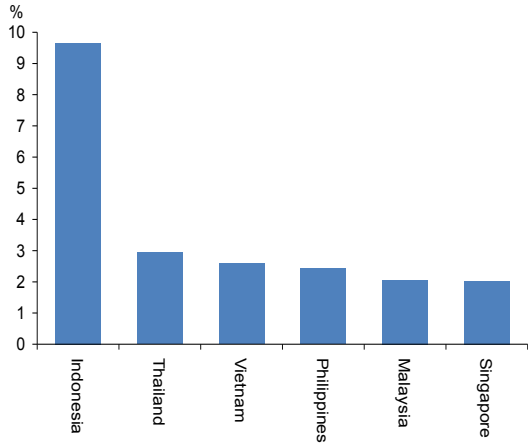
- It is critical that the tobacco excise tax policy of any country is set by its own government in the context of its economic and social circumstances, with its tax sovereignty fully respected.
- The standardization of product definitions for excise tax purposes across ASEAN would be advantageous not only in encouraging best practice tax administration but also in facilitating increased intra-regional trade within the AEC.
- The advantages of specific taxation over ad valorem taxation of tobacco products mean that best practice is for countries to move towards fully specific taxation over time.
- Single tier specific excise tax structures are preferred over multi-tier systems as they provide a level playing field for manufacturers and reduce complexities in tax administration.
- Excise incidence is not a good measure for comparing the weight or burden of taxes as there is no simple relationship between excise incidence and either the excise yield, Retail Selling Price (RSP) or affordability of cigarettes.
- The substantial differences in living standards across ASEAN are the critical reason why it would be wrong for there to be moves to harmonize excise tax rates for tobacco products.
- Governments are advised to balance their aims to raise revenue and reduce tobacco consumption with the potential that sharp reductions in the affordability of cigarettes may lead consumers to switch to non-tax paid, usually illicit, sources.
- A sound approach to creating policy stability is for fiscal authorities to adopt automatic indexation of tax levels, or to set out clear multi-year plans so that market participants have a degree of clarity on the future path of excise rates. Such stability avoids market disruptions that can undermine tax revenues.
- Because the application of earmarked taxes introduces a range of serious problems – including less scrutiny of expenditure, a loss of control of revenue and spending priorities by Ministries of Finance and Parliamentary Budget Committees, and rigidity in the budget process – good tax practice would be to phase out earmarked taxes in favor of the imposition of a general excise duty.

4.1. Introduction

Governments typically have two main objectives in setting their tobacco excise tax policy:

1. *To generate revenues for the government budget.* This is particularly important for a number of ASEAN member states. As Chart 1 shows, excise duty on tobacco products ranges from nearly 10% of total government tax revenues in Indonesia to around 2% in Singapore and Malaysia.
2. *To reduce tobacco consumption on health grounds.* Many governments have strategies to reduce tobacco consumption, of which tax policy is one component, along with other tobacco control regulation and enforcement measures, and public education.

Chart 1: Government tobacco excise revenues as a % of total tax revenues in 2012-13



Source: See Footnote 1

Some governments may also have additional objectives, such as:

- *Supporting the agriculture and retail sectors, and the tobacco supply chain*, where these sectors are important generators of revenue and jobs – an issue particularly important in some developing countries;
- *Encouraging investment and employment in manufacturing and distribution activities* – again, particularly important in some developing countries; and
- *Supporting traditional industries in certain countries,* where the manufacturing of particular forms of tobacco is highly labor intensive and produced locally (e.g. hand-made "kretek" cigarettes in Indonesia).

But whatever the precise objectives are of policymakers, it is critical that the tobacco excise tax policy of any country is set by its own government in the context of its economic and social circumstances, with its tax sovereignty fully respected. A number of factors may influence what represents optimal tobacco tax for a country, including the tax and price levels in neighboring countries and the associated risk that illicit trade could destabilize markets and undermine government revenue. Nevertheless, as emphasized in Chapter 1, the principle of tax sovereignty must underpin any discussion of excise tax policy reform, even in the context of the creation of a single market such as the AEC. ASEAN member states all retain full tax sovereignty within the AEC.

The importance of tax sovereignty in the determination of tobacco excise policy has also been included in the World Health Organization's Framework Convention on Tobacco Control (FCTC). Article 6 (price and tax measures to reduce the demand for tobacco) explicitly states: ***"Without prejudice to the sovereign right of the Parties to determine and establish their taxation policies,*** *each Party should take account of its national health objectives concerning tobacco control."*

So, while there are some aspects of excise taxation for tobacco that would benefit from standardization across ASEAN, the diversity of the economic and social circumstances of the region's member states means that a *"one size fits all"* approach to tobacco tax policy would be inappropriate, and the rights of sovereign governments to determine their own tax policy must not be compromised.

Moreover, as explained in Section 1, the maintenance of border controls within the AEC avoids the need for alignment of excise tax levels between member states. To recap, while the AEC Blueprint states that there will be the creation of a single market with the free flow of goods, this does not mean that there will be unrestricted movements across intra-regional borders either of ASEAN-origin goods or of imported goods that have fully cleared through Customs in a member state. Full border controls will remain in place between member states. As a result, individual countries can, for example, maintain and enforce limits on the volumes of duty-paid goods that travelers can bring into their country ("personal allowance limits," ranging from zero to 400 cigarettes in ASEAN[2]), restricting the potential for tax differentials between ASEAN countries to lead to large-scale cross-border purchasing by consumers which could otherwise distort tax collections. Moreover, the destination principle of taxation will continue to be applied, whereby excise tax revenue is retained by the country in which the taxed product is purchased by consumers, irrespective of whether it is manufactured domestically or imported. There fore, there should an not be excise tax competition among ASEAN members.

In addition, as also described in Section 1, the creation of the AEC will not have a significant impact on intra-ASEAN import duties on cigarettes, as these have already been reduced to zero or a maximum of 5% for all ASEAN member countries, with the exception of Vietnam.[3]

So, comprehensive tobacco excise duty reform is not needed to protect market stability or government revenues from sudden "major inflows" of cheap imported cigarettes from elsewhere in ASEAN.

The creation of the AEC therefore does not require moves towards tobacco excise tax harmonization across ASEAN. Rather, the AEC should be seen as an opportunity for ASEAN member states to move increasingly towards international best practice in excise tax policy. But such moves should be carefully judged and assessed by policymakers in each member state.

Against this background, there are four crucial elements that will contribute to the successful design and reform of tobacco excise tax regimes in ASEAN:

- Clear and precise definition of tobacco product categories;
- Establishment of an excise tax base and structure that supports stable and predictable revenues from sudden major inflows;
- Setting excise tax rates to meet government

objectives without encouraging illicit trade; and

- Ensuring an efficient and effective tax administration.

We look at the first three of these elements in detail in this chapter. Tax administration is addressed more fully in Chapter 7.

4.2. Determining and defining the products, tax base and structure

4.2.1. Identifying and defining tobacco products and product categories

In ASEAN and across the world, machine-made cigarettes are the most popular tobacco product. However, there are many different types of tobacco products that consumers buy, depending on their preferences, with the popularity of specific types of tobacco product varying considerably across markets and consumer groups.[4]

One way of categorizing tobacco products is into those that are smoked and those that are smokeless. In addition to cigarettes, smoking tobacco products include bidis, cheroots, cigars, cigarillos, tobacco for roll-your-own (RYO) cigarettes, pipe tobacco, and products such as kreteks where tobacco is mixed with cloves. Smokeless tobacco products include chewing tobacco, such as betel quid with tobacco, and snuff.

Governments often apply different tax rates to different tobacco products to achieve certain policy objectives. Clear product definitions are therefore required to determine the appropriate tax rate to be applied to a particular product and to avoid tax loopholes.

Moreover, these definitions need regular review and updating in response to product innovation by manufacturers, including where that is driven by differences in tax rates between products which may be close substitutes. This occurred, for example, in the European Union until 2011, where in recognition of their higher production costs, cigars and cigarillos bore a significantly lower rate of tax than cigarettes. This created an incentive for manufacturers to develop an alternative product – the filter cigarillo – that met the legal definition of cigars and cigarillos in the tax code and was subject to a lower rate of tax, but which consumers accepted as a more cost-effective substitute to traditional cigarettes. To close this tax loophole, a very detailed revision to the definition of cigars and cigarillos had to be introduced. As the above example illustrates, it is important that all tobacco products are clearly defined and policymakers must carefully assess whether it is appropriate to apply different excise tax levels on different tax products given that large tax differentials provide an incentive for the development of loophole products.

The standardization of such product definitions for excise tax purposes across ASEAN would be advantageous not only in encouraging best practice tax administration throughout the region, but also in facilitating increased intra-regional trade within the AEC. Differences in definitions complicate trade across borders if products manufactured in one country to meet with the specifications set in domestic product and tax legislation may not meet the specifications used by potential trading partners, undermining the economic benefits that could be generated by increased trade and the creation of a single market and production base across the AEC. Such an approach could be seen as "building upon" the standardization progress achieved in intra-regional trade through the ASEAN Harmonized Tariff Nomenclature (AHTN).

Faced with a similar challenge of standardizing the definitions of different tobacco products for excise tax purposes, the EU has four mandatory categories for manufactured tobacco which is smoked: cigarettes, cigars and cigarillos, fine cut tobacco and other smoking tobacco (Table 1). This forms the basis for a harmonized approach to product definitions, and may be a useful template for ASEAN member states to adapt – albeit such a set of definitions needs to take into account the particular features of the region's tobacco market, such as the importance of kretek (clove) cigarettes in Indonesia, the distinction between different roll-your-own categories in Thailand[5], or the consumption of cheroots and betel quid with tobacco in Myanmar.

Another useful template could be the one used in the United States, where Federal law (section 5702(c) of Title 26 of the United States Code) defines tobacco products as cigars, cigarettes, smokeless tobacco, pipe tobacco and roll-your-own tobacco. Smokeless tobacco means any snuff or chewing tobacco. The tobacco product definitions it uses are shown in Table 2.

Table 1: Definitions of manufactured tobacco used in the European Union

Product	Definition
Cigarettes	(a) rolls of tobacco capable of being smoked as they are and which are not cigars or cigarillos; (b) rolls of tobacco which, by simple non-industrial handling, are inserted into cigarette-paper tubes; (c) rolls of tobacco which, by simple non-industrial handling, are wrapped in cigarette paper.
Cigars and cigarillos	(a) rolls of tobacco with an outer wrapper of natural tobacco; (b) rolls of tobacco with a threshed blend filler and with an outer wrapper of the normal color of a cigar, of reconstituted tobacco, covering the product in full, including, where appropriate, the filter but not, in the case of tipped cigars, the tip, where the unit weight, not including filter or mouthpiece, is not less than 2.3 g and not more than 10 g, and the circumference over at least one third of the length is not less than 34 mm.
Smoking tobacco	(a) tobacco which has been cut or otherwise split, twisted or pressed into blocks and is capable of being smoked without further industrial processing; (b) tobacco refuse put up for retail sale which does not fall under Article 3 and Article 4(1) and which can be smoked. For the purpose of this Article, tobacco refuse shall be deemed to be remnants of tobacco leaves and by-products obtained from tobacco processing or the manufacture of tobacco products.
Of which: fine cut	(a) Smoking tobacco in which more than 25% by weight of the tobacco particles have a cut width of less than 1.5 millimeter shall be deemed to be fine-cut tobacco for the rolling of cigarettes. (b) Member States may also deem smoking tobacco in which more than 25% by weight of the tobacco particles have a cut width of 1.5 millimeter or more and which was sold or intended to be sold for the rolling of cigarettes to be finecut tobacco for the rolling of cigarettes.
Of which: other smoking tobacco	All smoking tobacco falling outside the definition of fine cut.

Source: European Council Directive 2011/64/EU

Table 2: Tobacco product definitions used in the United States of America

Product	Definition
Cigarettes	"Cigarette" means - (1) any roll of tobacco wrapped in paper or in any substance not containing tobacco, and (2) any roll of tobacco wrapped in any substance containing tobacco which, because of its appearance, the type of tobacco used in the filler, or its packaging and labeling, is likely to be offered to, or purchased by, consumers as a cigarette described in paragraph (1).
Cigars	"Cigar" means any roll of tobacco wrapped in leaf tobacco or in any substance containing tobacco (other than any roll of tobacco which is a cigarette).
Roll-your-own tobacco	The term "roll-your-own tobacco" means any tobacco which, because of its appearance, type, packaging, or labeling, is suitable for use and likely to be offered to, or purchased by, consumers as tobacco for making cigarettes or cigars, or for use as wrappers thereof.
Pipe tobacco	The term "pipe tobacco" means any tobacco which, because of its appearance, type, packaging, or labeling, is suitable for use and likely to be offered to, or purchased by, consumers as tobacco to be smoked in a pipe.
Smokeless tobacco	(1) Smokeless tobacco: The term "smokeless tobacco" means any snuff or chewing tobacco. (2) Snuff: The term "snuff" means any finely cut, ground, or powdered tobacco that is not intended to be smoked. (3) Chewing tobacco: The term "chewing tobacco" means any leaf tobacco that is not intended to be smoked.

Source: Section 5702(c) of Title 26 of the United States Code

4.2.2. Identifying and defining the excise tax base and structure

ASEAN member states currently adopt a wide variety of approaches to levying excise taxation on tobacco products, as summarized for cigarettes in Table 3 (at the end of the this section). The base for the taxation of cigarettes varies significantly:

- In Singapore and Brunei, there is a pure specific excise tax system, in which excise tax is charged at a single rate per 1,000 cigarettes;
- Indonesia and the Philippines also have a specific tax system but with different excise tax tiers. In the case of the Philippines, cigarettes are now classified into two tax tiers depending on Net Retail Price (NRP). In Indonesia, which has the most complex system in ASEAN and among the most complex systems globally, there are multiple tiers depending on whether cigarettes are hand-rolled kreteks, machine-made kreteks or conventional "white" cigarettes, and then further sub-categories depending on production volume and price;
- Cambodia, Myanmar, and Vietnam have an ad valorem excise tax system based on CIF or net ex-factory prices (NEFP);
- Malaysia has a mixed specific/ad valorem system (with the specific component representing approximately 95% of total excise);
- Thailand has a system where the tax applicable is based on the higher of an ad valorem or specific rate (de-facto an ad valorem system with a minimum excise tax); and
- Lao PDR has an ad valorem system for domestic cigarettes and a specific system for imports.

In addition, as well as VAT/GST or sales tax, some countries apply other special taxes on cigarettes, such as the Provincial Tax, Health Tax and TV tax in Thailand; the Public Lighting Tax in Cambodia; the Regional Tax in Indonesia; and the National Fund for Tobacco Harm Prevention and Control in Vietnam.

The choice of the tax structure for tobacco excise taxes (i.e., whether it is specific, ad valorem or a mixed system) is one aspect of policy that should be determined according to individual country circumstances, under the principle of tax sovereignty. However, there are important differences between specific and ad valorem taxation which should be taken into account in setting tobacco tax policy. Specific taxation relates to the amount of tax due to a physical measure of tobacco product purchased, for example, a monetary amount per cigarette (unit-based) or weight of the tobacco (weight-based). For unit-based specific systems, it is obviously important to properly define what constitutes a unit.

Key attributes of a specific tobacco taxation structure are that:

- It is simple in terms of definition, calculation, ease of collection and administration, as the quantity of cigarettes or weight of tobacco is easier to measure and monitor than its cash value;
- The stream of tax revenue is relatively predictable and stable because it only depends on the volume of goods being sold in the market – in the case of a single tier specific system, changes in the relative positioning of different brands do not influence the total excise revenue (although it will still affect revenues from VAT/GST/sales tax);
- The net yield of tax revenues tends to be higher as its simplicity of administration reduces collection costs relative to ad valorem taxes;
- If policymakers want to use excise tax to reduce consumption, specific tax is appropriate as it is directly related to the volume of consumption. Moreover, in this regard, it is appropriate that all cigarettes should be taxed equally since cheaper cigarettes are no less harmful than more expensive ones; and
- The excise yield can be easily indexed to the rate of consumer price inflation to ensure that the real value of the tax is maintained.

Ad valorem taxation, in contrast, is levied according to the value of a product sold. Under such a regime:

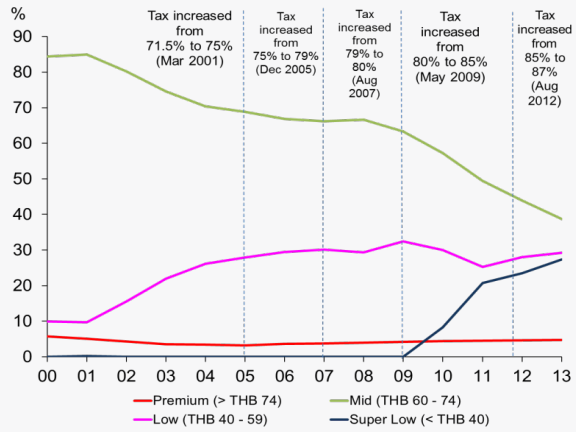
- The impact of the tax itself on the price of the product, and the shifts in consumption among tobacco products this might encourage, make the tax yield from ad valorem tobacco taxation more difficult to predict than in the case of specific taxes;
- Revenue is highly dependent on consumer brand preferences. When consumers switch to lower priced brands that generate less tax revenue, collections may decline. Similarly, if consumers react to tax driven price increases by switching to lower taxed brands, collections may undershoot the revenue target of the tax increase (see Box 1 for an example of these problems in Thailand, where tax increases under its ad valorem system led to a widening of price gaps which exacerbated the switching to lower priced brands);
- It creates incentives for changed behavior by tobacco companies. The tobacco producer effectively sets the base value on which the ad valorem tax is calculated, increasing the incentive for individual producers to lower costs and quality in order to reduce prices in an effort to gain market share. Potentially, this could result in price wars that lower overall tax revenues and erode the disincentive effect of taxation on consumption;
- Costs of collection of ad valorem taxes on tobacco products tend to be higher than for specific excise duties. The complexity of ad valorem systems is greater, requiring bureaucratic monitoring and audit of pre-tax and/or selling prices, as well as volumes sold. These costs, and the scope to manipulate pre-tax prices as explained below, tend to reduce the net yield from the tobacco tax;
- Ad valorem taxation does not necessarily provide an automatic adjustment to maintain the real value of the excise yield for generalized consumer price inflation. Prices charged to the consumer may rise or fall in lockstep with changes in manufacturers' prices, but there is likely to be only a limited degree of correlation between producer prices for tobacco products and prices of a wide basket of consumer products; and
- Ad valorem taxes can be vulnerable to manipulation leading to tax avoidance. In particular, there can be "under-valuation" by manufacturers when the NEFP, rather than the RSP, is applied as the tax base. This can lead companies to set up dual entity structures, with the manufacturing unit selling at an artificially low NEFP to a related distribution/marketing company in order to evade tax. Similarly, where excise tax is levied on the wholesale price, multiple layers in the distribution channels can lead to ambiguities and conflicts in determining the base price for taxation.

This comparison of the attributes of specific and ad valorem tax structures clearly demonstrates why best practice is for countries to move towards a full specific single tier taxation over time – especially its relative administrative simplicity and the associated stability and predictability of revenues it supports. However, it is important that such moves reflect market realities (e.g., the influencing factor of state owned or controlled enterprises) and it may therefore not be practical or feasible for an individual country to move rapidly from an ad valorem to a specific tobacco tax regime or from a multi-tier to a single tier specific system. A first step that reduces the incentive for value manipulation by producers is to move from an ad valorem system based on NEFP to one based on RSP. This allows for more transparency in the verification of the tax base, although there may be challenges with a RSP-based system in some ASEAN countries where the effective control of prices at the retail level is problematic.

Best practice - whether the taxation regime is ad valorem or specific - involves avoiding excessive tax differentials between different tobacco products. Clearly, in the context of creating the AEC, excise tax systems should not discriminate between domestic products and goods imported from the rest of ASEAN. In addition:

Box 1: Changes in excise taxes lead to product switching in Thailand

Chart 2: Market share of various price segments of the cigarette market in Thailand



Source: Public data and Nielsen, Dec 2013

Excise tax increases on cigarettes can drive consumption patterns, which under ad valorem taxation, can impact tax revenues. In Thailand in 2001, the excise tax gap between low-priced and high-priced cigarettes was Thai baht 6.6 per pack. But following several tax increases over 12 years, this gap widened to Thai baht 21.1 per pack. The tax rises were passed through to prices. As a consequence, the market share of cigarettes "super low" and "low-priced" categories grew from around 10% in 2001 to around 57% by 2013 (Chart 2). This was at the expense of the medium-priced segment, which saw its share fall from around 85% to 39% in 2013.

Table 3: Excise and other taxes levied on cigarettes in ASEAN member countries in July 2014

Market	System	Rate
Brunei	Single tier specific	BND 250/"000
Cambodia	CIF or NEFP based Ad-Valorem	Import @ 10% (65% of retail price less VAT)
Indonesia	Specific rate based on Cigarette Category, Production Volume and Price Tier	Please see Table 6
Lao PDR	NEFP based ad valorem excise tax for domestic products and specific (import) duty rate for imports	Domestic products: 15% or 30% NEFP (An excise rate of 60% is sanctioned by law but with the existence of a 25 year investment licensing agreement with the tobacco industry, the AVT rate 15% or 30% is applied). Imported products: import duty functions as excise
Malaysia	Single rate unit specific + CIF or NEFP based ad-valorem	[Imports] MYR 250/"000 + 20% of (Customs value + import duty)
		[Local Manufactured] MYR 250/000 + 20% of (NEFP –security ink exemption)
Myanmar	Net ex-factory based Ad-Valorem	5-10% on (CIF import duty) of imported input material 100% NEFP on cigarettes
Philippines	Price-based Specific rate	Net Retail Price (PHP/pk)* > PHP 11.50 : Tax = PHP 27.00 < or = PHP 11.50: Tax = PHP 17.00
Singapore	Single tier specific rate	SGD 388/000
Thailand	NEFP/CIF based Ad-Valorem (%) or Specific (THB/gram) whichever is greater	Announced rates: Ad- Valorem 87%; Specific THB 1/gram Effective ad- Valorem Calculation: NEFP or (CIF + Import Duty) x [87% / (100% - 87%)] De-facto minimum excise tax of THB 16.85/pack
Vietnam	NEFP/CIF based Ad-valorem	65% of NEFP

Source: Ministries of Finance, customs authorities, and Asia-Pacific Tax Forum ASEAN Excise Tax Study Group "Discussion Paper," August 2013

**Philippines: Net retail price shall mean the price at which the cigarette is sold on retail in at least five (5) major supermarkets in Metro Manila (for brands of cigarettes marked nationally), excluding the amount intended to cover the applicable excise tax and excluding the amount intended to cover the applicable excise tax and the value-added tax. [Section 5(c) of Republic Act No.10351].*

Table 3: Excise and other taxes levied on cigarettes in ASEAN member countries in July 2014

Taxable Event	Import duty rate	Nominal VAT/ GST	Other taxes
Upon importation	0%	---	---
Import – upon clearance Local – ex-factory	5%	10% VAT	Public Lighting Tax = 3% (retail price less VAT)
At the point of tax stamp order placement	0%	8.4% VAT on Banderole price	Regional Tax which is 10% of excise tax rate
Upon ordering tax stamp prior to importation	5%	---	[Imports] Sales Tax = 5% x (CIF+ excise duty + Customs value)
Upon release from bonded warehouse			[Local manufactured] Sales Tax = 5% x (NEFP + excise duty – security ink exemption)
Local – ex-factory	5% (however, de facto import ban under import licensing regime)		Commercial tax of 5% invoice price at each trading level: (distributors, wholesalers, retailers)
Upon cigarette withdrawal from the factory	0%	VAT 12.0%	---
Upon release from bonded warehouse	0%	GST 7.0%	---
Upon release from Customs port/ bonded warehouse to the duty-paid warehouse	0%	VAT 7.0%	Provincial Tax = THB 1.86 per pack (except in Bangkok) Health Tax = 2% of Excise tax paid TV Tax = 1.5% of Excise tax paid
Issuance of invoice	Placed on General Exclusion list	VAT 10% of wholesaler price	National fund for Tobacco Harm Prevention and Control = 1% of net ex-factory price

- Specific structures with multiple tax tiers should be phased out. These have many of the characteristics of an ad valorem system and few of the advantages of a pure specific system.
- Other Tobacco Products (OTP) should be subject to meaningful levels of taxation, to avoid incentives for consumers to trade down to OTP simply to avoid tax. This is a particular issue in Thailand, where it is estimated that RYO consumers account for almost half of the total number of smokers.[6]

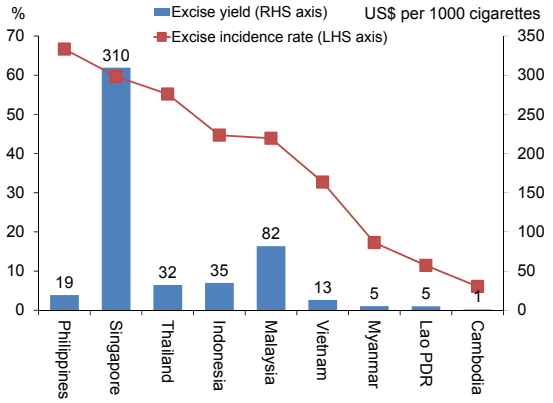
But here, too, there are constraints on how quickly or easily policy can shift. Even in advanced economies, there are still significant differences in tax rates on different tobacco products. For example, a rapid move to bring the minimal level of taxation on RYO in Thailand into line with cigarettes would likely lead to a sharp rise in illicit trade. A more pragmatic approach would be to seek to narrow tax differentials gradually.

4.3. What is the optimal taxation approach to tobacco tax rates?

There are considerable differences in tax rates on tobacco products across ASEAN member states. For example, as Chart 3 shows, using the most sold brand[7] of cigarettes in each country as a comparable benchmark across countries, excise tax yields (i.e., the absolute amount of tax levied in cash terms) ranges from only US$1 per thousand sticks in Cambodia to US$310 per thousand in Singapore. The median[8] excise yield across ASEAN is US$19 per thousand sticks, implying that for half of the member states, the excise yield is less than 7% of that in Singapore.

There is also considerable variation in excise incidence rates (i.e., excise tax as a percentage of RSP) across ASEAN. As Chart 3 also shows, using the most sold brand in each country as a benchmark, it ranges from 6% in Cambodia to 67% in the Philippines, with a median of 45%. There is a similar wide range in total tax incidence, taking into account VAT/GST/Sales tax and other special taxes as well as excise – from 17% in Cambodia to 77% in the Philippines.

Chart 3: Excise tax incidence and excise yield on most sold brand of cigarettes in each country in July 2014[(a)]

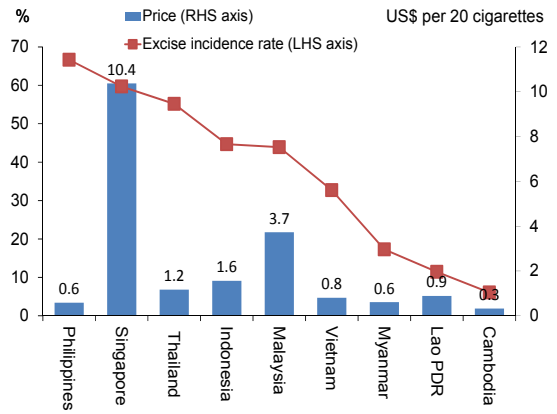


Source: Oxford Economics calculation based on industry and public data
(a) Indonesia, Lao PDR, Thailand and Vietnam include earmarked taxes.

Chart 3 also shows that there is no simple relationship between excise yield and the excise incidence rate on cigarettes. So, for example, the excise incidence rate in the Philippines is the highest, but its excise yield is only 6% of that of Singapore and lower than that of Indonesia, Malaysia and Thailand.

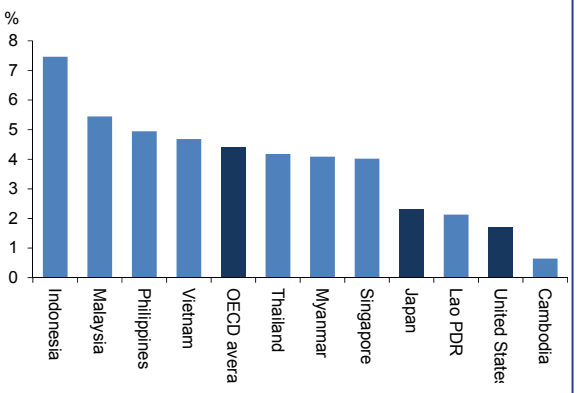
It is therefore important for policymakers to be very careful when making comparisons of tobacco excise tax rates across ASEAN. As is clear from Chart 3, excise incidence is not a good measure for comparing the weight or burden of taxes. Similarly, as Chart 4 shows, there is no simple relationship between excise incidence and RSP for cigarettes. Other metrics should therefore be used when benchmarking tax rates in one country with those elsewhere in ASEAN or internationally.

Chart 4: Relationship between excise tax incidence and retail price of the most sold brand of cigarettes in each country in July 2014



Source: Oxford Economics calculations based on industry and public data

Chart 5: Excise tax on a packet of 20 cigarettes of the most sold brand in each country in July 2014 as a share of GDP per capita per day



Source: Oxford Economics calculations based on industry data and national statistical data for GDP and population

In particular, it is important to take into account differences in levels of economic development and living standards across countries when comparing excise tax regimes. These differ widely between ASEAN members, as addressed in Chapter 1. For illustration, GDP per capita ranged from only US$39 in Myanmar in 2013 to US$56,000 in Singapore.

Chart 5 compares excise tax yields on the most sold brand of cigarettes relative to GDP per capita per day across ASEAN. It shows that, once differences in living standards are taken into account, the weight of cigarette excise tax in Indonesia, Malaysia, the Philippines and Vietnam is actually higher than in Singapore, even though absolute excise yields are much lower. And the weight of cigarette excise tax measured relative to living standards is very similar in Thailand and Myanmar to that in Singapore. Excise taxes on cigarettes relative to GDP per capita per day are higher in four ASEAN states than the average across OECD countries and at similar levels in another three ASEAN states. In most of ASEAN, excise taxes on cigarettes relative to GDP per capita per day are much higher than in Japan and the United States.

The substantial differences in living standards across ASEAN are the critical reason why moves to harmonize excise tax rates for tobacco products should be avoided. Such harmonization would require very substantial tax increases in the low income member states, which would make cigarettes very unaffordable and therefore encourage a sharp increase in illicit trade. In order to get to real harmonization, it would also require a cap on excise rates in richer economies, which is unrealistic as it would not be consistent with their objectives to discourage consumption and would be incompatible with their revenue objectives.

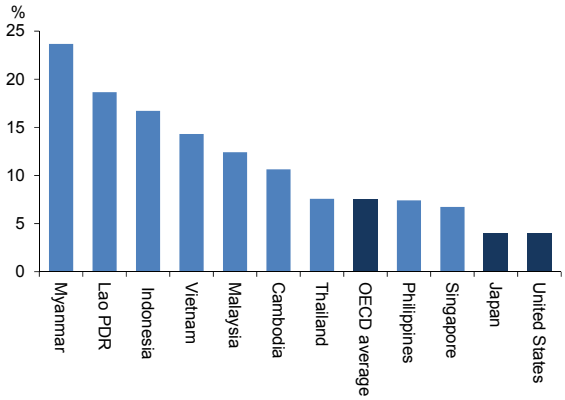
There are, however, five common principles that all ASEAN member states can follow in considering the appropriate level of tobacco tax rates in the context of the AEC that would help bring consistency to the excise policy process and encourage moves towards best practice across the region.

4.3.1. Affordability

Affordability is defined as the cost of cigarettes or other tobacco products relative to consumers' ability to pay. It can be measured in a number of different ways. Probably the two most frequently presented statistics are the average number of minutes of labor required to earn the income to purchase a packet of cigarettes, and the percentage of per capita income required to purchase a packet of cigarettes. GDP per head is not considered as good a measure of income as the level of personal disposable income (PDI) per capita across ASEAN, but data are not available on that basis for all countries and therefore are not shown here.

The affordability of cigarettes and other tobacco products - like tax rates - varies markedly across ASEAN members. As Chart 6 shows, using the most sold brand in each country as a benchmark, cigarettes are currently least affordable in Myanmar, where 24% of per capita GDP per day is required to buy a packet of 20 cigarettes in 2014. This is three and a half times the proportion of income needed on average in Singapore. It is particularly striking that, despite having by far the highest excise yield on cigarettes in ASEAN, cigarettes are relatively more affordable in Singapore than in other member states. Cigarettes are less affordable in most ASEAN states than they are on average across OECD countries. Moreover, cigarettes are significantly less affordable in all ASEAN states than in the United States and Japan.

Chart 6: Price of a packet of 20 cigarettes of the most sold brand in each country in July 2014 relative to GDP per capita per day



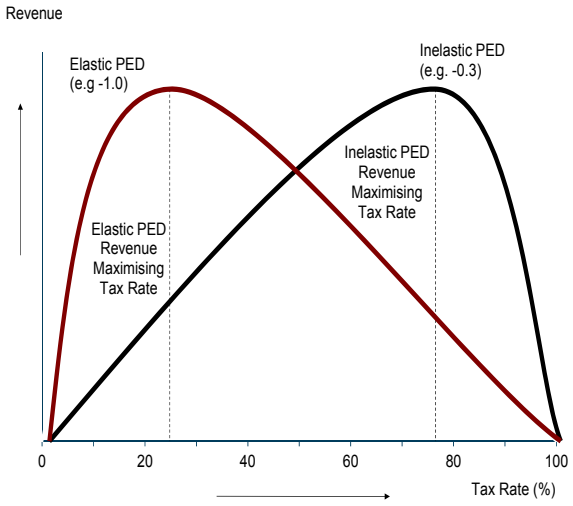
Source: Oxford Economics calculations based on industry data and national statistical data for GDP and population

Chart 6 illustrates that the countries in ASEAN with relatively low tax rates are often those which have the least affordable cigarettes, because they are the countries with the lowest income levels. Given that cigarettes in these countries are already relatively unaffordable, policymakers should be cautious about pushing excise tax rates up sharply given the risk that marked changes in affordability will encourage consumers to switch to illicit sources of consumption.

Governments therefore have to balance their aims to raise revenue and reduce tobacco consumption with the potential that reductions in the affordability of cigarettes may lead consumers to switch to non-tax paid, usually illicit sources. It is this trade-off that underpins the well-known Laffer curve.

The Laffer curve traces the relationship between tax rates and government revenues. It suggests initially as excise tax rates on tobacco rise, the government will see an increase in revenues even though consumption volumes will decline. But, if tax rates rise too far, this generates a sufficiently large fall in duty-paid consumption – in particular, as consumers switch to lower taxed or illicit product – causing tax revenues to actually decline. Box 2 illustrates the experience of the Laffer curve in Singapore.

Chart 7: Laffer curves for different price elasticities of demand



Source: Oxford Economics

Laffer curve theory demonstrates that the revenue-maximizing tax rate for cigarettes will be a function of a number of interrelated factors, including the average income of the population, the number of close substitutes available, the tax rates levied on other tobacco products and illicit trade. The interactions of these factors are captured by the responsiveness of consumers to price changes, measured by the price elasticity of demand for the product. The more sensitive (or elastic) demand is to price, the lower the revenue-maximizing tax rate will be, and vice versa. The optimal tax rate for a product with an elastic demand (-1.0) is considerably lower than that for a good with inelastic demand (-0.3). The presence of illicit substitutes for legitimate cigarettes greatly increases the price elasticity of demand for tax-paid product.

Taking into account the implications of changes in excise tax rates for the affordability of cigarettes and other tobacco products is a key way in which governments can practically apply the lessons of Laffer curve analysis.

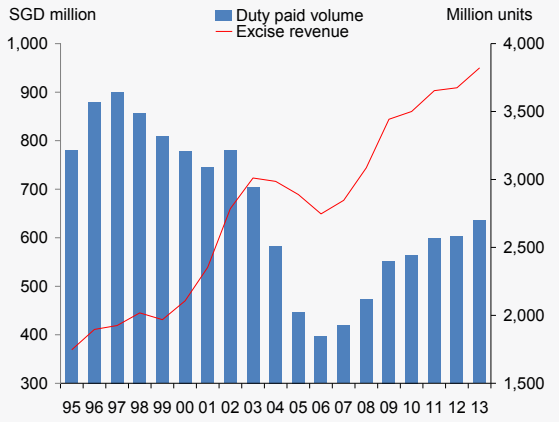
Box 2: The relationship between excise tax increases and tax revenues in Singapore

Singaporean experience with cigarette excise tax over the past decade can be broken down into two distinct periods:

- 2000 to 2005 was a period of sharp excise increases, from $150 per 1000 cigarettes to $352 – an average increase of 19% a year;
- From 2006 until 2013, there were no excise increases.

In response to the excise driven price changes, duty-paid volumes fell from 3.2 billion sticks in 2000 to a low of 1.8 billion in 2006 (or by 43%). Excise revenue initially (2000 to 2003) rose by 54% but declined by 10% between 2003 and 2006. This is a real life example of the Laffer curve, whereby multiple sharp rises in tax rates led to a decline in excise revenues.

Chart 8: Excise revenue on cigarettes and the volume of duty paid cigarettes sold in Singapore



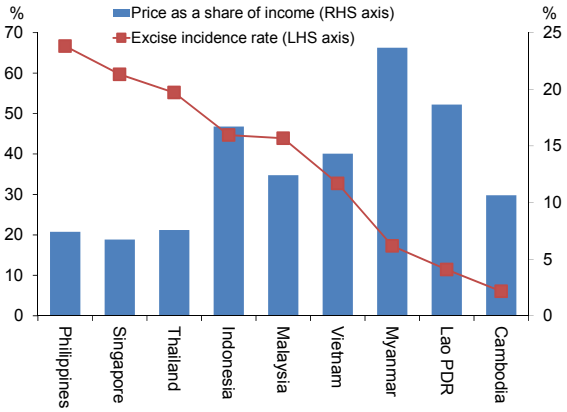
Source: Industry sources

Part of the explanation behind the decline in excise revenue was the growth in the illicit trade. In his 2006 Budget Speech, Prime Minister and Minister for Finance Lee Hsien Loong commented: *"I seriously considered raising tobacco duties, but have reluctantly decided against it because we are already seeing revenues declining, not because people are smoking less but because smuggling has gone up."*[9]

In addition, the government began to implement more stringent penalties for those caught in possession of illicit cigarettes. Singapore Customs also recognized that public education must accompany enforcement for it to remain sustainable.

This approach also underlines the importance of not using excise incidence as a target for setting tobacco tax rates. As Chart 9 shows, there is no simple relationship between excise incidence rates across ASEAN and the affordability of cigarettes. If anything, the relationship is inverse, with excise incidence generally higher in those countries where cigarettes are relatively more affordable.

Chart 9: Relationship between excise tax incidence and affordability of the most sold brand of cigarettes in each country in July 2014

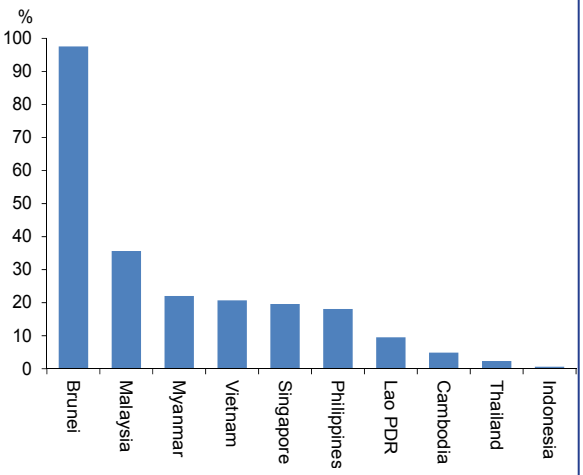


Source: Oxford Economics calculations based on industry and public data

4.3.2. Vulnerability to illicit trade

As already highlighted, the vulnerability of tobacco markets to illicit trade is another key consideration that should guide the determination of excise tax rates. As Chart 10 shows, the penetration of the illicit tobacco trade is already high in many ASEAN countries. It is estimated to be highest in Brunei, constituting 98% of total consumption in 2013. The illicit market's share is also estimated to be very high in Malaysia (36%), Vietnam (21%) and Singapore (20%).[10]

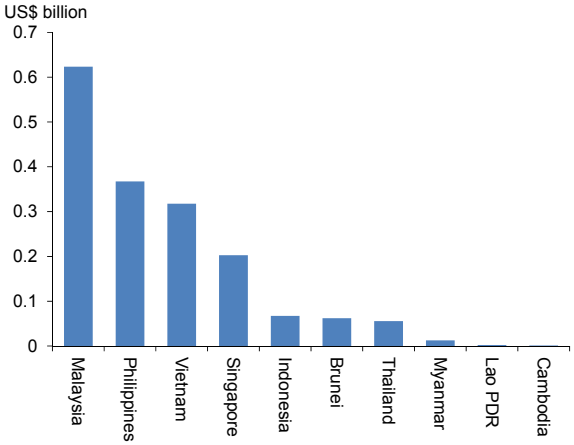
Chart 10: Illicit consumption as a percentage of total consumption in 2013[11]



Source: International Tax and Investment Center/ Oxford Economics (2014)

These illicit sales hurt tax revenues. In 2013, the estimated foregone tobacco tax[12] revenue in Malaysia from the illicit trade amounted to US$624 million, while foregone revenue in Philippines, Vietnam and Singapore (Chart 11) is estimated at US$368, US$318 and US$208 million, respectively.[13] Given overall budgetary constraints, this foregone revenue means that other taxes have to be higher or spending on public services - including provision of healthcare and social welfare - lower than would otherwise be the case.

Chart 11: Estimated tobacco tax foregone due to the illicit trade in cigarettes in ASEAN members in 2013



Source: International Tax and Investment Center, Oxford Economics (2014)

Illicit trade in tobacco not only undermines government revenues, but it has wider adverse economic and social impacts. For example, it undermines legitimate business, thereby reducing investment and employment. The presence of a large illicit market also reduces the effectiveness of government policies aimed at reducing smoking prevalence, especially among the young, as controlling access to cigarettes inevitably becomes more difficult.

Illicit trade in tobacco also fosters wider criminal activity. The World Economic Forum indicates that increases in illicit activity foster the development of additional criminal activity, through expansion driven both by profits gained and by *"competitive violence with rival groups and with law enforcement"*[14] to protect illicit markets. It may also fund terrorism. As Shelley (2009) notes, terrorists are increasingly drawn towards illicit cigarettes for funding as: *"it commands limited attention from law enforcement [and] terrorists seek to secure funding in ways that draw the least attention to themselves."*[15]

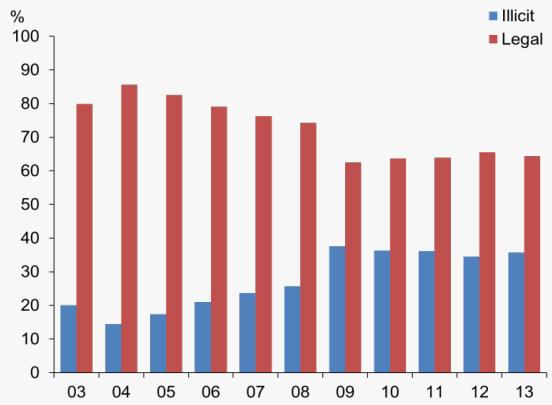
The risks posed by the illicit trade mean that, while not harmonizing tax, governments should aim as far as is reasonable to avoid large tax and price differences with all neighbors - since these can disrupt a country's revenue by encouraging smuggling. The maintenance of border controls in the AEC enables governments to contain levels of cross-border shopping to take advantage of tax and price differentials. But even in societies with wealthy populations, deep respect for the law and well-funded and professional enforcement services, high tax and price differentials still stimulate illicit trade. Box 3 illustrates the challenge caused by illicit trade in tobacco in Malaysia.

Box 3: The relationship between excise tax increases and the growth of the illicit market in Malaysia

In 2002, excise duty in Malaysia stood at R43.2 per 1,000 cigarettes. Subsequently, the Government began to increase excise taxes sharply. By 2010, excise duty had been increased over 430% to R230 per 1,000 cigarettes. As a result, the average price of legal cigarettes more than doubled.

The sharp increase in the price of legal cigarettes prompted consumers to switch to illicit sources of supply. In 2002, Malaysian smokers consumed 19.5 billion legal cigarettes. By 2010, legal sales had declined to 13.5 billion, while there was a surge in consumption of illicit cigarettes, which reached 8.8 billion constituting 36% of the total market.

Chart 12: Legal and illicit cigarettes market share in Malaysia



Source: Nielsen (2013)

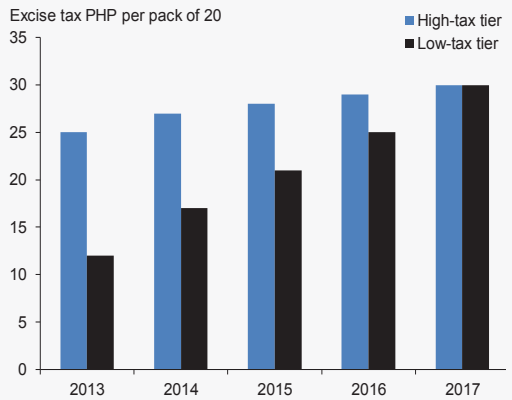
Tackling the growth in the size of the illicit market is a priority of the Customs department. Neither has it gone unnoticed by the Health Ministry. Health Minister, Datuk Seri Liow Tiong Lai, said: *"We need to address the sale of counterfeit cigarettes as it is an emerging scourge in the country. Apart from evading taxes, the distribution of such contraband could pose a serious health risk to smokers."*[16]

Acknowledging the massive illicit trade problem and the impact of excessive cigarette taxation, the Government decided to halt the trend of steep excise hikes in its 2012 budget. The Malaysian Prime Minister made the following statement on 8 October 2011, the day after the budget announcement: *"We can't increase the price of cigarettes sharply when the use of illegal cigarettes has reached 40%. This level is too high. If there is a sharp increase in the price of cigarettes, the percentage of those who smoke illegal cigarettes will continue to rise."*[17] Nevertheless, the experience of Malaysia illustrates that once illicit trade becomes established, it is very difficult to reduce. Illicit consumption is estimated still to have been 36% of total consumption in 2013.

Box 4: The reform of excise duty in the Philippines between 2013 and 2017

Prior to 2013, the Philippines excise regime classified cigarettes into four tax tiers based on price, with cigarettes in each tier taxed at a different rate. This system was difficult to administer and led to revenue erosion. Beginning in 2013, therefore, with advice from the IMF[18], the Philippine Government implemented a new, two-tier tax system for cigarettes and set out a medium-term plan to move to a unified specific rate. Taxes are scheduled to rise each year through 2017, with the differential between low-tax and high-tax cigarettes narrowing until tax rates are unified. From 2018, the single rate for all cigarettes will be annually increased by 4%, which is in line with projected inflation.

Chart 13: Excise tax rates on cigarettes between 2013 and 2017



Source: Sec.5(c) Cigarettes packed by Machine under Republic Act No. 10351

The reform of the Philippines excise tax system has, however, created challenges for tax administration. The steep increase in excise tax rates on the majority of cigarettes in the Philippines (low-tax tier) of 341% in 2013 has encouraged a sharp rise in the consumption of domestically produced illicit cigarettes. As a result, the share of illicit consumption in the market increased from 5.9% in 2012 to 18.1% in 2013. The foregone cigarette tax revenue (excise and VAT) from illicit trade – which effectively represents a transfer of revenue from the state to law evaders – has risen to PHP 15.6 billion (US$ 368 million) in 2013, representing an increase of 497% compared to 2012.

In addition to the threat of contraband and counterfeit cigarettes from abroad, it is also important for policymakers to be aware of the risk of local tax evasion, whereby cigarettes manufactured for consumption in the same jurisdiction are not declared to the tax authorities. This has been a major problem in the Philippines, for example, where the share of illicit consumption in the market increased from 5.9% in 2012 to 18.1% in 2013 following sharp increases in excise tax rates. Of this illicit consumption, 90% is domestically manufactured.

4.3.3. Medium-term tax planning

The experience of both Malaysia and Singapore illustrates the danger that steep successive increases in tax rates can encourage marked shifts towards illicit trade. As discussed in Section 1, good practice is for excise tax policy to be formulated for the medium to long term, so that it is both predictable and stable.

From a tax perspective, a sound approach to creating policy stability is for fiscal authorities to adopt automatic indexation of tax levels, or to set out clear multi-year plans. Such an approach facilitates a stable legal market environment, creating predictability for governments and industry alike.

Medium-term plans represent best practice in general. They can be particularly helpful in the context of significant reform of tobacco excise taxation, which is inevitably complex and can have major impacts on the structure of the industry. Such a plan has been implemented in the Philippines (see Box 4), while in Indonesia, a roadmap guides the excise reform process as it gradually moves away from its very complex regime with multiple tiers of excise tax (see Box 5).

A medium-term roadmap is also a helpful mechanism for countries with ad valorem systems based on NEFP/CIF to move towards specific tax structures. Such a plan could, for example, set out a timetable whereby the tax base is first changed to RSP then later moved to a specific base.

4.3.4. No earmarking of tobacco tax revenues

Another aspect of the design of tobacco excise policy relates to the uses to which excise revenues are put. As explained in Section 1, most forms of taxation are levied to generate what is termed "general tax revenues," which are collected into

Box 5: The simplification of Indonesia's excise tax regime on cigarettes

In 2006[19], there were approximately 4,000 cigarette companies operating in Indonesia. Of these, more than 3,900 were very small companies employing between 2 to 10 people, making kretek cigarettes using the traditional methods. In aggregate, these 3,900 plus companies produced some 6 million sticks. There were also a handful of very large firms, which produced in excess of 2 billion sticks each and employed over 10,000 people.

In 2007, the Minister of Industry introduced a *Roadmap of the Tobacco Industry*.[20] The plan was built over three time periods. Between 2007 and 2010, the main priority determining excise tax policy was sustaining employment in the industry (particularly the small firms); excise revenue ranked second and health objectives were given the third priority. This reflected the Ministry's expectations regarding the duration of the global financial crisis and recession. In the medium term (2010 to 2015), the ranking of priorities changed to focus first on raising revenue, with health objectives second and sustaining employment third. Over the period 2015 to 2020, it was planned that health objectives would predominate, with sustaining employment ranked second and raising tax receipts third.

Before 2007, the Indonesian Government applied a multi-tier ad valorem excise tax system to cigarettes. It subsequently moved to a multi-tier mixed system until 2009, when it introduced a fully specific system with 19 tiers, along with an "excise roadmap." The excise roadmap set out a reduction to 2 tiers (1 for machine-made and 1 for hand-rolled cigarettes) by 2016. Given the number of cigarette manufacturers in Indonesia and their location often in rural districts, which makes supervision very expensive, the plan should cut administration and enforcement costs considerably for the authorities, as well as increase revenue and address the consumption control objective as laid down in the Excise Law.

By 2013, the number of tiers had been reduced from 19 to 13. There remains some way to go to reach the goal of two tiers by 2016.

While the number of companies has reduced to 845, the current number of people that are directly and indirectly employed in the industry is estimated at more than 4 million. The tobacco industry therefore retains an important role as a provider of employment.

a "consolidated revenue" account. These are defined as a large central pool of funding under the control of the country's finance ministry or parliament budget committee. The elected government determines how to allocate these funds across competing obligations (education, defense, healthcare, etc.) according to its expenditure priorities.

An earmarked tax differs from a general tax in that the receipts it generates can only be spent on a designated purpose. Proponents argue that the explicit link between earmarked taxes and a particular expenditure program drives home its cost to voters, which enhances the democratic process. It is also argued that taxpayers like the greater accountability they perceive earmarking delivers with respect to how their tax money is spent.

However, the conditions for earmarking to work effectively are very strict and in practice are never met.

Instead, the application of earmarked taxes introduces a range of serious problems, as is evident from the earmarked taxes on tobacco products (and alcohol) in place in a number of Asian countries, including some members of ASEAN. These problems are discussed in detail in the ITIC/Oxford Economics 2013 paper, *Are earmarked taxes on alcohol and tobacco a good idea? Evidence from Asia*,[21] which highlighted that:

Earmarking leads to a loss of transparency on public expenditure.

There is no explicit link between tobacco (or alcohol) consumption and most of the programs on which receipts from earmarked taxes are spent. As a result, the benefit of enhancing the electorate's knowledge of the true cost of a public service is lost. Moreover, governments do not derive any useful signal from earmarked taxes about the strength of demand for the services they are used to fund.

Using Korea as an example from outside ASEAN, there is no relationship between the consumption of tobacco and alcohol and the demand for education, despite the up to 1278 billion Won[22] (around US$1.2 billion) in earmarked tax receipts that go to fund it. This leads Bird and Jun (2005), in their analysis of earmarked taxes in Korea, to conclude that the loose linkage between the subject of the taxes and the recipients of associated spending means that the policy has *"no economic rationale."*[23] A similar problem occurs in Thailand, where up to 2 billion Baht (around US$62.5 million) of the taxes levied on tobacco and alcohol each year fund the Thai Public Broadcasting Service.

Earmarking generally means that the designated expenditure programs are subject to less scrutiny than the parts of government budgets that are subject to comprehensive reviews.

The lack of official scrutiny is often reinforced by a lack of information on the activities of the bodies that administer earmarked taxes. This prevents external bodies (such as the media or academia) from investigating the use of earmarked funds. This is exacerbated by the revenue being eventually distributed to so many bodies that it becomes very costly or impractical to scrutinize them all properly. As a result, earmarking can lead to the misuse of funds. More generally, it leads to a loss of control of revenue and spending priorities by Ministries of Finance and Parliamentary Budget Committees.

Earmarking also introduces inflexibility or rigidity into the budgetary process.

As circumstances change over time, earmarking makes it more difficult for governments to respond to changes in needs and the demands for public services. This hampers the expenditure allocation process and prevents the authorities from smoothly reallocating funds whenever spending priorities change. To give an indication of the scale of this potential problem, 29% of all government tax receipts in South Korea in 2011 went to earmarked funds.[24] This is a very sizable proportion of public funds for the government not to control directly.

At best, this rigidity may lead to inefficient spending. Areas where there are greater needs or higher returns are ignored as money is earmarked for certain types of spending. This leads Allen and Radev (2006) to emphasize that: *"earmarked revenues can become entrenched so funding is no longer based on priority needs."*[25] This tends to be reinforced by the bodies which receive the earmarked receipts having an incentive to spend them, rather than return the funds to maintain future funding streams. Hence, it is likely the money will be spent on projects of lesser importance (or "gold plating").

Good tax practice would therefore be for earmarked taxes on tobacco products to be phased out in favor of the imposition of general excise duty, leaving elected governments free to use them to honor their electoral commitments and be held to account for doing so.

4.3.5. Ease of administration

Finally, tobacco excise tax policy should be designed to simplify the monitoring and enforcement of the system by customs agencies and tax administration authorities, so that costs are minimized. The lower the government's costs of collecting and enforcing the tax system, the higher the net tax revenues that can be generated to fund public services.

The design of policy should also take into account compliance costs for manufacturers, wholesalers, retailers and taxpayers. Where possible it should draw on electronic returns based on or drawn from the licensee's usual commercial records. Best practice tax administration also operates on a period settlement basis, allowing licensees to make deliveries during a specified accounting period and pay the excise duty owing on a nominated day after the accounting period has ended. Periodic settlement increases the efficiency and decreases the administrative and compliance burden on both businesses and revenue agencies from a reduction in the number of transactions required between licensees and revenue agencies. Chapter 7 discusses these and other issues with regard to excise administration in detail, including the application of the WHO Framework Convention on Tobacco Control *Protocol to Eliminate the Illicit Trade in Tobacco Products*.

4.4. Conclusions

Much like the countries themselves, there are many disparities across ASEAN tobacco markets. The market characteristics differ widely; the methods of taxation are very different; and the prices of products in some countries are several multiples of those in others. A *"one size fits all"* policy is therefore inappropriate. Tobacco taxes should be tailored to the economic and social circumstances and priorities of each member state.

There are, however, some areas in which coordination across ASEAN would be helpful. A fruitful way forward for ASEAN members would be to begin agreeing to standardized product definitions to facilitate intra-regional trade. These should avoid creating incentives for manufacturers to structure their products for tax minimization purposes, and be flexible enough to allow for the development of new products. ASEAN members should also consider a move over time to a simple system of unitary specific taxation, with a sensible first step for countries with ad valorem tax systems based on NEFP/CIF being moved to a more transparent RSP tax base. In addition, earmarked taxes on tobacco products should be phased out in favor of the imposition of general excise duty.

But it is critical that any policy coordination on tobacco taxation fully respects the tax sovereignty of each member state. Policy reform should also be undertaken through a clear medium-term plan that provides clarity and stability against which government and industry can sensibly plan. Changes in excise tax rates should be based on a careful assessment of their implications for the affordability of tobacco products and avoid further escalating illicit trade.

Appendix

Table 4: Personal allowance limits

ASEAN Member Country	Cigarettes
Brunei	Zero
Cambodia	400 cigarettes
Indonesia	200 cigarettes
Lao PDR	200 cigarettes
Malaysia	200 cigarettes
Myanmar	No restrictions in Duty Free on international airports. De-facto import ban (and thus zero duty free allowance) applies elsewhere
Philippines	400 cigarettes
Singapore	Zero
Thailand	200 cigarettes
Vietnam	400 cigarettes

Table 5: ASEAN Trade in Goods Agreement (ATIGA) duty reduction schedule

ASEAN Member Country	Cigarettes
Brunei	0%
Indonesia	0%
Malaysia	5%
Philippines	0%
Singapore	0%
Thailand	0%
Cambodia	5% (2014), 0-5% (2015)
Lao PDR	5% (2014-2015)
Myanmar	5% (however, de facto import ban under import licensing regime)
Vietnam	Placed on General Exclusion list

Table 6: Indonesian excise regime for cigarettes in 2014

	Category	Production Volume Tier	Price Tier	Specific Rate (IDR/stick)
Hand-Rolled Kretek	Tier 1	>2 bio	>749	275
			≥550-749	205
	Tier 2	>0.3-2.0 bio	>379	130
			>349-379	120
			≥336-349	110
	Tier 3	≤0.3 bio	≥250	80
Machine Made Kretek	Tier 1	>2 bio	>669	375
			≥631-669	335
	Tier 2	≤2.0 bio	>549	285
			≥440-549	245
White Cigarettes	Tier 1	>2.0 bio	>679	380
	Tier 2	≤2.0 bio	>444	245
			≥345-444	195

Source: Laffer (2014)[26]

Table 7: Most sold cigarette brands in each country in July 2014

Country	Most popular brand	Retail sales price in US$ (pack of 20)	Excise yield in US$ (pack of 20)	Excise incidence (%)
Cambodia	ARA	0.32	0.02	6.0%
Indonesia	A MILD 16s	1.56	0.70	44.7%
Lao PDR	RED A	0.88	0.10	11.4%
Malaysia	Dunhill	3.73	1.64	43.9%
Myanmar	Red Ruby	0.61	0.11	17.3%
Philippines	Fortune	0.58	0.39	66.7%
Singapore	Marlboro	10.38	6.19	59.7%
Thailand	SMS Red	1.17	0.64	55.2%
Vietnam	Vinataba	0.80	0.26	32.7%

Source: Oxford Economics calculations based on public and industry data

Endnotes

[1]Indonesia: "State Budget 2013 Realization Report," Kontan Newspaper, 7 January 2014, and DGCE workshop on Excise Stamp 2014, January 2014; Malaysia: Customs Annual Report for 2012; Philippines: Bureau of Internal Revenue and Bureau of Treasury; Singapore: "Budget Report 2012," Ministry of Finance, 25 February 2013; Thailand: Fiscal Policy Office website, Ministry of Finance; Vietnam: "2013 State Budget," Ministry of Finance, and 2013 VTA preliminary report.

[2]Table 4 for personal allowance limits in ASEAN countries.

[3]Table 5 for import duty rates on cigarettes between ASEAN countries.

[4]Our focus in this report is on conventional tobacco products and not on novel products such as e-cigarettes which contain tobacco-derived nicotine, or heated (non-combustible) tobacco products.

[5]In Thailand, RYO is divided into "non-native cut tobacco" and "blended-cut tobacco;" natively grown and manufactured cut tobacco is not subject to excise tax.

[6]Thai National Statistics Office, 2012.

[7]Table 7 for list of highest selling brands in each country.

[8]The median is a measure of the average based on the mid-point of the distribution of a series of data. In this case, it is the excise yield at which half of the countries have a higher yield and half have a lower yield.

[9]Loong (2006), paragraph 2.75.

[10]See "Asia-14 Illicit Tobacco Indicator 2013," International Tax and Investment Center and Oxford Economics, September 2014.

[11]A study by the University of Indonesia estimates illicit consumption to be significantly higher at 8.4%.

[12]Includes excise duty, VAT or GST, and any earmarked taxes.

[13]"Asia-14 Illicit Tobacco Indicator 2013," International Tax and Investment Center and Oxford Economics, September 2014.

[14]"Global agenda council on illicit trade, Davos annual meeting," World Economic Forum, January 2012.

[15]Shelley (2009), "Illicit trade: A security challenge – a case of cigarette smuggling," International Tax and Investment Center, Washington, DC.

[16]"War against illicit cigarettes," The Star, *Malaysia Online*, 7 June 2011.

[17]Malaysian Prime Minister speaking on TV3 on Sunday 9 October 2011.

[18]"Philippines: Technical assistance report on road map for a pro-growth and equitable tax system," IMF Country Report No. 12/60, March 2012.

[19]This box draws heavily on Syaifudin (2013), "Roadmap of excise on cigarette policy package in Indonesia: an analytical hierarchy process approach," *Journal of Social and Development Sciences*, Vol. 4, No. 11, November 2013, p. 514-525.

[20]See "Roadmap Industri Hasil Tembakau (IHT)," Kesepakatan Hasil Tembakau, Jakarta: Direktorat Jenderal Industri Agro dan Kimia, Ministry of Industry of Republic of Indonesia, 2007.

[21]"Are earmarked taxes on alcohol and tobacco a good idea? Evidence from Asia," International Tax and Investment Center (ITIC), Washington, DC, 2013.

[22]Data for 2008 sourced from table in "Statistical Yearbook of National Tax," *Source of Education Tax from National Tax Service*, 2009, p. 723.

[23]Bird and Jun (2005), "Earmarking in theory and Korean practice," *International Tax Program Papers*, Institute for International Business, paper no. 0513.

[24]Ministry of Strategy and Finance (MOSF) in South Korea.

[25]Allen and Radev (2006), "Managing and controlling extra budgetary funds," IMF Working Paper, 06/286, p. 17.

[26]Laffer (2014), "Handbook of Tobacco Taxation: Theory and Practice," The Laffer Center at the Pacific Research Institute.

Section 3. Excise Taxation Reform – Best Practice Excise Tax Policy and Design in Other Products

Section 3 of this *Manual* is slightly different than Section 2 whose products (alcohol, tobacco and motor vehicles) are currently subject to excise taxation in all 10 member countries. Section 3 instead looks at both "fuel products" which are subject to excise in seven member countries and "non-alcoholic" beverages which are subject to excise in four, with a fifth member country proposing to introduce an excise in 2015.[1]

While the principles of "best practice excise tax policy and design" remain the same, as outlined in the introduction of Section 2, there are initial questions to assess in relation to when is appropriate to consider using excise taxation. Such questions included: what policy objectives are sought, and whether a discriminatory tax like an excise will meet these objectives, and if so, how should that excise be designed so as to efficiently meet the policy objectives.

An accepted key principle in good tax policy it is that the objective of an indirect tax should be neutrality, or the principle that the tax rate, tax base and tax structure should not impact markedly on investment, production or consumption. It certainly should not be used to "target" or to "favor" one particular industry or one particular tax payer over another.

Tax policy can however, in certain limited circumstances include the need to levy "special" taxes or discriminatory taxes such as excise, in response to the externalities (or harm) associated with the consumption of certain goods and services. These types of goods and services that we associate with excise on these grounds are usually alcohol, tobacco, motor vehicles and gambling.[2]

Therefore, a key question at the outset of this chapter is "do we need to have a discriminatory tax on fuels and non-alcoholic beverages?" Or what are the externalities behind the consumption of such goods which need addressing through a discriminatory tax such as an excise tax?

If the policy intent is not in response to identified externalities, but is simply to raise revenue, then we need to return to our first key principle of neutrality in tax policy, where taxes such as a properly designed VAT, sales taxes or service taxes are best placed and to deliver on this objective. However, if raising revenue is not the prime objective of the tax, then we need to assess those externalities and consumption issues and ensure that the design of the excise tax in response is effective in meeting the desired outcomes from the levying of such a discriminatory tax.

Using this as a basis, this chapter will now give guidance on excise policy for both fuels and non-alcoholic beverages, being products that are not subject to excise taxation in all 10 ASEAN member countries, but for which there is regular policy discussion. The approach for assisting users of this chapter is to conduct analysis through addressing the following key areas:

- What are the relevant policy considerations for having / introducing an excise tax;
- Identification and appropriate defining of products and product categories;
- Identification and appropriate defining of tax base options; and
- What is the optimal taxation approach for structure and tax base.

Endnotes

[1]Draft from Vietnam of "Law on Amendment of and Supplement to a Number of Articles of the Law on Excise Tax," February 2014.

[2]Cnossen (2005), "Theory and Practice of Excise Taxation," p. 3-5.

Chapter 5. Fuel Products

(Excise taxation in this chapter relates to fuel products as delivered into the fuel market and does not include taxation of upstream resource extraction).

SUMMARY OF KEY BEST PRACTICE

- Excise on fuel can be an appropriate measure to correct certain negative externalities and generate government revenues.
- Petroleum-based fuels need to be subject to excise on a specific basis (i.e. per liter or per cubic meter for gaseous fuels), and have minimum excise rate differentials between products. This will avoid product substitution and tax evasion opportunities.
- Fuel excise should have regard to the energy content of the fuel so that fuels are effectively taxed on an equivalent basis.
- While raising revenue and addressing certain negative externalities, policymakers in fuel excise need to also give consideration to:
  - The impact on prices of fuel in regard to costs as business input;
  - Security of ongoing energy supplies; and
  - The role and place of alternate fuels in the market.
- Alternative fuels need to be part of the fuel excise system, with consideration of the following issues:
  - Ensuring that such fuels become an affordable and viable energy source;
  - Not locking in long term subsidies that prevent the industry from developing and innovating to become viable themselves;
  - Bases for energy content; and
  - Reference to a number of unique externalities, such as impact on food sources, deforestation to plant oil fruit crops, etc.

5.1. Policy basis for introducing/ having an excise tax

There is a range of important considerations in determining excise tax policy as it relates to fuel products. For purposes of this chapter, the term "fuel products" means a product (liquid or gas) which is burnt to produce in an engine to power a machine or similar.

Fuel excise policy can become complex as it operates on many levels. At the highest level, a decision is needed to determine whether fuel products should be part of the excise taxation system. The key issue involves the cost to business and the cost of living, both of which are impacted directly from consumers using fuel and the costs embedded in goods and services from business using fuel. The decision, therefore, can be both economic and political.

Fuel excise policy is further complicated due to the fact that many fuel products have dual uses, including the burning of fuel as an energy source to power an engine or machine, as well as a number of industrial uses (i.e., solvents or inputs to the plastics and chemical industries). A decision is needed as to whether all fuel products should be brought into the excise system, or to have policies based around end-use of the fuel.

Where end-use becomes part of fuel tax policy, there may be a further need to look at individual end-uses. For example, where fuel products burnt as energy to power an engine or machine, policy may look at the purpose of the engine or machine and seek to capture only certain types of activities in the excise system. These activities included or excluded in the excise tax systems could be linked to targeted externalities, or targeted government policies.

The final, but equally important policy issue, is the treatment of fuel products according to their source. Traditionally, petroleum-based fuels have been captured in fuel excise tax systems. However, there is an increasing place for alternative (non-petroleum-based) fuels such as bio-fuels and renewable fuels. The policy considerations for alternative fuels are discussed in detail below,

and include issues such as sustainability of the industry, meeting energy market needs, non-distortion of fuel markets, and environmental outcomes.

Figure 1 tries to capture a "snap-shot" of fuel excise tax policy considerations.

In determining whether to levy excise taxes upon fuel products, there is a need to return to some of the basic principles of excise taxation. When imposing a discriminatory tax, there needs to be a justification of the additional tax burden that will be applied to this category of goods. In this case, primary justifications will be based around correcting certain negative externalities as outlined below.

Petroleum-based fuels are generally subject to an excise type tax, though in the ASEAN region, several member states have opted to either forgo an excise tax[1] in favor of "upstream rent taxes" (where oil and gas is produced in the economic zones of that country) or to limit taxation to the general value added tax system. Alternative fuels are now increasingly becoming part of fuel excise tax systems as they start to play a greater role in overall energy policy and are shared in greater volumes in the fuel marketplace. Significant discussion is also included below on this emerging area of fuel excise policy.

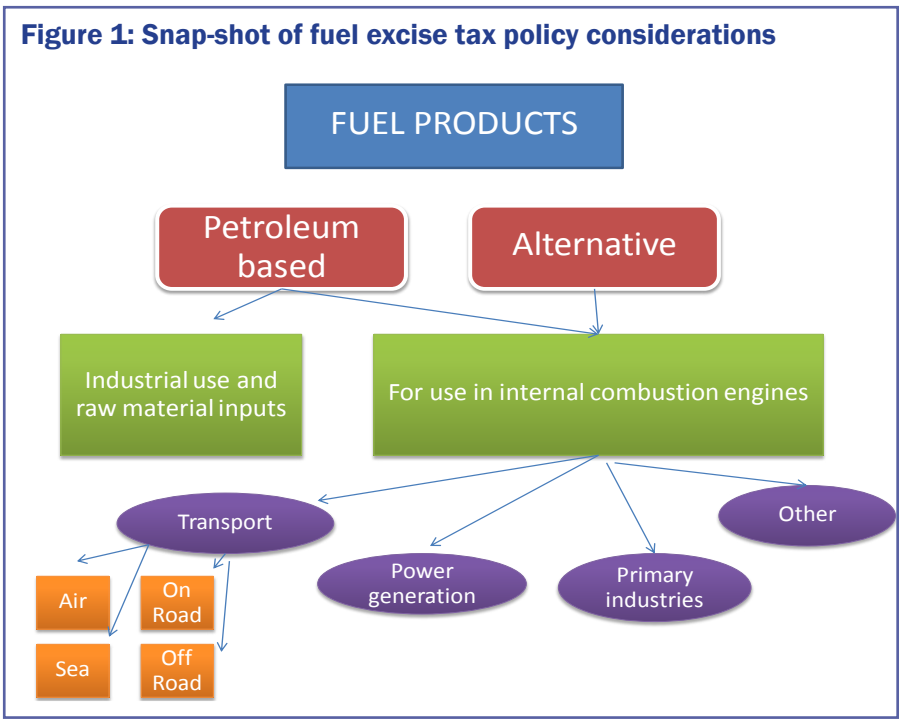
Fuel excises are effective because there are relatively few substitutes when looking at fuel end-uses. In other words, when driving your vehicle, the choice of fuel to power that vehicle may be limited to a small range of options based around a certain type of fuel. For example, a diesel powered SUV may use regular diesel, bio-diesel, diesel and bio-diesel blended products, and perhaps in the future, diesel and ethanol blended products.

Fuel excise is also effective as the price of fuel products is generally inelastic, although price elasticities can vary markedly from market to market or consumer group to consumer group. In the ASEAN region, price elasticity impacts are sometimes masked by government subsidies.[2] Therefore, excise taxation will generate revenues as the price increases resulting from fuel excise taxes will result in relatively small reductions in volumes, although fuel products can and have been subject to smuggling and tax evasion measures in environments of overly high taxation.

5.1.1. Justification of fuel excises

As stated, tax policy should not discriminate against particular sectors or industries in an

Figure 1: Snap-shot of fuel excise tax policy considerations



economy unless there is a sound economic basis to do so. In terms of fuel products, there a number of recognized negative externalities on which an excise tax may be justified based on those external costs of the harm in consumption. These include:

- *Environmental impact.* Emissions from the burning of hydro-carbon fuels are one source of emissions that are contributing to climate change. There is a need (and agreement by many countries) through the Kyoto Convention to reduce such emissions. One factor in addressing the level of emissions from certain hydro-carbon fuels is through a price signal in which consumers of fuel can see the external costs of those emissions in the fuel price;
- *Maintenance of public roads.* Fuels consumed by transport vehicles will do so largely on public roads for which the upkeep is the responsibility of governments. Vehicles using public roads will inevitably cause "wear and tear," with larger vehicles (and likely the larger consumers of fuel) doing the most damage. Fuel excises can reflect a "user pay" approach to the issue of maintaining and improving the quality of roads, thereby ensuring efficient and safe road infrastructure;
- *Traffic congestion (and noise pollution).* The number of cars on the road and the volume of trips they make contribute directly to the likelihood of congestion (and noise), particularly at certain peak periods and/or where road infrastructure is unable to support vehicle usage. There are also connections with other environmental costs as emissions double when vehicles are idle versus moving.[3] There is also an economic cost from increased time taken by workers and businesses to move people and goods via road in terms of "travel cost," "additional business operating costs" and "lost productivity"[4]; and
- *Certain categories of bio-fuels.* Harm to the environment may be increased as land is cleared for crops (e.g. palm oil). There is also the potential for food sources to be diverted to a higher value fuel product market, resulting in reduced food affordability for consumers (i.e., "Food versus Fuel").[5]

From the range of externalities, there will need to be a prioritization by government. In most cases, different fuel products will have differing levels of harm against each externality. This will represent a challenge when setting the excise tax rate.

5.2. Excise taxation of alternative fuels

In this section, alternative fuels include both gaseous fuels (such as natural gases and liquidified petroleum gases, as well as bio-fuels and renewable fuels), which is liquid fuel derived from often renewable sources such as plant matter, waste matter, or animal fats.

It is important for governments to look at the entire fuel market when making fuel tax policy, including the tax treatment of alternative fuels which will grow in significance. Clearly, there are environmental aspects of alternative fuels with their generally lower emissions than petroleum-based fuels. However, at the same time, issues are being raised in the context of non-emission environmental concerns, such as the degradation of land that is converted to palm oil cropping, and the effect on food prices with certain food staples being harvested for bio-fuel production.

There is also the important concept of "peak oil," which recognizes that petroleum-based fuel reserves are not finite and at some point the global market will be at "peak" production before petroleum-based fuel production declines. The International Energy Agency believes this "peak production" may have occurred in 2006, and that with declining reserves of old oil and new oil discoveries, conventional oil production (which meets energy needs) may only exist for another 25 years,[6] unless alternative fuels can play a larger role.

One key issue with the main types of alternative fuels is their cost of production relative to their energy efficiency. In many cases, alternative fuels do not have the same energy content as petroleum-based fuels, yet may cost more to produce per unit of quantity. Add to this the continuing low demand and the need for investment in production and supply infrastructure, many alternatives fuels are yet to be commercially viable without support (at least until the price of petroleum fuels reach a certain level). In terms of energy content of the main alternative fuel types, Table 1 provides a comparison of the conventional petroleum-based fuels (e.g., gasoline and diesel) and fuels based on distance traveled on one liter of product.

Table 1: Energy content of key alternative fuels

Alternative Fuel Type	Energy content compared with conventional fuel
Methanol	45%
Ethanol	67-68%
LPG	77%
LNG	77%
CNG	99%
Biodiesel	100%

The reverse consideration is that petroleum fuels still remain the cheapest fuel to produce on an energy-efficient basis and, as such, demand for petroleum fuels will grow unabated without affordable lower emission fuel options. Therefore, the development of alternative fuels as sustainable industries are still in need of support to remain viable into the near future and to be the primary source of fuel in the longer term.

Fuel excise taxation can play a role in supporting the development and viability of the alternative fuel industries by providing certain exemptions and concessions for these types of fuel. However, longer term, any such support should not result in alternative energy production being "trapped" in a position of becoming eternally reliant on the fuel excise (and/or other forms) of financial advantages which will prevent these industries from becoming more efficient.

An interesting area of fuel excise taxation to be considered is that of "blending" alternative fuels with existing petroleum-based fuels, such as biodiesel blended with diesel, or gasoline with ethanol. Blends of biodiesel and diesel are recognized in the market by the percentage of bio-diesel in the blend after the letter "B" (such as B5, B10, B20 or B100). A blend of up to 20% bio-diesel with diesel fuel (known as B20) is considered an optimum blend, as engines do not require modification, and emissions will be reduced.[7]

Photo Source: BP

Blends of ethanol and gasoline are recognized in the market by the percentage of ethanol in the blend after the letter "E" (such as E5, E10, or E100). Newer vehicles running on regular unleaded fuel can run equally efficiently on E10 and again, emissions will be reduced.

Some countries are now mandating the blending of bio-diesel and ethanol, and/or at least providing a tax incentive to do so. Thailand mandated the B5 blend on 1 January 2012. The same level was also set in Australia's largest state, New South Wales State. However, unlike Thailand, New South Wales has also legislated a minimum 6% level of ethanol in regular unleaded fuel.[8] Thailand has also set other excise-based incentives for fuel ethanol in terms of lower rates. Additionally, Vietnam has set lower motor vehicle excise rates for those vehicles which run on bio-fuels. The United States has approached tax incentives differently: the Energy Policy Act provides tax credits where there is a minimum of 20% biodiesel in the diesel blend.[9]

This *Manual* is not intended to examine the policy of minimum bio-fuel contents in fuel blends. However, it is important to recognize this as future government policy options (Indonesia and Malaysia are currently looking at this policy), so that when required, policymakers can draft excise tariff options to allow for such blends in the marketplace and/or to support government policy on minimum bio-fuel contents in fuel blends.

However, in terms of blending, most excise tariff policies in existence today are structured so that blended products pay excise at a rate that reflects any rate differentials between the fuels in the blend. This effect can be achieved in several ways, as outlined in the case studies from Thailand and Australia. The Thai excise tariff recognizes the blended product that creates a new rate based on the full excise rates of each component in the blend; Australia calculates the volume of each component for application against the excise rate for that component.

Case Study: Thai and Australian Excise Tariff Law for Blended Fuel Excise Calculations

Thailand

(See Excise Act BE 2527 – Schedule of rates)

1.1 Gasoline	Effective rate
(1) Unleaded gasoline	7.000 baht/liter
(2) Other gasoline	7.000 baht/liter
(3) Gasohol with ethanol content not less than 10%	6.300 baht/liter
(4) Gasohol with ethanol content not less than 20%	5.600 baht/liter
(5) Gasohol with ethanol content not less than 85%	1.050 baht/liter

Australia

(See Excise Tariff Act 1921 – The Schedule)

10.7 Blends of gasoline and ethanol	The amount of duty worked out under section 6G*

*Section 6G

Duty payable on blended goods

(1) Work out the duty payable under this Act on goods (the blended goods) that are classified to sub-item 10.7, 10.11, 10.12 or 10.30 of the Schedule as follows:

Method statement

Step 1. Add up the amount of duty that would be payable on each constituent of the blended goods, that is classified to item 10 of the Schedule, if the constituent had not been included in the blended goods.

Step 2. Work out the volume, in liters, of the blended goods that is not attributable to those constituents or to water added to manufacture the blended goods.

Step 3. Multiply the result of step 2 by $0.38143.

Step 4. Total the results of steps 1 and 3.

Step 5. Subtract from the total any duty paid on a constituent of the blended goods that is classified to item 10 or 15 of the Schedule.

5.3. Identifying and defining the products and product categories

There is a range of very similar technical definitions covering petroleum and alternative fuels. When looking for a high-level generic template to categories and define fuels, many excise systems use the fuel excise structures based upon the Harmonized System (HS) nomenclature used for classification of goods in international trade and administered by the World Customs Organization (WCO). This nomenclature covers both hydro-carbon and alternative fuels, including gaseous fuels.

The HS is structured around chapters (of two digits), headings (of two digits), and items (two digits), with a single HS classification having six digits.[10] Individual countries adhere to this six digit classification to provide consistency with international trade, while at the same time being able to add "sub-items" by using additional digits.

Using the HS on this basis represents a good starting point. The HS allows a process to begin identifying an appropriate set of product definitions that represent "standard definitions" to be used to populate a potential excise tariff structures for fuel products.

The process arrived at seven product categories covering both petroleum and alternative fuel products. Table 2 has been developed as a guide for producing standard product categories with definitions.

Table 2: Recommended Standard Fuel Product Definitions for use in Excise Tariff Laws

Ref	Standard Product Categories	Standard Definitions
1	Aromatics	Oils and other products of the distillation of coal tar; similar products where the weight of the aromatic constituents exceeds that of the non-aromatic constituents and includes benzene, toluene, xylene, and naphthalene.
2	Crude Oil	Crude oils and oils of bituminous materials not intended as feedstock for a licensed refinery
3	Petroleum Fuels	Petroleum-based fuel (whether or not containing biodiesel or ethanol in the blend) for internal combustion engines that is sold as petroleum fuel and includes topped crude oil, diesel, kerosene, heating oil; unleaded gasoline, fuel oil, and mineral Turpentine.
4	Gaseous Petroleum Fuels	Gaseous petroleum and other gaseous hydro-carbons in either liquid or gaseous states and includes natural gas, propane, butanes, ethylene, propylene, butylenes, and butadiene.
5	Bio Mass Diesel	Diesel fuel obtained either by esterification of oil derived from plants or animals (known as bio-diesel) or by hydro-treatment of oil derived from plants or animals (known as renewable diesel).
6	Fuel Ethanol	Ethanol derived from renewable biological feedstock for use as fuel in an internal combustion engine
7	Fuel Methanol	Methyl alcohol derived from a catalytic conversion process from carbon monoxide, carbon dioxide, or hydrogen gases or by other means for use as fuel in an internal combustion engine

5.4. Identifying and defining the tax base options

Fuel products are most likely to be delivered to the market in "bulk" form, certainly if fuel products become taxable upon leaving a refinery, terminal or wharf. In such cases, it would be expected that fuel products are transferred from production or large storage capabilities operating in premises licensed for manufacturing fuels into road tankers, rail tankers, barges, pipe-lines or drums for distribution into the market place.

Thus, excise is about volumes, and volumes are best captured in specific or unitary rates of duty. The study does note that some countries within ASEAN are still using ad valorem rates of duty,[11] which under local excise valuation legislation is generally levied on the producers selling price as shown on a relevant invoice. However, given the limited production in these countries, fuel is primarily imported and so the most appropriate valuation is CIF plus any customs import duties which may be payable.

In terms of ad valorem taxation for excise duties, the intention is to place a higher excise incidence on more premium products and thereby introduce a level of progressivity since most products are consumed by consumers with greater spending power. This concept is largely irrelevant with fuel products, as pricing for each of the fuel categories is often subject to a range of other factors, such as government price regulation, parity pricing policies, pricing subsidies, and alternative fuel industry support policies. These can all detract from actual valuations. Therefore, in the context of future reform, it is more appropriate to focus on the use of unitary rate excise duties for all fuel products.

When looking at specific rate options, the options relate to the nature of the fuel, with liquid fuels looking at rates per liter or kiloliter. This can include gaseous fuels which have been liquefied for delivery. Other gaseous fuels have options to be taxed at either a rate per kilogram or per cubic meter, depending on the preference of the tax administration. While gases are sometimes measured by their energy content (i.e., per gigajoules), this option may be problematic as energy content may vary depending on the final composition of the gas components. As a guide, Table 3 shows the conversion of the weight and volume of gaseous fuels.[12]

Table 3: Gaseous fuels weight versus volumes in specific taxation rates

Gas	Kilograms	Cubic Meters
Natural Gas	1	1.406
Methane (Coal)	1	1.4703
Compressed Natural Gas	1	0.72

One important issue in relation to the use of specific rates is to recognize the volatility of fuel products and ensure that all excisable volumes or excisable weights are measured against a standard. Changes in temperature can change excisable volumes; or changes in pressure for gaseous fuels. This is achieved by ensuring that volumes and weights are corrected to a standard temperature for volume and standard pressure for gaseous fuels.

In this regard, temperature corrections for petroleum products should be applied at 15 degrees Celsius, which is fully consistent with standards outlined in the "Petroleum Measurement Tables" produced jointly by the American Society for Testing and Materials (ASTM) and The Institute of Petroleum. Here, tables allow for volume correction where tax payers and tax administrations know both actual temperatures and physical volumes.[13]

In terms of bio-fuels, some issues in temperature correction can occur due to differing densities of products, particularly where blending of bio-fuels and hydro-carbon fuels occur to make new products. It is generally accepted that bio-diesel can be corrected to 15 degrees Celsius using the same volume correction factors in the ASTM tables.

Fuel ethanol, however, is somewhat different. It is first corrected to 20 degrees Celsius (as with all excisable alcohols) before being multiplied by a factor to align with the 15 degree Celsius corrections of other fuels. This factor is 0.995, and the amount of fuel ethanol corrected to 20 degrees Celsius is multiplied by this figure to achieve the correction to 15 degrees Celsius.[14]

Finally, gaseous fuels will have similar issues in terms of a standard volume correction. In this case, the standard relates not only to temperature, but also to the pressure gas is under at the taxing point. In terms of temperature correction, this should again be set to a standard of 15 degrees Celsius, while standard pressure is observed between 101.325 and 101.56 kilopascals.[15] As with temperature, standard correction tables exist for pressure correction.[16]

5.5. What is the optimal taxation approach regarding structure and tax base?

This section relates primarily to structuring an excise tariff for fuel products in the context of both the discussions above, and the general discussions on good excise tax policy throughout *Manual*.

5.5.1. Simplicity

A simple excise tariff is one with minimum items or categories and sub-items or sub-categories in which all items and categories (including sub-items or sub-categories) prescribed are clearly defined. Here the types of definitions above can be utilized as standard definitions for this purpose.

It is possible to have a single item tariff (e.g., "Fuel Products for use in Internal Combustion Engines"), provided that all fuels are intended to have the same excise rate. Indeed, this would be possible in situations where the only priorities were revenue and addressing the externalities of road use. It is recognized that excise policy will not likely see a single excise rate across all fuel products at this time unless government policy was to tax one category of fuel:

- Vietnam - "gasoline of all types;" or
- Cambodia - "petroleum products."

In these two examples, excise taxes only capture hydro-carbon fuels. However, it is also recognized that when developing a fuel excise tax policy, governments will likely have more than a single policy consideration in mind. It is likely that issues (e.g., the environment and alternate energy sustainability) will be part of the fuel excise policy. When a government decides to bring alternative fuels into the fuel excise system, there will likely be a need to "split" fuels into hydro-carbon and various alternative fuels, and several categories will be needed given the differences in each of the alternative fuel products.

If alternative fuels are to be subject to excise taxation, there is also a need to classify or treat those fuel products that are blended with petroleum-based products for delivery into the market. Therefore, in countries where petroleum and alternative fuels are to be subject to excise, it is expected that we will see a need for the following categories:

- Refined petroleum products (including gasoline, diesel, kerosene, fuel oil, heating oil, etc.);
- Unrefined petroleum intended for use as fuel in an internal combustion engine;
- Liquid aromatics;
- Gaseous petroleum fuels (including liquefied petroleum gas, liquefied natural gas, and compressed natural gas);
- Bio-diesel;
- Fuel ethanol (including fuel methanol);
- Blends of petroleum products with ethanol; and
- Blends of diesel with bio-diesel.

It should be noted that these categories align closely with the proposed "standard definitions" outlined above.

5.5.2. Equitability

The excise tariff structure should be developed so as not to favor or discriminate against one type of fuel over another or one tax payer over another. This includes excise duties collected on imported product and import duties, including an excise levy amount and a need for transparency. The exception to this principle would be to support the sustainability of certain alternative fuels. However, this should be seen more as a transition rather than a permanent arrangement, and should not complicate the classification, assessment and reporting.

On this basis, where fuels are capable and/or intended to be burnt in an internal combustion engine, such products must begin at the same rate. This includes adjusting for differing energy content levels, particularly with alternative fuels.

Table 4, in conjunction with the discussion on appropriate "rate setting," sets out potential product categories and their relationships in terms of equitable taxation policy.

5.5.3. Appropriate rate setting

A principle of this *Manual* is that all countries retain their sovereign right to set tax rates, while at the same time providing countries with information on how to best define products and structure an excise tax system.

In terms of setting excise duty rates on fuel, the government needs to determine a "benchmark" rate. This benchmark rate would be the starting point for all fuels. When government policy provides support to a particular area, the excise rate discounts can be made to the benchmark rate (i.e., policy effect rate). These are known as "tax expenditures," in recognition that some revenue has been foregone by offering this support.

Specific rates of excise duty, which are seen as representing "best practice," do require continual adjustment to the rate to remain constant over time. In this case, adjustments should be predictable and stable, which can be achieved by "pegging" them to a relevant index. Here, pegging to the Consumer Price Index (CPI) as a measure of inflation is recommended.

The policy rate for fuel should be set according to several factors, with the eventual rate being determined by which factors carry the greatest priority. When a government is considering (or has already decided on) fuel excise taxes, these factors will include:

- *Raising revenue.* Excise as a source of revenue has been an important driver in setting rates. Fuel products, with their high volumes and fast turnover, are a significant source of excise revenues for many countries. However, policymakers need to consider certain factors when revenue remains a key driver of fuel excise policy, including:
  - The significant cost to business inputs and what economic impact this may have. As an indirect tax, businesses include the excise component in pricing of their goods and services. This, in turn, may slow economic activity. Of course, this impacts other tax sources, such as income taxes from business profitability (and potentially VAT), if sales of certain products have slowed; and
  - The avoidance of smuggling and tax evasion practices. This may not only threaten revenue, but may often result in compromised fuel quality from substitution and extension practices (or blending lower rate fuels or additives with higher rate fuels) after taxes have been paid, or the cross-border movement of below specification fuel as smuggled product.
- *Externality of emissions.* In line with research into the cost of green-house gas emissions into the environment, transport fuel consumption is viewed as a significant contributor. However, burning petroleum fuels in other uses (e.g., power generation) also contributes. The policy rate can look at incorporating an

element which sends a signal in the price that use of the fuel is contributing to an external harm to the environment. This externality does not apply if the fuel source burns no emissions, and may be considered for certain alternative fuels.

- *Externality of road use, including maintenance and congestion.* In the area of transportation, vehicles using roads will cause "wear and tear" and when a critical mass is using the road, traffic congestion will also occur. There may also be a relationship between unmaintained roads and congestion with increased emissions. Excise not only can be used to reflect the cost of this externality, but can effectively serve as a "user pays" mechanism to collect revenue directly from the users of these roads. However, this externality means that the policy will need to effectively exclude off-road use of fuel which creates challenges as to how this is achieved – either by an "end use up front exemption" in the excise tariff law, or via a refund/rebate/credit on verified off-road end uses.
- *Energy content.* Corrections may need to be made to the "policy rate" in order to reflect the differing energy content levels of the differing fuel sources (see Table 3). Without such a correction, effective rates of excise become exponentially larger the lower the energy of the content.
- *Sustainability of energy supplies including development of alternative energy sources.* This consideration is based on the price differential that would exist between petroleum fuels and alternative fuels if all fuel products attract the same effective rates of excise duty. Such a differential is likely to keep consumers using petroleum-based-fuels until other factors impact crude oil pricing. Alternatively, government may use other fiscal, tax or non-tax measures to support these fuel sources until they become viable – but these options sit outside the scope of this *Resource Manual*.

In this context, Table 4 has been developed.

Table 4: Standard Fuel Excise Structure

Product Category	Sub-Category	Excise Duty per Litre	Possible Tax Expenditure (i.e. Rate Reductions)
Refined petroleum products		Policy Rate	
Unrefined petroleum intended for use as fuel		Policy Rate	
Liquid aromatics		Policy Rate	
Gaseous Petroleum Fuels	LPG	Policy Rate x 77%	Reduced emissions
Gaseous Petroleum Fuels	LNG	Policy Rate x 77%	Reduced emissions
Gaseous Petroleum Fuels	CNG	Policy Rate x 99%	Reduced emissions
Diesel made from a bio-mass		Policy Rate	Reduced emissions and sustainability
Fuel Ethanol	Ethanol	Policy Rate x 68%	Reduced emissions and sustainability
Fuel Ethanol	Methanol	Policy Rate x 45%	Reduced emissions and sustainability
Blends of petroleum products with ethanol		Proportional – Policy Rate / Ethanol Rate	
Blends of diesel with bio-diesel		Proportional – Policy Rate / Biodiesel Rate	

Appendix 1. WCO Harmonized System (Nomenclature) for Fuels

Hydro-carbon fuels

HS Classification Reference	Group of Products	Product Name	Notes
2070	**Aromatics**		
270710		Benzol (benzene)	
270720		Toloul (Toluene)	
270730		Xylol (xylenes)	
270740		Naphthalene	
270750		Other hydrocarbon mixtures > 65% by volume distils at 250 °C	
270790		Other	
2709	**Petroleum oils and oils obtained from bituminous minerals, crude**		Includes: (1) Condensate (gas oil, naphtha and light hydro-carbons usually for refinery feedstock); and (2) Stabilized crude oil
2710	**Petroleum oils and oils obtained from bituminous minerals, other than crude**		
271010		Light oils, and preparations	Includes: (1) Topped crude oil; (2) Diesel Kerosene; (3) Heating oil; (4) Unleaded gasoline; (5) Fuel oil; and (6) Mineral Turpentine
271020		Petroleum oils and oils obtained from bituminous minerals and preparations not elsewhere specified or included, containing by weight 70 % or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations, containing biodiesel, not waste oils	Includes: B5 to B20 blends
271090		Waste oils	
2711	**Petroleum gases (liquid)**		
271111		LNG	
271112		Propone	
271113		Butane	
271114		Ethylene, utylenes propylene, and butadiene	
271119		Other	

	Petroleum gases (gas)		
271121		Natural gas	
271129		Other	
2712	**Residues**		
271319		Residues of petroleum oils of bituminous minerals	

Alternative fuels

HS Classification Reference	Group of Products	Product Name	Notes
2207	**Undenatured ethyl alcohol of an alcoholic strength by volume of 80 % vol. or higher; ethyl alcohol and other spirits, denatured, of any strength**		
220710		Undenatured ethyl alcohol of an alcoholic strength by volume of 80 % vol. or higher	Fuel Ethanol
220720		Ethyl alcohol and other spirits, denatured, of any strength	Fuel Ethanol
3826	**Biodiesel and mixtures thereof, not containing or containing <70% by weight of petroleum oils or oils obtained from bituminous minerals**		
2905	**Acyclic alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives**		
290511		Methanol (methyl alcohol)	

Endnotes

[1]Brunei Darussalam, Indonesia and Malaysia have no fuel excises.

[2]Small and Van Dender (2007); and Phoumin and Kimura (2014).

[3]http://www.islington.gov.uk/services/parks-environment/sus_pollute/air_quality/Pages/Vehicle-air-pollution.aspx.

[4]Weisbrod, Vary and Treyz (2003), p. 3.

[5]Obidzinski, Andriani, Komarudin and Andrianto (2012); and "Fueling the food crisis," Action Aid International US, http://www.ase.tufts.edu/gdae/Pubs/rp/ActionAid_Fueling_Food_Crisis.pdf (accessed 7 May 2014).

[6]International Energy Agency 2010 Annual Report, Paris.

[7]http://www.afdc.energy.gov/fuels/biodiesel_blends.html.

[8]The Bio-fuels Act 2007 and Bio-fuels Regulations 2007 (New South Wales) which set minimum ethanol and bio-diesel levels when measured on a state wide basis on volumes sold. The bio-diesel minimum is subject to there being sufficient production.

[9]Energy Policy Act 1993 (USA).

[10]http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs_nomenclature_2012/hs_nomenclature_table_2012.aspx (accessed 16 April 2014).

[11]ASEAN CMLV.

[12]Semin (2008), "A Technical Review of Compressed Natural Gas as an Alternative Fuel for Internal Combustion Engines," American Journal of Engineering and Applied Sciences, 1 (4): 302-311, 2008, ISSN 1941-7020; and United States Environmental Protection Agency, http://www.epa.gov/cmop/resources/converter.html (accessed 21 April 2014).

[13]"Petroleum Measurement Tables," American Society for Testing and Materials and The Institute of Petroleum, Volume Correction Factors, Volume VIII, ASTM, Philadelphia, 1952.

[14]"Excise (Volume of Liquid Fuels - Temperature Correction) Determination 2011 (No. 1)," Australian Taxation Office.

[15]"Conversion Factors for Fuel" Tax Information Sheet, Ministry of Finance British Columbia, 2013; and National Institute of Standards and Technology Handbook 44, 2012.

[16]"Hydro-carbon gas measuring devices," National Institute of Standards and Technology Handbook 44, Section 33.3, 2012.

Chapter 6. Non-Alcoholic Beverages

SUMMARY OF KEY BEST PRACTICE

- Excise on non-alcoholic beverages may not be the most appropriate measure to reduce harmful levels of caloric intake and/or to increase government revenues, and tax policymakers need to properly study and understand the entire non-alcoholic beverage market before making policy decisions;
- Areas of the market to understand include:
  - Range of available substitute products;
  - Consumer responses to price changes (own price elasticities);
  - Relationship between price changes and consumption of other calories (cross price elasticities); and
  - Impact of reduced demand on other tax revenue sources and overall impact on the economy.
- Where excise is to be levied, then general principles of equity, transparency and simplicity should prevail by:
  - Use of broad base and not "targeting" single categories of beverage;
  - Clarity in defining any exemptions; and
  - Use of specific rates of duty.

Non-alcoholic beverages were studied in depth during Phase II of the study and the findings of that study included in part 5.4 of the "Discussion Paper."

6.1. Policy basis for introducing/ having an excise tax

There is growing discussion on the merits or otherwise of introducing (or indeed maintaining or expanding existing) excise taxes on non-alcoholic beverages. The primary motivation for these considerations appears to be the need to correct certain perceived negative externalities associated with the consumption of sugar from sweetened beverages, although from the discussions it is equally likely that the raising of additional revenues from non-alcoholic beverages more generally is also part of these considerations.

What needs to be determined in both these motivations is whether the stated objectives can be met through an excise tax (i.e., will taxing all or some non-alcoholic beverages reduce total caloric intake and presumably help reduce levels of obesity (assuming total caloric expenditure activity is maintained or increased?)). Will a new excise on non-alcoholic beverages with corresponding response by consumers to increased prices actually see increases to overall government tax revenues from the sector? These questions are summarized in Figure 1 on the following page.

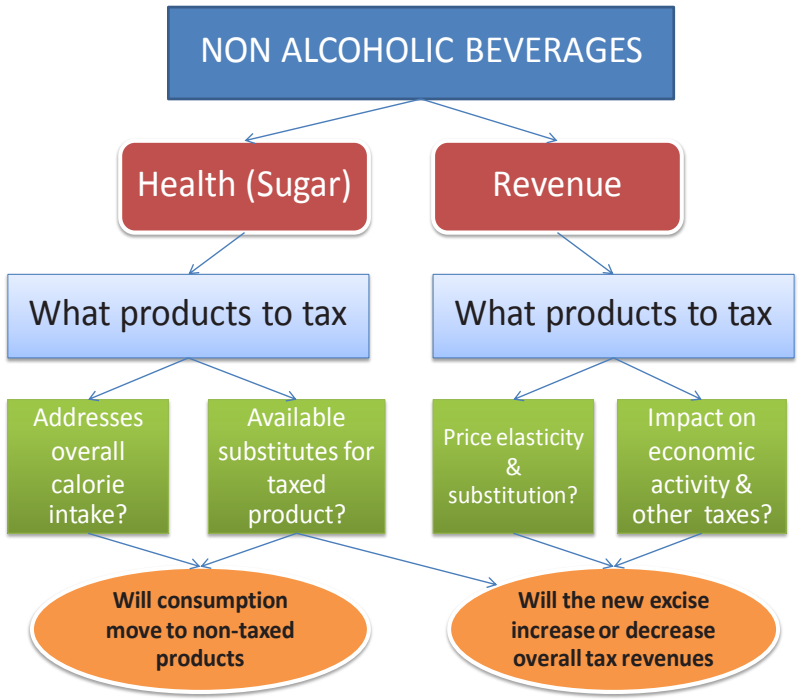
6.1.1. Excise taxation on the grounds of sugar consumption

When seeking to apply a discriminatory tax like excise, policymakers need to look carefully at what product, products or components are being targeted in the tax measure. Those governments recently establishing an excise tax (or currently considering an excise tax) on sugar sweetened beverages have done so based on the desire to cut sugar consumption on the assumption that this would reduce incidences of obesity and diabetes.[1] Interestingly, where pure revenue generation has been the basis of the longer running non-alcoholic beverage excise taxes, these are being rolled back as has been seen in Croatia, Ireland, Denmark and in the case study below in Egypt.

However, such selective taxes such as excise taxes which have been applied on this basis have generally been levied on a single category of non-alcoholic beverages namely carbonated sugar sweetened beverages despite many other categories of non-alcoholic drinks containing various levels of sugar, and in some cases similar or higher levels of sugar to the targeted beverages.[2]

This excise tax policy approach suggests that externalities associated with excess sugar

Figure 1: Summary of policy questions for excise on non-alcoholic beverages



consumption are primarily linked to the consumption of sugar via carbonated sugar sweetened non-alcoholic beverages. Targeted excise taxes levied on a health or social basis to influence consumption are only effective where there are no readily available substitutes, and ineffective where a tax on a sugar sweetened carbonated soft drink is substituted with another sweetened beverage like a juice, flavored milk, RTD coffee or tea, etc. As noted below, there are many other sources of calories that affect overall caloric intake beyond caloric beverages. A calorie is a calorie to the human body.

Clearly, this approach is being seen as a "health initiative" relating directly to the growing problem of non- communicable diseases such as obesity, diabetes, hypertension heart disease, resulting from poor dietary habits and increasingly sedentary lifestyles. Thus, it is more relevant to look not just at sugar consumption but at "calorie consumption", as these diet and lifestyle related diseases take calories from many food sources.

In this context it is essential to look at a person's overall "energy balance." Policymakers need to look at total caloric intake from all sources as well as "energy expenditure." The Food & Agriculture Organization (FAO) and World Health Organization (WHO) have studied extensively the daily needs of the body, from which "energy requirements" have been established, and which are in fact different for different groups of people making tax policy on this basis extremely complex.[3]

From these FAO and WHO studies, the main sources of energy intake are: fats, carbohydrates, and proteins. However, equally important is the area of energy expenditures which depend on factors such as physical activity, metabolism, growth, lactation and pregnancy. The issue of excise taxes and health should be looking at "energy imbalance" which is where the associated health risks lie – which again makes linking excise taxes to non-alcoholic beverage (or any food) taxation very complex.

It also should be noted that both the WHO in its obesity strategy, and the OECD in its "2012 Obesity Update," are concerned that taxes which raise the price of products such as non-alcoholic beverages sometime result in unintended consequences, including consumers:[4]

- Cutting back on nutritious foods to ensure they have sufficient spending power to keep purchasing the same quantities of taxed foods;
- Using substitute foods and beverages which are not taxed but contain an identical and sometimes higher amount of calories, for example substituting a sweetened fruit juice,

an energy drink or a flavored milk for a sweetened carbonated soda drink;

- Absorbing the additional financial burden of the tax and maintaining existing diets;
- Changing their mix of food and beverage intakes to one which may actually contain a higher amount of calories; and / or
- Gaining a mind-set from the tax that any cut back in sweetened carbonated soda drinks allows them to increase consumption of other foods which may have more calories, for example "not buying a sweetened carbonated soda drink means I can buy a cake" where the cake may be higher in calories.

Thus, the OECD calls for a more comprehensive approach to dietary choices and policies which is more than just tax-based in nature. Significantly, where taxes are used, the OECD says they need to take into account consumer behavior in response to price changes and the range of possible food and beverage substitutes available.

Therefore, this *Resource Manual* urges particular caution in designing an excise tax on non-alcoholic beverages based on health objectives linked to sugar intakes in consumer's diets. Obesity is a complex, multi-factoral issue, and a simplistic solution like a sugar sweetened beverage tax may exacerbate, not improve, health outcomes.

6.2. Non-alcoholic beverages as a revenue raiser

The current excise taxes being levied on non-alcoholic beverages in the ASEAN region appear to be simple revenue raising instruments. These non-alcoholic beverage excise taxes are all ad valorem in nature meaning the tax is being applied to the value (or quality) of the product rather than having any regard to the quantity (or more importantly the quantity of sugar).

Introducing an excise tax on non-alcoholic beverages might raise excise tax revenue. However, tax policymakers need to take great care to ensure the impact of such an excise does not result in overall lower revenue when considering the impact on other taxes likely to be affected by the policy. This includes income taxes on profits throughout the non-alcoholic beverage supply chain to reduce a slow-down in sales on those taxable categories. Further, other taxes, such as VAT, could be affected if the additional VAT raised from the new excise inclusive prices is more than off-set by a fall in sales.

Here tax policy officials need to understand their local markets, and where possible undertake economic modeling of their markets in order to try and predict the likely consumption changes to those beverages being taxed and between any categories not subject to excise taxes. Confirmation of the impact on excise and total revenues would depend on factors such as own price elasticity and substitution effects, which in turn would likely depend on what products were subject to excise and at what rates. The price changes within each category of beverage and the responses by consumers to these price changes are the key to answering this question. Where the range of beverages to be taxed is less sensitive to price changes, then excise collections could increase. Where consumers are more sensitive to price changes, as taxes are introduced, sales will fall and/or move to lower-priced beverages, meaning a less effective excise revenue source.

Response to price change is known as "own price elasticity" where the change in consumption is measured against a percentage change in price. Consumption may also be impacted by income and the manner which a product is viewed as being a "discretionary" or a "necessity" item. Income elasticities will indicate how much additional consumption of an item will occur with a percentage rise in a consumer"s income – the magnitude of the change indicating whether or not the product is seen as a discretionary item. Discretionary items are generally more price sensitive than necessities; if income falls, for example, consumption of these items may decline even more than the drop in income.[5]

The Phase II study looked at "own price" and "income" elasticities studies for non-alcoholic beverages, reproduced in Table 1. Table 1 shows that generally many categories of non-alcoholic beverages are viewed as a discretionary spending item when looking at income elasticity figures, while the range of price sensitivities measured in "own price elasticities" seems to be quite significant and will vary considerably from beverage type to beverage type and from market to market. Given the findings of Table 1, a targeted excise tax on selected non-alcoholic beverages, like sweetened sodas, will see a decline in sales. This needs to be part of the consideration of policymakers when viewing this type of excise as a potential revenue source.

In addition, where non-alcohol beverages' excise are set as ad valorem taxes, then further revenue issues will arise in cases where manufacturers and those in the supply chain may try and absorb as much of the tax as they can, meaning that profits will be cut and revenue simply shifts from income

Table 1: Income and own price elasticity studies – non-alcoholic beverages

Studies	Product	Income elasticity	Compensated own price elasticity
Dharmasena and Capps (2009)	Regular soft drinks	1.506	-1.903
	Diet soft drinks	1.276	-0.957
	Bottled water	0.364	-0.070
	Fruit drinks	1.259	-0.082
	Fruit juices	0.649	-0.822
	Isotonics (energy drinks)	2.604	-5.937
	Coffee	0.628	-0.464
	Tea	0.752	-0.509
	High-fat milk	0.798	-0.733
	Low-fat milk	1.059	-0.761
Zheng and Kaiser (2008a)	Soft drinks	0.997	-0.151
	Milk	0.614	-0.154
	Juice	0.656	-0.172
	Bottled water	0.029	-0.498
	Coffee/tea	3.144	-0.083
Zheng and Kaiser (2008b)	Soft drinks	0.381	-0.164
	Milk	0.243	-0.102
	Juice	2.891	-0.458
	Bottled water	0.062	0.044
	Coffee/tea	3.049	-0.260
Kinnucan, Miao, Xiao and Kaiser (2001)	Soft drinks	1.238	-0.137
	Milk	0.406	-0.169
	Juice	0.698	-0.361
	Coffee/tea	1.876	-0.249
Yen, Lin, Smallwood and Andrews (2004)	Soft drinks	1.010	-0.520
	Milk	0.800	-0.590
	Juice	0.900	-0.350
	Coffee/tea	1.130	-0.470

taxes to excise tax. Further, they may also look at ways in which the value for excise assessment can be reduced to off-set the impact of the tax. These types of issues are discussed below.

In another aspect to this question of the relationships between excise and other indirect and direct taxes, the Phase II process also noted a case study from Egypt where a "special sales tax" (i.e. an excise tax) on non-alcohol beverages was cut by more than half, which in turn stimulated economic activity in the sector resulting in higher overall tax revenue collections. The Egyptian case study is of interest as it links the impact of economic activity and other tax receipts to excise taxation.

As a final note in relation to excise taxes on non-alcoholic beverages as revenue raising instruments, Phase II of the project also noted that the International Monetary Fund (IMF) has also looked at the question of whether selective taxes such as excise on non-alcoholic beverages are suitable as new revenue sources. The IMF shared similar views to those involved in the Phase II study when it stated in the excise chapter of its "tax law design drafting handbook" that: *"Specific taxes, for example, on…nonalcoholic drinks, and carbonated drinks, should be relegated to the realm of curiosities. If any consideration is given to taxing other products, as mentioned in the sections above, or services, it is recommended that the advantages*

Case Study: Egypt cuts soft drink tax by 62% and tax revenues from soft drinks increase by 13%

In 2005 tax reform in Egypt in 2005 included a cut in the sales tax levied on bottled soft drinks from 65% of retail price to 25%, where it remains today.[6] It should be noted that the sales tax cut did form part of a broader reform package that applied the same cuts to some other targeted products as well as reducing income tax rates. This also generated some economic stimulus.

However, the soft drinks industry of Egypt was identified as a "stand out" success from the reforms, particularly the effective 60% cut in the sales tax rate which helped spur an immediate "double digit growth in sales."[7] From this growth the overall tax paid by the soft drinks industry in Egypt grew by 13%, and combined with the associated economic activity surrounding the growth, such as employment and profitability in value add industries, the actual "full tax impact" has been estimated at a 20% tax revenue increase.[8]

Five years after the discriminatory excise tax reduction, the Government of Egypt was collecting twice as much tax revenue as it had previously. The soft drink industry, including direct employment, had more than doubled as well.[9]

(revenue) be weighed against the disadvantages, such as discrimination, substitution, and administrative costs."[10]

Therefore, this *Resource Manual* again urges caution in designing an excise tax on non-alcoholic beverages based on the policy objective of increased collection.

6.3. Identifying and defining the products and product categories

As excise taxes are discriminatory taxes, the issue of having clearly defined product categories is critical in excise tax policy and design. This is even more critical in the case of a broad natured category such as "non-alcoholic" beverages, particularly where a government may not wish to place the excise on all products as some beverages, like water, are essential for life.

Where a government has decided to levy an excise tax on non-alcoholic beverages, then the first priority is to ensure all "like" products and close substitutes are taxed on an equal basis and avoid selecting "winners" and "losers." This will also be important in addressing health and revenue objectives, as moving consumers from a taxed beverage to a similar non-taxed beverage will compromise both objectives.

In short, the defining of non-alcoholic beverages for excise purpose can start with an intention to capture all non-alcoholic beverages in the excise tax system by simply defining them as "any beverage which does not contain alcohol." Dependent upon any policy exemptions, certain exclusions (for example non- carbonated potable drinking water) could be added to the definition.

Where multiple exemptions are part of the policy, then product categories will need to be specified and defined to an extent that:

- All products intended to be taxed are clearly defined;
- All products not intended to be taxed fall outside the definition;
- All like products and close substitutes are paying equivalent taxes (or have equivalent exemptions); and
- Manufacturers cannot readily reformulate products to avoid the tax.

In terms of "standardizing" product categories, Phase II of the study identified two main sources to assist in this area, the HS nomenclature[11] and the Codex International Food Standards.[12] When looking at both sources, potential standard product categories can be summarized as per Table 2 on the following page.

The HS provides a simple 2 category coverage of non-alcoholic beverages, while the CODEX has 4 categories. The main difference between the two is that the HS recognizes that water is the basis of many beverages and that it can either be sweetened, flavored, aerated, etc. – or have no additions. Other beverages are primarily fresh juices of fruit and vegetable origin. The CODEX separates waters into "plain" waters be those natural or aerated, and then "water based" beverages, with a number of sub-categories. Juices and infused drinks are further separate categories.

In order to avoid the issues of inequity, uncertainty and tax avoidance as described above, the preferred approach draws from the simplicity and clarity of the HS and closes "loop-holes" with relevant aspects of the CODEX and includes the

Table 2: Sources of potential standard definitions for non-alcoholic beverages

HS Nomenclature		CODEX	
Category	**Sub-category**	**Category**	**Sub-category**
Waters		**Waters**	
	Not containing added sugar, other sweeteners or flavors		Natural and source
	Containing added sugar, other sweeteners or flavors (includes nectar)		Table and aerated
Juices		**Juices**	
	Fruit and vegetable juice whether or not containing added sugar, or other sweetening		Fruit and vegetable juice
			Fruit and vegetable nectar
		Water based flavored drinks	
			Carbonated and flavored
			Noncarbonated and flavored
			Concentrates
		Infusions	
			Coffee, tea, herbal infusions

following proposed standard product categories and definitions:

1. Waters

   1.1 Waters to which NO sugars, flavorings, colorings and other substances have been added, NOR any process of aeration (likely to be a policy exemption);

   1.2 Waters to which sugars, flavorings, colorings and other substances have been added, or any process of aeration;

2. Fruit and vegetable juices

   2.1 Fruit and vegetable juices to which NO sugars, flavorings, colorings and other substances have been added, NOR any process of aeration (possibly a policy exemption);

   2.2 Fruit and vegetable juices to which sugars, flavorings, colorings and other substances have been added or any process of aeration.

3. Ready to Drink Infusions:

   3.1 Ready to drink teas, coffee, and herbal infusions.

6.4. Identifying and defining the tax base options

Excise taxes on non-alcoholic beverages may be expressed as ad valorem or specific rates. Clearly, where a government has imposed a discriminatory tax like excise on a product like non-alcoholic beverages to address negative externalities, then specific rates best reflect this as the tax relates directly to consumption. Negative externalities are not appropriately addressed by levying the tax on the value (or quality) of a product consumed. Following is guidance on the use of both approaches:

6.4.1. Ad valorem taxation of non-alcoholic beverages

Where ad valorem taxation is used in excise taxation of non-alcoholic beverages today, it is likely to be in the less developed economies[13] – perhaps reflecting a desire to shift higher tax burdens on the more premium products in a system which is designed as a revenue measure, and ensuring that excise receipts are maintained in real terms by rising with inflation. Certainly in the developed economies and in the introduction

of new non-alcoholic beverages excise taxes, the approach has been to use specific rates which are considered most appropriate, stable and better reflect actual consumption.

Ad valorem taxes are far more complex to administer, and often disputes arise between taxpayers and revenue agencies as to what cost component should and should not be included in an excisable value unless a very precise and verifiable taxing point value can be established. Even with clear taxing point values, in an ad valorem tax base there will always be greater opportunities for tax payers to look at strategies to reduce excise tax liabilities by transferring certain costs past the taxing point, or using bulk or cash discounts, and other pricing strategies all designed to reduce the actual excisable values.

One major question to resolve for ad valorem excise is which point in the supply chain should be used to assess the value for excise purposes. Options include:

- Ex-factory price (i.e. set by manufacturer);
- Wholesale or last wholesale price (i.e. set by wholesaler/distributor in supply chain); or
- Retail selling price (i.e. set by retailer).

Ex-factory selling price is the most commonly used ad valorem tax base, and that price is usually "net" of taxes like excise and VAT.[14] Ex-factory is the most effective taxing point, as the manufacturer in most cases will also be the excise tax payer and as such may not have accurate information as to the value of the product when later sold at wholesale or retail level. Where such information is not known, then a process needs to be established in which either the liability "transfers" in a tax suspended manner and is then paid by the wholesaler or retailer, or a wholesale or retail value needs to be set by authorities – either way there is a loss of efficiency and increased compliance costs for both industry and the revenue agency concerned.

The reasons for wholesale and retail level valuations (seen in alcohol and tobacco taxation) often relate to the transparency and ease of confirming valuations, especially at a retail level. However, retail valuation would be expected to be based on the retail selling price of packaged product sold in retail outlets like a supermarket, and not in places like restaurants or hotels where values can be 4 to 5 times higher. However, rather than seek to implement a wholesale or retail valuation, improving administration and compliance over an "ex-factory" selling price is recommended.

Issues with ex-factory valuations currently are based on both a lack of clarity or definition, as well as the manipulation of values by manufacturers selling to related parties. In order to begin addressing these risks, Figure 2 comprises the definition of "ex-factory" in any proposed standard definition.

6.4.2. Specific rate taxation of non-alcoholic beverages

Specific taxation is becoming the preferred approach generally in excise taxation for all goods, and there are several reasons for this. Specific taxation is far simpler to administer from the perspective of both industry and revenue agencies. The requirement to simply measure physical volumes is far simpler than assessing the value of a product at a certain point in time. Volumes can be simply derived from product passing flow meters or scales, or packed product counted and confirmed.

Specific taxation provides stability in revenue, with tax receipts growing or moving in line with consumption, which is significant in terms of policies of correcting any negative externalities. Specific taxation also prevents discrimination or distortion in the market - like goods and like tax payers are taxed on the same basis.

Excise taxation of non-alcoholic beverages is still not widely used across the world. However, as Table 3 indicates, such taxes in developed economies, as well as the more recently introduced non-alcoholic beverage excise taxes are specific rates as follows below.

Where specific rates of excise are introduced, then it is further recommended that such rates be indexed at least annually against inflation, ensuring that such rates remain constant in real terms over time.

6.5. What is the optimal taxation approach restructure and tax base?

This section relates primarily to how to structure an excise tariff for non-alcoholic beverage products in the context of both the discussions above, and the general discussions on good excise tax policy through this *Resource Manual*. As such, the discussion on excise tariff structures will follow the principles laid out including simplicity, equitability, and appropriateness in terms of key policy objectives.

Figure 2: What is ex-factory?

There are a number of important distinctions which denotes an ex-factory sale:

- The price of the goods when they leave the factory;
- No other costs are included past that delivery;
- Buyer is accepting responsibility and has ownership from the delivery; and
- Commercial invoice from the seller reflects the price at this point of delivery from the factory.

It is suggested that these 4 aspects form part of national procedures on setting out ex-factory valuation procedures. The exception to this however is that of non-arms length or related parted sales ex-factory. In this case, the revenue agency will always have concerns that the relationship between the manufacturing and distribution entities will have allowed for a shifting of certain costs to the distributors and subsequent reduction of the excisable value.

Ex-factory sales to related parties - where a manufacturer sells to a wholly owned or related distribution company it is important to confirm that the relationship between the manufacturer and distributor has not influenced the price. There are a number of factors the revenue agency can consider in conjunction with the manufacturer to help establish if the price has been so influenced by the relationship, the following considerations can be made:

- The ex-factory price of the good has been settled in a manner consistent with normal practices for pricing in the industry; and/or
- The ex-factory price has been settled in a manner consistent with other customers of the manufacturer; and/or
- The ex-factory prices is adequate to ensure recovery of all costs and includes a profit which is consistent with the manufacturers overall profit margins across all areas of its business for sales of vehicles; and/or
- Review of any evidence that the ex-factory price represents a fair market price in relation to sales of similar goods by similar manufacturing entities in similar markets which are not related party sales.

Where the revenue agency is still not satisfied with the excise valuation, then there needs to be a process of reviewing commercial documentation in relation to cost builds and profit margins in conjunction with the manufacturer and a formal and binding “agreed valuation” reached. Where the excise law allows for private rulings or valuation advices, then the agreed value will be subject to this process and both the manufacturer and revenue agency bound to that value. Where excise law does not provide for private rulings or valuation advices, then it is recommended that a “ruling” type process is established in procedures and that both manufacturer and revenue agency adhere to the “informal” findings of such rulings.

Table 3: Examples of specific taxes – non-alcoholic beverages

Country	Tax	Products	Rate
Netherlands[15]	Consumption Tax	Carbonated soft drinks	per liter
		Vegetable & fruit juice	per liter
		Mineral waters	per liter
Finland[16]	Excise	Soft drinks, juices, and sodas	per liter
	Beverage Container Tax	All beverages with non-returnable packaging	per liter
Croatia[17]	Excise	Refreshing non-alcoholic beverage	per liter
Washington (State), USA[18]	Soda Tax	REPEALED (Sugar sweetened beverages)[19]	per liter
France	Soda Tax	Soft drinks with added sugar and artificial sweeteners. Tax applies to soft drink with and without calories.	per can (330cl)
Mexico	Soda Tax	Sugar sweetened beverages	per liter
Thailand	Excise	Non-alcoholic beverages (except where exempt)	per 440ml (only where this will exceed an ad valorem rate option)

6.5.1. Simplicity

A simple excise tariff is one with a minimum of items or categories and sub-items or sub-categories in which all items and categories (including sub-items or sub-categories) to be prescribed are clearly prescribed or defined. This is particularly important for non-alcoholic beverages as there are possibly some categories such as water that may need to be exempted from the tax, but at the same time there is a need for any non-alcoholic beverage excise tax to be applied as broadly as possible, rather than trying to isolate one or two products. To levy excise on just one or just a few categories of non-alcoholic beverages, complexity rises considerably as producer tax payers properly assess and revenue agencies confirm the correct classification and tax rates of each product.

Discriminatory taxation within an industry will cause considerable tax administration issues as manufacturers will try and reformulate or adjust products to gain a more favorable tax classification or tax exemption. Definitions based on sugar content or carbonation, for example, would be such products that seek to slightly adjust formulations.

The use of exemptions could be equally problematic, as when exemptions apply, again there are likely to be attempts to change formulations slightly to access the exemption. For example, an exemption for natural unsweetened fruit juice may look to add juice to existing products to reduce excise or achieve the exemption.

As discussed above, discriminatory taxation within an industry also causes "product substitution" issues where consumers switch their consumption to non-taxed products that are readily substitutable, with an associated revenue loss – the issue of substitution will be revisited below in the context of the review of excise and health objectives.

In terms of simplicity, but capturing like goods and substitutes, it is recommended to limit an excise taxation "non-alcoholic beverage" category to just three items as discussed above, that is "waters", "juices" and "infused ready to drink" – with relevant sub-items defined should there be certain policy exemptions.

The concept of simplicity also needs to extend to compliance (for tax payers) and administration for tax officials. Here specific rates of excise are preferred over ad valorem rates. Simplicity exists in the simple "counting" or measurements of product as it moves past a taxing point rather than a more complex requirement to establish and support a set of rules and procedures to identify and confirm a particular value.

6.5.2. Equitability

Like products should be taxed on the basis at the same rate. The excise tariff structure should

be developed so as not to favor or discriminate against one type of non-alcoholic beverage over another, or one tax payer over another. The exception to this principle could be the exemption of potable drinking water from excise taxes.

Any new non-alcoholic beverage excise tax needs to be applied as broadly as possible, rather than trying to isolate one or two products. To levy excise on just one or just a few categories of non-alcoholic beverages will raise complexity (as discussed above) and will likely see manufacturers trying and reformulate or adjust products to gain a more favorable tax classification or tax exemption.

For the same reasons as looking to restrict the use of exemption categories, the excise rate that is set should then apply equally across like and substitutable non-alcoholic beverages – in other words there should be a single tax rate applying to all these products. Further, this rate, where possible, should be a specific rate based on per liter or per hectoliter basis (as opposed to a certain packaging size). As with "best practice" excise taxation throughout this resource, specific taxation is preferred over ad valorem when looking at such high volume and fast moving consumer goods, and that the focus of efficient excise taxation is the consumption rather than the value or quality.

This creates equitability across like and substitutable products and again avoids unwanted complexities and opportunities to manipulate products to achieve more favorable excise tax outcomes.

6.5.3. Appropriate rate setting

A principle of this *Resource Manual* is that all countries retain their sovereign right to set tax rates, while at the same time providing those countries with information on how best to define products, and structure an excise tax system.

Where it has been decided that non-alcoholic beverages will be part of the excise tax system then the setting of excise duty rates requires the determination of a "benchmark" or "policy" rate which represents the "starting point" for all excise rates on all such products. Where government policy is then to provide an exemption or preferential treatment to a particular beverage product, then excise rate exemptions or discounts are made to the policy rate and are known as "tax expenditures" in recognition that some revenue has been foregone by that policy.

In terms of setting this "policy rate" for non-alcoholic beverages, it is critical that great care and consideration be given to several important factors, with the eventual rate being determined by which factors carry the greatest priority. Where a government is considering or has decided to have an excise tax levied on non-alcoholic beverages then these factors will include:

- *Raising of revenue.* Excise as a source of revenue has been an important driver in setting rates in many different goods and service. Non-alcoholic beverages, with their high volumes and fast turnover, are attractive as potential sources of excise revenue in several countries. However policymakers do need to consider certain factors where revenue is a key driver, which include:
  - Many substitutable categories exist across the non-alcoholic beverage market and unless the excise tax is applied to all beverages, consumers will likely move from taxable beverages to non-taxed beverages greatly reducing the desired revenue outcomes;
  - The cost to manufacturers of the excise tax liability and the need to pass this through to consumers with resultant slow-down in sales volumes. This of course then impacts on other tax sources from the relevant industry sector, including manufacturers and the associated supply chains – taxes such as income tax reductions from reduced business profitability, and potentially VAT if sales of certain products have slowed; and
  - There is a need to conduct market analysis in terms of economic impact, including measuring price elasticities to approximate likely falls in sales volumes of taxed products, and impact on profitability for manufacturers and suppliers to manufacturers. Likewise, there is a need to understand likely substitution effects and consider impacts should consumers switch to non-taxed beverages.
- *Externality of sugar consumption.* A primary driver behind the introduction of excise taxes on certain categories of non-alcoholic beverages is the concept that the sugar content of such beverages may be a factor in obesity and its related diseases. This will be the case but only where a consumer's diet is dominated by the intake of sugar from sweetened beverages, which is highly unlikely. Where a consumer is taking the majority of their calories from other sourced sugars, other carbohydrates, or from

protein or fats, then a discriminatory tax on a limited number of beverages to address the externality will have little impact.

- *Externality of energy imbalance.* As with the discussion above with sugar, tax policymakers need to be aware that energy or calorie intake is to be considered with energy or calorie "expenditure." It is not dietary intake alone, but the level of physical activity undertaken by the consumer. Energy expenditure is difficult to address through taxation and thus excise taxation relies solely on the intake side, and where only one source of one form of calories in a diet is targeted in the tax system, the overall effect is questionable.

Endnotes

[1]France: Warren (2011), "France to press ahead with soda tax," The Local, 6 October 2011, http://www.thelocal.fr/page/view/1401; Mexico: http://www.bloomberg.com/news/2014-03-27/soft-drink-thirst-quenched-by-pena-nieto-tax-corporate-mexico.html; several cities and/or states of the United States of America: http://www.reuters.com/article/2013/10/29/us-usa-soda-california-idUSBRE99S19F20131029.

[2]Preece (2013), "The effective contribution of excise taxation on non-alcoholic beverages to government revenues and social objectives: a review of the literature," http://www.worldcustomsjournal.org/media/wcj/-2013/1/Preece.pdf.

[3]Human Energy Requirements, FAO, 2007, http://www.fao.org/docrep/007/y5686e/y5686e04.htm.

[4]"Obesity Update," OECD, 2012, http://www.oecd.org/health/49716427.pdf.

[5]Note: It also is possible for consumption of a good to decrease as incomes rise, as often happens in the case where consumers switch from lower to higher quality products with increased income.

[6]Deloitte (2012) International Tax: Egypt highlights 2012, accessed 27/11/2012.

[7]Preece (2013) The effective contribution of excise taxation on non-alcoholic beverages to government revenues and social objectives: a review of the literature.

[8]"The case for excise tax reform for non-alcoholic beverages in Thailand," Oxford Economics, 2009, Unpublished.

[9]"The Economic Benefits of the Reduction in Sales Tax on Soft Drinks in Egypt: An update," International Tax and Investment Center and Oxford Economics, 2010.

[10]"Tax law design and drafting," International Monetary Fund, 1996, Chapter 8, p. 16.

[11]World Customs Organization HS Tariff Nomenclature, 2012.

[12]Codex Alimentarius Commission, www.codexalimentarius.org (accessed 4 July 2013).

[13]Currently, ad valorem based excises on nonalcohol beverages are applied in Turkey, Zambia, Chad, Zimbabwe, Ethiopia, Ghana, as well as the four ASEAN members Cambodia, Lao PDR, Myanmar and Thailand.

[14]One exception is Thailand where ex-factory pricing is inclusive of excise and local tax.

[15]http://www.rijksoverheid.nl/ministeries/fin#ref-minfin.

[16]Ministry of Finance Finland, https://www.vm.fi/vm/en/10_taxation/05_excise_duty/index.jsp, accessed 16/1/15.

[17]http://www.ijf.hr/eng/taxguide/3-09/7.pdf.

[18]Analysis: Griffey (2010), "How Soft Drink Lobby's Victory in WA Matters to National Soda Tax Debate."

[19]Washington State maintains a syrup tax but only on fountain product. Washington voters, by a 64-36 margin, voted to repeal a proposed sugar sweetened soft drinks tax. (http://www.usnews.com/news/washingtonwhispers/articles/2010/11/12/voters-say-dont-tax-my-soda-pop).

Section 4. Administering Excises

Chapter 7. Excise Administration

SUMMARY OF KEY BEST PRACTICE

- Excise manufacturing and dealings in excisable goods should be licensed with strong initial and regular vetting of licensee;
- Excise licenses are condition to restrict licensees to activities directly related to the business and keep proper and accurate records;
- Electronic reporting and payment of excise duties, with a process of reconciling payments to reports;
- Excise duty becomes payable when goods leave a licensed premise, supported by tight controls over the movement of excise suspended goods between licensed premises, or between a licensed premise and export, destruction, or other form of excise liability acquittal;
- Remove reliance away from "tax stamps" as confirmation of tax status and authenticity and towards technologies which better control the integrity of the supply chain of excisable goods; and
- Full implementation of the supply chain controls and supporting regulation which is consistent with the spirit of the WHO FCTC Protocol to Eliminate the Illicit Trade in Tobacco Products.

Phase II of this study examined the relationship between these objectives and the key areas of excise administration, and those findings are captured here in the *Resource Manual*. The following chapter is broken into two areas: A) "Supply chain controls" which if implemented properly will help address the main types of risks to excise revenue, and B) "Managing excise duty liabilities" which focuses on the important processes of excise duty suspended goods, as well as duty payment and duty reporting.

Several of the key controls discussed below are now central measures to the recently adopted WHO FCTC Protocol to Eliminate the Illicit Trade in Tobacco Products (the Protocol) for which some ASEAN countries have signed, and others are now in the process of considering whether they will sign and ratify. For this resource, additional information relating specifically to the Protocol will be captured in special comment boxes throughout the chapter, with extensive coverage in Appendix 1.

7.1. Supply chain control measures to protect the revenue

7.1.1. Licensing

Entities who manufacture, store, move or deal in any way with excisable goods under duty suspension will often have large duty liabilities with the relevant revenue agency administering excise taxes. It should therefore be a legal or administrative requirement for all such entities dealing in excisable goods to be licensed or registered in some way. This will ensure that the relevant revenue agency has full knowledge as to who is operating within the excise system and indeed, through an application and vetting process, should look to reject certain applications for licensing until the applicant's risk to the revenue is acceptable.

Even where a license is granted to an entity with an acceptable level of risk, a license can be endorsed with a range of limitations, restrictions and conditions to be followed by a licensee to ensure the level of risk remains acceptable.

Thus, it is recommended as best practice that licenses be required for manufacturing, importing, or storing goods which are subject to excise duti

Protocol to Eliminate the Illicit Trade in Tobacco Products: Licensing

In addition to excise manufacture, import of excise goods and storage of excise goods, the Protocol requires those who ratify to license the following activities:

- Manufacture of cigarette making equipment and tobacco products;
- Import & export of cigarette making equipment and tobacco products;

Further, for the following activities for licensing where appropriate to do so:

- Growing tobacco (except small scale traditional farmers);
- Transport commercial quantities of tobacco products or manufacturing equipment;
- Transport cigarette making equipment;
- Wholesaling, brokering, or distribution of cigarette making equipment of tobacco products; and/or
- Retailing of tobacco products.

(See Article 6 of Part III of the Protocol).

Best practice dictates that "excise licenses" should only be issued upon proper vetting of the risk to the revenue. This is achieved by implementing an application process in which applicants are asked to provide requisite information for review by the revenue agency. Information provided should be assessed against risk criteria before a decision is made to issue the license. As a guide, Table 1 outlines recommended information to be asked of license applicants, and possible criteria for the agency to rate risk of the applicants.

Once a license is issued, to maintain the licensee at an acceptable level of risk, it is then recommended that certain conditions, restrictions or limitations be attached to the approval. The types of restrictions and conditions that could be utilized are not exhaustive but could, for example, include:

- Placing a "scope" on the license, for example nominating the types of excise goods which can be manufactured of stored (for example: brewing of beer; manufacturing of cigarettes; assembly of motor vehicles; storage of duty suspended petroleum products; duty free sales to passengers; etc);
- Placing a scope, or nominating the physical manufacturing and storage sites which can be used by the licensee;

Table 1: Application criteria for issuing excise licenses

Minimum information required from applicant	Reason for information	Criteria which needs to be met for issuing a license
Name of entity and relevant tax or other identification	Establish bona fides	Entity lawfully exists and is properly registered for all duties and taxes
Names of persons in control	Establish integrity of applicant	Have relevant knowledge, experience and qualifications
Previous criminal convictions	Entity is fit and proper to hold a license	Entity and /or principles have not been convicted of a fraud related offence which carries a sentence of imprisonment
Location of premises Establish bona fides	Location of manufacturing equipment within premises	Premises suitable for the production or storage of excise goods Premises physically secured
Details of products and manufacturing equipment	Identification and specification of brands Production capacity known	Calculation of potential excise liabilities for securities and bonds
Market for products	Assess size of market to reconcile with information on volume capacity of manufacturing equipment	Commercially viable business Bona fide market in line with production
Records and systems	Ability to account for excise liabilities	Internal systems and controls are sufficient to capture, record and account for all excise liabilities

- A requirement for a security bond relative to the size of the excise duty (and tax) liability of products under the control of the licensee at any given time;
- Licensees to inform the revenue agency as to any changes to: principle staff; business recording and accounting systems; physical security; production equipment; or any other material changes to the premises;
- Full and free access to business recording and accounting systems, including to the licensed premises, to the production machinery, to relevant apparatus such as flow meters, gauges and scales, and to any raw materials, partly manufactured goods and finished goods on the premises; and/or
- Pre-approval required before duty suspended products are moved from one premises to another (see more comprehensive discussion on movement of duty and tax suspended goods below).

Licensing regimes also require on-going components to support the operation of the system and assist with ensuring compliance across the population of various licensees. These components, with an explanation and best practice operation, are summarized in Table 2.

Table 2: On-going support functions for an excise licensing system

pport function	Reason for function	Best practice operation of function
License validity and renewal	Maintains low risk levels Opportunity to apply new conditions Opportunity to not renew high risk licensees	12 month validity for new licenses 36 months for trusted low risk licenses Licensees to apply for license renewal prior to expiration
License fee	Recover cost of licensing function for agency Provide barrier or disincentive to non-viable entities	Commensurate with cost recovery: • Application fee • License issue fee • License renewal fee
Administrative sanction options	Incentives to comply with laws and license conditions	Graduated penalties issued by senior officer: • Letter of admonishment • Financial penalty notice • Short license suspension • Long license suspension
Security/surety	Protect revenue in cases where licensee cannot account for excise goods and fails to pay any excise recovery demand	Commensurate with excise duty liabilities likely to be “on-hand” or in a given accounting period. Established via bank guarantee documents
Cancelation process	On licensee becoming an unacceptable risk to the revenue	Automatic cancelation on conviction of the licensee or principles of a related offence which carries a sentence of imprisonment Automatic cancelation if licensee becomes bankrupt Senior officer determines that non-compliance is continuing after graduated administrative sanctions applied
Appeal process	Natural justice, transparency and accountability of agency	All decisions available for appeal except automatic cancelation of a license

7.1.2. Record keeping, accounting and reporting of liabilities

There are several types of records and reports that are used for identifying and accounting for excise liabilities until they are bought properly to account. Different records are necessary to adequately track the excise liability as it moves from creation to its eventual acquittal. The reporting of licensee operational details should be simple for both industry and revenue agencies. Progress can be made through increasing the use of electronic returns based upon, or created directly from, the licensee's usual commercial records.

The main areas of activity for formal monitoring will relate to the three key excise system components outlined in Figure 1 below.

- Production (liability creation);
- Inventory operations (liability is tracked as it is added to and subtracted from); and
- Reporting and duty payment (liability is bought to account).

7.1.3. Production Records

The main principle objective that applies to the manufacture of any excisable good is that all production is accounted for. This is achieved by having records kept in relation to the receipt of raw materials, details of production runs and records of what finished goods are moved into inventory, and therefore the ability to reconcile those raw materials to finished goods on which excise duty will eventually be paid.

Differences between the level of raw material inputs and finished goods sent to inventory at the end of the accounting period are known as "losses." Losses are inevitable in the manufacture of all goods, especially with the volatile nature of many excisable goods. Figure 2 provides a summary of some of the main reasons that manufacturers experience losses during production.

Through the record keeping process, the revenue agency is looking to establish what are "normal" or "expected" losses for the licensee, and therefore by exception then be able to identify instances where losses are not normal and the revenue is possibly at risk from some production not being recorded in the inventory. Losses can be reviewed either by production run or by accounting period, but preferably both.

Figure 1: Record keeping, accounting and reporting at excise licensed operations

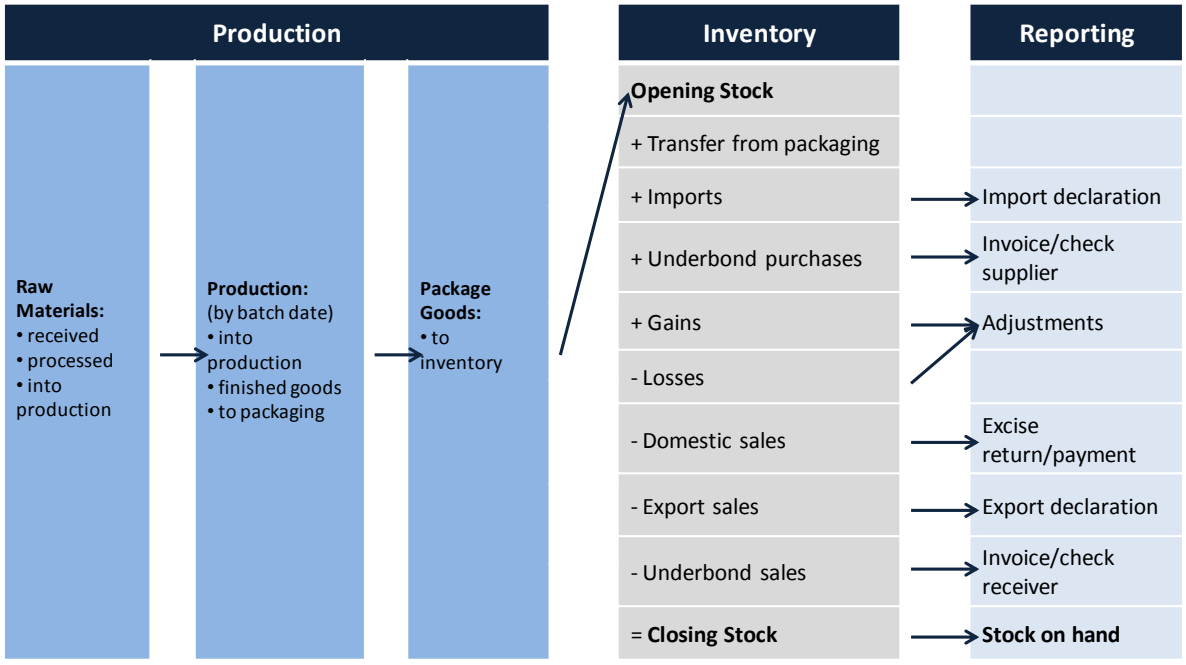


Figure 2: Potential sources of loss during manufacture of excisable goods, principally alcohol products

Why do we have losses during excise manufacture?

The main factors contributing to losses will include:

- The volatility of certain raw materials or finished products resulting in expansion and contraction after initial measurements
- Inaccurate dip / strength testing of alcohol products
- Over-packaging or over-filling
- Spills, leakages en route to or during production
- Product left in transfer pipes, filters and tanks
- Rejected products not to specification
- Raw materials and other parts not to specification, broken or otherwise unusable and discarded
- Samples of product taken from production lines for quality testing

As a guide for best practice record keeping, Table 3 should be used as a general guide only and would need to be tailored somewhat for individual product types. For example, a production line in an automobile assembly plant will be different from a distillery making whisky. However, certain concepts remain common across all manufacturing. Table 3 effectively divides production into:

- *Managing raw materials* or recording the purchase and use of relevant materials and parts, etc that are the inputs to production;
- *Product specification* or details of the goods to be manufactured, including (where appropriate) recipes, formulae, and assembly details. For example, it could be vehicle make and model, including engine size, fuel efficiency, number of seats, etc. For alcoholic beverages, it could be alcohol strength and package size; and
- *Batch details* that record relevant details of each production run.

Table 3: Production record guide

Raw Material Register (for each type of raw material)	**Product Specification** (for each product manufactured – as appropriate)	**Production Batch** (for each production run)
Opening quantities on hand	Identification of product (name, brand, make, model, etc)	Batch number and date
Date, quantity, supplier name, invoice number of all purchases	Packaging size, pack quantity, etc	Quantity of raw materials (as per raw material register)
Date, quantity, production batch number of all material sent to production	Other features which assist with classification or duty assessment, e.g. engine size, alcohol strength, etc.	Quantity of finished good
Closing quantities on hand		Losses

7.1.4. Inventory Operations

These records relate to the storage of finished packaged product from the time it is transferred in from production until it is released from the premises. It is a relatively straightforward accounting process with licensee required to account for these "in" and "out" movements via a register type approach.

Referring back to Figure 1, the licensee will start with an opening balance for each product for each accounting period before adding to this position by way of:

- Finished goods from production batches;
- Imports (for which there will be a corresponding import declaration);
- Purchases or receipts of duty suspended goods from another licensee (for which there should be an appropriate approval);
- Gains in stock (usually mis-deliveries or accounting errors in earlier accounting periods). There will then be deductions to inventory each accounting period from;

- Delivery into the market (with an appropriate excise duty payment);
- Export sales (with an appropriate export declaration or similar);
- Duty suspended sales to other licensees (for which there should be an appropriate approval); and
- Losses in stock (usually breakages, mis-deliveries, or accounting errors in earlier accounting periods).

With these additions, there will then be a closing balance for each product for each accounting period.

7.1.5. Other records

There will be a requirement in best practice to keep a number of other records by licensees to support various activities and confirm compliance, such as: refund / rebate / remission / drawback applications; movement of duty suspended goods; and duty payments. Many of these types of additional record keeping requirements will be discussed later in this Chapter.

There will, however, be certain additional record keeping requirements for the tobacco industry under the illicit trade Protocol, namely the requirement for records extends to tobacco manufacturing equipment and to details of intended markets (including forecasts), customers and of transportation. A more detailed look at these additional requirements for tobacco are outlined in the box below.

Protocol to Eliminate the Illicit Trade in Tobacco Products: Record keeping

In addition to the discussion above, the Protocol will require additional records to be kept in relation to tobacco manufacturing equipment. There are effectively two categories of activities for which record keeping is required by the Protocol:

- "Manufacture" of either tobacco products or of manufacturing equipment; and
- "Possession" of tobacco products or manufacturing equipment which is to be (1) exported, or (2) duty and tax suspended and intending to be moved

It is likely that some entities will need to keep both categories of records.

In terms of outlining these record keeping requirements, a summary of each category follows:

Manufacturers of tobacco products and tobacco manufacturing equipment	**In possession of tobacco products or tobacco manufacturing equipment for export or non duty and tax paid tobacco products or tobacco manufacturing equipment**
Commercial records which reconcile inputs to production	Date of shipment from the last point of physical control of the products
General information on market: (1) Volumes; (2) Trends; (3) Forecasts; and (4) Other relevant information	Details concerning the products shipped (including brand, amount, warehouse)
Quantities of tobacco products and manufacturing equipment in the licensee's possession, custody or control kept in: (1) Stock and (2) In tax and customs warehouses under the regime of transit or transshipment or duty suspension	Intended shipping routes and destination;
	Identity of the natural or legal person(s) to whom the products are being shipped
	Mode of transportation, including the identity of the transporter
	Expected date of arrival of the shipment at the intended shipping destination
	Intended market of retail sale or use

Finally, the Protocol desires tobacco licensees to hold such records for a period of at least 4 years.

(See Article 9 of Part III of the Protocol).

7.1.6. Audit

The audit of excise licensees is about ensuring compliance. The outcome of audit activity is to be satisfied that the licensee has:

- Captured all excise duty liabilities in their records, whether that be from production, import or acquisition of duty suspended goods;
- Paid all excise duties payable, or satisfactorily bought to account any goods on which the excise duty will be exempted;
- Paid excise duties by the date that it is payable;
- Properly claimed any refund, rebate, remission or duty drawback; and
- Complied with the excise laws and the conditions of their licenses.

In its simplest form, these types of risk areas of a licensee's operations can all be addressed through the requirement to keep the types of records described above and to make these records available upon request by an auditor from the revenue agency. In order to conduct an audit, the auditor will need to have access to people and records (in documentary and/or from IT systems) relevant to the activities being audited. This can be achieved through either the excise law making record keeping and access a legal requirement, or making record keeping and access conditions of the excise license.

In summary, requirements need to be in place for the following:

- Enter business premises of the licensee;
- Inspect relevant records and take copies;
- Access computer files and download data;
- Ask questions of managers and staff;
- Test accuracy of measuring equipment like flow-meters, counters, scales, etc; and
- Draw samples and take these away for analysis.

Likewise, there may be a need for some level of "protection" for licensees in the law or audit practice guide-lines so that the audit process is not overly burdensome on business and is not subject to unethical or unprofessional practices. These requirements on the audit function could include:

- Written notice in advance of intended audit and its scope, objectives and records that will be needed;
- Audits to be conducted (or at least led) by auditors who are authorized (accredited or trained to a minimum level of expertise) to conduct audits;
- Time limits on how long records are to be kept and accessed by auditors; and
- Provision of a full audit report on completion

In terms of best practice audit, there are several contextual factors to consider, the most important being the increasing growth in volumes of transactions that need confirming, often with fewer resources available to conduct audits of excise payers. With increasing volumes of transactions, there is a corresponding excise duty liability potentially at risk.

In this context, best practice audit is that which moves towards "control based" approaches (see Figure 4 below) with the objective of lowering the risk from the largest excise payers.

Figure 4 Control based auditing

Can be summarized as audit techniques designed to review the business systems and internal controls of excise manufacturers and excise payers and test the integrity of these, particularly the relevant internal controls that the licensee has established to prevent or detect errors. The concept is that rather than trying to test all excise transactions, the auditor reviews the systems and controls that produce the transactions.

Thus if systems and controls are operating effectively, revenue agencies can have some confidence that relevant transactions originating in those systems, like production batch reports, import declarations, export declarations, returns and duty payments, are accurate. The reverse is also the same and weak systems and controls may mean that a licensee will need to have more transactions tested. However, best practice auditing not only recovers lost revenue from errors, but will include recommendations for the licensee in order to improve the areas of the business systems and the internal controls that were least effective.

The key objective of audit programs is to reduce the risk of lost excise duty revenues, which is achieved by lowering the risk of all excise licensees. Once at a "low risk," a licensee can usually be monitored for a period via their lodged returns, statements, reports, etc. and may not need to be audited for several years – even large excise payers.

High and medium risk companies become the focus of audit programs with the intention of

bringing the risk level of these licensees down to a "low" level. Licensees who do not seem to be able to improve their risk levels from "high" may need to have decisions made as to whether they continue to be licensed by the revenue agency – which can be achieved at the next license renewal process.

Risk at "low risk" licensees can still change quickly and revenue agencies will always need to monitor all companies regularly for the following factors which can change a licensee's risk level:

- Analysis of company returns, declarations, statements or duty payments indicating an anomaly or unexpected variance.
- The company notifies that a material change has occurred to its business systems or internal control structure.
- There has been a change to inherent risk within the industry, including changes to legislation, reporting procedures, duty rates, increased competition, or detection of common errors within the industry.
- Information or intelligence that is creditable has been received about the operations of the licensee.

7.1.7. Due Diligence

The term "due diligence" may be new to excise administration but it is an important concept in customs administration and has long been utilized in many forms in commercial relationships. In short, due diligence is about knowing the other party in a transaction and ensuring they meet any standards that may apply in terms of reducing any risk from the transaction.

Revenue agencies will undertake due diligence in functions, for example, issuing excise licenses (see above) or permitting tax suspended goods to move between entities (see below). However, in the context of this *Resource Manual*, "due diligence" in excise administration relates to manufacturers, importers or suppliers of excisable goods taking an active interest in the dealings of their business customers before making available a supply of such excisable goods, and where necessary, determining not to make a sale or restricting a sale to minimize the risks of revenue evasion by the customer.

The Protocol to Eliminate the Illicit Trade in Tobacco Products sets out some requirements specifically relating to the supply chain in terms of tobacco products and cigarette manufacturing equipment; these are described more fully in the Protocol box. However, on a general level for most excisable goods, due diligence may be promoted around the issuance of guidelines or license conditions for excise licensees to follow in relation to their sales. Using the Protocol as a guide, the kinds of "due diligence" checks that licensees could be required to perform before a sale could include that the customer:

- Has a bona fide business in the type of excise goods being sold;
- Has a market for the type and quantity of excise goods being sold;
- Is not paying in cash;
- Has not been denied an excise license, or had an excise license canceled (and therefore requiring this information to be publicly available through the revenue agency); and
- Has an appropriate excise license where the sale is "tax suspended."

In effect, due diligence is improving the integrity of the supply chain by ensuring only legitimate sales are being made, and is moving some of the responsibility for this directly onto the excise industries themselves.

Protocol to Eliminate the Illicit Trade in Tobacco Products: Due Diligence

The requirement for the tobacco industry (including the supply of cigarette manufacturing equipment) to conduct due diligence on their customers will link effectively with the licensing of entities of the Protocol discussed above. It therefore requires an effective licensing regime as, once a license has been issued to an entity, there is then a "signal" that the entity has been considered a low risk by the relevant revenue agency. The vetting process before issuing a license is critical.

The first step in due diligence for a supplier of tobacco products or cigarette manufacturing equipment is confirmation that the customer has an appropriate license. In some countries this will be most of the supply chain, with the main exception being sales to retailers which will be a country by country decision.

However, in addition to confirming a license is held by the customer, the supplier should also be looking to confirm that quantities of tobacco products or nature of manufacturing equipment to be sold is appropriate to the market, and for the customers position in the market. It would, for example, under this Article be inappropriate for a manufacturer of cigarettes to sell to a wholesale dealer an amount of cigarettes considered to be in "excess" of the market's needs, or in excess of regular purchase volumes, or reasonable purchase volumes, even if the customer is licensed. Revenue agencies could ensure that licensees are verifying that customers are licensees, that they are monitoring volumes, and that they are performing other checks of non-licensed customers as part of any license renewal process, should there be concerns by that agency.

Due diligence checks extend to suppliers of manufacturing equipment and, as such, it would be difficult to imagine such an equipment supplier selling any relevant machinery to any entity which does not hold a license for manufacturing.

Where a sale to a customer is to proceed, then the supplier is also required to take note of the customer's bank details and to confirm the customer does not have a criminal record. However, where licensees feel obliged not to make a sale to a customer on the basis of a due diligence process, the licensee will then be required to report this to the competent authority.

The effectiveness of due diligence is enhanced by the making available of lists of customers for which:

- The entity has failed to secure an Article 6 license upon application;
- The entity has had their license revoked for criminal behavior;
- The licensee has had sales refused on the grounds of due diligence; or
- Information supplied from another domestic agency or international competent authority, as to serious duty and tax fraud activities.

The ability to check either on a customer's current licensing status will support the due diligence process.

(See Article 7 of Part III of the Protocol).

7.1.8. Track and Trace

Phase II of this project found that "tax stamps" as a confirmation of duty payment, legitimate routes into the market and authenticity is now questionable. Phase II also found that with different goods and different routes into market places it is difficult to outline a unique, proprietary solution for all types of excise goods.

The Discussion Paper noted some improvements to the quality and security of tax stamps. However, the continued use of paper-based tax stamps is considered "passive" authentication, heavily reliant on highly trained users with special equipment, such as expensive proprietary scanners. A more detailed discussion on tax stamp issues can be found in section 7.2.2. "Duty Payment and Reporting."

Tracking and tracing is now seen as a more effective compliance and enforcement approach, and indeed is a key area within supply chain control of the Protocol to Eliminate the Illicit Trade in Tobacco Products. Specific aspects of the application of tracking and tracing as outlined in the Protocol for tobacco products is again discussed more fully in the Protocol Box on the following page.

Effective tracking and tracing requires the implementation of robust and secure unique identifier codes and data management systems, especially in typical countries of diversion. This is already best practice in several industries such as the pharmaceutical, timber, food, and tobacco industries. A competitive ecosystem of renowned hardware and software suppliers has since emerged and put in place effective, globally operating tracking and tracing systems both at the manufacturer and supply chain levels. Software and hardware selected by manufacturers and supply chain members for tracking and tracing systems follow internationally recognized standards for the unique identification of products, system security, and underlying data management. It has ensured rapid implementation of tracking and tracing systems under various infrastructure and budget constraints (including small/medium supply chain members), beyond national and regional borders, as well as accessible through a variety of venues/devices.

The emerging technology in this area foresees the marking of the products with a unique identifier.

The serialization is generally applied during the manufacturing on the packaging line for which all data relating to the product and its manufacture is generated and is accessible by the relevant tax authority.

The unique identifier can provide instant confirmation that the product is genuine and confirms details of the product itself, including its manufacture and the status of tax and duty payments. Moreover, it enables tracking, to monitor a product in the supply chain, as an excellent tool for agency field auditors, or for responding to complaints of suspicious products in the market. As technology improves, so does the level of information that will be captured.

The unique identifier also enables tracing, to recreate the movement of the product down the supply chain. This includes details of wholesale customers, as well as dates and places of logistic events to assist in the identification of potential diversion, smuggling or tax evasion. In short, it becomes a source or a tool for investigators, not just field auditors.

Authentication and track and trace technology alone will not be sufficient in addressing problems associated with high levels of non-tax paid activity for excisable products.

Indeed, systems which don't follow the general best practice described above, such as the use of open standard coding, are ineffective, although very expensive. This could fuel the risks of tax evasion and smuggling. On the other hand, comprehensive digital coding and track and trace systems are already operational in many licensed manufacturing premises and already provide effective and efficient services to enforcement agencies.

While much of the current discussion in the excise administration context is around tobacco products, the track and trace concept can be applied to most excisable goods. Manufacturers will apply details of the product at packaging through coded information about the product put on to labels and often through bar-codes, QR codes, etc. The data stored within the label becomes a mechanism for tax authorities to be able to confirm the authenticity of the product and to have knowledge of production details, batch details and limited distribution history.

This will, however, require tax agencies to cooperate with the legitimate tax payers to identify the most cost effective approach to a tracking and tracing system to be applied in each specific industry.

Protocol to Eliminate the Illicit Trade in Tobacco Products: Track & Trace

The Protocol calls for the ambitious creation of a global platform, built from national and regional track and trace systems.

On a national level, countries will be required to implement a system which is based on the application of "unique identifying markings" affixed to packets, cartons and master-cases which contain the following data:

- Date & location of manufacture;
- Manufacturing facility;
- Machine used to manufacture;
- Production shift / time of manufacture;
- Name, invoice, order number and payment records of the first customer not affiliated with the manufacturer;
- Intended market of retail sale;
- Product description;
- Any warehousing & shipping;
- Identity of any known subsequent purchaser; and
- Intended shipment route, date & consignee.

The objective of the unique markings and this level of detail is for relevant agencies to be able to determine the origin of any cigarette packet, and the point (if any) of any possible diversion into the illicit market. It may also be used to monitor movements of tobacco through the supply chain and be able to confirm the legal status of the product at any particular time. Even where a country has a relatively low tax rate of tobacco products, a track and trace system still needs implementation to the agreed standard, otherwise there will be a "break" in the tracking and traceability of products leaving all other countries linked to a global system without vital information.

Article 8 is perhaps the most critical of the Protocol as it truly addresses the risks associated with the global supply chain as tobacco products move from dealer to dealer and from country to country. As seen in several of the case studies, these multiple international movements are often a significant component of diverting tobacco products into the illicit market, and tracking and tracing can provide a solution to address some of these risks, or indeed facilitate timely investigation and prosecution where diversion has occurred.

It is therefore important for this issue to be looked at regionally (and ideally, globally). One risk to successfully implemented track and trace systems is that individual countries build their own local monitoring systems and effective tracking and tracing of products across borders becomes difficult.

Without a regional approach, incompatible monitoring systems cannot exchange the required critical data between the agencies of each trading partner. Thus, there needs to be a move towards a "standard" within the tracking and tracing concept for coding and data management.

Implementing a regional (or global) standard of secure coding and data management systems would enable law enforcement authorities to easily retrieve, through a single access point and in a standard format, information about the product, its manufacture, distribution, and legal status.

(See Article 8 of Part III of the Protocol).

7.2. Managing excise duty liabilities

7.2.1. Duty suspension

Duty and tax suspension represent a significant risk to excise revenue that needs to be administered. For the purposes of this section, "duty suspension" relates to activities over excise goods on which the duty (and taxes) have not yet been paid or bought to account as exempt or duty free. In other words, there are still liabilities outstanding on the goods. The major forms of duty suspension to manage are movements of excise goods from:

- One licensed / approved place to another approved place;
- One licensed / approved place to a place of export;
- The place of import to a licensed / approved place;
- An approved place to a place where further processing, final processing, destruction, manufacturer into new non-excisable goods, and/or consumption in a non-excisable end use will occur.

The main objective is to ensure that all excise duty liabilities that leave the supervision and control of one place arrive safely and are taken up as new liability in the new place where it can again be supervised and controlled. The main aspects or risks to manage are that the:

- Destination is licensed / approved for the type of goods;
- The carrier of the goods will properly transport all of the goods safely;
- The dispatching licensee sends the correct goods in the correct quantities; and
- The receiving licensee / approved place correctly records the receipt.

These objectives and risks are addressed by having an application and approval process where the revenue agency can be assured that all risks have been mitigated and which then permits the movement of duty suspended goods to occur. This is achieved by an application form which contains all relevant details of sender and receiver, as well as sufficient detail of the excise goods so that they can be both identified and assessed for excise duties. Further, where required, revenue agencies can seek a security deposit to cover those excise duty liabilities from the applicant should goods not all arrive at the intended destination.

Best practice is to have this application, approval, dispatch and receipt process conducted through an electronic system such as the Excise Control Movement System (ECMS) of the European Union - see both the Case Study below and Appendix 1 at the end of this chapter. However, revenue agencies realistically need to be looking at paper based systems which incorporate the suggested level of control. Should the AEC progress to a Customs Union without border controls such as in Europe, then the various paper based systems will need to fully co-ordinate until an IT system like ECMS can be built.

Case Study 1: Excise Control Movement System[2]

The ECMS amounts to a major development for those who trade in alcohol and alcoholic beverages, tobacco or energy products within the European Union.

The ECMS is a network of computerized systems for monitoring movements of excisable goods which are to move under excise duty suspension within the EU, i.e. for which no excise duties have yet been paid. As of 1 April 2010, it will replace the paper document that currently must accompany such movements (the Administrative Accompanying Document or AAD) with electronic messages from the consignor to the consignee via Member State administrations. The ECMS means a:

- Simplification of procedures;
- Paperless administration;
- Secure movement of goods (Traders' data will be checked before the goods are dispatched);
- Quicker release of the guarantee for traders (Evidence that the goods arrived at their destination will come faster and more securely); and
- Effective monitoring with real time information and checks during movements.

In a paper based system, some efficiency can be gained for both licensees and revenue agencies by having a "continual" approval for licensees to move duty suspended goods either intra-company between storage sites or between manufacturing and storage sites, or for movements of duty suspended goods between a licensee and a long standing / regular customer. This way, individual approvals are not required for individual, regular low risk movements.

In terms of continual approvals to move, the following case study shows how this operates by confirming the receiving party's details and that a genuine commercial relationship exists between sender and receiver of duty suspended goods.

Case Study 2: Continuing Movement Permissions - Australia (extract from licensee application)

Section F: Movement details[3]

Question 9

If the owner of the goods does not control the receiving premises, you must attach a letter from the operator of the receiving premises, stating they will accept responsibility for the product when they receive it. We cannot process your application if written evidence that they accept responsibility for the goods is not attached.

The receiving premises' letter must be signed and dated by the operator of the receiving premises and contain the following information:

We, (receiving premises" name) will accept excisable / excise equivalent / other customable goods on which duty has not been paid, on behalf of (name and address of individual business) from (name, address and establishment number of sending premises).

We are prepared to accept goods under-bond.

We accept responsibility on receipt of the goods at our premises, details of which are listed below. Our records are suitable for recording under-bond goods.

We understand the provisions and requirements of section 61A of the *Excise Act 1901* and section 71E of the *Customs Act 1901*.

Full details of our premises are:

- Australian Business Number
- Excise establishment number
- Customs establishment number

The operators of receiving premises are liable for customs or excise duty on under-bond goods they take into their stock records, if they cannot account for those goods.

7.2.2. Duty payment and reporting

The principal liability acquittal mechanism is the goods passing the taxing point and triggering the requirement for the liability to be brought to account and remitted. The areas to look at in terms of best practice are where this taxing point should be, when should excise duty liability be reported, and when should that liability become payable.

Taxing point

The most common taxing point for excise taxation, and that which is considered "best practice," is when the product leaves a licensed manufacturing premise and is to enter the domestic market for consumption. This provides both a degree of flexibility to manufacturers and importers and control for the revenue agency.

For manufacturers or importers who do not know the final end use, customer or destination of their excise goods, the taxing point set at delivery from the licensed premise allows for full knowledge of the classification and excise tax rates when bringing these goods to account. For example, fuel may be being delivered to a business which manufactures solvents for which there may be an excise rate concessional rate, or a motor vehicle may be subject to an export order and be free of excise duties.

One question for this taxing point is that of bonded distribution. If the taxing point is leaving the licensed premise for the domestic market, then scope exists for a manufacturer to defer their excise duty by licensing "storage" premises close to their domestic markets and become liable for the excise duty not when the delivery is made from the manufacturing site but when the sale is made to a customer. Where the policy is to allow bonded distribution, it is recommended that the tax suspended movements from the manufacturing premise (or importing place) to the various licensed storage premises follow the controls as outlined above.

There is benefit in aligning the "taxing point" within the region as this will allow generally the same types and levels of control to be applied to excise goods in the same point in the supply chain across the region. This works to reduce opportunities for diversion and smuggling in intra-regional trade as all parties including both sets of revenue agencies, have knowledge of the tax status of the goods, particularly when supported by those controls outlined above in relation to licensing (and the need to dispatch from and receive into a licensed premise), tax suspended movements, and record keeping to confirm and account for movements.

Duty liability payment

All goods that are subject to excise duty and which are delivered into the domestic market for consumption will pay excise duties. The

actual receipt of the payment does not have to occur at the same time as the relevant report (see below), but there needs to be a mechanism which reconciles these assessments and the amount of excise deposited with the revenue agency.

The key question is whether excise is paid before goods are delivered into the domestic market (known as pre-payment) or whether excise can be paid periodically (at the end of a designated accounting period like a day, week, or month). In effect, the later provides an amount of "credit" to the licensee.

Where fiscal marking like tax stamps are in use, then pre-payment is often the most efficient approach as the markings are "purchased" ahead of packaging so that the markings can be applied during the packaging process rather than in a separate process. Notwithstanding, it is possible to issue fiscal markings pre-packaging and have duty paid periodically according to delivery of the goods.

Best practice tax administration operates on a periodic settlement basis. That is the licensee can make deliveries from a licensed premise during a specified accounting period and then total the excise liability from all deliveries in that accounting period and pay the excise duties on a nominated day after the accounting period has ended. Periodic settlement increases the efficiency and decreases the administrative and compliance burden on both businesses and revenue agencies because of a reduction in the number of transactions required between licensees and revenue agencies.

The length of the accounting period for excise duty settlement will be based on a balance between the size of the revenue liability and the need for government cash receipts, versus the savings to business and revenue agencies form the reduced processing of transactions. Therefore they can be set at different lengths depending on the goods, the excise rates and/or the size of a business.

Accounting periods can be as short as a day, but generally will be a week, month or quarter, and in some countries excise is captured on the licensee's general tax statement along with income taxes and VAT – in which case the accounting period and periodic settlement is aligned with other taxes.

Case Study 3: Australia - Periodic Settlement Permission (PSP)[4]

A PSP allows "excisable goods" and "imported excise equivalent goods" to be delivered into home consumption for a specified period and enables you to defer lodging a return and paying duty until after the end of that period. The permission will stipulate when the return is to be lodged and the duty paid.

The accounting period for a PSP is one week (seven days), unless the licensee is eligible for a small business concession in which case the licensee can elect either a one month or one week accounting period.

The licensee must only deliver goods from the licensed premise once a commercial invoice relating to the sale of the goods has been made.

The physical date of delivery must be recorded on the invoice and all physical deliveries during the accounting period are aggregated to the excise tariff item level and reported via an Excise Declaration due before 4pm on the first working day after the accounting period has ended. Excise duty is payable at the same time via any approved method.

Periodic settlement should be supported by taking of an appropriate "security" covering some or all of the "normal" or "average" excise duty liability that the licensee would expect to have during the accounting period, unless a sufficient security bond or deposit has been secured as part of the licensing process.

Fiscal marking-tax stamps

The main objective of the use of tax stamps is as a control over tax avoidance, although authorities have extended their use to controlling counterfeit products. The tax strip stamp is both a means of reconciling taxes paid against volumes of excisable product leaving a bonded warehouse and as a real time indication as to whether a product in the marketplace has had the appropriate tax paid.

As noted in Section 7.1.8. "Track and Trace," Phase II of this project noted much debate about the security, effectiveness and reliability of various types of tax stamps and also noted that there have been significant developments in recent times to improve the security and quality of tax stamps.

Included in these developments are digital tax stamps or strips with 2D barcodes which contain some basic data of the goods and which can be read with specific "scanning" or "reading" devices

used by revenue agency staff, and in some cases, by industry ensuring integrity within the supply chain.

Tax stamps are not suitable for all excise goods. Traditionally, they have played a role in fast moving and/or high duty rate products such as tobacco products, alcoholic beverages, and in some cases, non- alcoholic beverages. However, there are a range of excise goods for which they are simply inappropriate thus limiting the scope of their use.

In terms of best practice, tax stamps would be a "last resort" in revenue administrations with poor capacities. Instead, best practice would include building an effective record keeping regime supported by strong audit capabilities in order to be able to confirm manufactured volumes, imported volumes, and volumes entering the domestic market. However, it is understood that some goods, like tobacco products and alcoholic beverages, have unique risks and are indeed targeted for fraud and counterfeiting more than other products – with high excise duty rates making illicit activities profitable and the fast moving nature and established distribution of these goods helping to facilitate those illicit activities. As such, it is important to consider systems that address these risks.

One option is to look at how the industry and the owners of brands maintain integrity over their products and what abilities they have to identify the problems in the supply chain of their products from manufacture to retail - for example, where a recall of the product is required, or where there has been a consumer inquiry over a product. Often industries have devised technologies unique to their products to undertake such supply chain security – see Case Studies 4 and 5 for tobacco and alcohol respectively.

Case Study 4: Tobacco – Codentify®[5]

A competitive ecosystem of renowned hardware and software suppliers has emerged and put in place effective, globally operating Tracking and Tracing (T&T) systems both at the manufacturer and supply chain levels. Software and hardware selected by manufacturers and supply chain members for T&T systems follow internationally recognized standards for the unique identification of products, system security, and underlying data management.

This approach has been adopted by other industries as well and is considered best practice.[6] It has ensured rapid implementation of T&T systems under various infrastructure and budget constraints (small/medium supply chain members), working beyond national and regional borders.[7]

All of these systems already comply with FCTC Illicit Tobacco Protocol requirements (Art. 8) and the "traceability" requirements of Article 15 of the TPD, and further, they go beyond covering products manufactured and sold outside of the European Union (EU), which are the main source of the EU's illicit trade as the TPD only mandates T&T for products for sale in the EU).

Case Study 5: Alcoholic Beverages – Codex Alimintarius[8]

Food labeling should seek to contain coded information (e.g. bar codes, QR codes, etc.) which readily identifies the product in the packaging, quantities and packaging dates. Additional details regarding the manufacturer and distributor are all essential in food inspection program and to facilitate process like "recalls" on safety grounds. The question for the study is whether such details are sufficient in a revenue management context. The types of questions here would include the level of detail that is held in each coded label, and how can revenue agencies read this data in any field audit or investigation.

However, one significant advantage is cost, which is seen as minimal given that industries like alcoholic beverages are generally required to follow these principles in most of the markets they trade in, and no additional production of coded strips or management of databases is required by the revenue agencies. Effectiveness and a cost benefit analysis is considered worthwhile at this point.

In terms of tobacco products, there will be a likelihood that countries will eventually ratify and implement the WHO's Protocol to Eliminate the Illicit Trade in Tobacco Products, and with this, tax stamps should be replaced with a system of unique identification marks capable of fulfilling the requirements of Article 8 of the Protocol and allow for tracking and tracing of tobacco products. See above for further discussion on tobacco products.

Fiscal marking-secure ink marks

The rationale for secure ink marks upon an excise good is identical to that of the use of tax stamps. Indeed, many of the problems and issues that relate to tax stamps, such as counterfeiting, accidental removal or destruction, or simply not being effective in reducing smuggling and tax evasion, are equally true for the use of secure ink marks.

As with the tax stamps discussion above, revenue agencies should be moving away from fiscal markings of this nature in favor of building tax administration and compliance capacity and leveraging off established industry practices which are designed to help ensure the integrity of manufacturers and importer's supply chains.

Fiscal marking-fuel marking

A related tax status indicator relates to the fuel industry (where excise taxes are payable) where "chemical markers" are added to certain types of fuel, or certain end-use fuels before they leave a licensed premise, where a duty rate differential or duty rate exemption may apply. The objective is to allow for revenue agencies to "test" samples from products in the market place which have been delivered at the reduced or exempt rate – presence of the marker in uses where full duty rates would have applied indicates illicit activity.

The chemical marker is harmless to the fuel, to storage tanks, and to engines and will remain dissolved within the fuel until consumed in a combustion engine or similar. As the marker remains in the fuel, it allows for the fuel to be tested at any time and any point in the wholesale or retail markets, and if necessary from the fuel tanks of vehicles. Testing today is generally simplistic with "field test" kits usually sufficient to detect the marker's presence and confirm the duty and tax status. More accurate facilities are then utilized should the sample fail a field test or should the results prove inconclusive – perhaps from fuels of differing duty and tax status being mixed together.

Unless the revenue agency concerned already had, or has access to relevant analytical capabilities, then generally the supplier of the chemical marking agents will provide the necessary support to field tests by the agency and for the fuller analysis required on failing samples. Thus, in those fuel schemes in place today, many of the operations of the scheme are "outsourced" to a provider as a package of components which include:

- Supply of the chemical marker itself;
- Provision of field kits and training / support of agency field testing staff;
- Training of staff in the fuel industry and how to draw samples;
- Access to laboratory for follow up sample testing such as confirmation of a "failed test" and potentially non-duty and tax paid sample, or follow up sample testing where field testing was inconclusive; and
- Reporting, advice and, where necessary, be an expert witness.

This imposes a significant cost on the agency and so it is important to understand the exact nature of risks to be addressed as, in many cases, a fuel marking scheme is either not appropriate or is not the most effective way to address the types of risks. In many cases the risks can be addressed by better fuel tax policy which taxes the type of fuel rather than taxing the end use, and by taxing like fuels at the same rates. In these cases risk can be reduced by removing opportunities to readily mis-classify end-use, or to substitute or extend high taxed fuels with low taxed like fuels.

Tax policy can recognize end-uses in a variety of ways, and systems can be established so that certain preferred end-users are paying an "effective" lower excise duty rate via programs such as rebates, credits or grants. However, here the actual end-users are the entities working with the tax authorities rather than suppliers, thus reducing revenue leakage risks.

Another consideration is the impact on businesses from manufacturers, importers, distributors and consumers who may all deal in differently taxed fuels. In effect all of these businesses may have to double storage infrastructure to separate "marked" and "fully taxed" fuels – similarly doubling the record keeping requirements.

Fuel marking in developing countries has had some success, see Case Study 6 from Africa, which has risks relating to excise rate differentials that can lead to the extension and substitution of differently taxed like fuels, and from diversion during exports and transits.

Case Study 6: Fuel marking in Africa[9]

Marking of fuel is now common across Africa with South Africa, Mozambique, Kenya, Tanzania, Uganda, Guyana, Senegal, Ivory Coast, Togo, Zambia, Cameroon and Rwanda all having marking schemes tailored to their individual risks. Kenya, for example, has exported fuel being returned or diverted back into home use without duties and taxes and so it marks export fuel. Tanzania, Rwanda and Uganda both had significant excise rate differentials with tax rates for kerosene well below those of diesel and gasoline and thus these two fuel types were often extended with kerosene. These countries also had a lot of "transit fuel" passing through, which never left. The use of several chemical markers for each type of fuel was introduced, although Tanzania has also had success with increasing the excise rate of kerosene up to that of diesel and gasoline.

Success has been noticeable since the introduction of chemical marking in Africa. When looking at immediate impacts, the best results have come from East Africa. Tanzania saw petroleum excise revenue increase by 27%, diesel excise revenue increase by 26% (kerosene sales volumes went down by 37% as it became more difficult to use it as an extender).

Longer term, there are also some successes which are measured in terms of results from the annual sampling programs. During the first year of Senegal's marking program, 30% of samples were found to be "illicit." Five years later, the sampling program is turning up only 1% illicit. Similarly, in Guyana, the first year saw 36% of samples being illicit, down 4 years later to 3%. Guyana has also found that gasoline and diesel sales each year now grow in line with car sales.

7.2.3. Duty liability reporting

There needs to be a level of reporting to confirm what excisable goods have been delivered to support the excise duty assessment on which the excise duty has been paid. The actual receipt of the payment (see above) does not have to occur at the same time as the report, but as stated above there needs to be a mechanism which reconciles these assessments and the amount of excise deposited with the revenue agency.

Best practice would see reporting of duty liabilities submitted electronically. Not only does the revenue agency get real time knowledge of who has lodged on time or late, but data can be captured and profiled for risk and be stored to allow for future reconciliations and analysis.

The questions for revenue agencies are: timing of lodgment; level of detail; and reconciliation with excise duty payments received.

Timing of lodgment and level of details reported will depend on the payment arrangements, with pre-payment systems requiring lodgment before delivery with details of all goods covered by the report in terms of description, classification and volumes. This is because it is likely that the licensee will need a response to the report that the goods as specified in that report are clear for delivery into the domestic market. Periodic settlement can vary, and it is generally accepted that reports are lodged within several working days at the end of the accounting period, but details of deliveries of goods can be consolidated to a classification level, or in a format that suits the licensee such as consolidation to a stock taking unit (SKU) level.

With the nature of excise duties, particularly as they relate to manufacturing and distributing goods, there will be a need for adjustments to these periodic return amounts. While it is common in the compilation of any type of excise report to find errors and omissions for adjusting, excise manufacturers in particular are also dealing with issues such as:

- Incorrect deliveries such as incorrect stock, or incorrect volumes or quantities selected to fill orders;
- Returns of stock due to those reasons above, or due perhaps to a fault or deficiency in the product, or customer simply seeking a return and refund;
- Incorrect classification of deliveries such as domestic sale being classified as an export, an end use requirement not being fulfilled, or a required end user not taking delivery;
- Failures in recording and measuring systems detected such as pipes, flow-meters, gauges or scales;
- Incorrect delivery date reported causing payment to occur in wrong accounting period; and
- The goods deteriorate, perish, break or otherwise become un-saleable.

There are generally two ways to address adjustment issues. First, allowing for the adjustment to apply to the excise return for the current (or to a future) accounting period being reported. This is achieved by ensuring that there

is provision in the excise return document which permits the making of adjustments which will impact on the excise payable on the current return. Notwithstanding, as with any details provided on an excise return, the statements need to be supported by appropriate records to substantiate the adjustments being sought.

Alternatively, a separate report could be required in which the licensee seeks application for the administering agency to grant a refund of excise payable. This refund could be payable to a nominated bank account, by check, or by a credit of excise tax which can be applied against a future excise payment. This process is also used in those situations in which excisable goods have not been delivered and the licensee wishes only that the relevant liability be "written-off" the licensee's books.

These types of adjustments may also be for a need to increase excise duty payable (i.e. a voluntary or requested disclosure) – as above the process is similar with the report supporting the additional excise duties that have been paid to the revenue agency.

Endnotes

[1]Transcrime (2012), Analysis of the Draft Protocol to Eliminate Illicit Trade in Tobacco Products," Unpublished.

[2]http://ec.europa.eu/taxation_customs/taxation/excise_duties/circulation_control/emcs_practice/index_en.htm.

[3]https://www.ato.gov.au/Forms/Application-for-a-continuing-movement-permission-%28non-export%29/?page=9#Section_F_Movement_details.

[4]https://www.ato.gov.au/Business/Excise-and-excise-equivalent-goods/.

[5]More information at Digital Coding & Tracking Association (DCTA) at http://www.dcta-global.com/our-mission.html#sthash.XG5G76Uc.dpuf.

[6]The same approach has been taken in a variety of other EU contexts such as the Falsified Medicines Directive (EC Directive 2011/62/EU), Regulation on Food Safety (EC Regulation 178/2002), as well as the Directive on Traceability of explosives for civil use (EC Directive 2008/48/EC).

[7]The currently deployed T&T systems cover more than 50 markets including key diversion markets such as Eastern Europe and the Middle East.

[8]http://www.codexalimentarius.org/codexhome/en/.

[9]"The Economics Behind Fuel Marking," *Tanzania Daily News*, 17 April 2012; "How Fuel Marking Schemes Contribute to National Income," *IPP Media*, 17 April 2012, http://www.ippmedia.com/frontend/index.php?1=40629; and "GEA reports success against fuel smuggling," *Kaieteur News*, 2 April 2011.

Appendix 1. The Excise Control Movement System

See 7.2.1. Duty Suspension

EMCS as a best practice case study

Under the EMCS, a movement of excise goods between two traders is documented by means of the successive states of the electronic Administrative Document (e-AD), from issuance by the consignor to acknowledgment of receipt by the consignee.

An e-AD is electronically submitted by the consignor and validated by the Member State of dispatch. In particular, the excise numbers of the consignor and the consignee are matched against a European register of operators (SEED). The e-AD is electronically transmitted to the Member State of destination, which forwards it to the consignee. When the consignee has no connection to EMCS, he is informed by the Member State of destination or the consignor. An e-AD can be canceled or updated under certain conditions.

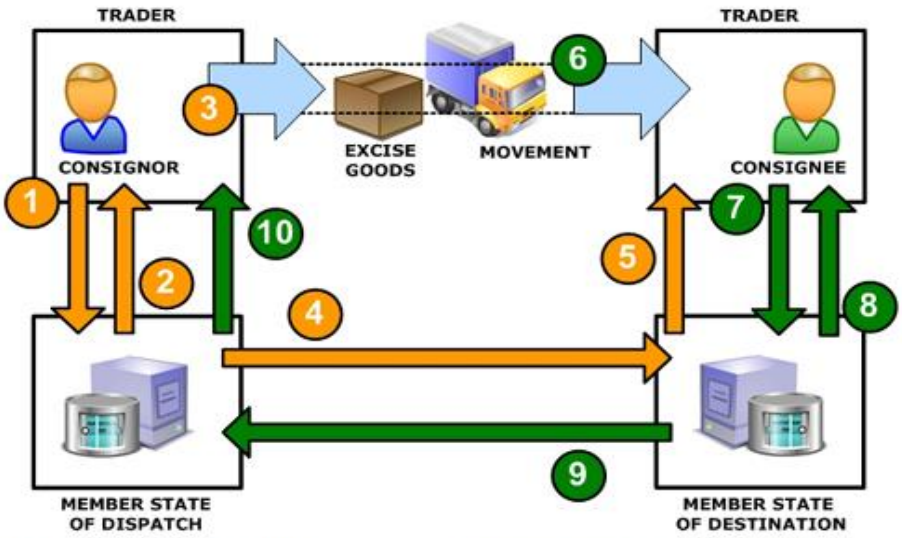
Upon reception of the goods, the consignee, or another actor on his behalf, submits a "report of receipt" on which possible anomalies, including shortages or excesses are also mentioned.

Several other cases can arise; for instance, the consignee refuses delivery or the consignor splits the movement.

SEED-on-EUROPA: checking the validity of an excise number

A service called SEED-on-EUROPA allows traders to consult the register of economic operators (System of Exchange of Excise Data or SEED) through the Internet.

SEED-on-EUROPA indicates whether or not a given excise number is valid at the date of consultation; if the answer is yes, the list of categories of goods for which the relevant operator is authorized is also given.



1. The consignor submits the e-AAD.
2. The Member State of dispatch validates the e-AAD and sends it back to the consignor (including the AAD Registration Code - ARC).
3. The consignor dispatches the excise goods.
4. The Member State of dispatch transmits the e-AAD to the Member State of destination.
5. The Member State of destination forwards the e-AAD to the consignee.
6. The excise goods arrive at destination.
7. The consignee submits a report of receipt.
8. The Member State of destination validates the report of receipt and sends it back to the consignee.
9. The Member State of destination transmits the report of receipt to the Member State of dispatch.
10. The Member State of dispatch forwards the report of receipt to the consignor.

Appendix 2. Protocol to Eliminate the Illicit Trade in Tobacco Products

The "Protocol to Eliminate the Illicit Trade in Tobacco Products" (the Protocol) adopted by Parties at COP5 Seoul Korea November 2012 aims at combating all forms of illicit trade in tobacco products by requiring Parties to take measures to control the supply chain of tobacco products and to cooperate internationally in a wide range of areas. Once the Protocol treaty comes into force and is ratified by individual countries, implementation of the Protocol will need to commence in each Party.

Significantly, the Protocol includes the manufacture and supply of cigarette making machinery as part of the tobacco supply chain. This importantly recognizes the risk of such machinery being supplied to "under-ground", non-licensed, or non-compliant cigarette making factories. There is also a desire in the Protocol to match production capacity with consumption in a particular market. As such, Figure 1 has included in the top right corner, the addition of cigarette production machinery manufacturers and suppliers as part of the supply chain.

The Protocol also recognizes the possibility that cigarette manufacture / export and tobacco import / manufacturing may occur in "free zones" which have often been implicated in high risk illicit activities. Changing technology is also contemplated and the Protocol recognizes that in some markets the internet and other technology platforms are permitted for the sale of tobacco products, and that this policy may continue. As with free zones, the Protocol seeks to have the relevant supply chain based controls applied to these types of sales.

The Protocol also proposes a range of new offenses to support the operation and effectiveness of the new or enhanced supply chain controls. These proposed offenses are also seeking to criminalize many of the illicit activities that form part of the illicit trade in tobacco products, properly reflecting the seriousness of that trade and the consequences of it.

Given that the trade in tobacco products is transnational, the Protocol recognizes that mutual cooperation will be required to ensure the supply chain controls are effective, and that offenses can be properly investigated and illicit traders brought to justice. This type of cooperation is at several levels; simple information sharing on statistical data relating to seizures and modus operandi; exchanges of intelligence on risks and targets; and extradition of suspects in the investigation of transnational illicit activities.

Further analysis and case study examples of the key articles within the Protocol follow:

Part III "Supply Chain Control"

Article 6 " License, Equivalent Approval or Control System"

This Article seeks to prohibit the activities of manufacturing, importing or exporting of tobacco products, as well as manufacturing, importing or exporting of cigarette manufacturing equipment, unless the entity concerned has been licensed for that activity. Article 6 seeks each member country to consider, where appropriate, requiring a license or similar authority for those entities engaged in: retailing tobacco products; growing tobacco leaf; transporting either "commercial" quantities of tobacco product or manufacturing equipment; and the wholesaling, warehousing, brokering, distribution of either tobacco products or manufacturing equipment.

The act of licensing has two main advantages. First, it will bring all related tobacco supply activities into the knowledge of the authorities. The issue of a license does not just put the entity "in sight" of authorities but the process of application provides these agencies with detailed knowledge of the entity and its operations. As will be discussed below, the application process is one of collecting relevant information from potential licensees which can be utilized to assess risk. However, there will need to be consideration as to the minimum level of detail required from applicants.

Second, the license provides an opportunity to lower the inherent risk from the tobacco supply chain by ensuring only those entities of a minimum integrity level are operating in that supply chain. Based on application details which can be reviewed and tested, only those applicants reaching a "benchmark" will be so licensed. The license issued is a recognition that the entity operates with integrity, and the license identification is then used for others in the supply chain to recognize a bona fide business operating lawfully in the tobacco supply chain.

Regionally, a comprehensive licensing regime covering a range of commercial activities is replicated in the case study below. The legislation comes from Malaysia, but further model examples from outside of the region can be found on the ITIC website at www.iticnet.org.

MALAYSIA

Malaysia has implemented a licensing system for manufacturing, importing and distributing tobacco products but there is no licensing system specifically for retailing and exportating of tobacco products.

Licensing of manufacturing and control over manufacturing

Section 20 of the Excise Act 1976 ("**EA**") requires a person to apply for a license to manufacture any dutiable goods (any goods subject to the payment of custom duty or excise duty on entry into Malaysia or manufactured in Malaysia). Such license shall be granted at the discretion of the Director General for such period and conditions as may be prescribed. A fee is payable for the application of the license.

Section 20 - License to distill, ferment or otherwise manufacture dutiable goods

1. Subject to this Part no person shall distill, ferment or otherwise manufacture any dutiable goods, or manufacture any tobacco or intoxicating liquor except under and in accordance with a license in the prescribed form issued by the Director General, and at the distillery, brewery or other place of manufacture specified in such license.
2. The Minister may by order exempt, subject to such conditions as he may deem fit to impose, any class of persons from subsection (1).
3. A license under this section shall be issued at the discretion of the Director General and shall be issued on payment of such fees, and subject to such conditions as may be fixed by him in each case and to such further conditions as the Director General may direct to be endorsed on the license.
4. Notwithstanding the generality of subsection (3), the Director General may require any person being granted a license under this section to give such security for the due compliance by that person with this Act and generally for the protection of the excise revenue as the Director General deems fit; and pending the giving of the said security the Director General may refuse to issue any license.

Regulation 3 of the Excise Regulations 1977 ("**ER**") stipulates that every application for a license to manufacture dutiable goods under Section 20 shall be in writing to the Director General for providing the following information according to regulation 4 of ER:

Regulation 3 of ER - Application to be made by principal official

3. (1) Every application for the grant, renewal or transfer of a license under any provisions of the Act shall be in writing and shall, unless otherwise provided, be made to the senior officer of excise in charge of the district in which the premises to be licensed is situated and shall contain such particulars as the Director General may require.

Regulation 4 of ER - Application for License

4. Applications for the grant of new licenses under section 20 of the Act shall, in addition to the information required by regulation 3, be accompanied by plans and drawings in triplicate or such additional copies as may be required specifying: (a) the site; (b) layout of the premises; (c) the inner locality; (d) layout of the factory proper; and (e) layout of plant, machinery, equipment and pipe-work.

Provided that, in the case of premises already engaged in the manufacture of goods made dutiable under section 6 of the Act, such plans and drawings shall be submitted as early as possible but in any case not later than three months from the date such goods become dutiable.

Any person who contravenes any of the provisions of EA shall be guilty of an offence and shall be liable on conviction to a fine of 10 to 20 times the amount of excise duty or an imprisonment of maximum 3 years or both. For subsequent offence, fine of 20 to 40 times the amount of the excise duty or imprisonment of maximum 5 years or both (Section 74 (1) Excise Act 1976)

Licensing for distributing, processing and manufacturing

Section 39 of the National Kenaf and Tobacco Board Act 2009 ("NKTBA") stipulates that no person shall distribute, process, manufacture for sale or other commercial purpose of any goods (goods include cigars and cigarettes) unless he has obtained license under this Act. Section 40 specifies that every application for license shall be made in the prescribed form and accompanied by such document or information as may be prescribed.

MALAYSIA (continued)

Section 39 - Licensing, approval and certificate of authorization

1. No person shall— (a) purchase kenaf; (b) sell kenaf products; (c) process kenaf; (d) manufacture kenaf or kenaf products; (e) import and export kenaf or kenaf products; (f) cure tobacco; (g) purchase cured tobacco; (h) manufacture tobacco or tobacco products; (i) blend tobacco; or (j) distribute tobacco or tobacco products, without a valid license issued under this Act.
2. No person shall sell or purchase uncured tobacco unless he has obtained a written approval from the Board.
3. No person shall act for or on behalf of a licensee in respect of any activities specified in subsection (1) without a certificate of authorization issued by the Director General.
5. Any person who contravenes subsection (1) or (3) commits an offence and shall, on conviction, be liable to a fine not exceeding two hundred and fifty thousand ringgit or to imprisonment for a term not exceeding three years or to both.
6. Any person who contravenes subsection (2) commits an offence and shall, on conviction, be liable to a fine not exceeding fifty thousand ringgit or to imprisonment for a term not exceeding one year or to both.

Under regulation 3 of the National Kenaf and Tobacco Board (Licensing of Tobacco and Tobacco Products) Regulations 2011, a manufacturer has a duty to submit a list of distributors and retailers every three months to the Board. A manufacturer in breach of this regulation is be liable to a fine not exceeding RM 100,000 (approximately USD 30,000) or to imprisonment for a term not exceeding (2) two years or to both.

Section 40 - Application for license, approval and certificate of authorization

1. An application for a license, an approval or a certificate of authorization shall be made in writing to the Board, in the manner as may be prescribed.
2. Every application under subsection (1) shall be accompanied by such document or information as may be prescribed.
3. The Board may in writing at any time after receiving the application and before it is determined, require the applicant to provide such additional document or information within the time or such extended time as may be specified by the Board.
4. If the requirements under subsection (1), (2) or (3) is not complied with, the application for a license, approval or certificate of authorization shall be deemed to have been withdrawn by the applicant and shall not be further proceeded with by the Board, but without prejudice to a fresh application being made by the applicant.
5. Any person applying to be licensed shall satisfy the following requirements: (a) that he has the financial ability to the satisfaction of the Board; (b) that he has the necessary qualification or expertise as determined by the Board; (c) that he has or will have the necessary facilities and equipment for the kenaf industry or tobacco industry he is to be involved in to the satisfaction of the Board; (d) that there is adequate demand for kenaf, kenaf product, tobacco or tobacco product in the long term; (e) that the licensing of the applicant or the issuance of a certificate of authorization will not adversely affect the existing kenaf industry or tobacco industry, with particular regard to the existing number of licensee or holder of certificate of authorization and to the availability of resources relating to kenaf or tobacco production; and (f) that any other relevant factors or requirements which may be considered appropriate by the Board have been taken into consideration or have been met.

The Board may in his discretion issue license subject to such conditions, limitations or restrictions (section 41 (3) NKTBA).

MALAYSIA (continued)

Regulation 3 - Categories of license

1. The Board may issue license to an applicant for the following activities: (a) to cure tobacco; (b) to purchase cured tobacco; (c) to manufacture tobacco or tobacco products; (d) to blend tobacco; or (e) to distribute tobacco or tobacco products.
2. A manufacturer shall submit a list of distributors and retailers every three months to the Board.
3. Any manufacturers who contravenes subregulation (2) commits an offence and shall, on conviction, be liable to a fine not exceeding one hundred thousand ringgit or to imprisonment for a term not exceeding two years or to both.

Licensing of importing

Importers of tobacco including cigarette for commercial purposes are required to apply for an import license to be used by the Director General under regulation 18 Customs Regulation 1977. A person violating regulation 18 of Customs Regulation is liable to a maximum fine of RM 20,000 (approximately USD 6,000) or imprisonment of maximum 5 years or both (section 138 of Customs Act 1967).

Regulation 18 - Licenses for importation of liquor, tobacco and denatured spirit

No person shall import intoxicating liquor, tobacco or denatured spirit except under and in accordance with a license issued by or under the direction of the Director General; provided that intoxicating liquor or tobacco which a senior officer of customs is satisfied is intended for the private consumption of the importer and not for sale or intoxicating liquor or tobacco exempted from the payment of customs duty under the provisions of section 14 of the Act may be imported without such license.

Section 138 of Customs Act 1967 - Penalty for offenses not otherwise provided for

Every omission or neglect to comply with, and every act done or attempted to be done contrary to, the provisions of this Act, or any breach of the conditions and restrictions subject to, or upon which, any license or permit is issued or any exemption is granted under this Act, shall be an offence against this Act and in respect of any such offence for which no penalty is expressly provided the offender shall be liable to a fine of not exceeding twenty thousand ringgit or to imprisonment for a term not exceeding five years or to both.

Article 7 " Due Diligence"

The requirement under Article 7 for industry to conduct due diligence on their customers will link effectively with the licensing of entities under Article 6. License identification held by a customer provides an immediate notification that the customer has undergone the vetting by the relevant license issuing authority and poses a lower risk.

However, in addition to confirming a license is held by the customer, the supplier should also be looking to confirm that quantities of tobacco products or nature of manufacturing equipment to be sold is appropriate to the market, and for the customers position in the market. It would for example, under this Article be inappropriate for a manufacturer of cigarettes to sell to a wholesale dealer an amount of cigarettes considered to be in "excess" of the market's needs, or in excess of regular purchase volumes, or reasonable purchase volumes, even if the customer is licensed. Due diligence checks extend to suppliers of manufacturing equipment and as such, it would be difficult to imagine such an equipment supplier selling any relevant machinery to any entity which does not hold an Article 6 license for manufacturing.

Where a sale to a customer is to proceed, then the supplier is also required to take note of the customer's bank details and to confirm the customer does not have a criminal record. However, where licensees feel obliged not to make a sale to a customer on the basis of a due diligence process, then the license will be required to report this to the relevant authority.

Due diligence is in place in some excise control legislation today; examples in the following case studies come from Canada and France.

Article 7. Due diligence

CANADA

Receiving goods from unlicensed manufacturers (Federal Excise Act, RSC 1985, c E-14, § 237):

237. Every person who purchases or receives for sale any manufactured tobacco or cigars from any manufacturer not duly licensed under this Act is guilty of an offence punishable on summary conviction and liable to a fine of not more than ten thousand dollars, and in default of payment of the fine to imprisonment for a term not exceeding twelve months, and shall, in addition thereto, forfeit all the manufactured tobacco or cigars so purchased or received for sale, or the full value of the manufactured tobacco or cigars including all duties and taxes that were payable under this Act or any other Act in respect of the manufactured tobacco or cigars.

FRANCE

Due diligence on retail tobacconists are required in France. In particular, retail tobacconists can only obtain a license if they comply with certain pre-established conditions set forth in the Decree and the model license agreement. Due diligence by the customs authority includes an examination of the retailer's financial situation, criminal record and moral probity, as established in Articles 3-6 of the Ministerial Decree 2010-72. Article 5 of the Decree requires that retail tobacconists should be citizens of France, Switzerland or an EU or EEA member state and possess full civil rights in their country of citizenship. Moreover, the tobacconist must hold a health certificate and have attended required tobacco retail training. A retail tobacconist is prohibited from managing more than one tobacco retail store.

Article 5, 2. of Ministerial Decree 2010-72 (the "Decree")

Offer good repute and probity guarantees, assessed namely in view of the criminal record "bulletin No 2."

Article 46, paragraph 1 of Decree

Resellers are only authorized to sell tobacco to the customers and users of their business, in addition to the main business activity, and to their employees.

Article 47 of the Decree

The reseller only obtains his supplies of manufactured tobacco from the ordinary permanent retail tobacco store nearest to his business, hereinafter referred to as "proximity store." As an exception, he can obtain his supplies from any other neighboring ordinary permanent retail tobacco store in the two following cases:

1. Express waiver by the manager of the nearest retail store.
2. Supply of cigars that are not distributed by the proximity store, with the consent of the manager thereof.

Article 8 " Tracking and Tracing"

In the context of the Article, "tracking" refers to the ability to monitor movement of product in the supply chain, whereas "tracing" refers to the ability to recreate that movement.

The proposed system commences with a need for countries to establish a requirement that all cigarettes have affixed to each "unit package" and each "outside package", a unique identifying mark such as a "code" or a "stamp." Each of these unique identifying marks must then contain the following pieces of data:

- Date & location of manufacture;
- Manufacturing facility;
- Machine used to manufacture;
- Production shift / time of manufacture;
- Name, invoice, order number and payment records of the first customer not affiliated with the manufacturer;
- Intended market of retail sale;
- Product description;
- Any warehousing & shipping;
- Identity of any known subsequent purchaser; and
- Intended shipment route, date & consignee.

The objective of the unique markings and this level of detail is for relevant agencies to be able to determine the origin of any cigarette packet, and the point (if any) of any possible diversion into the illicit market. It may also be used to monitor movements of tobacco through the supply chain and be able to confirm the legal status of the product at any particular time.

While countries with fiscal marking like tax stamps may have legislation prescribing how, when and where to affix such markings, this will not be sufficient to meet the requirements of Article. As an example of legislation to support track and trace, the following case study is taken from Italian tax law:

Article 8. Tracking and tracing

ITALY

Art. 6 of the Decree 417/1991

1. In order to fight the smuggling of tobacco products in national territory and the connected criminal organizations, also international, the Tax Administration and cigarette manufacturers which have stipulated contracts with the Tax Administration for the importation, production, distribution or sale of their products within the Italian State, or use the warehouses provided by article 1 of the Law no. 724/1975, have to monitor the effective introduction in the market of the goods in the State declared as the final addressee.

To this purpose, the manufacturers of tobacco products have to adopt an identification system of products, in order to identify, with regard to tobacco products smuggled into the territory of the State, from a single pack of cigarettes, the date and place of production, the machinery, the shift of production, the Country of origin of shipment, the final market of destination and the first buyer of the product. The manufacturers must communicate such identification system to the Tax Administration within 30 days from the settlement or amendment of the same.

Article 9 "Record keeping"

Article 9 requires licensed entities to keep records and then make them available upon request to the competent authority. The Article effectively looks at two categories of activities for which record keeping is required. The first is for manufacturers of either tobacco products or of manufacturing equipment. The second category is for those who are in possession of tobacco products or manufacturing equipment which is to be exported, or is duty and tax suspended and intending to be moved. It is likely that some entities will need to keep both categories of records.

In terms of outlining these record keeping requirements, a summary of each category can be found in the table below.

Record keeping a possible license condition	
Manufacturers of tobacco products and tobacco manufacturing equipment	In possession of tobacco products or tobacco manufacturing equipment for export or non duty and tax paid tobacco products or tobacco manufacturing equipment
Commercial records which reconcile inputs to production	Date of shipment from the last point of physical control of the products
General information on market: • Volumes • Trends • Forecasts • Other relevant information	Details concerning the products shipped (including brand, amount, warehouse)
Quantities of tobacco products and manufacturing equipment in the licensee's possession, custody or control kept in: • Stock • In tax and customs warehouses under the regime of transit or transshipment or duty suspension	Intended shipping routes and destination
	Identity of the natural or legal person(s) to whom the products are being shipped
	Mode of transportation, including the identity of the transporter
	Intended market of retail sale or use

There are a number of examples of record keeping requirement legislation. The following case study example has been taken from France, but a number of other examples from Canada and Europe can be found on the ITIC website at www.iticnet.org.

Article 9. Record-keeping

FRANCE

Under paragraph 5 of Ministerial Decree 2010-72 the licensed tobacco retailers are required to keep detailed records of supplies and sales of tobacco products.

Article 49, paragraph 5 of Ministerial Decree 2010-72

The sale record book is produced by the reseller when required by the customs and excise tax authorities. It must be kept by the reseller for six years as of the date of the latest transaction registered therein pursuant to the provisions of Article L. 102 B of the tax procedures book. An order of the Budget Minister sets the content, presentation and terms of use of the record of supplies.

Article L. 102 B of the Tax Procedures Book

"The retailer is required... - to keep the registers and carry out the public service duties that the State deems useful to entrust him with..."

Article L. 570-I-6° of the General Tax Code

For each delivery to a retailer, use a document bearing the retail sale monopoly stamp, true to the model fixed by local authorities, and provide periodically statements summarizing the deliveries.

Article L.570-I-8° of the General Tax Code

"...8. When tobacco passes through warehouses other than customs warehouses:

a. Subject said warehouses to the authorities' inspection;

b. Keep stock accounts thereon that must be produced at the authorities' request..."

Article 65 paragraph 1 of the Customs Code

1. The customs agents holding at least the rank of controller can require that papers and documents of any type relating to transactions of interest to their department be sent, whatever the medium;

a. To railway stations (waybills, invoices, loading lists, books, registers, etc);

b. To the premises of maritime and river navigation companies and to ship owners, maritime consignees and brokers (freight manifest, bill of lading, mate's receipt, dispatch advice, delivery orders, etc);

c. To the premises of air navigation companies (dispatch notes, delivery notes and slips, store register, etc);

d. To the premises of road transport companies (handling registers, package registration record books, delivery record books, waybills, consignment notes, shipment slips, etc.);

e. To the agencies' premises, including those known as "rapid transportation agencies", that are in charge of the receipt, consolidation of consignments, shipment by all modes of locomotion (rail, road, water, air) and delivery of all packages (detailed collective shipment slips, receipts, delivery record books, etc.);

f. To the customs premises of the freight or forwarding agent;

g. To the warehouse, docks and general store dealers (storage registers and files, warrant and pledge books, incoming and out coming goods registers, the position of goods, stock accounts, etc.);

h. To the premises of the actual recipient or consignor of the goods declared to customs;

i. To the premises of the telecommunications operators and service providers mentioned in 1 and 2 of I of Article 6 of Act No. 2004-575 dated June 21, 2004 for the trust in digital economics, for the data kept and processed by the latter, within the framework of Article L.34-1 of the French Posts and Telecommunications Code; and

j. In general, to all individuals or corporate bodies who are directly or indirectly interested in regular or irregular transactions falling under the competence of the customs department.

Article 10 " Security and Preventative Measures"

There are two main components to Article 10. The first requires those entities licensed under Article 6 to report to the relevant agencies in relation to cross border cash transactions that exceed an amount that is normally reportable under local cash transaction laws, and similarly report any "suspicious" transactions.

The second component places a responsibility for those same licensed entities to only supply either tobacco products or manufacturing equipment in amounts which are "commensurate with the intended market." Thus with "due diligence" requirements, the Protocol is moving a number of obligations to eliminate the illicit trade on to the industry itself.

The following case study example from France illustrates how a provision like Article 10 can be adapted into law.

Article 10. Security and preventive measures

FRANCE

French anti-money laundering legislation requires financial institutions many other entities to report suspicious transactions to the central anti-money laundering authority (TRACFIN). The general anti-money laundering legislation thereby establishes provisions controlling and reducing monetary transactions related to illicit tobacco trade.

Suspicious transactions are defined in article L561-15-I of the Monetary and Finance Code as any transactions which concern monetary amounts for which any of the persons, having reporting obligation, know, suspect, or had reason to suspect that such transactions relate to a crime punishable by a prison term of a year or more:

Article L561-15-I of the Monetary and Finance Code

The persons mentioned in Article L. 561-2 are required, under the conditions set out in this chapter, to declare to the department mentioned in Article L. 561-23 the sums entered in their books or the transactions concerning sums that said persons know, suspect or have good reasons to believe result from an offence punishable by a prison sentence of more than one year or contribute to the financing of terrorism.

Article L.112-6 of the Monetary and Finance Code

The payment of a debt of more than an amount set by decree [€3,000 for commercial transactions] cannot be carried out in cash, while taking into account the place of the debtor's fiscal domicile and the professional or non-professional purpose of the transaction.

There are no legislative limits on the quantities of tobacco that a retailer, wholesaler, manufacturer or trader may purchase as required by article 10, paragraph 1, (b) of the FCTC Protocol. However, paragraph 1 of Article 46 of Ministerial Decree 2010-72 (the "Decree") limits licensed retailer to only sell to users of the retail outlet (thus prohibiting retailers from selling in wholesale quantities):

"Resellers are only authorized to sell tobacco to the customers and clients of their business, in addition to the main business activity, and to their employees…"

Furthermore article 47 of the Decree requires retailers to obtain supplies from their nearest wholesaler. The two articles thus regulate the distribution channel and minimize the risk for illicit trade.

"The reseller only obtains his supplies of manufactured tobacco from the ordinary permanent retail tobacco store nearest to his business, hereinafter referred to as "proximity store." As an exception, he can obtain his supplies from any other neighboring ordinary permanent retail tobacco store in the two following cases:

1. Express waiver by the manager of the nearest retail store
2. Supply of cigars that are not distributed by the proximity store, with the consent of the manager thereof.

Article 11 "Sale by Internet, telecommunications or any other evolving technology"

Article 11 recognizes the increasing role of technology in the economy, particularly in relation to retail level sales of all types of goods. In relation to tobacco products however, the Article seeks to have countries consider "banning" sales through the Internet or other technologies. Where a country continues to allow such sales, then Article 11 requires those countries to apply the Protocol to those sales.

Article 12 " Free Zone and international transit"

Trade investment policies run by many government have attempted to attract manufacturing businesses to their economies by providing "free zones", "export processing zones", and similar regions in which foreign investors can operate free of many of the local taxes and regulations. This investment policy does create a policy issue in terms of who manages a "free zone" and the rules that apply – is it a "Board of Investment" under an industry portfolio, or is a Customs agency owing to the nature of the import and export operations which occur?

The World Customs Organization has proposed "guidelines" for the management of free zones, goods in transit and transshipment and protection of Intellectual Property Rights.

Article 13 "Duty Free Sales"

This Article is seeking to have duty free sales subject to the relevant measures of the Protocol. However, the Article also suggests that the risk from the duty free market is not well known, and as such, has called for further research to be conducted through the "Meeting of Parties" process. This research is to be conducted within five years of the Protocol coming into force. However, duty free sales of tobacco are common in customs and excise law already, with legal requirements that persons in possession of duty free goods be licensed and that, where sales are duty free under a tariff exemption, proper authority to release those goods free of duty into the market or for export has been obtained. The following case study from Canadian law makes both an authorized delivery illegal and allows for recovery of penalty excise taxes.

Article 13. Duty Free Sales

CANADA

Violations of Duty-Free Laws (Federal Customs Act, RSC 1985, c 1 (2nd Supp), § 109.2):

Contravention relating to tobacco products and designated goods

2. Every person who

   a. Removes tobacco products or designated goods or causes tobacco products or designated goods to be removed from a customs office, sufferance warehouse, bonded warehouse or duty free shop in contravention of this Act or the Customs Tariff or the regulations made under those Acts, or

   b. Sells or uses tobacco products or designated goods designated as ships' stores in contravention of this Act or the Customs Tariff or the regulations made under those Acts,

   c. Is liable to a penalty equal to double the total of the duties that would be payable on like tobacco products or designated goods released in like condition at the rates of duties applicable to like tobacco products or designated goods at the time the penalty is assessed, or to such lesser amount as the Minister may direct.

Part IV of the Protocol looks at offenses. The effectiveness of the supply controls outlined above in Part III will rely somewhat on the ability of relevant officials to take action where these control measures are breached. This will require a minimum number of "offenses" relating to these controls to be included in local excise laws so that officials may undertake prosecution of those offenders. Article 14, "Unlawful conduct including criminal offenses," provides almost a "check list of offenses" required to support Part III controls and summarizes the following to become offenses:

- Manufacturing, or any dealing in tobacco products or manufacturing equipment "contrary to the provisions of the Protocol";
- Manufacturing, or any dealing in tobacco products or manufacturing equipment "without the payment of duties, taxes and other levies" or any other acts of smuggling tobacco products or manufacturing equipment;

- Any form of illicit manufacture of tobacco, tobacco products or manufacturing equipment, or tobacco packaging bearing false unique identification markings;
- Dealing in illicit tobacco or products bearing a false unique identification mark;
- Dealing in illicit manufacturing equipment;
- Mixing of tobacco products with non-tobacco products during progression through the supply chain, for the purpose of concealing or disguising tobacco products;
- Intermingling of tobacco products with non-tobacco products in free zones;
- Using Internet, telecommunication, or any other evolving technology-based modes of sale of tobacco products in contravention of the Protocol;
- Obtaining, by a person licensed in accordance with Article 6, tobacco, tobacco products or manufacturing equipment from a person who should be, but is not, licensed in accordance with Article 6;
- Obstructing any authorized officer in the performance of duties relating to the prevention, deterrence, detection, investigation or elimination of illicit trade in tobacco, tobacco products or manufacturing equipment;
- Making any material statement that is false, misleading or incomplete to any authorized officer relating to the prevention, deterrence, detection, investigation or elimination of illicit trade in tobacco, tobacco products or manufacturing equipment;
- Mis-declaring on official forms the description, quantity or value of tobacco, tobacco products or manufacturing equipment, evade the payment of applicable duties, taxes and other levies, or to prejudice any control measures for the prevention, deterrence, detection, investigation or elimination of illicit trade in tobacco, tobacco products or manufacturing equipment;
- Failing to create or maintain records covered by this Protocol or maintaining false records; and
- Laundering of proceeds of unlawful conduct established above as a criminal offence.

Bibliography

Beltramello, A. (2012), "Market Development for Green Cars," *OECD Green Growth Papers*, No. 2012-03, OECD Publishing, Paris. doi: 10.1787/5k95xtcmxltc-en.

Bigazzi, A and Figliozzi M (2013) *Marginal costs of freeway traffic congestion with on-road pollution exposure externality,* Transportation Research A. http://web.cecs.pdx.edu/~maf/Journals/2013_Marginal_costs_of_freeway_traffic_congestion_with_on-road_pollution_exposure_externality.pdf

Cnossen S (2005) "Economics and Politics of Excise Taxation," *Tax Notes International*. http://www.iticnet.org/file/document/watch/1628

Cnossen, S (2005) *Theory and Practice of Excise Taxation: Smoking, Drinking, Gambling, Polluting and Driving*, Oxford University Press.

Cooper, A and Witt, D (2012) *The linkage between tax burden and illicit trade of excisable products: the example of tobacco*, World Customs Journal, Volume 6 Number 2 http://www.iticnet.org/images/World%20Customs%20Journal-Cooper_Witt.pdf

David, P. (2011), "Principles of taxation of road motor vehicles and their possibilities of application," ACTA UNIVERSITATIS AGRICULTURAE ET SILVICULTURAE MENDELIANABRUNENSIS LX, 2012 No. 2, pp. 483–492.

European Union (2012) *Strengthening the Single Market by removing cross-border tax obstacles for passenger cars* http://ec.europa.eu/taxation_customs/resources/documents/taxation/other_taxes/passenger_car/com_2012_756_en.pdf

Fletcher J, Frisvold D and Tefft N (2009) *Can Soft Drink Taxes Reduce Population Weight?* Yale University

Fletcher J, Frisvold D and Tefft N (2010) *The effects of soft drink taxes on child and adolescent consumption and weight outcomes,* Journal of Public Economics 94 (2010) pp967-974.

Fletcher J (2012) *Soda Taxes and Substitution Effects: Will Obesity be Affected?* Choices Agricultural & Applied Economics Association http://www.choicesmagazine.org/choices-magazine/policy-issues/soda-taxes-and-substitution-effects-will-obesity-be-affected, accessed 03/12/2012

International Council Clean Transport (2012) *European CO2 Emission Performance Standards for Passenger Motor Vehicles and Light Commercial Vans Policy Update*, http://www.theicct.org/sites/default/files/publications/ICCT%20Policy%20Update%20EU%20PV%20CO2%20July2012final.pdf

KPMG International (2012) *Global Automotive Executive Summary 2012*, http://www.kpmg.com/AU/en/IssuesAndInsights/ArticlesPublications/global-automotive-executive-survey/Documents/global-auto-executive-survey-2012.pdf

KPMG International (2014) *Global Automotive Executive Summary 2014* http://www.kpmg.com/AU/en/IssuesAndInsights/ArticlesPublications/global-automotive-executive-survey/Documents/global-automotive-executive-survey-2014.pdf

New England Journal of Medicine (2012), *Regulation of Sugar Sweetened Beverages*, 367:15 October 11 2012, pp1464 -1466.

Obidzinski, K., R. Andriani, H. Komarudin, and A. Andrianto (2012) *Environmental and social impacts of oil palm plantations and their implications for bio-fuel production in Indonesia*, Ecology and Society 17(1): 25.

Phoumin H and Kimura S (2014) *Analysis on Price Elasticity of Energy Demand in East Asia: Empirical Evidence and Policy Implications for ASEAN and East Asia Economic Research Institute for ASEAN and East Asia*, Discussion Paper 2014-05.

Preece R (2008) *Key controls in the administration of excise duties,* World Customs Journal, Vol 2 No 1.

Preece R (2012) *Excise taxation of key commodities across the ASEAN region: a comparative analysis ahead of the ASEAN Economic Community 2015*, World Customs Journal, Vol 6 No 1.

Preece R (2013) *The effective contribution of excise taxation on non-alcoholic beverages to government revenues and social objectives: a review of the literature,* World Customs Journal, Volume 7 No 1

Rudie Nel, Gerhard Nienaber, (2012) "Tax design to reduce passenger vehicle CO2 emissions," Meditari Accountancy Research, Vol. 20 Iss: 1, pp.39 – 51.

Santos, G. et al., (2010), "Externalities and economic policies in road transport," Research in Transportation Economics, 28, 1: 2–45.

Small K and Van Dender K (2007) *Long run trends in transport demand, fuel price elasticities, and the long term outlook for oil in transport policy,* OECD and International Transport Forum's Joint Transport Research Centre, Paris.

Sou G & Preece R (2013) *Reducing the illicit trade in tobacco products in the ASEAN region: A review of the Protocol to Eliminate the Illicit Trade in Tobacco Products,* World Customs Journal, Volume 7 No 2.

UNEP "Global Fuel Economy Initiative" Cleaner, More Efficient vehicles, http://www.unep.org/transport/gfei/autotool/approaches/economic_instruments/fee_bate.asp

UNECE (2012) *Regulation No 83 of the Economic Commission for Europe of the United Nations (UN/ECE) — Uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements,* Official Journal of the European Union.

UNECE (2013) *Regulation No. 101 - Uniform provisions concerning the approval of passenger cars powered by an internal combustion engine only, or powered by a hybrid electric power train with regard to the measurement of the emission of carbon dioxide and fuel consumption and/or the measurement of electric energy consumption and electric range, and of categories M1 and N1vehicles powered by an electric power train only with regard to the measurement of electric energy consumption and electric range,* Official Journal of the European Union

Weisbrod, Vary & Treyz, (2003) *Measuring the Economic Costs of Urban Traffic Congestion to Business Transportation Research Record*, #1839, Journal of the Transportation Research Board, 2003.

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