



*cutting through complexity*

# Illicit tobacco in Australia

2013 Half Year Report  
October 2013





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# Glossary

<b>ABS</b>	Australian Bureau of Statistics
<b>AIHW</b>	Australian Institute of Health and Welfare
<b>AIT</b>	Anti Illicit Trade
<b>AWOTE</b>	Average Weekly Ordinary Time Earnings
<b>BATA</b>	British American Tobacco Australia
<b>CAGR</b>	Compound Annual Growth Rate
<b>CATI</b>	Computer Aided Telephone Interview
<b>CAWI</b>	Computer Aided Web Interview
<b>Contraband</b>	Genuine manufactured cigarettes that are sold without the payment of applicable excise taxes in the market of consumption. Contraband cigarettes tend to have been made in a low-tax country and brought into the country of consumption illegally, or acquired without taxes (for export purposes) and illegally re-sold in the market of consumption. This includes genuine products which are brought into a country in amounts exceeding the personal allowance; in Australia this limit is 50 sticks or 50 grams of RYO per person.
<b>Counterfeit</b>	Manufactured cigarettes which are illegally manufactured and carry the trademark and/or branding of a legally sold brand without the consent of the trademark owner. Counterfeit cigarettes are also known as fake cigarettes. For the purposes of this analysis, data relating to counterfeit is not included within the definition of contraband.
<b>CPI</b>	Consumer Price Index
<b>EOS</b>	Exchange Of Sales data. Shipment data provided by the industry.
<b>EPS</b>	Empty Pack Survey
<b>FCTC</b>	Framework Convention on Tobacco Control
<b>GDP</b>	Gross Domestic Product
<b>H1</b>	First half of the year i.e. the period from January to June
<b>Illicit whites</b>	'Illicit whites' is a term for brands of manufactured cigarettes that are not legally available in the local market. Whilst possibly legal at the point of manufacture, these brands are typically not sold legally anywhere, and are often made exclusively for smuggling.
<b>Inflows</b>	Total volume of cigarettes coming into Australia
<b>ITA</b>	Imperial Tobacco Australia
<b>kg</b>	Kilogram
<b>KPI</b>	Key Performance Indicator
<b>LDC</b>	Legal Domestic Consumption
<b>LDS</b>	Legal Domestic Sales
<b>LTM</b>	Last Twelve Months
<b>LTM H1</b>	Last Twelve Months to the end of June (e.g. 1 July 2012 to 30 June 2013)
<b>MSI</b>	MSIntelligence
<b>ND(L)</b>	Non-Domestic Legal is the legitimate tobacco purchased in duty free or abroad within personal allowance limits
<b>Non-domestic cigarettes</b>	Cigarettes which are not Australian (i.e. health warnings missing or not in English, brands not sold in Australia, packs with identifying marks from other markets such as tax stamps)

# Glossary

<b>OECD</b>	Organisation for Economic Cooperation & Development
<b>PDI</b>	Personal Disposable Income
<b>PML</b>	Philip Morris Limited
<b>Outflows</b>	Legitimate tobacco purchased in Australia and taken abroad
<b>RMR</b>	Roy Morgan Research
<b>RYO</b>	Roll Your Own
<b>TIF</b>	Tobacco Industry Forum
<b>WHO</b>	World Health Organisation
<b>Unbranded tobacco</b>	Illegal loose leaf tobacco upon which no duty has been paid and which carries no labelling or health warnings. It is sold and consumed either in RYO form (called Chop Chop) or inserted into empty cigarette tubes. Commonly sold in both bags or boxes
<b>Y o Y</b>	Year on Year

# Contents

	<b>Page</b>
<b>1. Executive summary and key findings</b>	5
<b>2. Australian tobacco market</b>	8
<b>3. Macroeconomic environment</b>	13
<b>4. Regulation and taxation</b>	16
<b>5. Size of the illicit tobacco market</b>	23
<b>6. Drivers of results</b>	31
<b>7. Conclusion</b>	39
<b>Appendix 1: Illicit market measurements</b>	41
<b>Appendix 2: Technical appendices</b>	51

# 1. Executive summary and key findings

1.1 Key messages

1.2 The purpose of this report

1.3 KPMG LLP's anti-illicit tobacco  
experience

# Illicit tobacco consumption has increased, driven by a large growth of contraband

## 1.1 Key messages

### Introduction

This is the first report published by KPMG LLP examining the size of the illicit tobacco market in Australia. We have adopted the approaches we have used to measure and track illicit tobacco consumption in other global markets. Figure 1.1 illustrates our measure and the previously published measures. We present illicit tobacco consumption as a percentage of total consumption rather than as a percentage of legal domestic sales.

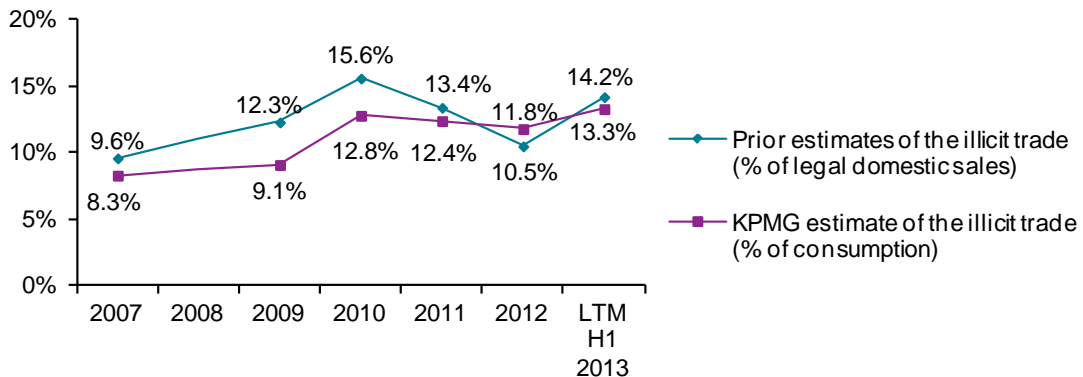
The size of the illicit market is measured using a consumer survey and an empty pack survey. This approach is a widely accepted method for measuring the illicit market around the globe. In the past, only a consumer survey was used in Australia.

This trend is also evident in seizures data provided by the Australian Customs and Border Protection Service, by a consumer survey conducted by Roy Morgan Research and an empty pack survey conducted by MSIntelligence.

**‘Illicit whites’ have emerged as a major form of contraband this year.** Manchester is currently the largest illicit white brand in Australia; if it were sold legally in Australia it would have a 1.3% market share.<sup>(3)</sup>

**This growth in the consumption of illicit manufactured cigarettes has been concurrent with a reduction in consumption of unbranded tobacco.** The level of consumption of this type of tobacco declined by 40% between 2012 and LTM H1 2013.

**Figure 1.1 Illicit tobacco consumption as a proportion of total consumption and legal domestic sales, 2007-H1 2013<sup>(1)(2)(3)</sup>**



### Comparison to prior reports

As can be observed from Figure 1.1, our approach shows a similar overall trend to historical estimates. The main difference is that it provides a more stable trend over time consistent with what we have observed in other markets.

### The percentage of illicit consumption in Australia

Figure 1.1 highlights that in the twelve months to the end of June 2013 (LTM H1 2013), **the level of illicit consumption grew from 11.8% to 13.3% of total consumption.**

If all of this tobacco had been consumed in the legitimate market it would have represented an excise amount payable to Government of AUD1.0bn at current excise rates.

**The key driver of this growth has been a large increase in the consumption of illicit manufactured cigarettes, primarily in the form of contraband.** Counterfeit also appears to have increased.

These trends are supported by the observation that the total consumption of tobacco (i.e. legal and illicit) appears to be stable. Consumption between 2012 and LTM H1 2013 was flat compared to a longer term annual decline between 2009 and LTM H1 2013 of 2.9%.

The empty pack survey indicates that the proportion of non-domestic cigarettes has increased from 4.3% of all manufactured cigarettes that were consumed in 2012 to 9.8% in LTM H1 2013.

### Australian tobacco market

The market has seen several regulatory changes in the last 12 months to June 2013 (see section 4). The main changes include the Tobacco Plain Packaging Act (December 2012), the Customs Amendments Act (September 2012) which reduced the duty free limit from 250g to 50g/50 sticks of tobacco and the Customs Amendment Bill (November 2012) related to smuggled tobacco.

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012  
(2) Industry data

(3) KPMG analysis  
(4) Euromonitor, *Tobacco Consumption in Australia*, July 2012

## 1.2 The purpose of this report

British American Tobacco Australia, Imperial Tobacco Australia Limited and Philip Morris Limited have commissioned KPMG LLP to conduct an independent report to estimate the size of the consumption of illicit tobacco in Australia. KPMG LLP had final decisions on all methodologies and messages contained in this report. The purpose of this report is:

- 1. To provide an overview of the nature and dynamics of the legal and illicit tobacco markets in Australia, and**
- 2. To provide an independent estimate of the size of the illicit tobacco market in Australia.**

This report covers the period from July 2012 to June 2013 (H1 2013). The H2 2013 report will be published in 2014.

This H1 2013 report measuring the consumption of illicit tobacco in Australia is the first of two reports that will be published focusing on 2013. KPMG has been appointed to produce bi-annual reports on the illicit trade for the industry in Australia.

This report primarily shows the 2013 results based on our methodology. The result for 2013 is also presented on a basis consistent with prior reports in the appendix.

## 1.3 KPMG LLP's anti-illicit tobacco experience

KPMG LLP has significant experience in the measurement of illicit tobacco consumption across a number of markets. Our experience covers the following:

### Europe

Since 2005, KPMG LLP has led a Pan European assessment of the scale of counterfeit and contraband tobacco on behalf of Philip Morris International Management S.A. (PMI) and the European Commissions Anti Fraud Office (OLAF). Project Star has been conducted annually since 2006 by KPMG for PMI, the European Commission and the 27 EU Member States.

We have worked extensively with the industry and other stakeholders on developing an approach to illicit market sizing and implementing a common, global approach to anti-illicit trade measurement.

### Latin America

KPMG LLP has just finished leading the first multi-territory study into the illicit trade in Latin America. The study focuses on the levels of inflows and outflows of both legal and illicit cigarettes and other tobacco products across a selection of Latin American countries. The work performed has allowed a variety of stakeholders access to the first picture of the cross border nature of illicit tobacco volumes in Latin America.

### Oceania

KPMG LLP is currently involved in assessing the illicit tobacco trade in selected South Pacific markets.

As part of this ongoing work, KPMG has a strong understanding of some of the unique issues found in Oceania and have developed specific methodologies designed for the purpose of sizing the illicit trade in each country.



## **2. Australian tobacco market**

2.1 Tobacco consumption in Australia

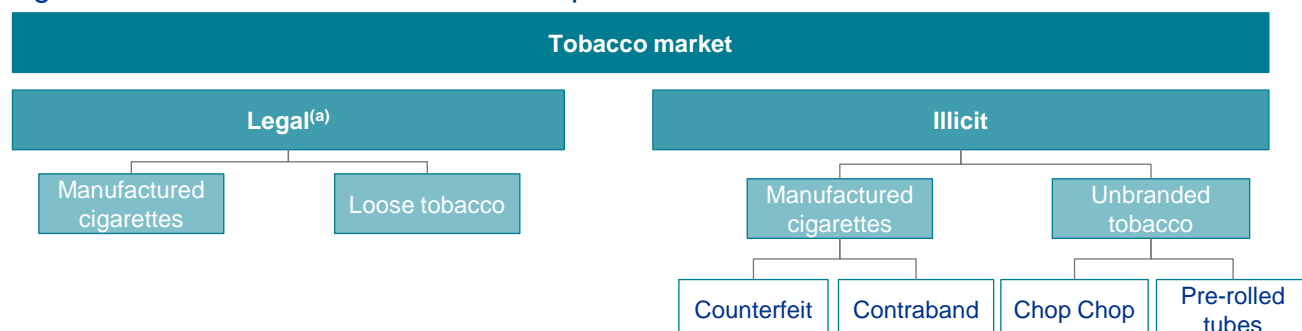
2.2 Legal tobacco market

# Both the legal and illicit markets are characterised by the consumption of manufactured cigarettes and loose tobacco

## 2.1 Tobacco consumption in Australia

Tobacco consumption refers to total volume of consumption for all types of tobacco as mapped out in figure 2.1. This section deals with the tobacco market and related products:

Figure 2.1: Australia tobacco market map



### Legal tobacco products

There are two main types of tobacco products considered in total tobacco consumption (cigars and pipe tobacco have been excluded for the purposes of this study):

**Manufactured cigarettes** – made for the legal tobacco market and sold in packets.

**Loose tobacco** – Loose leaf tobacco sold in pouches and used in Roll-Your-Own (RYO) cigarettes, which are consumed using rolling papers or tubes.

As shown in section 5.1, additional legal consumption is possible in the form of non-domestic legal product, that is tobacco purchased by consumers in other countries and imported into Australia legally for personal consumption.

### Illicit tobacco consumption

Illicit tobacco is mainly brought into the country illegally from cheaper overseas markets. This tobacco is sold to consumers at lower prices than Australian cigarettes, avoiding Australian tax obligations or is brought into the country in amounts exceeding the allowable personal limit. The Australian Crime Commission believe that organised crime groups perceive tobacco smuggling to be low-risk and high profitability. Tobacco is often smuggled alongside other illegal substances. Penalties for smuggling illicit tobacco have recently been increased, with potential for a jail term of up to ten years.<sup>(1)</sup>

### Counterfeit

These are manufactured cigarettes. They are specifically manufactured overseas in countries with large scale tobacco production and sophisticated tobacco manufacturing machinery. Once manufactured they are illegally smuggled into Australia most commonly via ports on large container freight and other channels including airmail and online purchases.

These products carry branding without the consent of the trademark owner to imitate popular legitimate tobacco product brands. According to the Tobacco Industry Forum (TIF) they do not adhere to industry production standards, they pose additional serious health risks and are also known as fake cigarettes.<sup>(2)</sup>

### Contraband

These are any genuine cigarettes that are sold without the payment of applicable excise taxes. They are manufactured legally outside of Australia adhering to local regulations and smuggled into the Australian market. This includes cigarettes which are purchased legally outside Australia but exceed personal import allowances.

Contraband cigarettes are legitimately manufactured by the trademark owner but avoid Australian government regulations, quarantine inspections and ingredient controls.<sup>(2)</sup>

Illicit whites, as discussed in section 6, are also a constituent part of contraband. They are manufactured cigarettes that are not legally available in the local market. These brands are typically not sold legally anywhere, and are often made exclusively for smuggling.

### Unbranded tobacco

Unbranded tobacco is sold as finely cut loose leaf tobacco in half kilogram or one kilogram amounts. TIF indicates that it may be grown illicitly without a licence in Australia but is most commonly imported.

This product carries no labelling or health warnings and is consumed in RYO form or inserted into empty cigarette tubes and sold in boxes which are available from tobacco retailers. The product is then sold loose in bags or pre-rolled tubes (called Chop Chop).<sup>(2)</sup>

The Australian Crime Commission believes that the majority of unbranded tobacco is imported rather than grown in Australia. It is distributed to retailers in the same way as counterfeit and contraband products.<sup>(1)</sup>

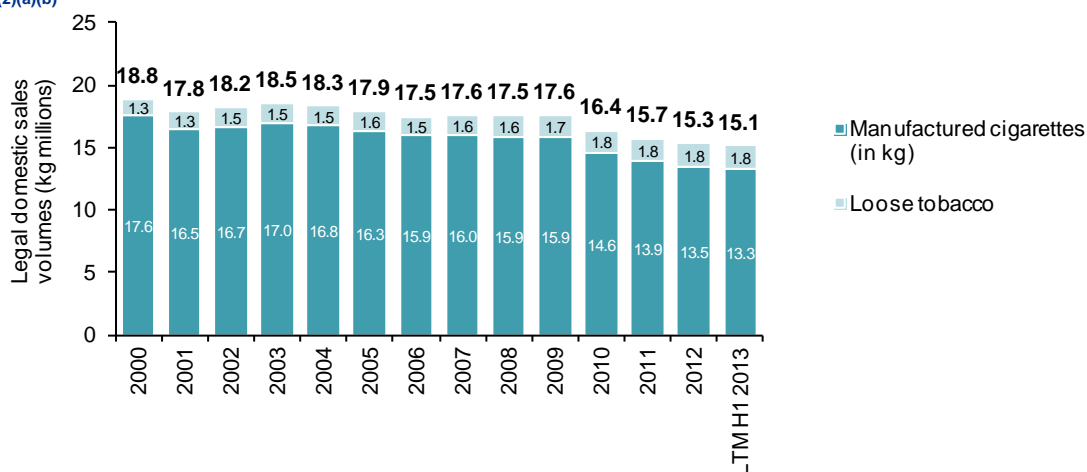
Sources: (1) Australian Crime Commission, *Organised Crime in Australia*, July 2013  
 (2) Tobacco Industry Forum

# Legal domestic sales have declined at an average rate of 1.8% per year since 2000

## 2.2 Legal tobacco market

### 2.2.1 Historic legal domestic sales

**Legal domestic sales in Australia, 2000-LTM 2013<sup>(1)(2)(a)(b)</sup>**



CAGR (%)	2000-09	2009-12	2000-12	2000-LTM 2013
Manufactured cigarettes	-1.1%	-5.3%	-2.2%	-2.2%
Loose tobacco	3.0%	2.8%	3.0%	2.9%
<b>Total market</b>	<b>-0.8%</b>	<b>-4.5%</b>	<b>-1.7%</b>	<b>-1.8%</b>

Australian legal domestic sales volumes gradually declined between 2000 and 2009. The 25% increase in excise duties in April 2010 coincided with a 6.8% decline in legal domestic sales volumes. However, the same period also saw an increase in illicit consumption of tobacco.

Whilst manufactured cigarette volumes have declined at an annual rate of 2.2% over the last twelve years, loose tobacco volumes have increased at an annual rate of 3.0% over the same period, representing a shift in the mix of tobacco products consumed.

Note: (a) Legal domestic sales numbers presented here are based on Euromonitor data. Through an analysis of confidential Exchange of Sales data, Euromonitor appears to underestimate actual sales and so we have taken an historic average to uplift Euromonitor manufactured cigarette volumes in each year by 2%. Loose tobacco volumes remain unchanged. See page 59 for details.

(b) An analysis of LTM and how this is calculated is provided in Appendix A2.2.

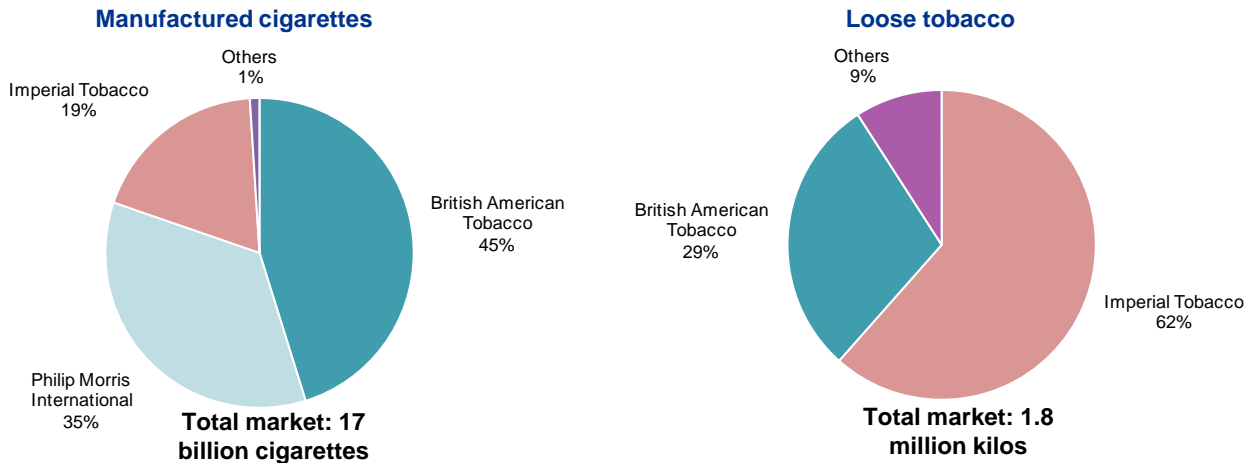
Sources: (1) Euromonitor, legal domestic sales, August 2013

(2) Industry data

# BAT has the largest market share in manufactured cigarettes whilst Imperial Tobacco has a 62% market share in loose tobacco

## 2.2.2 Australia legal tobacco competitive overview

### Market share by manufacturer 2012<sup>(1)</sup>

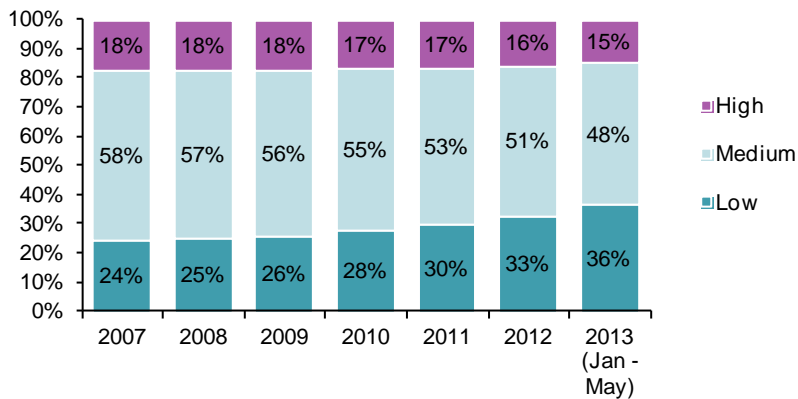


### Market share

The three major tobacco manufacturers have large shares across both the manufactured cigarette and loose tobacco market. British American Tobacco has a market share of 45% in manufactured cigarettes with its brand Winfield having the largest market share of 23%.

Imperial Tobacco has the largest market share in loose tobacco with five of the top six loose tobacco brands.

### Market share of manufactured cigarettes by price category 2012<sup>(2)</sup>



### Price category

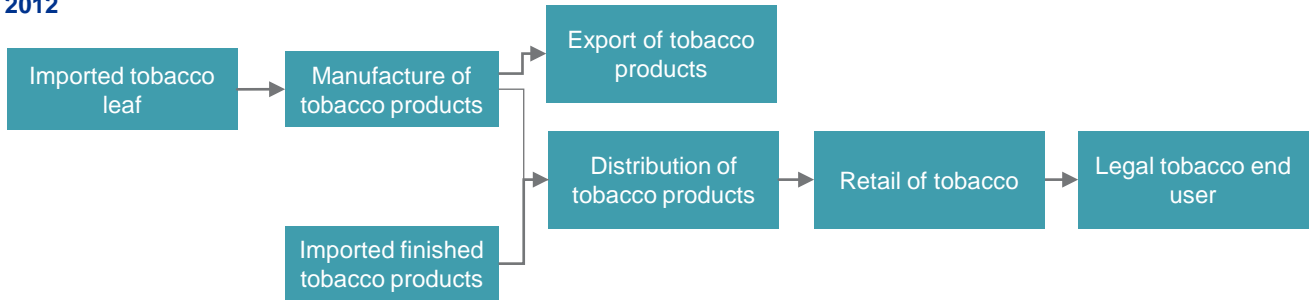
The price difference between different types of cigarettes is relatively small. Cigarettes are taxed by the stick rather than value and as a result increases in prices through excise tax does not increase the gap in price between high and low priced categories.

Since 2011 there has been an increase in low priced categories at the expense of medium and high priced cigarettes. This trend appears to have developed significantly in 2013.

Source: (1) Euromonitor, *Tobacco in Australia*, August 2012  
(2) KPMG analysis of Nielsen Australia - BAT Tobacco Industry database

2.2.3 Supply and distribution of legal manufactured tobacco in Australia

**Supply chain for legal tobacco products in Australia, 2012**



**Tobacco supply chain and sales channels**

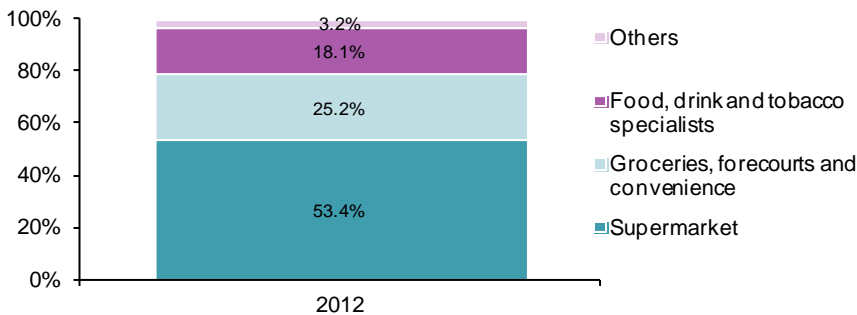
All manufactured tobacco products are imported into Australia as tobacco leaf or finished products. No tobacco is legally grown in Australia for commercial purposes. However, the majority of PML and BATA products are manufactured in Australia, whilst all of ITA’s products are imported. Some of the products manufactured in Australia are exported to other countries in the region.

According to Euromonitor, over half of tobacco products were sold through supermarkets.

**Non-domestic legal consumption channel**

A small amount of tobacco is imported into Australia by consumers for their own personal consumption. Since 1 September 2012, consumers have a limit of 50 cigarettes or 50g of loose tobacco (down from 250 of each) which can be brought into Australia without paying excise duty. This volume can be brought in from the country of origin or through duty free sales channels. Given this low allowance, the non-domestic legal volume is likely to be a small proportion of consumption and is discussed further in the appendix A2.4.

**Sales of legal tobacco products by retailer, by volume 2012<sup>(a)(b)(1)</sup>**



Notes: (a) "Others" refers to any non-store based retail such as vending machines, or hotels and bars  
 (b) Weighted average of Euromonitor distribution channels of RYO and manufactured cigarettes legal domestic sales  
 Source: (1) Euromonitor, *Tobacco in Australia*, August 2012

## 3. Macroeconomic environment

- 3.1 Macroeconomic context
- 3.2 Gross domestic product growth
- 3.3 Unemployment
- 3.4 Personal Disposable Income
- 3.5 Consumer Price Index

# The Australian economy has achieved steady growth over the last 5 years, with low unemployment rates compared with the OECD

## 3.1 Macroeconomic context

This section provides background on the Australian economy as a significant change in GDP growth, unemployment, personal disposable income or inflation, could impact consumer behavior and subsequently tobacco consumption.

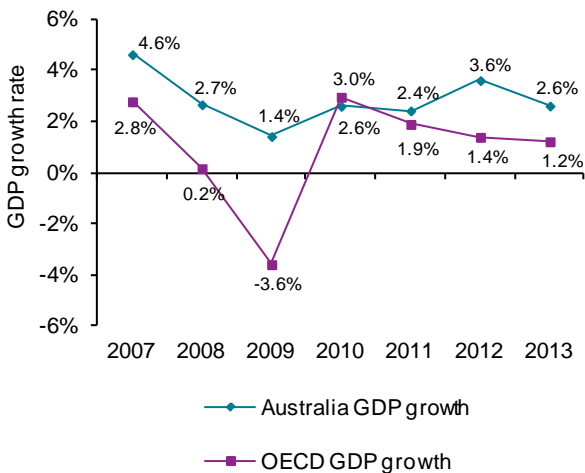
The decline in legal domestic sales since 2009 needs to be examined in the context of the affordability of tobacco products. Personal disposable income (PDI) and the consumer price index (CPI) are analysed in order to assess possible reasons for changes in consumer behavior.

## 3.2 Gross domestic product growth

The Australia has been one of the few members of the OECD to have experienced continuous economic growth since the 1990s. The global financial crisis caused a slow-down in growth as opposed to a recession.

Between 2007 and 2012 the economy grew at a compound annual growth-rate (CAGR) of 2.5%; however, growth in the first half of 2013 has slowed, and some analysts have cut future growth forecasts.

**Year-on-year GDP Growth, 2007-2013<sup>(1)(2)(a)</sup>**

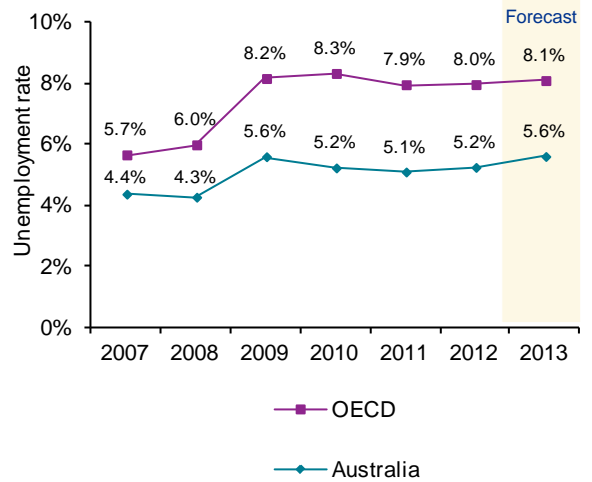


## 3.3 Unemployment

Unemployment in Australia is one of the lowest of all OECD countries. Unemployment increased in 2009 but remained broadly stable until 2012. However, unemployment forecasts for 2013 have recently been revised upwards from the previous forecast of 5.3%.<sup>(3)</sup>

Unemployment in June 2013 was 5.7%, the highest rate of unemployment Australia has seen since September 2009.<sup>(5)</sup>

**Recorded unemployment, 2007-2013<sup>(3)(4)(a)</sup>**



Note: (a) Figures for 2013 are based on full year estimates

Sources: (1) The Economist Intelligence Unit, GDP at constant prices, accessed August 2013

(2) OECD, GDP (expenditure approach), accessed July 2013

(3) The Economist Intelligence Unit, recorded unemployment as a percentage of total labour force, accessed July 2013

(4) OECD, harmonized unemployment rates, 2012

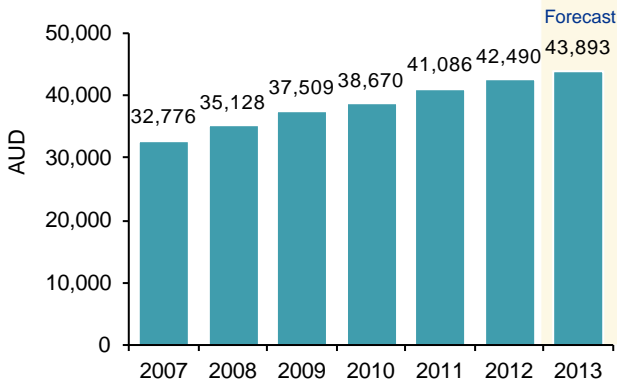
(5) Australia Bureau of Statistics

### 3.4 Personal Disposable Income per capita

Australia has been through a period of increasing consumer disposable income during the past decade. Personal Disposable Income (PDI) per capita increased by 5.3% p.a. between 2007 and 2012.

Despite the global financial crisis, income levels in Australia do not appear to be significantly impacted with growth in PDI being supported by an increase in hours worked (by part-time workers) and increased hourly wages.<sup>(2)</sup>

**Personal disposable income per capita, 2007-2013<sup>(1)(a)</sup>**

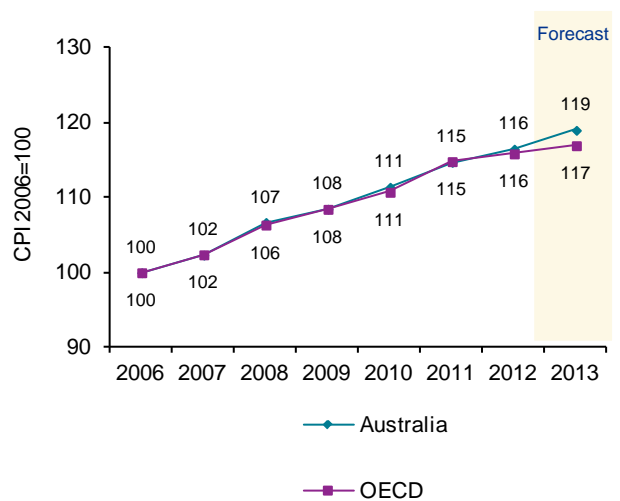


### 3.5 Consumer Price Index

Australia's Consumer Price Index has developed at the same pace as the OECD average, growing consistently since 2006. However, forecasts suggest that inflation will be higher than the OECD average in 2013.

The Economist Intelligence Unit forecast that annual inflation will average 2.6% in 2013-17 is subject to both upside and downside risk. Interest-rate rises may relieve some inflationary pressure, but a revival in the housing market could cause inflation to accelerate.

**Consumer price index, 2007-2013<sup>(3)(4)(a)</sup>**



Note: (a) Figures for 2013 are based on full year estimates  
 Sources: (1) Euromonitor, annual disposable income per capita, accessed July 2013  
 (2) Productivity commission media release, *Trends in the distribution of income in Australia*, March 2013  
 (3) Euromonitor, index of consumer prices; accessed August 2013  
 (4) OECD Economics, consumer prices, accessed August 2013  
 (5) Economist intelligence Unit, accessed 10 September 2013



## 4. Regulation and taxation

4.1 Tobacco regulation in Australia

4.2 Future proposed legislation

4.3 Recent development of excise duty  
and tobacco affordability in Australia

4.4 Regional tobacco prices

# The tobacco market in Australia is one of the most tightly regulated in the world

## 4.1 Tobacco regulation in Australia

In this section we discuss key government legislation and activities undertaken to control tobacco consumption. The advertising and promotion of tobacco is regulated by the Tobacco Advertising Prohibition Act 1992, and similar laws in each Australian state and territory. These laws set strict rules on how tobacco can be advertised, displayed and sold. The Department of Health and Ageing's National Tobacco Strategy aims to reduce smoking prevalence nationally from over 15% in 2012 to 10% in 2018.<sup>(1)</sup> To reduce smoking prevalence, numerous tobacco control regulations have been developed over time as demonstrated in Figure 4.1. A more detailed overview of recent legislative changes both at the Australian Commonwealth level and the state level are detailed in the appendix.

### National Tobacco Strategy

The National Tobacco Strategy 2012-18 was released in January 2013. The strategy highlights nine priority areas including;

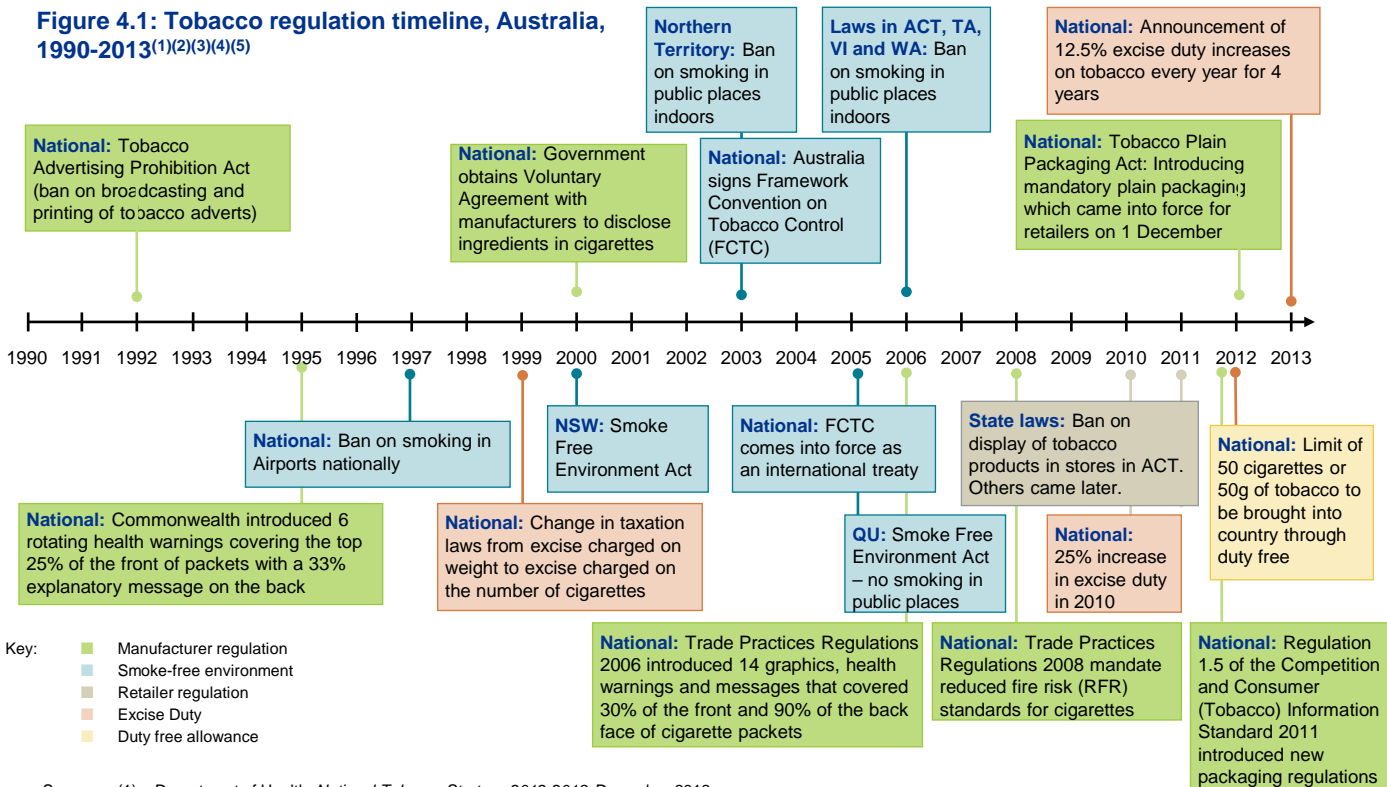
1. Protect public health policy, including tobacco control policies, from tobacco industry interference
2. Strengthen mass media campaigns to: motivate smokers to quit and recent quitters to remain non-

smokers; discourage uptake of smoking; and reshape social norms about smoking

3. Continue to reduce the affordability of tobacco products
4. Bolster and build on existing programs and partnerships to reduce smoking rates among Aboriginal and Torres Strait Islander people
5. Strengthen efforts to reduce smoking among people in populations with a high prevalence of smoking
6. Eliminate remaining advertising, promotion and sponsorship of tobacco products
7. Consider further regulation of the contents, product disclosure and supply of tobacco products and alternative nicotine delivery systems
8. Reduce exceptions to smoke-free workplaces, public places and other settings
9. Provide greater access to a range of evidence-based cessation services and support to help smokers to quit.

The strategy also proposes a number of actions to combat the illicit trade of tobacco.

**Figure 4.1: Tobacco regulation timeline, Australia, 1990-2013<sup>(1)(2)(3)(4)(5)</sup>**



Sources: (1) Department of Health, *National Tobacco Strategy 2012-2018*, December 2012  
 (2) The Cancer Council, Victoria, *Tobacco in Australia: Facts and Issues*, 2012  
 (3) Australian Government Department of Health  
 (4) WHO, *Convention on Tobacco Control Booklet*, July 2012  
 (5) Tobacco Control Laws, *Campaign for tobacco free kids*, August 2013

## 4.1 Tobacco regulation in Australia (continued)

### Manufacturer regulation

Manufacturers are regulated through, amongst other things, bans on advertising and packaging restrictions. The Tobacco Advertising Prohibition Act in 1992 banned the publication or broadcast of tobacco advertisements.

Subsequent amendments to the act have resulted in online tobacco retailers having to display health warnings and comply with restrictions on advertisement wording. Brand and variant information is permitted to be displayed.

The Tobacco Plain Packaging Act, passed in 2011, made Australia the first country in the world to implement plain packaging of tobacco products. This means that all tobacco products are required to be displayed in the same packaging with no trademarks and the only differentiator being the name of the brand, printed in Lucida Sans font.

### Smoke-free environment legislation

The majority of smoke-free environmental laws in Australia are determined by State parliaments and further fragmented by local council by-laws. The Australian Federal Government passed legislation to create smoke-free environments in areas within its own jurisdiction, such as airports and public transport, whilst State parliaments historically created their own laws banning smoking in some public places. State parliaments followed the Australian Commonwealth by passing legislation which banned smoking in restaurants in the early 2000s.<sup>(2)</sup>

The establishment of the FCTC resulted in the creation of guidelines surrounding smoke-free environments which State parliaments were obliged to adopt. In 2005 and 2006 the States passed laws which created smoke-free environments in public places including licensed premises, partially covered outdoor spaces and al fresco dining areas. States have continued to establish further smoke-free environments, including the banning of smoking on beaches, playgrounds and at stadia or other sporting events and concerts.<sup>(3)</sup>

Individual States in Australia have also passed laws which restrict smoking in cars with children under the age of 17.<sup>(3)</sup> Recently the Victorian Government announced further outdoor smoking bans to be considered in 2013 and is now at the second reading stage, aiming to further reduce the range of public areas where smoking is permitted, especially when children are present.

### Retailer regulations

Australia has a Commonwealth wide law which bans the sale of tobacco products to anyone under the age of 18. During the 1990s, States introduced laws which imposed harsher penalties on vendors that sold cigarettes to individuals under 18 years. Some States have also undertaken surveillance programmes to ensure compliance. In order to further regulate retailers, some States have required vendors to hold licenses to sell tobacco. All States and Territories require tobacco retailers to hold a licence, with the exception of Victoria and Queensland. In the States and Territories that do require a tobacco licence, fees range from AU\$200-AU\$302.22 per annum. In New South Wales, retailers must inform the Department of Health that they will sell tobacco products. This enables the State to have additional control over tobacco retailers, as it can threaten to withhold licenses in the event of sales to minors.<sup>(3)</sup>

States and Territories have also banned retailers from point of sale advertising and the display of tobacco products within stores. Australia Capital Territory (ACT), New South Wales, the Northern Territory, Queensland and Tasmania all have legislation in place banning point of sale displays. Victoria, South Australia and Western Australia have similar legislation; however, there are exemptions in place for specialist tobacconists.<sup>(3)</sup> South Australia has an exemption until December 2014; there is currently no set timeframe for the expiration of the exemptions in Western Australia and Victoria.

Some States and Territories have also applied restrictions on the number and operation of vending machines in licensed premises and gambling establishments.<sup>(3)</sup> In the ACT, cigarette vending machines have been banned entirely.

### Duty free and customs allowances

In the 2012 budget, it was announced that the inbound duty free allowance from international travel would be reduced from 250g of tobacco per person to 50g/50 sticks.<sup>(3)</sup>

In 2012 Australia passed the Customs Amendment Act which conveyed new offences for smuggling or possessing illicit tobacco. It was the first time that custodial sentences were recommended for smuggling tobacco.<sup>(3)</sup> Victoria has legislation which criminalises the possession of illicit tobacco or tobacco on which the appropriate excise duties have not been paid.<sup>(5)</sup>

Note: (a) Customs duty is at the excise equivalent rate

Sources: (1) WHO, *Convention on Tobacco Control Booklet*, July 2012

(2) Tobacco Control Laws, *Campaign for tobacco free kids*, August 2013

(3) The Cancer Council Victoria, *Tobacco in Australia: Facts and Issues*, 2012

(4) Australian Government, *Customs Amendment Act*, July 2013

(5) Department of Health, Victoria

(6) Treasurer of the Commonwealth of Australia, *Government to increase tobacco excise*, August 2013

## Australia continues to explore new legislation in order to reduce smoking prevalence

### 4.1 Tobacco regulation in Australia (continued)

#### Framework Convention on Tobacco Control (FCTC)<sup>(1)</sup>

Australia became a Signatory to the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) on 5 December 2003. The Conference of Parties (COP) has adopted detailed guidelines for effective implementation of many of the broad range of legislative, executive, administrative and other measures required under the Convention. Together, the FCTC and its guidelines have the potential to help set the priorities of Australian governments, including Commonwealth, State and Territory, in relation to tobacco control policies and programmes.

The FCTC also provides a framework for international cooperation in a number of areas of tobacco control in which Australia and other Parties cannot effectively act alone. These include the regulation of cross-border tobacco advertising, promotion and sponsorship and the implementation of measures to address illicit trade in tobacco products.

Australia has the responsibility to cooperate with other FCTC Parties to address trans-boundary tobacco control problems and to assist other Parties in meeting common challenges to effective tobacco control.

The Australian tobacco industry is currently participating in a consultation around the Anti-Illicit Trade Protocol (AITP). All submissions were delivered by 14 June.

#### Excise duty increases

Australian excise duty has risen with inflation with the exception of a one-off 25% increase in 2010. The 2013-14 federal budget included a change to indexation of excise duty for tobacco and tobacco products from the Consumer Price Index (CPI) to Average Weekly Ordinary Time Earnings (AWOTE).

In August 2013 the Australian government announced excise duty increases in tobacco products of an additional 12.5% for the next four years in addition to the switch to AWOTE<sup>(2)</sup>. As a result of these tax increases the excise on a pack of cigarettes in Australia will increase by 60% (compounded over four years) above the increase of AWOTE.

### 4.2 Future proposed legislation

#### Continuous pursuit of smoke-free environments

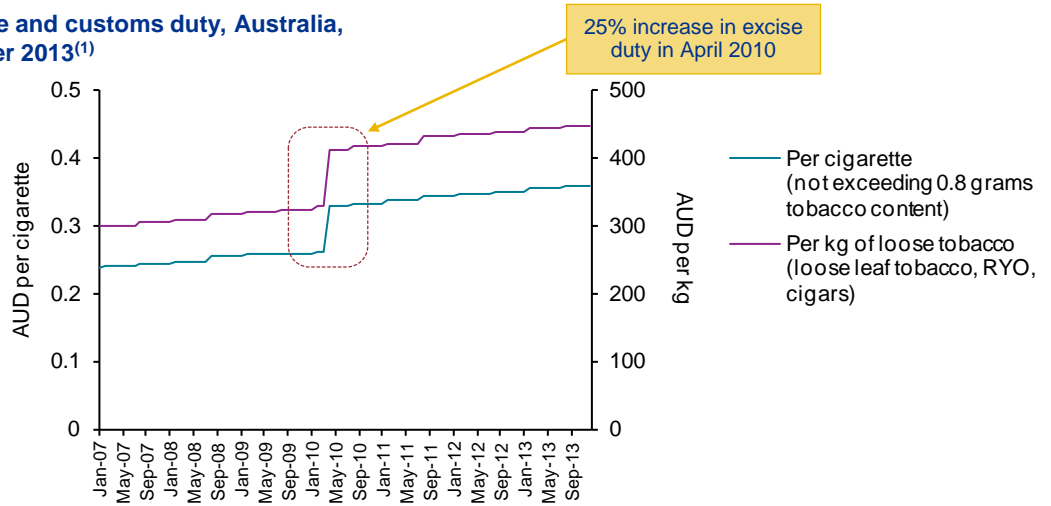
State governments have continued to focus on the banning of smoking in public outdoor areas. Where States have not banned smoking in outdoor public areas, many local councils have issued the relevant bans and often play a key role in expanding public smoking restrictions. States continue to ban smoking or implement buffer zones at public events and any areas where children may be present such as open air concerts, playgrounds, sporting events and skate parks.<sup>(1)</sup>

Sources: (1) The Cancer Council Victoria, *Tobacco in Australia: Facts and Issues*, 2012  
(2) Treasurer of the Commonwealth of Australia, *Government to increase tobacco excise*, August 2013

# Tobacco excise rates have been rising in line with inflation, with the exception of a one-off 25% increase in April 2010

## 4.3 Recent development of excise duty and tobacco affordability in Australia

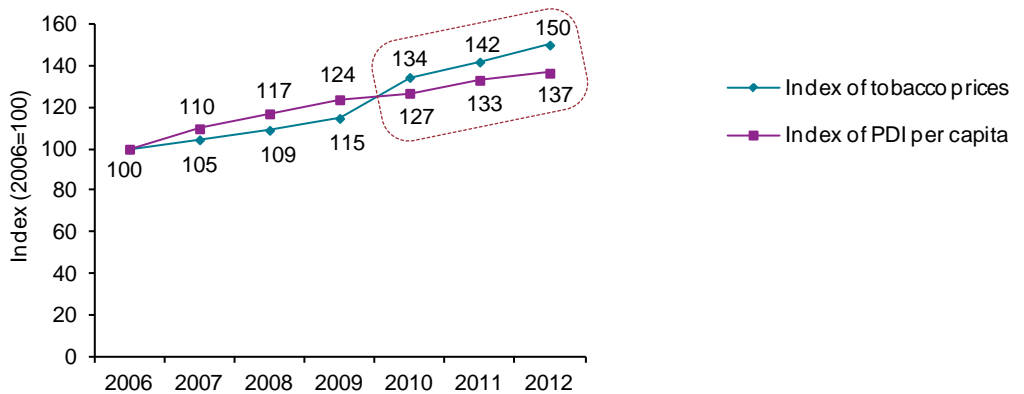
Values of tobacco excise and customs duty, Australia, January 2007- September 2013<sup>(1)</sup>



Excise duty on tobacco products increased by 2.4% between August 2012 and August 2013 in line with the Consumer Price Index (CPI). Excise rates are revised twice a year in February and August. There was a one-off 25% increase in excise, introduced on 30 April 2010 in accordance with the National Preventive Health Strategy.

Recently, the Australian government announced that it intends to raise excise duty on tobacco products by 12.5% above CPI at the end of 2013. This will be followed by successive increases of 12.5% above the rate of AWOTE in each of the following three years.

Index of tobacco prices and per capita PDI, Australia, 2007-2012<sup>(2)(3)(a)(b)</sup>



Although PDI per capita has continued to grow, the excise rate increase in 2010, combined with subsequent increases, saw tobacco prices increase at a higher rate than PDI per capita.

This has resulted in a decline in relative affordability. This decline in relative affordability is likely to continue with the future planned excise rate increases.

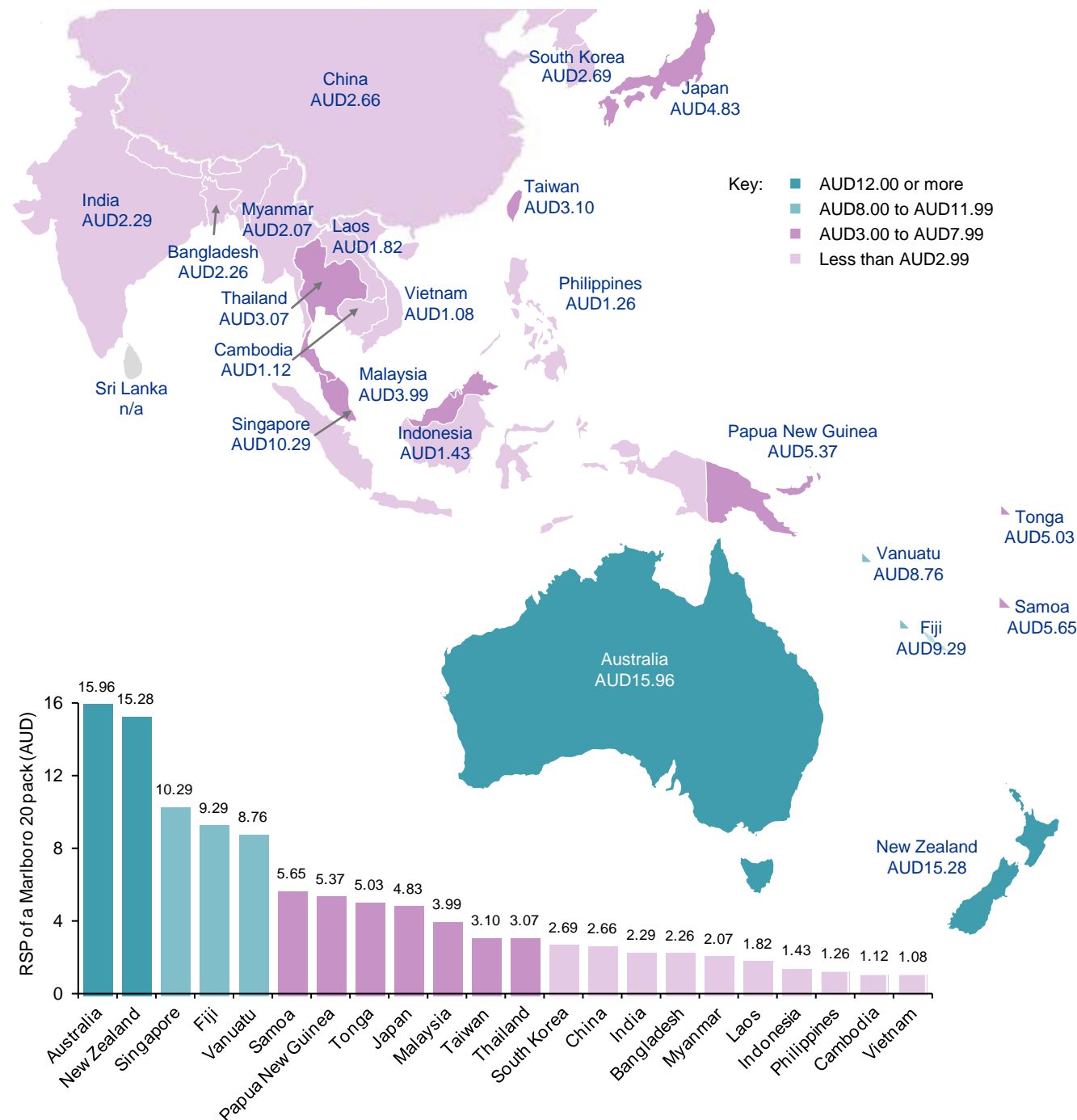
Notes: (a) Indexed with 2006 values taken as 100  
(b) PDI per capita, year on year change

Sources: (1) Euromonitor, index of tobacco prices, accessed July 2013  
(2) Euromonitor, annual disposable income, accessed July 2013  
(3) Australian Taxation Office, www.customs.gov.au

# Australia has the highest cigarette prices within the Asia Pacific region

## 4.4 Relative regional price of tobacco

Price of a pack of 20 Marlboro cigarettes – Australia and selected markets, 2013<sup>(1)(2)(a)</sup>



Australia and New Zealand have significantly higher cigarette prices than surrounding markets in South East Asia, with Australian prices 50% higher than those of the nearest non-Australasian market.

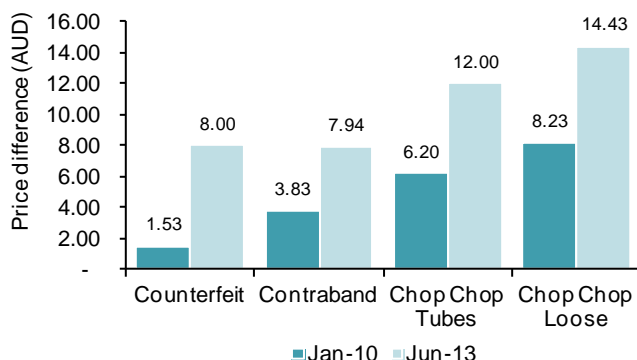
This large price differential between Australia and other relatively nearby markets creates smuggling opportunities for those involved in the illicit market.

Note: (a) Prices for a 20 cigarette pack of Marlboro (taxes included); where Marlboro is not available, a comparable premium brand has been used  
 Sources: (1) Industry data  
 (2) www.oanda.com

# The price differential between legal products and illicit products has been widening

## 5.3 Relative price of illicit tobacco

Price differential of illicit products to a packet of Winfield 25s, 2010 - 2013<sup>(1)(2)(a)</sup>



Data provided by BATA based upon covert purchases made across Australia highlights the price difference of illicit products compared to legitimate products. While this data will be impacted by the split of random versus intelligence led purchases, the data will provide some insights into the size and change in the market.

The data illustrated above highlights both the current price differential of illicit products to a legal packet of Winfield 25s and the growth in this price differential.

The largest relative increases have developed in counterfeit and contraband products.

The industry highlighted that prices of contraband in particular has increased by 29% since March 2010, which has likely fuelled bigger margins to smugglers and illegal retailers.

Note: (a) Contraband and counterfeit prices are an average of price for products found in Sydney and Melbourne. Unbranded prices have been converted to a pack of 25 cigarette equivalents.

Sources: (1) BATA intelligence data

# 5. Size of the illicit tobacco market

5.1 Estimating the illicit tobacco market

5.2 Illicit tobacco consumption in Australia



# We have used a robust, methodical and globally consistent approach to produce an estimate for the size of the Australian illicit tobacco market

## 5.1 Estimating the illicit tobacco market

### Methodology and validation

As discussed in section 2.1, the illicit tobacco market is split into unbranded tobacco and illicit manufactured cigarettes in the form of counterfeit and contraband. Both of these categories taken together form total illicit consumption. It is therefore important to take account of all consumption flows when assessing the amount of illicit tobacco consumed.

The chart below illustrates how KPMG breaks consumption into a number of categories (defined in section 2.1) and how each category requires different data sources to estimate the size of the market and to validate the findings.

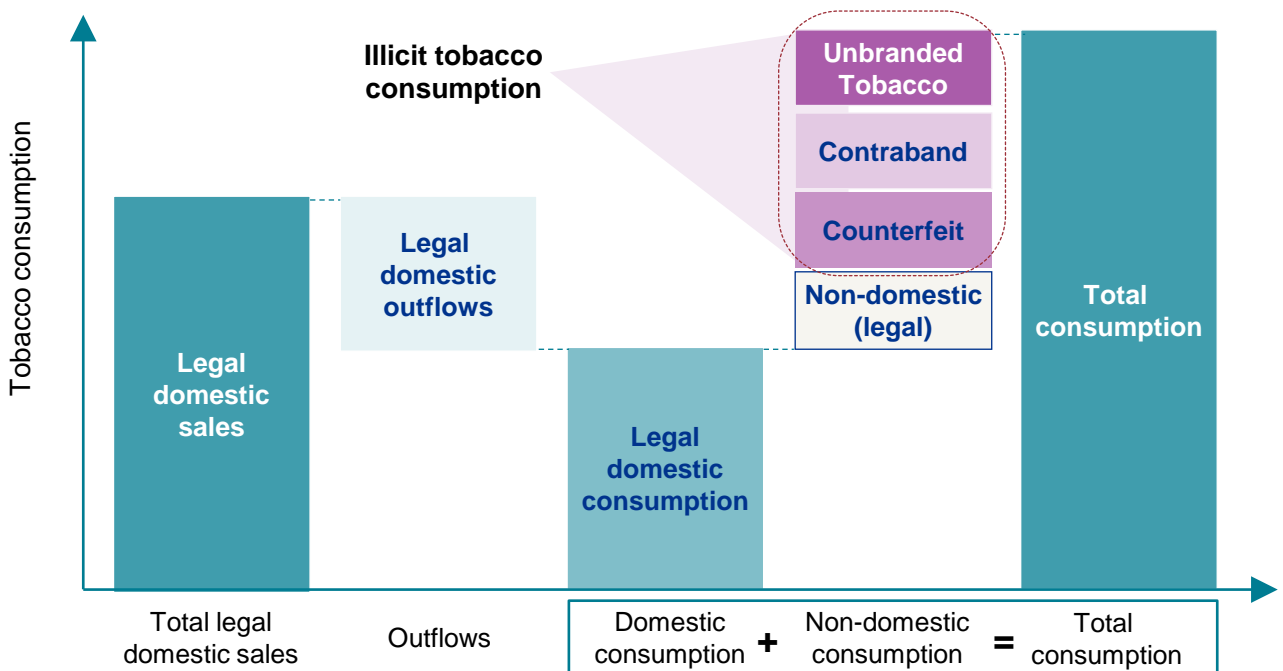
For each of these categories a separate primary approach is used in order to estimate the volume of illicit tobacco. For unbranded tobacco a consumption model approach is used, based on results from a consumer survey. This

includes Chop Chop (unbranded loose tobacco sold in bags) and unbranded tobacco sold in pre-filled tubes. For illicit manufactured cigarettes an empty pack survey analysis is used, based on the collection of discarded cigarette packs across Australia.

We believe this approach provides a robust estimate of the size of the illicit market in Australia. However, to further increase the level of confidence in this estimate, some alternative approaches are used to validate the illicit tobacco volumes generated by the consumption model and the empty pack survey analysis.

The validations can be used as alternative estimations, or to support trends and changes noted in the market. In this section each of the approaches are described before the process of estimation and validation is explained. A detailed overview of these approaches can be found in appendix A1.

### Estimation of the illicit market<sup>(a)</sup>



### Data sources

Nielsen Australia - BAT Tobacco Industry database Euromonitor Datamonitor Exchange of Sales	RMR consumer survey Tourism statistics	RMR consumer survey Empty pack survey Rolling papers sales data Internal company intelligence data Customs' seizure data	RMR consumer survey Health statistics
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Notes: (a) Definitions for the above sales categories can be found in the glossary on page 2

## 5.1 Estimating the illicit tobacco market (continued)

### Primary approaches

#### Consumption model

This approach is based on the responses of consumers to a survey conducted by Roy Morgan Research in H1 2013. The survey asks consumers about their consumption of both legal and illicit tobacco. These survey responses are combined with other data sources to arrive at an estimate for total illicit tobacco consumption. Consumers are asked about both unbranded tobacco and illicit manufactured cigarettes.

The survey is directly comparable to previous years, which makes it possible to pick up trends and developments in the market. Detailed results of the consumer survey are discussed in section 6.

#### Empty pack survey (EPS)

An empty pack survey is a sample undertaken independently by MSIIntelligence which collected 12,000 discarded cigarette packs across 16 different towns and cities in Australia. The brand and market of origin of each collected pack is assessed to determine whether it is a legitimate product, a product from a different market to Australia or counterfeit. Products from different markets are labelled as non-domestic. The empty pack survey is used to extrapolate overall consumption in the market by projecting legal domestic sales. The percentages of non-domestic and counterfeit packs are added to this total in order to establish the total consumption of manufactured cigarettes in Australia.

We believe that the empty pack survey approach provides a robust and statistically significant estimate of the size of the illicit manufactured cigarette market. The results are not subject to respondent behaviour and are therefore less prone to sampling errors, whilst the 16 cities covered by the sample plan covers the equivalent of over 75% of Australia's population.

A small proportion of non-domestic cigarettes are likely to have been brought into Australia legally. Travel statistics from the Australian Bureau of Statistics are reviewed in order to determine the likely volume. These non-domestic legal cigarettes are removed from the total non-domestic volume, which leaves the total illicit manufactured cigarette market, split into contraband and counterfeit cigarettes as described in section 2.

The empty pack survey has not been used in prior reports because of the low levels of illicit manufactured cigarettes consumption. Recent observations that the consumption of illicit manufactured cigarettes has been growing now means that it is a required tool to gain a detailed understanding of these trends.

An empty pack survey was jointly commissioned by BATA, ITA and PML in 2012. The study was carried out by ACNielsen. Prior surveys were also run in 2009 and 2010 by ACNielsen on behalf of Phillip Morris Limited, and these have been made available to KPMG for use in this report.

#### Means of validation

##### Rolling papers analysis

This analysis has been developed by KPMG and has been used with other clients to infer the volume of loose tobacco smoked from the quantum of papers sold. It compares this with the legal sales of loose tobacco to estimate a consumption gap between legal and illicit.

In order to use this approach several assumptions are made:

1. Grams per rolled cigarette
2. Wastage rate of rolling papers
3. Rolling papers used for consumption of illegal drugs

Data obtained in consumer surveys carried out by the industry and sales figures from rolling papers manufacturers are used in order to verify these assumptions, along with data from the National Drug and Alcohol Centre.

We have found from previous analyses that given the number of assumptions in this approach it is useful for providing a range of estimates for the market size to help validate other estimates.

## 5.1 Estimating the illicit tobacco market (continued)

### Means of validation (cont.)

#### Seizures data

Seizures data obtained from the Australian Customs and Border Protection Authorities shows the volume and type of tobacco intercepted at ports and airports. Using seizure data to size the illicit market is often unreliable since it is difficult to ascertain the proportion of total illicit product that is seized. In addition, seizure data used to intercept tobacco products coming into Australia will not pick up loose tobacco which may have been illegally grown in Australia.

Whilst seizure data is unlikely to generate an accurate estimate for the illicit tobacco market, it can be used to indicate trends and validate any significant changes to the illicit market. For example, an increase in manufactured cigarette flows from a country picked up in the empty pack survey could be validated with a corresponding increase in seizures from that country or in manufactured cigarettes representing a growing percentage of seizures. We also use internal tobacco company intelligence data as a validation of trends. However, since this data is commercially sensitive we are unable to publish it.

#### Consumption gap analysis

Consumption gap analysis is used to identify the 'gap' in consumption between legal domestic sales and total tobacco consumption, calculated based on the number of smokers known to exist in Australia and historic consumption patterns. The "gap" between total consumption and legal domestic sales is likely to be filled by illicit tobacco consumption.

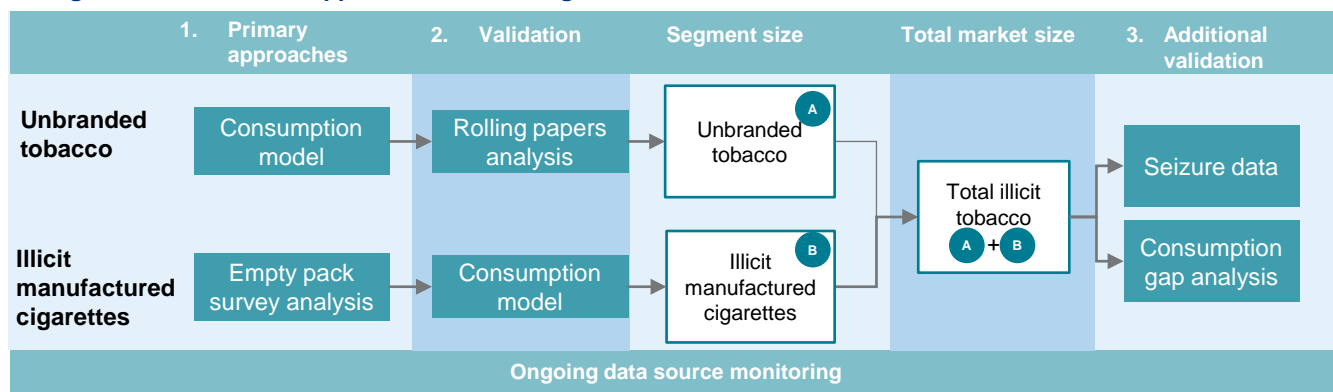
The consumption gap takes into account likely changes to the smoking population, and the impact that it will have on tobacco consumption. For example, if legal domestic sales fell significantly, but there was no significant fall in the smoking population it may imply an increase in illicit tobacco consumption. Given the historic and consistent trends in tobacco consumption, significant drops are unlikely without major changes taking place in the market.

The consumption gap analysis is used in order to support any movements in the total illicit tobacco market across both unbranded tobacco and illicit manufactured cigarettes.

# The validation of our measurements with additional data sources provides confidence in the results

## 5.1 Estimating the illicit tobacco market (continued)

Figure 5.1 Overview of approach to estimating illicit tobacco



The empty pack survey and consumption model approaches are thought to be the most robust for estimating the illicit tobacco market. Figure 5.1 shows the process by which the consumption model and empty pack survey analysis is validated through alternative analysis.

### 1. Primary approaches

**A Unbranded tobacco:** The consumption model uses data from the Roy Morgan Research consumer survey, external data sources such as the Australian Institute of Health and Welfare and the Australian Bureau of Statistics to determine the results. We consider it to be the best way of sizing the unbranded tobacco market.

**B Manufactured cigarettes:** The empty pack survey is the most reliable measure of contraband and counterfeit. It also forms the foundation for Project Star.

**Total illicit tobacco (A+B):** The total illicit tobacco market size estimate is calculated by adding the results of the validated empty pack survey analysis for manufactured cigarettes (i.e. contraband and counterfeit) with the output of the validated consumption model for unbranded tobacco.

### 2. Validation

Rolling papers analysis is used in order to validate the unbranded tobacco market. Whilst assumptions relating to grams per tobacco, rolling paper leaf wastage and cannabis usage are hard to verify, rolling papers analysis is helpful to determine the likely ratio between consumption of loose tobacco and illicit loose (unbranded) tobacco.

The consumption model has historically been used in order to estimate the illicit volume of manufactured cigarettes. As such it provides a good approach by which to validate the empty pack survey results.

### 3. Additional validation

Total illicit tobacco consumption (i.e. unbranded tobacco and manufactured cigarettes together) can be validated by two further data sources.

Seizures data can be used in order to validate the likely mix of illicit tobacco consumption. If the consumption model and empty pack survey show a large change in the mix of illicit products, seizures data should support this change.

Consumption gap analysis is also used in order to support the estimate for illicit tobacco consumption. Changes in total tobacco consumption tends to be a slow long-term decline, as seen by the decline recorded by the AIHW in surveys in 2007 and 2010. Given this consistent trend, the likely corresponding change in overall tobacco consumption is likely to follow an equivalent pattern. For example, large changes in total estimated consumption unprompted by external factors indicate there may be an issue in the estimation of illicit consumption.

Using this validation process enables us to understand and corroborate any significant changes to illicit tobacco consumption.

### Ongoing data source monitoring

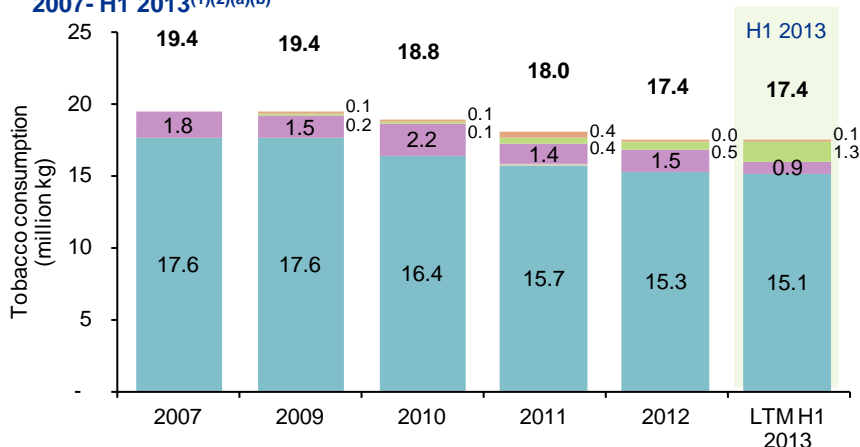
We take a forward looking approach to ensuring the most appropriate data is used in the modelling process. For example, many surveys of smoking prevalence are conducted at irregular intervals whereas the actual decline is smooth over time between these periods. To avoid major future restatements that distort trends we continuously monitor the relevance of data sources and may rebase some data based on historic and forecast trends.

To ensure comparability with our ongoing methodology we have applied these changes retrospectively. See appendix A2 for details.

# Illicit tobacco accounted for 13.3% of total tobacco consumption in the twelve months to June 2013, caused by a major switch to illicit manufactured cigarettes

## 5.2 Illicit tobacco consumption in Australia

Consumption of tobacco products by category, 2007- H1 2013<sup>(1)(2)(a)(b)</sup>



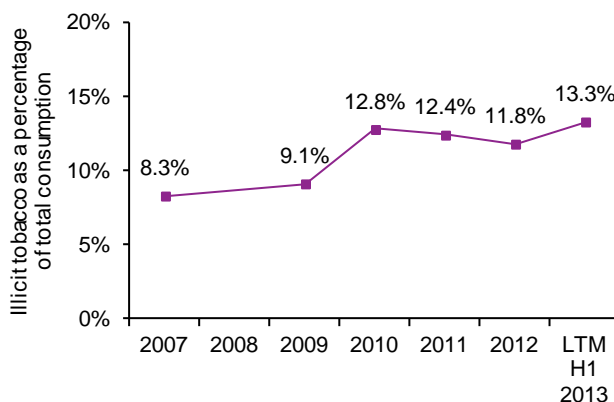
CAGR (%)	2009-H1 2013
All illicit product	+8.2%
Counterfeit	-4.4%
Contraband	+80.2%
Unbranded	-13.6%
Non-domestic (legal)	-28.4%
Legal domestic sales	-4.2%
Total consumption	-2.9%

The overall level of tobacco consumption in Australia was calculated to be equal to 17.4 million kilograms in the twelve months to June 2013. This estimate of total consumption is in line with the 2012 measure and shows a continuation of the long term historic trend of declining tobacco consumption since 2009.

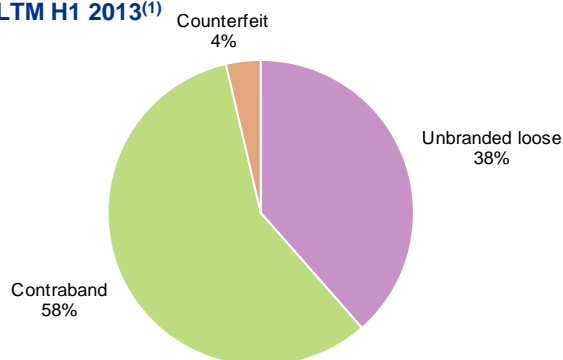
Overall consumption of illicit product is estimated to be equivalent to 13.3% of total tobacco consumption in the last twelve months to June 2013. This is the highest level recorded.

Since 2012 there has been an increase in both the illicit proportion of tobacco consumption and a change in mix of illicit products consumed away from unbranded tobacco and towards manufactured cigarettes.

Illicit tobacco consumption as a proportion of total consumption, 2007-H1 2013<sup>(1)(2)(3)(4)</sup>



Share of illicit tobacco consumption LTM H1 2013<sup>(1)</sup>



Volumes of illicit unbranded tobacco have declined by 40% and volumes of illicit manufactured cigarettes have increased by 154% since 2012. This continued trend seems to indicate a structural shift within the illicit market towards illicit manufactured cigarettes and away from illicit unbranded tobacco.

The introduction of a 25% increase in excise duty in 2010 coincided with an increase in the illicit proportion of tobacco consumption. The illicit proportion then declined steadily between 2010 and 2012.

Notes: (a) H1 2013 represent consumption for the twelve months to end June 2013  
 (b) Counterfeit and contraband estimations are unavailable for 2007  
 (c) Non-domestic legal volumes are smaller than 0.1 million kg and volume labels have not been included for this category  
 Source: (1) KPMG analysis  
 (2) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012  
 (3) PriceWaterhouseCoopers, *Australia's Illegal Tobacco Market*, 2007, 2009  
 (4) Industry data

# The mix shift towards manufactured cigarettes is supported by the consumption model. The validation process provides some certainty around the results

## 5.2 Illicit tobacco consumption in Australia (continued)

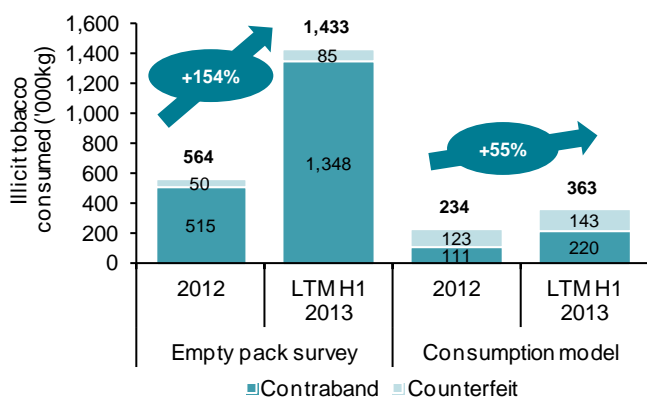
**Table 5.2 Results of primary methodologies, 2012 – LTM H1 2013 2013**

2012 and LTM H1 2013 results (kg '000)				
		2012	LTM H1 2013	% change
1. Illicit manufactured cigarettes	<i>Contraband</i>	515	1,348	162%
	<i>Counterfeit</i>	50	85	71%
	<i>Total</i>	564	1,433	154%
2. Unbranded tobacco		1,495	895	-40%
<b>3. Total illicit tobacco</b>		<b>2,060</b>	<b>2,329</b>	<b>13%</b>

### 1. Illicit manufactured cigarettes

Based on the empty pack survey analysis, our LTM H1 2013 estimation of the illicit manufactured cigarettes market is 1,348 tonnes for contraband and 85 tonnes for counterfeit. This represents an increase of 162% for contraband and 71% for counterfeit; a total increase of 154%.

#### Estimates of illicit manufactured cigarettes, 2012- H1 2013<sup>(1)(2)(3)(4)</sup>



The empty pack survey and consumption model produce different estimates for the consumption of illicit manufactured cigarettes. See appendix A1.1 for a detailed analysis of the consumption model. There are a number of reasons that may explain the differences between the estimates:

- Consumers may have difficulty identifying if they have purchased contraband or counterfeit product. Unbranded tobacco is much more obvious to determine. This will affect the consumption model estimate for manufactured cigarettes, but not the empty pack survey estimate.
- Some contraband and counterfeit is sold at full retail sales price which means respondents in these cases will not have an important indicator of illicit consumption. This is not an issue in the empty pack survey.
- There could be some underreporting by survey respondents who do not wish to admit to illicit activities.

However, both the empty pack survey (+154%) and the consumption model (+55%) indicate a significant growth in the consumption of illicit manufactured cigarettes.

Given the robustness and credibility of the empty pack survey for manufactured cigarettes we have adopted the empty pack survey as our primary method of estimating illicit manufactured cigarettes consumption.

### 2. Unbranded tobacco

The consumption model indicates that the volume of unbranded tobacco consumed declined by 40% between 2012 and 2013, from 1.5 million kg to 0.9 million kg. This illicit volume is supported by the rolling papers analysis.

Our rolling papers analysis indicates that the unbranded tobacco market is likely to be between 0.6 million kg and 1.3 million kg. The 0.90 million kg sits comfortably within the mid point of this range. See appendix A1.3 for more detail.

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2012  
 (2) Roy Morgan Research, consumer survey, H1 2013  
 (3) Euromonitor, *Tobacco consumption in Australia*, July 2012  
 (4) KPMG analysis

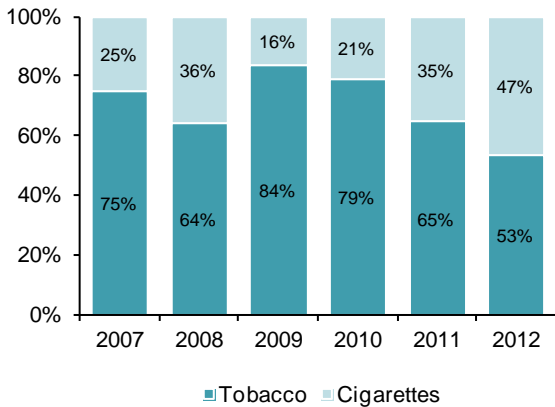
# The additional validation process indicates the trend and mix shift in illicit tobacco consumption is in line with secondary data sources

### 3. Overall illicit tobacco consumption

The estimated movement in the unbranded tobacco and manufactured cigarette consumption between 2012 and 2013 is an overall increase of 13% with illicit tobacco consumption rising to 2,329 tonnes in 2013. This increase is also characterised by a large change in the mix of illicit tobacco consumed. In 2013 manufactured cigarettes accounted for the predominant amount of consumption. The results are further validated by seizures data and consumption gap analysis.

Seizures data demonstrates a rise in the proportion of manufactured cigarettes as a percentage of illicit tobacco intercepted between 2009 and 2012. In 2009 16% of the volume of seizures came from manufactured cigarettes, whilst in 2012 47% of tobacco seizures were manufactured cigarettes.

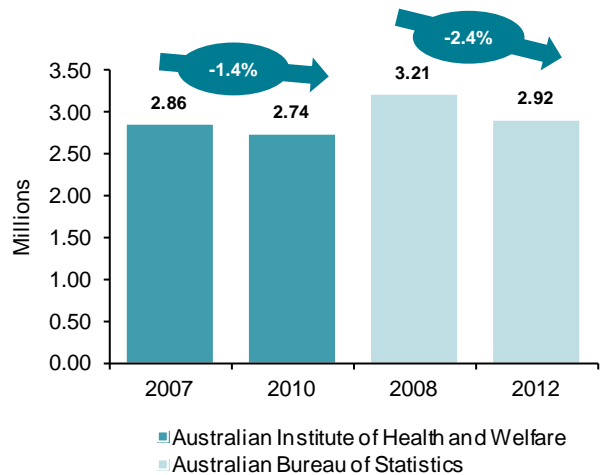
#### Sea cargo seizures split by type of illicit tobacco, 2007-2012<sup>(1)(a)(b)</sup>



This indicates that the proportion of manufactured cigarettes smuggled into Australia appears to be growing as a percentage of total illicit tobacco, validating the growth of illicit manufactured cigarettes indicated by the primary approaches.

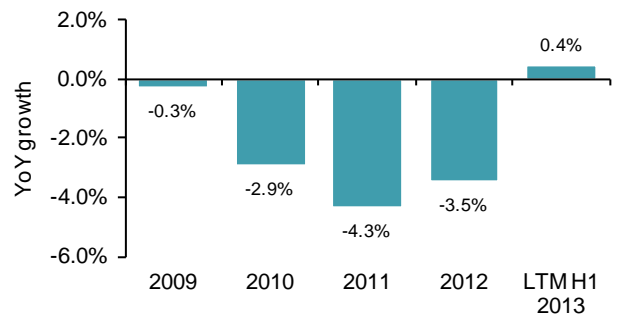
Consumption gap analysis indicates that both legal domestic sales and the smoking population have declined marginally in the long term.

#### Number of smokers<sup>(2)(3)</sup>



However, the smoking population has declined at a slower pace than legal domestic sales, indicating that there may be room for an increase in illicit tobacco consumption.

#### Estimates of year on year change in tobacco consumption, 2007- H1 2013<sup>(4)(5)(c)</sup>



The consumption gap validates the overall estimate of the volume of illicit tobacco, indicating significant shifts in the mix of illicit tobacco between manufactured cigarettes and unbranded tobacco. This corroborates the results of the empty pack survey analysis and consumption model.

Notes: (a) Illicit tobacco detections were also made in air cargo. However, volumes are significantly smaller and have not been included in the figures above  
 (b) Tobacco seizures have been converted to cigarette equivalents based on the conversion rates used for consumption modelling  
 (c) H1 2013 represents consumption for the twelve months to end June 2013  
 Source: (1) Australian Customs and Border Protection Service, 2013  
 (2) Australian Institute of Health and Welfare, *National Drug Strategy Household Survey*, 2007, 2010  
 (3) Australia Bureau of Statistics  
 (4) KPMG analysis of previous reports on illicit trade in Australia, written by Deloitte between 2009 and 2012  
 (5) Deloitte, *Illicit Trade of Tobacco in Australia*, 2012, 2011, 2012

## **6. Drivers of results**

6.1 Consumer survey results

6.2 Empty pack results



6.1 Consumer survey results

6.1.1 Roy Morgan Research survey overview

The consumer survey is a primary piece of research carried out to establish the size of the illicit tobacco market in Australia. The survey was again carried out by Roy Morgan Research to ensure comparability with previous years.

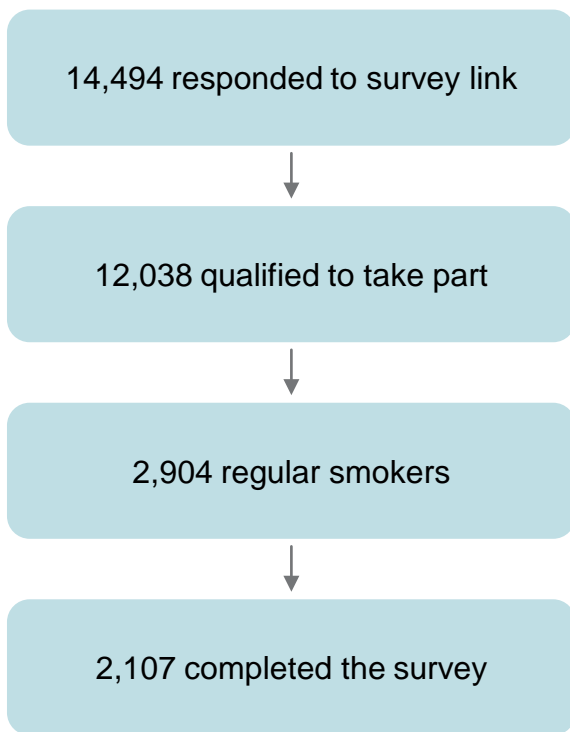
The survey made use of Computer Assisted Web-based Interviewing (CAWI). This enabled a sample of 2,107 adult respondents to be collected from 14,494 who responded to the email link sent out to Roy Morgan Research’s pool of respondents in May and June of 2013.

If a respondent was a regular smoker and fell into the correct demographic to be surveyed, they were considered eligible for the survey.

Of those who proved to be eligible for the survey, 73% completed the survey.

Founded in 1941, Roy Morgan Research (RMR) is an established Australian market research company. RMR have significant experience working with consumer surveys monitoring legal and illicit tobacco consumption, and have provided the consumer research for all of the previous versions of this report.

Figure 6.1.1 Roy Morgan Research survey attrition chart



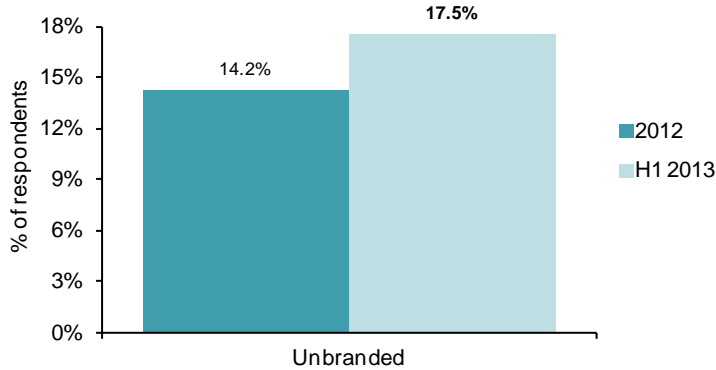
- Roy Morgan Research contact their panel by email in order to undertake the survey.
- The panel is based across a range of cities and demographics within Australia.
- The panel is filtered out with screening questions which enables the right demographics and a representative sample to be taken.
- The respondents are now broadly representative of Australia’s demographics.
- The survey asks more screening questions about smoking habits and products smoked.
- This establishes that the panel are regular smokers.
- Over 70% of those that were filtered into the correct demographic completed the survey, reaching the target of over 2,000 respondents.
- Sample of over 2,000 respondents improves statistical significance.

Note: (a) For the purposes of this report, a regular smoker is a person who smokes tobacco products on at least five days in a given week

# Whilst the proportion of smokers who purchased unbranded illicit tobacco increased in H1 2013, the average frequency and average amount purchased of unbranded declined

## 6.1.2 Purchasers of illicit tobacco

Proportion of respondents who reported purchasing illicit unbranded tobacco, 2012 – H1 2013<sup>(1)(2)(a)</sup>

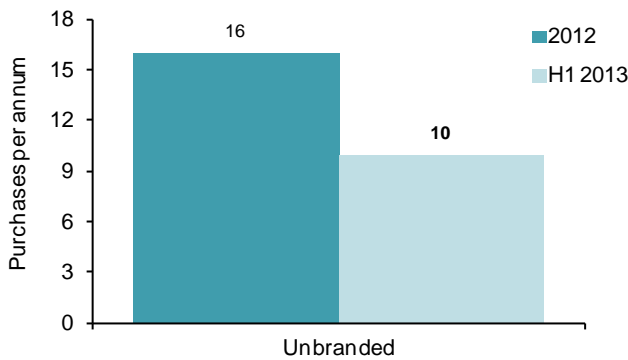


The H1 2013 Roy Morgan Research consumer survey saw significant changes in the key metrics which drive the consumption model estimate. The results showed that, whilst the proportion of respondents who said they purchased unbranded tobacco increased between 2012 and 2013, the frequency and amount of the average purchase declined. Purchase frequency declined by approximately 38% and purchase amount by 21%.

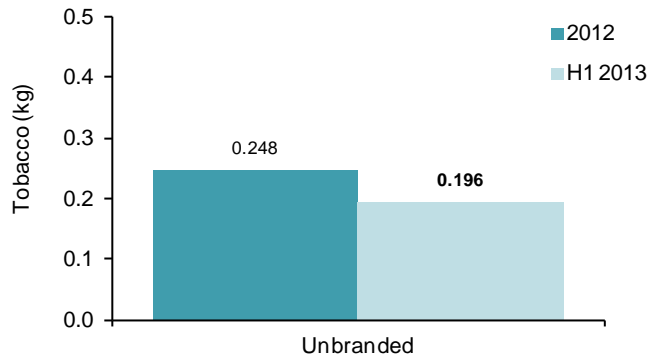
The combination of these movements in the consumption model equates to an overall decline in the amount of illicit unbranded tobacco consumed.

The change in consumption patterns may indicate a relative decline in the availability of illicit unbranded tobacco which was also highlighted by seizures data. Many respondents highlight that they purchase whenever illicit product is available.

Average frequency of purchase per annum, 2012 – H1 2013<sup>(1)(2)(a)</sup>



Average volume purchased (kg) per occasion, 2012 – H1 2013<sup>(1)(2)(a)</sup>



Note: (a) 2012 and 2013 analysis is based on CAWI consumer survey results  
 Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2012  
 (2) Roy Morgan Research, consumer survey, H1 2013

# The empty pack survey sampling plan comprised collection of 12,000 empty packs across 16 cities in Australia

## 6.2 Empty pack survey results

### 6.2.1 Australian empty pack survey sampling plan<sup>(1)(2)</sup>

Empty pack surveys analyse discarded cigarette packets which have been collected from a set area. The aim is to collect a representative sample of discarded cigarette packets which can then be analysed to provide information about the nature of consumption of manufactured tobacco products.

Empty packs are collected on a proportionate basis from several neighbourhoods. Packs are collected from streets and easy access public bins in areas on the sampling plan.

For the purposes of this report, an empty pack survey was carried out by an independent market research agency; MSIntelligence (MSI) across May and June 2013. This H1 2012 EPS collection consisted of 12,000 empty packs, collected across 16 cities in Australia, providing coverage for approximately 75% of the total population as shown in Fig 6.2.1

Packs are collected from pre-determined neighborhoods, selected to be representative of the city being sampled. Packs are collected irrespective of their brand and country of origin. Residences, offices and other locations such as stadiums have been excluded from the sampling plan.

After collection is completed, weightings are overlaid in order to more accurately represent the relative size of each city's population.

Founded in 2001, MSI is a private company with headquarters in Geneva, Switzerland specialising in market research. MSI have particular experience in the tobacco industry and conduct over 700 surveys a year in more than 70 countries.

**Figure 6.2.1 H1 2013 empty pack survey sampling plan**

City	Population (million) 2012 estimate <sup>(2)</sup>	Sample packs	Weighted packs
Sydney	4.7	3,000	3,253
Melbourne	4.2	2,500	2,959
Brisbane	2.2	1,200	1,526
Perth	1.9	1,000	1,322
Adelaide	1.3	800	890
Goldcoast – Tweed Heads	0.6	400	412
Newcastle	0.4	400	292
Canberra - Queanbeyan	0.4	300	287
Wollongong	0.3	300	197
Sunshine coast	0.3	300	199
Hobart	0.2	300	151
Geelong	0.2	300	125
Townsville	0.2	300	120
Cairns	0.1	300	98
Darwin	0.1	300	92
Toowoomba	0.1	300	77
<b>Total sample</b>	<b>17.2</b>	<b>12,000</b>	<b>12,000</b>
<b>Total population of Australia</b>	<b>22.9</b>		

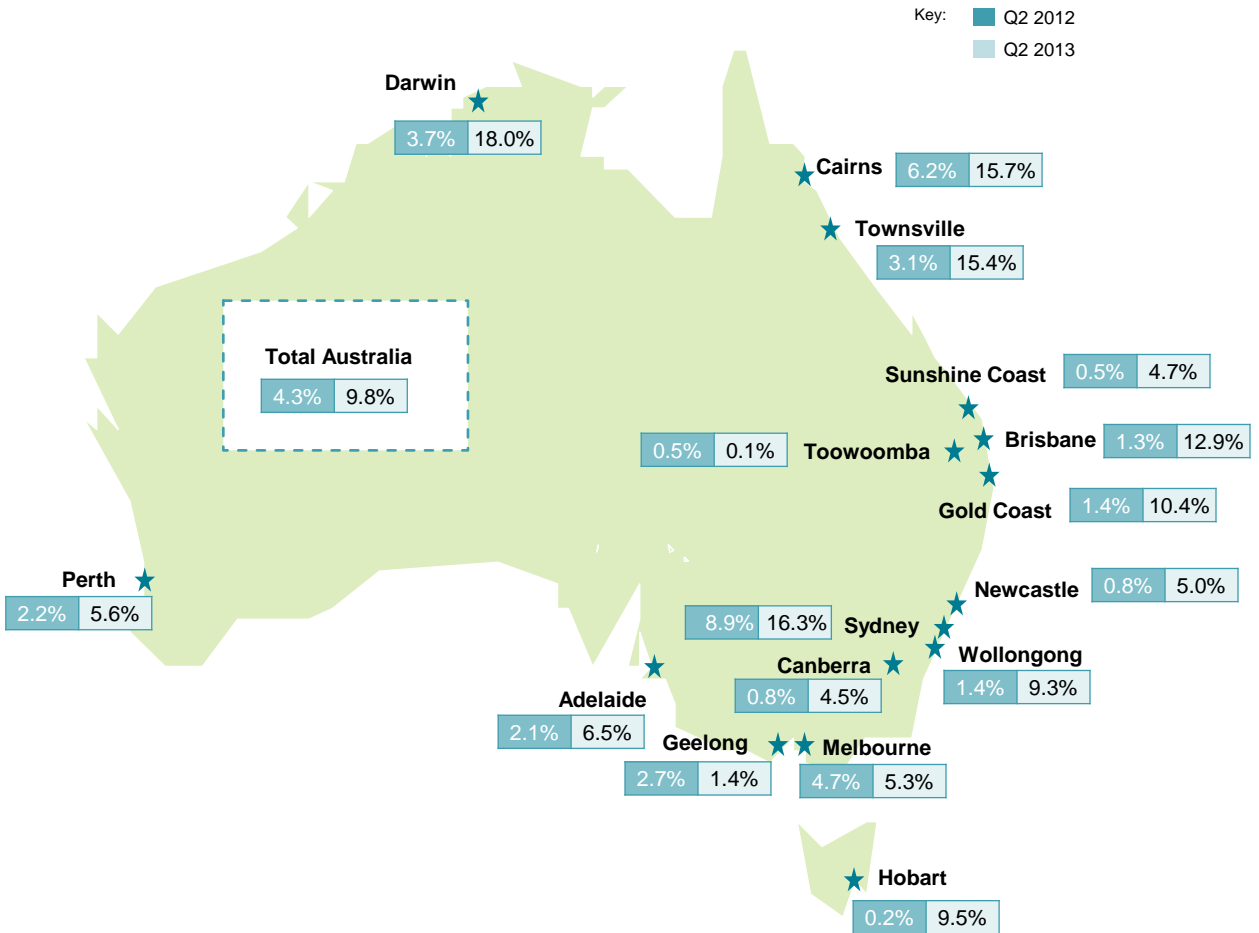
Sources: (1) MSIntelligence Research, *Empty pack survey*, Q2 2013

(2) Australian Bureau of Statistics

# The growth of non-domestic cigarette consumption appears to be a national trend

## 6.2.2 Australian empty pack survey results – non-domestic incidence by city

Figure 6.2.2 Total non-domestic incidence by city, Q2 2012- Q2 2013<sup>(1)</sup>



Of the sixteen cities sampled in the Q2 2013 empty pack survey only Geelong and Toowoomba witnessed a decline in non-domestic consumption in 2013. Darwin, Sydney, Cairns and Townsville were the only cities to have reported a non-domestic incidence higher than 15%.

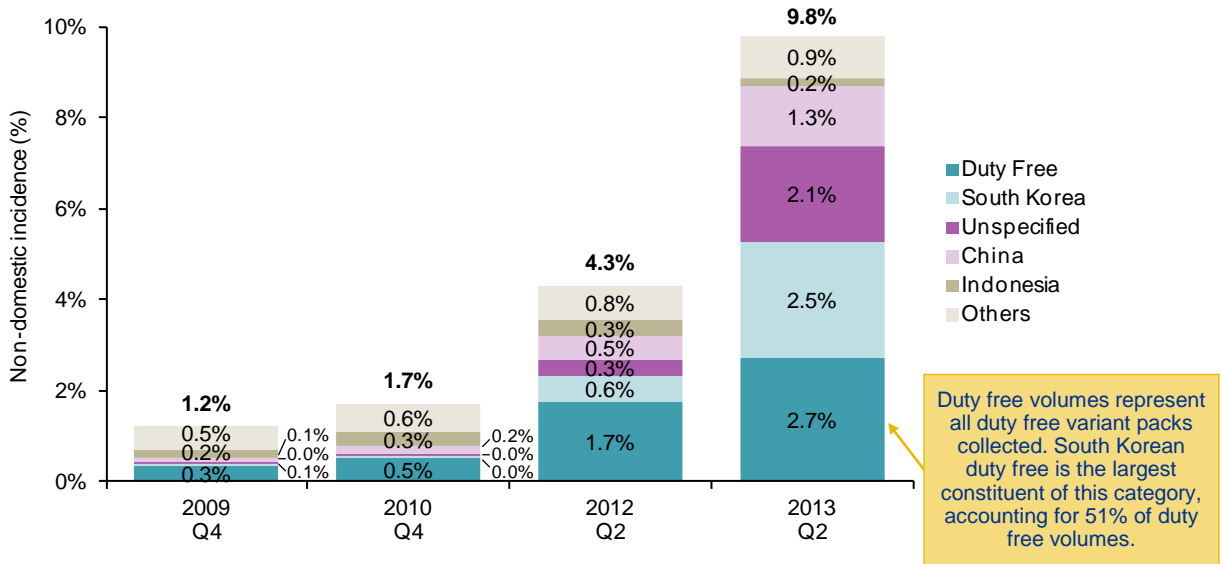
Additionally, the size of the city does not appear to be indicative of the non-domestic consumption as both small and large cities reported a range of incidences in the empty pack surveys for the last two years.

Source: (1) MSIIntelligence Research, *Empty pack survey*, Q2 2013

# South Korean variant products were the main constituent of non-domestic manufactured products found in the empty pack survey

## 6.2.3 Australian empty pack survey results – market variants

**Total non-domestic incidence by market variant, Q4 2009- Q2 2013<sup>(1)(2)(a)</sup>**



The inflow of non-domestic manufactured products into Australia is primarily from neighboring Asian markets, with high levels of duty free products also present. South Korea (including South Korea duty free sales) is the largest individual source country for non-domestic manufactured products, with a share of over 40% of non-domestic inflows. This is discussed in further detail later in the report.

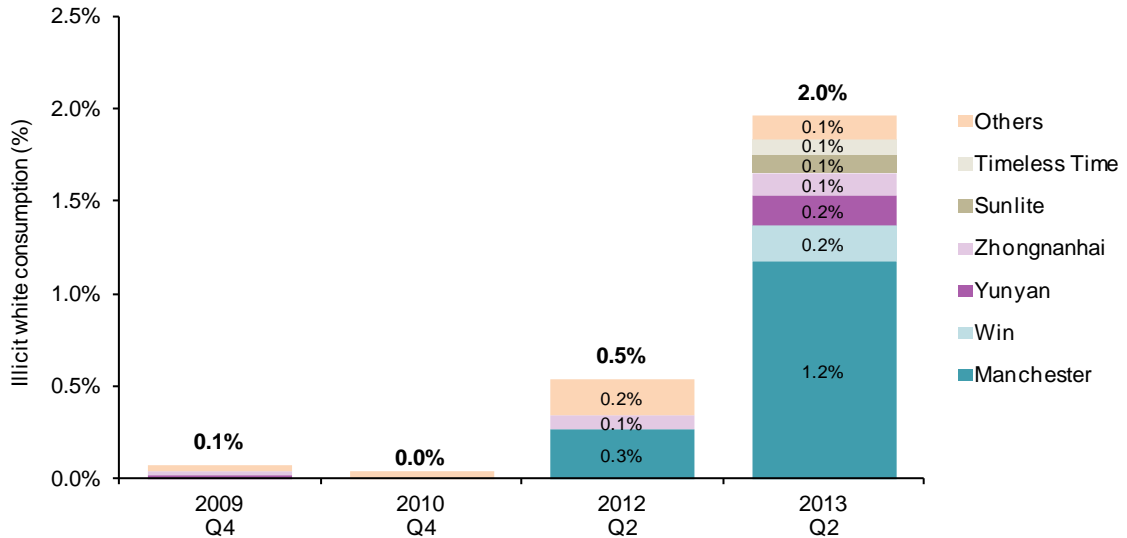
Whilst the inflows from South Korea are high, the outbound and inbound travel statistics between Australia and South Korea are relatively low when compared to other countries, including China and Indonesia.<sup>(a)</sup>

Note: (a) Please refer to appendix A2.4 for detailed travel trends  
 Sources: (1) MIntelligence Research, *Empty pack survey*, Q2 2013  
 (2) AC Nielsen, *Empty pack survey*, 2009, 2010, 2012

# The consumption of illicit whites in Australia is a growing phenomenon, accounting for 2% of total manufactured cigarette consumption

## 6.2.4 Australian empty pack survey results – illicit whites

Consumption of selected illicit white brands as a percentage of total manufactured cigarette consumption Q4 2009- Q2 2013<sup>(1)(2)(a)</sup>



'Illicit whites' is a term for brands of manufactured cigarettes that are not legally available in the local market. Whilst possibly legal at the point of manufacture, these brands are typically not sold legally anywhere and are often made exclusively for smuggling. Illicit white brands are not counterfeit products as they do not infringe on intellectual property rights. Illicit white volumes form part of the contraband volumes in Australia.

Industry sales data on illicit white cigarettes shows between March and June in 2013 they were sold at an average price of AUD8.60. This would be 45 to 50% less than the cost of a Marlboro or Winfield Blue.<sup>(3)</sup>

According to the Q2 2013 empty pack survey, 2% of all manufactured cigarettes consumed in Australia were illicit whites. This analysis is based on the combined volume of selected illicit white brands, focusing on the most

prominent brands identified in 2013. Analysis of the total illicit white volumes in a market is difficult to perform as manufacturers of illicit whites often change brand names frequently in order to avoid detection.

The increase in consumption of these illicit white brands represents a quadrupling of the volumes seen in 2012. Manchester is currently the largest illicit white brand in Australia; if it were sold legally in Australia it would have an equivalent legal market share of 1.3%.<sup>(3)(c)</sup>

Incidence of illicit whites increased by over 250% between 2012 and 2013, a much larger increase than total contraband incidence. According to the empty pack survey findings, illicit whites now make up over 20% of contraband consumption.

Notes: (a) Others include Septwolves, Modeng, Asia Cup, Master brands  
 (b) These brands are known illicit whites as provided by the industry  
 (c) Unlike other results from the EPS, the shares of each illicit white brand were calculated by weighted packs, not weighted sticks. The share of Manchester would be 1% when calculated in weighted sticks.

Sources: (1) MSIIntelligence Research, *Empty pack survey*, Q2 2013  
 (2) AC Nielsen, *Empty pack survey*, 2009, 2010, 2012  
 (3) Industry data

# Consumption of Manchester cigarettes quadrupled between 2012 and 2013 with Sydney accounting for 73% of packs collected

## 6.2.4 Australian empty pack survey results – illicit whites

**Figure 6.2.4 Consumption of Manchester by city**  
02 2012- Q2 2013<sup>(1)(2)(a)(b)</sup>

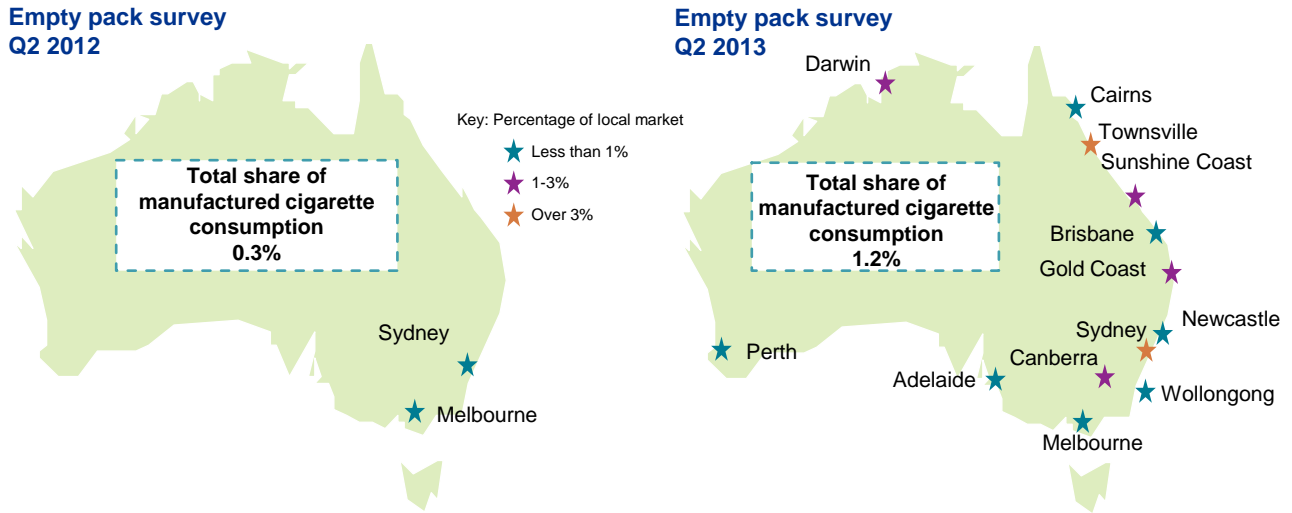


Figure 6.2.4 shows the growth of Manchester in Australia between 2012 and 2013. It shows that small numbers of packs were identified solely in Sydney and Melbourne in 2012. When the empty pack survey was carried out in 2013, it showed that total consumption of Manchester had grown from 0.3% to 1.2% of manufactured cigarettes, and it was located in 13 out of 16 cities across Australia.

In Q2 2013, Manchester in Sydney and Townsville had a share of 3.8% and 3.0% respectively. Manchester is not sold legally in any retail outlets in Australia. Whilst 73% of packs collected were found in Sydney, Manchester appears to be available throughout the country.

Notes: (a) No incidence reported in 2009 and 2010  
 (b) Analysis is based on weighted number of packs  
 Sources: (1) MSIIntelligence Research, *Empty pack survey*, Q2 2013  
 (2) AC Nielsen, *Empty pack survey*, 2009, 2010, 2012

## **7. Conclusion**



## Conclusion

**Recent increases in illicit tobacco consumption are a result of contraband and counterfeit. Analysis indicates this is an Australia wide issue rather than focused in a few areas**

### 2012 and LTM H1 2013 results (kg '000)

	2012	LTM H1 2013	% change	
Illicit manufactured cigarettes	<i>Contraband</i>	515	1,348	162%
	<i>Counterfeit</i>	50	85	71%
	<i>Total</i>	564	1,433	154%
Unbranded tobacco	1,495	895	-40%	
<b>Total illicit tobacco</b>	<b>2,060</b>	<b>2,329</b>	<b>13%</b>	
<b>Illicit tobacco consumption as % of total consumption</b>	<b>11.8%</b>	<b>13.3%</b>	<b>n/a</b>	
<b>Equivalent excise value (AUDm)</b>	<b>AUD893</b>	<b>AUD1,021</b>	<b>20%</b>	

#### The illicit market in Australia

Our study indicates there has been a growth in the consumption of illicit tobacco in Australia. **As a proportion of total consumption this represents an increase from 11.8% in 2012 to 13.3% in LTM H1 2013.** This trend is consistent with a range of secondary data sources.

If all of this tobacco had been consumed in the legitimate market, it would have represented an excise amount of AUD1.0bn at current excise rates.<sup>(1)</sup>

Contrary to the trend in legal sales, this growth would seem to have been due to a large increase in the consumption of illicit manufactured cigarettes. With a significant proportion of this growth coming from the emergence of illicit white brands like Manchester that are not legally sold in Australia. The empty pack survey in 2012 only found Manchester in Sydney and Melbourne. The latest empty pack survey found the product in 13 of the 16 main cities.

The growth of contraband and counterfeit cigarettes has come at the expense of the consumption of unbranded tobacco. **The results from this report would seem to indicate structural shift in the market away from unbranded tobacco and towards manufactured cigarettes.**

#### The legal tobacco market in Australia

Whilst legally manufactured cigarette volumes have declined at an annual rate of 2.2% over the last twelve years, loose tobacco volumes have increased at a CAGR of 3.0% over the same period, representing a shift in the mix of tobacco products consumed. Overall sales of legal domestic tobacco declined by 1%.

#### Regional overview

The Australian market is the most expensive market in the region. A packet of 20 Marlboro is 5% more expensive than in New Zealand; the second most expensive market. However, a packet is 55% more than the third most expensive market (Singapore) and 500% more expensive than in South Korea from where the empty pack survey indicates the majority of new contraband is originating.

The Australian Crime Commission believe that organised crime groups perceive tobacco smuggling to be low-risk and highly profitable.<sup>(2)</sup> As a result, this price differential may explain some of this growth.

Sources: (1) Based upon the average excise rate over the past 12 months for both loose and manufactured cigarettes.

(2) Australian Crime Commission, *Organised Crime in Australia*, July 2013

# Appendices

Appendix 1. Illicit market measurements

Appendix 2. Technical appendices

# Appendix 1: Illicit market measurements

A1.1 Consumption model

A1.2 Empty pack survey

A1.3 Rolling papers analysis

A1.4 Consumption gap analysis

## KPMG have used a consumption based approach to size the unbranded tobacco market in Australia

### A1 Review of illicit tobacco estimates

#### A1.1 Consumption model

##### Introduction

The primary methodology we have used to size the unbranded tobacco market in Australia is the consumption model approach. This approach, adopted by KPMG is similar to that used in previous reports on the illicit tobacco market in Australia.

The consumption model utilises the results of the Roy Morgan consumer survey to determine the core inputs to the model, combined with publicly available information on the legal tobacco market and smoking population.

##### The consumer survey

The consumer survey was based on the responses of 2,107 smokers in Australia to a CAWI web based questionnaire. Respondents were selected from across the country, from both metropolitan and non-metropolitan areas, in a sampling plan consistent with the survey carried out by Roy Morgan Research in late 2012.

The survey was conducted in May and June of 2013. Consumers were asked about their consumption and purchase of legal and illicit tobacco products; namely Chop Chop (unbranded loose tobacco sold in bags), pre-rolled unbranded tobacco as well as counterfeit and contraband manufactured cigarette products.

##### The consumer survey is used as one tool to form an estimate of the illicit market

The consumer survey responses are used to obtain several core inputs for the consumption model process. These core inputs are based on consumer responses and include;

- How many smokers purchase the different types of illicit tobacco,
- How often these illicit purchasers purchase illicit tobacco, and
- How much illicit tobacco these illicit purchasers purchase on each purchase occasion.

These responses generate the core assumptions which are used in the consumption model and are illustrated on figure A1.1 overleaf.

##### Additional assumptions

In addition to the results generated by the consumer survey there are some additional assumptions and data-points which are used:

- Total adult smoking population – we assumed that the total smoking population was 2.6 million. This is based on AIHW data updated for the decline in smoking population numbers since the last official estimate.
- Quantity of legal tobacco purchased – we have obtained this data from Euromonitor and estimate the total legal sales volume to be 15.1 million kilograms.

## The consumption modelling calculation relies on the results of the Roy Morgan Research consumer survey and publicly available data

### A1.1 Consumption model (continued)

The core inputs from the consumer survey and publicly available information are used in the consumption model, illustrated in table A1.1. These core inputs are factored together to produce an estimate of the amount of illicit tobacco product consumed by the representative population sampled in the Roy Morgan Research consumer survey covering the steps outlined:

- Steps 1 and 2 are used to calculate the total annual volume of illicit consumption per consumer in step 3.
- The number of illicit tobacco users is calculated using the percentage of illicit tobacco users noted in the consumer survey in step 5.
- This is multiplied by the total number of smokers in Australia in Step 6 which is multiplied by the average quantity purchased to give the total quantity of illicit tobacco consumption in Australia in step 7.

The consumption model approach measures illicit tobacco consumption by utilising consumers' responses. It is not possible to accurately break down illicit consumption into its constituent parts of loose unbranded and branded tobacco as consumers may be unable to tell the difference in the way in which the tobacco is sold.

The H1 LTM consumption model process and relevant data sources are shown in detail overleaf.

Table A1.1 Consumption model data sources and process

Consumption model inputs		
Quantity of illicit tobacco purchased per occasion (g)	①	Roy Morgan consumer survey
Frequency of illicit tobacco purchased per annum	②	Roy Morgan consumer survey
Quantity of illicit tobacco purchased per annum (g)	③	① X ② = ③
Total adult smoking population ('000)	④	Extrapolated Australian Bureau of Statistics smoking prevalence data <sup>(a)</sup>
Illicit tobacco users as % of Australia tobacco users	⑤	Roy Morgan consumer survey
Number of illicit tobacco users, Australia ('000)	⑥	④ X ⑤ = ⑥
Quantity of illicit tobacco purchased in Australia ('000kg)	⑦	③ X ⑥ = ⑦

Notes: (a) Please see appendix A2.1.9 for details of the estimation of the smoking population

## The results of the consumption model indicate a significant decline in the volume of unbranded tobacco, but counterfeit and contraband volumes almost doubled

### A1.1 Consumption model (continued)

The LTM H1 2013 consumption model results indicate that consumption of illicit tobacco has decreased from approximately 1.8 million kilograms in 2012 to approximately 1.3 million kilograms in 2013.

The consumer survey indicates a significant decline in unbranded volumes, which decreased by 42% to 0.9 million kilograms. Unbranded tobacco volumes declined as a result of lower quantities purchased and lower purchase frequency being reported.

Illicit manufactured cigarette volumes increased by 56% to 0.4 million kilograms in LTM H1 2013, with the majority of the growth resulting from increased contraband volumes. The amount purchased per occasion and frequency of purchase per annum increased for both contraband and counterfeit cigarettes according to consumer responses in the H1 2013 survey.

**Figure A1.1 Consumption model results**  
Q3 2012-H1 2013<sup>(1)(2)(3)(4)</sup>

	Unbranded		Counterfeit		Contraband		Total illicit tobacco	
	2012	LTM H1 2013	2012	LTM H1 2013	2012	LTM H1 2013	2012	LTM H1 2013
① Quantity of illicit tobacco purchased per occasion (g)	248	196	132	142	126	136		
② Frequency of illicit tobacco purchase per annum	16	10	5	9	4	9		
③ Quantity of illicit tobacco purchased per annum (g) ① x ②	3,968	1,960	660	1,278	504	1,224		
④ Total adult smoking population ('000)	2,742	2,609	2,742	2,609	2,742	2,609		
⑤ Illicit tobacco users as % of Australian tobacco users	14.2%	17.5%	6.8%	4.3%	8.0%	6.9%		
⑥ Number of illicit tobacco users, Australia ('000) ④ x ⑤	389	457	186	112	219	180		
⑦ Quantity of illicit tobacco purchased in Australia ('000kg) ③ x ⑥	1,545	895	123	143	111	220	1,779	1,259

Note; the number highlighted here is the original result from the Deloitte 2012 study. For a fair comparison to the 2013 KPMG result, we have shown a comparative volume estimate on page 29. The detail behind the comparative result is illustrated in Appendix A2 noting the different data sources that have been used.

Note (a) The 2012 numbers presented here are the numbers from the 2012 Deloitte report. These numbers will not tally to the KPMG restated numbers stated on page 29.

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2012  
(2) Roy Morgan Research, consumer survey, H1 2013  
(3) Euromonitor, *Tobacco consumption in Australia*, July 2012  
(4) KPMG analysis

## The Q2 2013 empty pack survey found that 9.8% of manufactured cigarettes consumed originated outside Australia

### A1.2 Empty pack survey analysis

Four empty pack surveys have been carried out in Australia in the last five years.

AC Nielsen carried out surveys solely for Philip Morris Limited in Q4 2009 and Q4 2010. The 2009 survey consisted of 9,343 collected packs, and the 2010 survey 6,000 packs. KPMG have not had visibility of the sampling plans of these surveys but they are believed to be broadly comparable to the 2012 and 2013 empty pack surveys.

AC Nielsen also carried out the 2012 Q2 survey, which was commissioned by all three industry parties; BATA, PML and ITA. The 2012 survey was conducted in May, June and July and consisted of 12,000 packs collected across 16 cities.

In 2013, the empty pack survey provider changed from AC Nielsen to MSIntelligence (MSI). MSI were selected after a tender process. MSIntelligence were commissioned to replicate the survey using an identical methodology to AC Nielsen.

The 2013 survey was again produced for all three industry parties and was conducted in May and June. The survey was carried out in the same 16 cities as 2012 and again consisted of 12,000 collected packs.

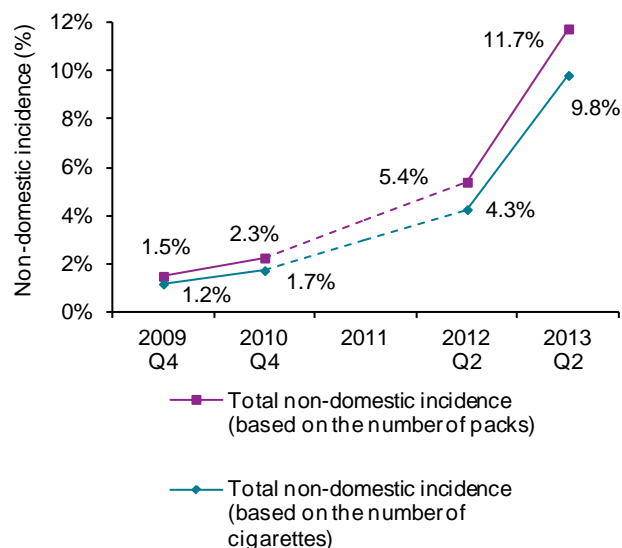
Empty pack survey results can be calculated on either a cigarettes basis or a packs basis. This is possible as the size of each pack collected is recorded during the survey. As there is significant variation in pack sizes, utilising a measurement based on the number of cigarettes provides a more accurate representation of consumption patterns.

The empty pack survey analysis takes the proportion of cigarettes which are not Australian (health warnings missing or not in English, brands not sold in Australia, packs with identifying marks from other markets such as tax stamps) and classes these cigarettes as “non-domestic”. The proportion of non-domestic cigarettes recorded by the empty pack survey is called the non-domestic incidence. The non-domestic incidence of the EPS surveys is shown above.

The total non-domestic incidence in Australia in the 2013 survey was 9.8% (on the basis of number of cigarettes) and 11.7% (on the basis of number of packs). This indicates that more non-domestic packs would need to be consumed to get the same number of cigarettes and explains why the approach uses cigarettes rather than packs. This is the highest level of non-domestic incidence recorded in an empty pack survey and indicates an increase in illicit manufactured cigarettes.

Whilst a proportion of non-domestic cigarettes will be legally brought into Australia by both inbound (foreign nationals travelling to Australia) and outbound travellers (Australians returning from abroad), this legal proportion is relatively small, with the majority of non-domestic cigarettes being illicit. A calculation of the legal volume of non-domestic cigarettes is shown in appendix A2.4. Nonetheless, this increase occurred at a time after the duty free allowance was reduced in September 2012.

#### Total non-domestic incidence, Q4 2009- Q2 2013<sup>(1)(2)(a)(b)</sup>



Notes: (a) No survey was conducted in 2011, trend line is for information only

(b) Non-domestic incidence based on the number of packs is higher than the non-domestic incidence based on the number of cigarettes due to the average Australian pack of cigarettes being larger than an international pack, i.e. the most commonly sold pack size in Australia is 25 cigarettes compared to the standard 20 cigarettes packs available internationally.

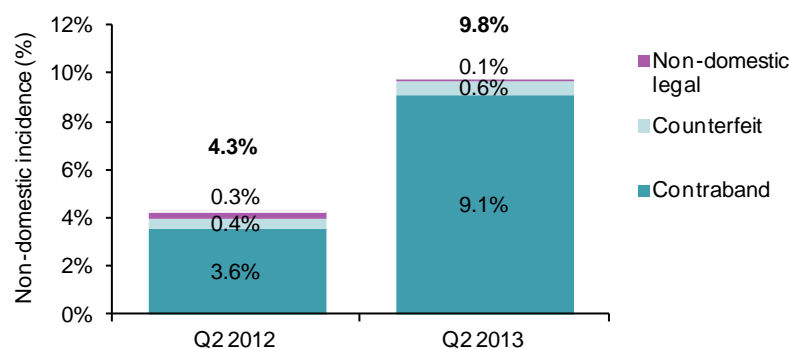
Sources: (1) MSIntelligence Research, *Empty pack survey*, Q2 2013

(2) AC Nielsen, *Empty pack survey*, 2009, 2010, 2012.

## The increase in the non-domestic incidence of manufactured cigarettes has been primarily driven by contraband products

### A1.2.2 Empty pack survey analysis (continued)

#### Break down of non-domestic incidence, Q2 2012 - Q2 2013<sup>(1)(2)(3)</sup>



As discussed on the previous page, not all non-domestic tobacco is illicit tobacco. Non-domestic incidence can be broken down into three separate categories:

- 1. Non-domestic legal** – These are cigarettes legally brought into Australia as part of travelers' duty free allowance.<sup>(a)</sup>
- 2. Counterfeit** – The packs collected in the empty pack survey are examined by the participating companies. They are able to identify packs which are counterfeit versions of their products.
- 3. Contraband** – The remainder, and majority, of non-domestic manufactured cigarettes are legitimate products (i.e. non-counterfeit) that have entered Australia illegally.

Of the total non-domestic incidence reported in the 2013 survey, 0.1% can be attributed to non-domestic legal volumes. The decline from 2012 is in part explained by the reduction in Australia's duty free allowance from 250g to 50g/ 50 sticks per person per trip in September 2012.<sup>(a)</sup>

The majority of non-domestic cigarettes are therefore illicit, with the illicit proportion of manufactured cigarettes consumed in Australia showing a marked increase.

The empty pack survey findings showed that 0.6% of all packs collected in 2013 were counterfeit products, with contraband cigarettes representing the remaining 9.1%. Indicating that contraband product is the predominant driver of the increase in illicit manufactured cigarette volumes seen between 2012 and 2013.

Note: (a) Please refer to appendix A2.4 for detailed for detail on the calculation of non-domestic legal volumes

Sources: (1) MStelligence Research, *Empty pack survey*, Q2 2013

(2) AC Nielsen, *Empty pack survey*, 2012

(3) KPMG analysis



## The results of the empty pack survey analysis indicate an illicit volume of 1.4 million kilograms for manufactured cigarettes

### A1.2.3 Empty pack survey analysis (continued)

We have used the non-domestic incidence obtained from the empty pack surveys as the basis of estimates for the volumes of counterfeit and contraband consumption in Australia.

The 9.8% non-domestic incidence is combined with estimates for legal domestic sales volumes from

Euromonitor to create a volume estimate for illicit manufactured cigarettes. This can then be broken down into volume estimates for non-domestic legal, counterfeit and contraband.

Figure A1.2.3

Australian empty pack survey non-domestic consumption and illicit estimate <sup>(1)(2)(3)(4)(a)(b)(c)</sup>			2009	2010	2011	2012	2013
	Report page						
Legal sales of manufactured cigarettes (kg'000s)	①	10	15,881	14,598	13,908	13,468	13,267
Empty pack survey non-domestic incidence	②	46	1.2%	1.7%	-	4.3%	9.8%
Total consumption of manufactured cigarettes (kg'000s)	③	= ① / (100% - ②)	16,071	14,857	-	14,068	14,707
<b>Non-domestic consumption (kg'000s)</b>	④	= ③ - ①	<b>191</b>	<b>258</b>	-	<b>600</b>	<b>1,439</b>
Non-domestic (legal) volume estimate (kg'000s)	⑤	69	34.6	33.7	-	35.6	10.7
<b>Illicit consumption (kg'000s)</b>	⑥	= ④ - ⑤	<b>156.4</b>	<b>224.3</b>	-	<b>564</b>	<b>1,433</b>
Empty pack survey counterfeit incidence	⑦	46	-	-	-	0.4%	0.6%
Counterfeit consumption (kg'000s)	⑧	= ⑥ * ( ⑦ / ② )	-	-	-	50	85
Contraband consumption (kg'000s)	⑨	= ⑥ - ⑧	-	-	-	515	1,348

Figure A1.2.3 shows the calculation used to estimate the total volume of illicit manufactured cigarettes consumed in Australia. The percentage of non-domestic cigarettes is added to legal domestic consumption in order to calculate total consumption in step 3. Total illicit consumption is calculated by removing the non-domestic legal volume estimate in step 6.

The EPS also records the counterfeit incidence as a percentage in step 7. This counterfeit incidence is taken as a percentage of total non-domestic consumption and multiplied by the illicit consumption estimate in step 8, with the remainder contraband in step 9.

Notes: (a) We have uplifted the Euromonitor manufactured cigarettes volumes by 2% in each year, as we believe that the overall quantum of estimate is too low  
(b) 2013 legal sales of manufactured cigarettes are for the latest 12 months  
(c) Counterfeit incidence is not available for 2009, 2010 and 2011

The results of the empty pack survey analysis show non-domestic volumes increased significantly in 2013. As non-domestic legal volumes declined sharply, this translated into much higher volumes of illicit counterfeit and contraband manufactured cigarettes.

Whilst volumes attributable to counterfeit manufactured cigarettes rose, the true volume increase was driven by contraband product, which accounts for 94% of the total illicit consumption indicated by the empty pack survey analysis.

Sources: (1) MSIIntelligence Research, *Empty pack survey*, Q2 2013  
(2) AC Nielsen, *Empty pack survey*, 2009, 2010, 2012  
(3) Euromonitor, Legal domestic sales, August 2013  
(4) KPMG analysis

# The illicit tobacco volumes generated by the consumption model fall within the range provided by the rolling papers analysis

## A1.3 Rolling papers analysis

Figure A1.3.1 Rolling papers calculation for unbranded tobacco

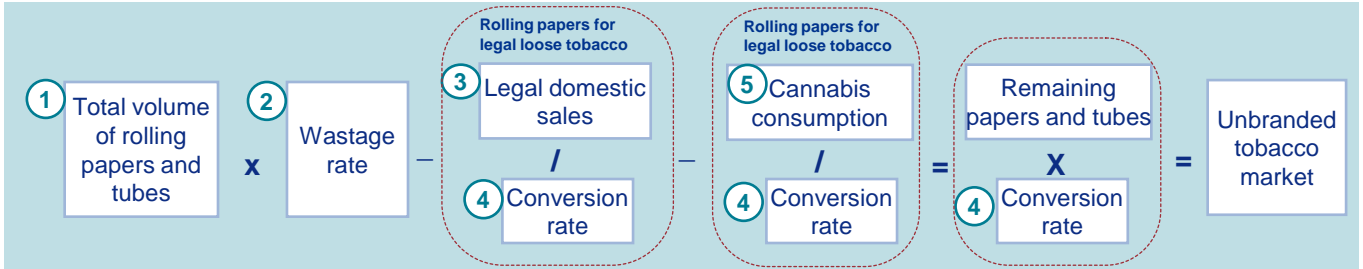
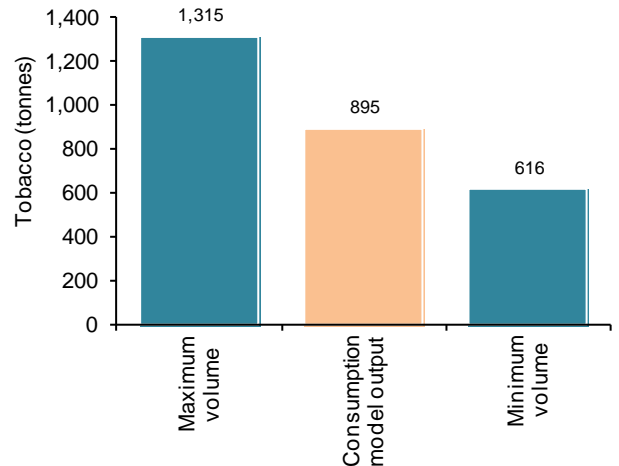


Figure A1.3.1 highlights our approach to the rolling papers analysis used to calculate the total volume of unbranded tobacco. For other clients we have applied this approach to markets with sizeable loose tobacco consumption and has proven to help validate the size of the unbranded market. Each step of the calculation involves the following assumptions and data-points:

- ① **Total volume of rolling papers and tubes** – the volume used comes from retail sales data provided by Aztec and cannot be published due to contractual obligations with the data provider.
- ② **Wastage rate** – The wastage rate is the percentage of rolling papers used and excludes any discarded or spoilt papers. This data has been sourced through consumer research undertaken by the industry and is commercially sensitive and cannot be published.
- ③ **Legal domestic sales of loose tobacco** – We use the same volumes calculated for the LTM period for July 2012 to June 2013, which equated to 1,833kg.
- ④ **Conversion rate** – The amount of grams of tobacco used in a rolled cigarette. Consumer surveys and estimations by the industry have produced a range of values. As a sensitivity, we use an upper and lower limit of 0.75 and 0.6 respectively.
- ⑤ **Cannabis consumption** – Rolling papers are also used in the consumption of cannabis. The conversion rate for use of papers and tubes is assumed to be the same as the conversion rate for cigarettes. Total cannabis consumption is estimated on the basis of the Australian Department of Health and Aging survey at a total volume of 22,500kg.<sup>(2)</sup>

Volume of illicit unbranded tobacco generated by the rolling papers analysis, 2013



The chart above illustrates a sensitized range for the rolling papers analysis. The sensitivity is based around the value for the conversion rate which is the most uncertain variable in the analysis. By flexing this value between a high value of 0.75g per rolled cigarette and a low value of 0.6g per rolled cigarette, we can determine a range of potential market sizes.

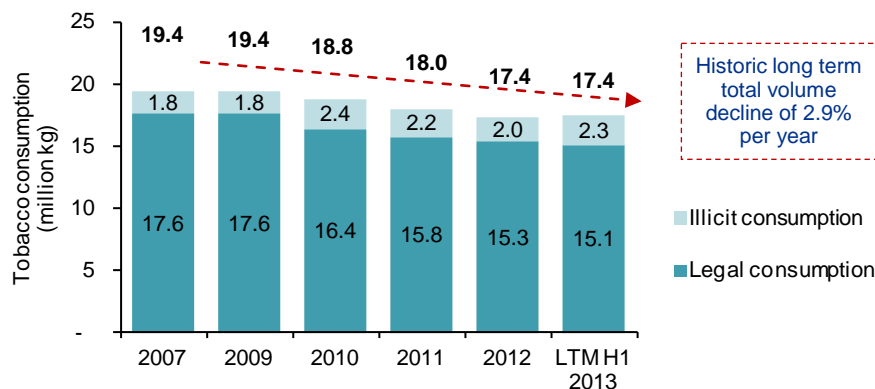
The volume of illicit unbranded tobacco generated by the consumption model output is within the range of the rolling papers analysis.

Sources: (1) Size of rolling papers market obtained from the industry  
 (2) National Drug and Alcohol Centre NSW, *Cannabis in Australia*, June 2007

## Our estimate of total tobacco consumption for the twelve months to June 2013 is consistent with the historic overall decline in tobacco consumption

### A1.4 Consumption gap analysis

#### Trend in total consumption of tobacco in Australia, 2007 - H1 2013<sup>(1)(2)(a)(b)(c)</sup>



CAGR (%)	2007-H1 2013	2009-H1 2013
Illicit consumption	n/a	8.2%
Legal consumption	-2.7%	-4.2%
<b>Total consumption</b>	<b>-1.9%</b>	<b>-2.9%</b>

Under the KPMG methodology, the overall level of tobacco consumption was equal to 17.4 million kilograms in the twelve months to June 2013.

This estimate of total consumption is in line with the overall historic trend of declining total tobacco consumption. Though the LTM H1 2013 total consumption estimate represents a slight increase when compared to the 2012 level.

We also note that legal domestic sales have not shown a significant decline between 2012 and H1 LTM 2013, reducing by only 0.3%.

Overall, as our LTM H1 estimate fits with the trend of continuing decline in total tobacco consumption, we believe the consumption gap analysis supports our estimate.

Notes: (a) H1 2013 represents consumption for the twelve months to end June 2013  
 (b) Counterfeit and contraband estimations are unavailable for 2007  
 (c) Legal consumption includes both legal domestic sales volumes and non-domestic legal volumes  
 Sources: (1) KPMG analysis of previous reports on illicit trade in Australia, run by Deloitte between 2009 and 2012  
 (2) Deloitte, *Illicit Trade of Tobacco in Australia*, 2012, 2011, 2012

# Appendix 2: Technical appendices

A2.1 Impact of the methodology changes on  
prior results

A2.2 Last 12 months analysis

A2.3 Recent regulatory changes

A2.4 Travel trends and non-domestic legal  
calculation

A2.5 Consumer surveys

A2.6 Scope of work

A2.7 Questionnaire

A2.8 Bibliography

## **KPMG have reviewed the methodology used in previous reports and have leveraged our global experience to improve the methodology utilised to size the illicit market**

### A2.1 Impact of the methodology changes on prior results

#### A2.1.1 Context of KPMG methodology alterations and adjustments to prior results

We have leveraged our global experience in the measurement of illicit tobacco markets and made a number of enhancements to the methodology. In order to ensure historic comparability with our methodology we have updated the drivers of prior results so that we are able to understand a longer term trend.

Our methodology calls for five alterations to the historic approach, each of which addresses a specific item. We note that:

- These alterations do not undermine the previous methodology, but instead enhance it by adding a broader range of sources.

- The individual and cumulative effects of each of the alterations is detailed in full in this section, and
- All previous results have been made consistent with our methodology by applying all methodological adjustments retrospectively in order to ensure all years are presented on a consistent basis.

### **5 methodology adjustments to achieve comparability**

**1. The method of sizing volumes of counterfeit and contraband product has been changed from the consumption model to the 2012 empty pack survey**

**2. The illicit market is now expressed as a proportion of total tobacco consumption instead of a proportion of legal domestic sales**

**3. A consistent conversion rate for translating cigarette sales in tobacco volumes has been applied across all years**

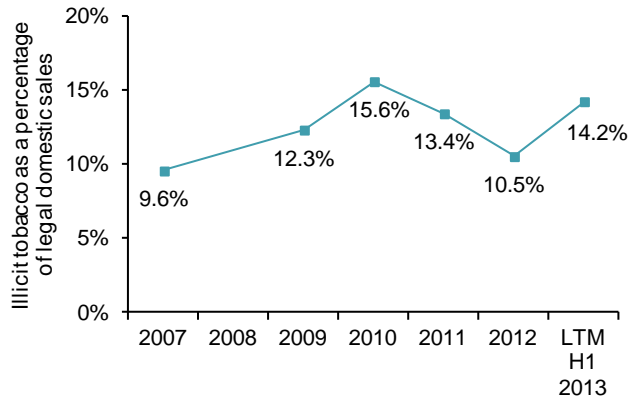
**4. The source of legal domestic sales data has been changed from Datamonitor to Euromonitor to better reflect market trends**

**5. The source for the size of the smoking population in Australia remains the AIHW Drug Survey Report, but has been updated to reflect recent declines**

## Both the prior reporting basis and the adjusted reporting basis show illicit consumption increasing in the twelve months to June 2013

### A2.1.2 Results presented on the basis of previous consumption models, 2007- H1 2013

#### Illicit tobacco consumption as a proportion of legal domestic sales, 2007-H1 2013<sup>(1)(2)</sup>

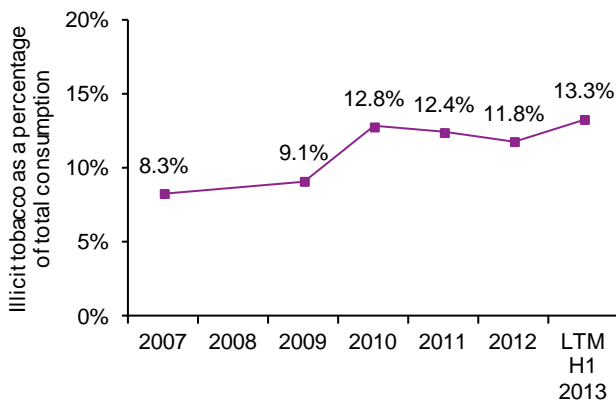


On the basis used in previous reports on the illicit tobacco market in Australia, overall consumption of illicit tobacco products increased to the equivalent of 14.2% of legal domestic sales volumes in the last twelve months to June 2013.

This increase in illicit consumption has primarily been driven by an increase in contraband consumption. Consumption of contraband was equal to 8.9% of legal sales in H1 2013.

### A2.1.3 Results presented on the basis of the KPMG consumption model, 2007- H1 2013

#### Illicit tobacco consumption as a proportion of total consumption, 2007-H1 2013<sup>(2)(3)</sup>



We have examined the methodology used in past studies and have made adjustments to ensure consistency with the KPMG methodology.

Under the KPMG consumption model basis, overall consumption of illicit product is equivalent to 13.3% of total tobacco consumption.

The effect of each of these adjustments on the historic results is detailed in the following section.

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012  
 (2) Industry data  
 (3) KPMG analysis

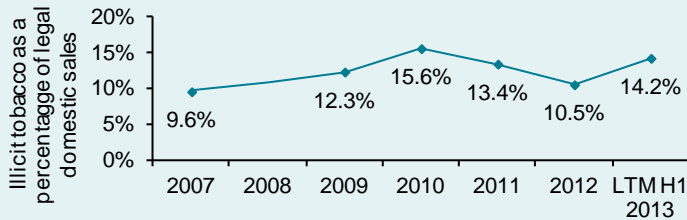
# The following section highlights how our methodology impacts prior results

## A2.1.4 Overview of KPMG adjustments to results of previous reports

This section presents detail on the effect of each of the adjustments we have made to prior years results. The adjustments have been made in order to establish the most accurate measure for illicit trade in Australia.

The diagram below shows the high level rationale and the cumulative effect of each of the adjustments.

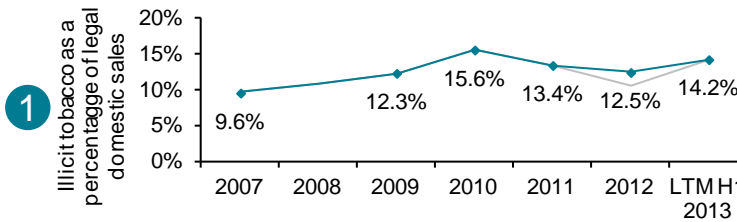
Each of these individual adjustments is discussed in more detail in the next section.



### Historic results position

This is the position reported in previous studies on the illicit tobacco market in Australia.

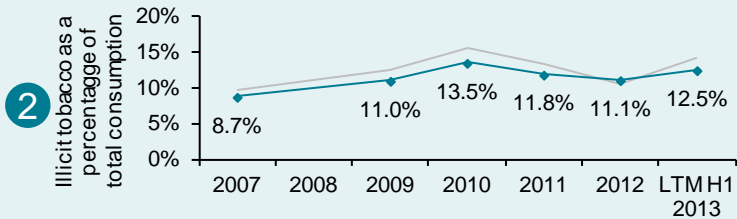
The 2013 results have been calculated by KPMG on a basis consistent with the methodology of previous studies.



### 2012 results adjusted

Empty pack survey studies provide a robust estimate of contraband and counterfeit volumes.

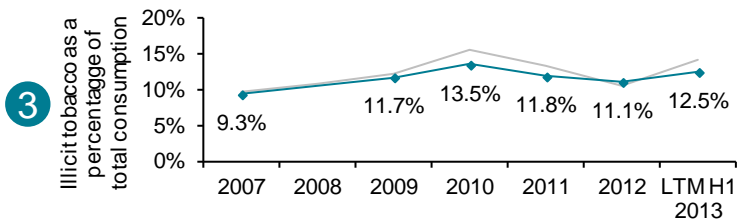
Our 2013 estimate uses empty pack survey data to estimate volumes of illicit manufactured cigarettes. We have adjusted the result of 2012 on a comparable basis.



### Basis of measurement changed to total consumption

We believe total consumption is a better metric against which to measure the level of illicit consumption.

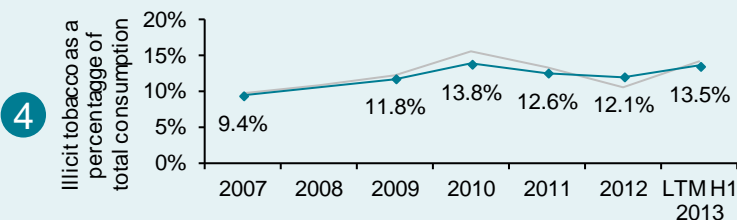
All historic results have therefore been adjusted as a percentage of total consumption instead of legal domestic sales.



### Change to consistent conversion rate

Different conversion rates were used to convert cigarette volumes into kilogram volumes before 2010.

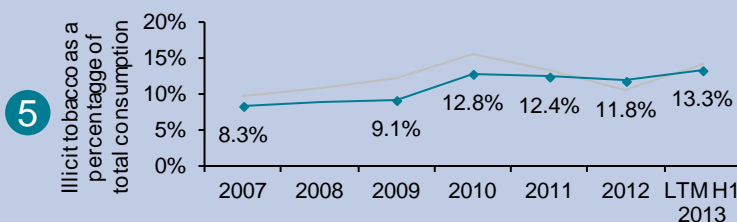
To ensure comparability for all years, we have adjusted 2007 and 2009 results using the conversion rate used in 2010 and onwards.



### Change in source of legal domestic sales

Historically, Datamonitor was used as the source of data on the level of legal domestic sales in the market.

We have changed the source of legal domestic sales to Euromonitor data, as our analysis indicates it tracks the market more closely.



### Change in smoking population estimate

Prior studies had taken estimates of the total smoking population of Australia from several different sources.

We have adjusted results taking smoking population estimates from a single source, the Australian Institute of Health and Welfare (AIHW) Drug Survey.

Note: Grey line represents relative historic results position Source: KPMG analysis

## We have adjusted the 2012 result in line with our preferred methodology to incorporate the empty pack survey as the main indicator of contraband and counterfeit

### A2.1.5 Adjustments of results – adjustment 1; empty pack survey

In the 2012 report on the illicit tobacco market in Australia, the Roy Morgan consumer survey carried out was the only method used to size the illicit market.

An empty pack survey was also carried out in 2012, though it was not incorporated in the results. As discussed earlier in this report, empty pack survey results can provide a more robust view of the scale and split of illicit manufactured cigarettes between counterfeit and contraband. It has been incorporated into the LTM 2013 report as there was increasing evidence from tobacco company intelligence initiatives that the size of the illicit manufactured cigarettes market was increasing, a view supported by these results.

In line with our methodology, we have examined the 2012 empty pack survey and used it to generate an alternative estimate of the volume of illicit manufactured product (shown below in comparison to the 2012 consumer

survey estimate). This estimate benefits from the robustness provided by an empty pack survey and is also in line with previous estimates of counterfeit and contraband.

As a result, KPMG have presented adjusted 2012 results showing the level of contraband and counterfeit consumption indicated by the 2012 empty pack survey result, which we believe is a strong representation of the 2012 illicit tobacco consumption level.

KPMG also examined empty pack survey studies that were conducted in 2009 and 2010. Whilst these empty pack survey studies were carried out under a slightly different methodology compared to the 2012 and 2013 empty pack survey, they broadly support the counterfeit and contraband estimates from the consumer surveys.

Empty pack survey illicit manufactured estimate			Consumer survey illicit manufactured estimate		
Legal sales of manufactured cigarettes (kg'000s)	①	13,468	Quantity of illicit counterfeit tobacco purchased in Australia (kg'000s)	①	123
Empty pack survey non-domestic incidence	②	4.3%	Quantity of illicit contraband tobacco purchased in Australia (kg'000s)	②	111
Total consumption of manufactured cigarettes (kg'000s)	③ = ① / (100% - ②)	14,068	Illicit manufactured consumption (kg'000s)	③ = ① + ②	234
Non-domestic manufactured consumption (kg'000s)	④ = ③ - ①	600			
Non-domestic legal volumes (kg'000s)	⑤	36			
Illicit manufactured consumption (kg'000s)	⑥ = ④ - ⑤	564			

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012  
 (2) Industry data  
 (3) KPMG analysis



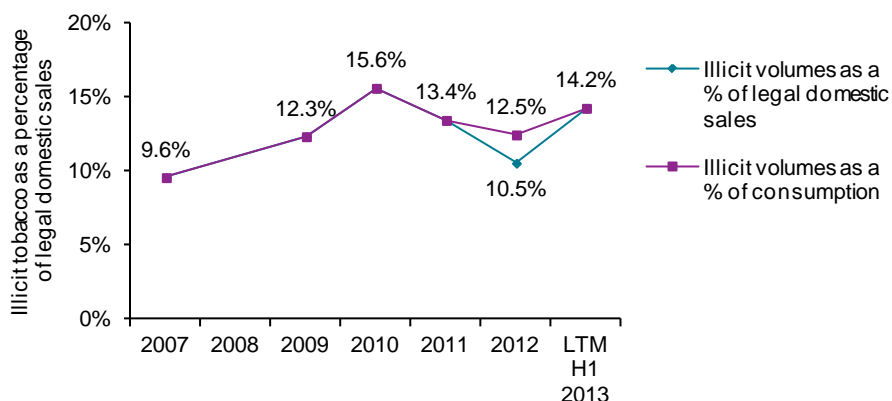
## The empty pack survey indicates a higher level of illicit consumption in 2012

### A2.1.5 Adjustment of results – adjustment 1; empty pack survey (cont.)

The effect of the adjustment of the illicit manufactured volume using the 2012 empty pack survey as opposed to the consumer survey on the 2012 illicit estimate is shown in the below chart and table.

This adjustment effects only the 2012 result. The H1 2013 result already incorporates the 2013 empty pack survey result as discussed earlier in the report.

#### Illicit tobacco consumption as a proportion of legal domestic sales, 2007- H1 2013<sup>(1)(2)(3)</sup>



#### KPMG results adjustment summary – adjustments 1

	2007	2009	2010	2011	2012	2013
<b>Original prior survey results</b>	9.6%	12.3%	15.6%	13.4%	10.5%	14.2%
<b>Effect of 2012 manufactured cigarettes illicit trade adjustment on original results</b>	9.6%	12.3%	15.6%	13.4%	<b>12.5%</b>	14.2%

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012

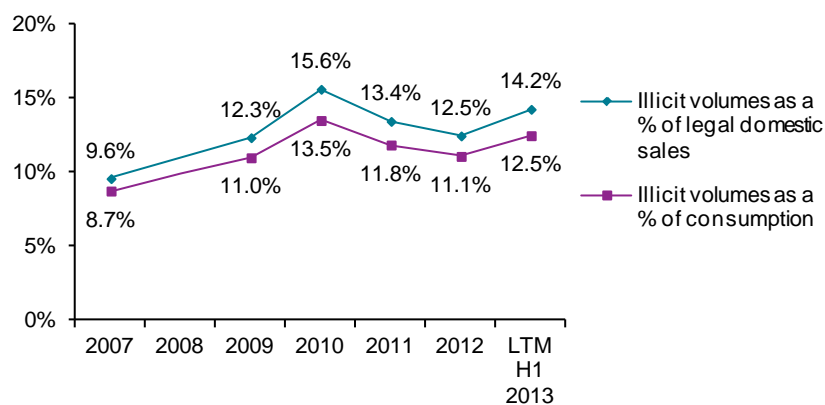
(2) Industry data

(3) KPMG analysis

## KPMG have adjusted historic results based on changing the basis by which the illicit market is expressed in relation to total tobacco consumption

### A2.1.6 Adjustment of results – adjustment 2; basis of measurement

#### Illicit tobacco consumption as a proportion of legal domestic sales and total consumption, 2007-H1 2013<sup>(1)</sup>



Previous estimates of the Australian illicit tobacco market have been presented as a proportion of legal domestic sales.

Whilst this form of presentation raises no specific issues in terms of measurement, we have presented our estimate of the illicit trade as a proportion of total consumption, and adjusted previous results on the same basis to ensure comparability.

Expressing the illicit trade as a proportion of total consumption better reflects the true size of the illicit trade, as it captures all forms of tobacco consumption, and is a more common way of expressing the size of the illicit trade, allowing direct comparisons to be made between Australia and other markets.

#### KPMG results adjustment summary – adjustment 2

	2007	2009	2010	2011	2012	2013
<b>Original prior survey results</b>	9.6%	12.3%	15.6%	13.4%	10.5%	14.2%
<b>Effect of basis of measurement adjustment on original results</b>	8.7%	11.0%	13.5%	11.8%	9.5%	12.5%

#### KPMG results adjustment summary – cumulative effect of adjustment 1 & 2

<b>Cumulative adjustment position after adjustment 1</b>	9.6%	12.3%	15.6%	13.4%	12.5%	14.2%
<b>Cumulative adjustment position after adjustment 2</b>	8.7%	11.0%	13.5%	11.8%	11.1%	12.5%

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012

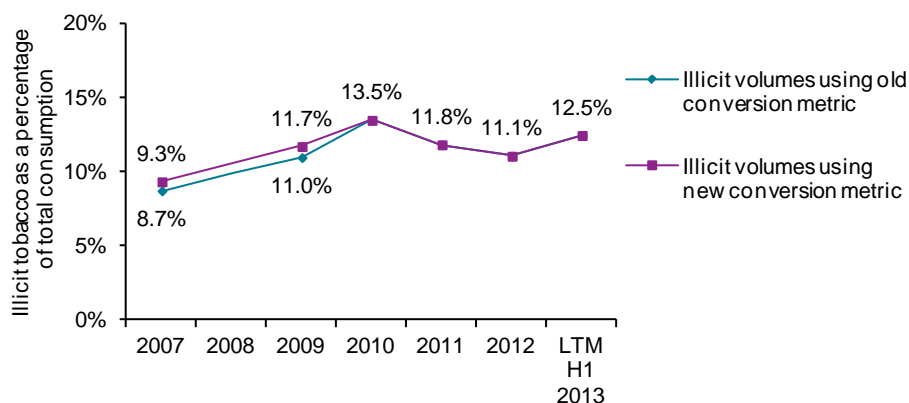
(2) Industry data

(3) KPMG analysis

## KPMG have adjusted the results from 2007 and 2009 to incorporate the same cigarette to kilogram conversion used from 2010 onwards

### A2.1.7 Adjustment of results – adjustment 3; consistent conversion rate

#### Illicit tobacco consumption as a proportion of total consumption, 2007-H1 2013<sup>(1)(2)(3)</sup>



A key metric in producing the illicit estimate is the weight of tobacco per manufactured cigarette as this is used to convert manufactured cigarette volumes into kilogram volumes. This weight of tobacco per cigarette is referred to as the conversion rate.

The illicit tobacco reports carried out in 2007 and 2009 were produced for a single industry player and so were based on the conversion rate of that single player.

Since 2010, the illicit tobacco reports have been produced for all of the three major industry players and have used a weighted average conversion rate which incorporates information from all three players about the average weight of tobacco per cigarette.

When the report was produced for all industry players for the first time in 2010, the new conversion rate was not applied retrospectively to the results for 2007 and 2009. To ensure comparability between years, we have presented all historic results using the industry conversion metric consistently throughout.

KPMG have verified the conversion rate and ensured that it has been applied consistently across the historic period. The data used to compile the conversion rate is confidential to the participating companies and as a result, the data is not published in this report.

#### KPMG results adjustment summary – adjustment 3

	2007	2009	2010	2011	2012	2013
<b>Original prior survey results</b>	9.6%	12.3%	15.6%	13.4%	10.5%	14.2%
<b>Effect of conversion rate adjustment on original results</b>	<b>10.3%</b>	<b>13.3%</b>	15.6%	13.4%	10.5%	14.2%

#### KPMG results adjustment summary – cumulative effect of adjustment 1, 2, & 3

<b>Cumulative adjustment position after adjustment 2</b>	8.7%	11.0%	13.5%	11.8%	11.1%	12.5%
<b>Cumulative adjustment position after adjustment 3</b>	<b>9.3%</b>	<b>11.7%</b>	13.5%	11.8%	11.1%	12.5%

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012

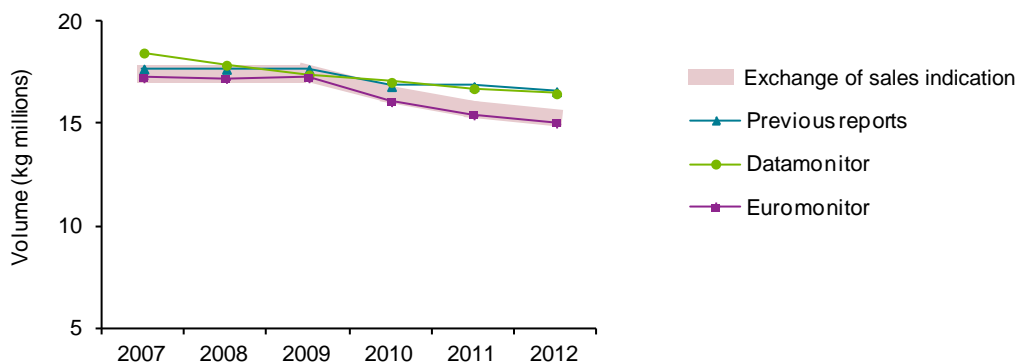
(2) Industry data

(3) KPMG analysis

# Over the past few years Euromonitor has tracked the market most accurately in Australia. As a result we have adopted this as our measure for legal domestic sales

## A2.1.8 Adjustment of results – adjustment 4; source of legal domestic sales estimates

**Estimates of legal domestic sales manufactured cigarette volumes, 2007-2012<sup>(1)(2)(3)(a)(b)</sup>**



CAGR (%)	2007-2009	2009-2012	2007-2012
Previous reports	-0.1%	-2.1%	-1.3%
Datamonitor	-2.9%	-1.8%	-2.3%
Euromonitor	-0.0%	-4.5%	-2.7%

In order to accurately reflect the size and trend of the illicit tobacco volumes, it is necessary to obtain a robust estimate of legal domestic sales. Understating legal domestic sales has the effect of incorrectly inflating the estimate of the illicit proportion of the market.

We have examined several publicly available estimates of Australian legal domestic sales and have compared it to sales data supplied by the industry. Whilst we cannot publish sales data from industry players due to the commercial sensitivity of this information, we show an indicative range on the chart above. We have analysed this industry sales data and how it relates to publicly available estimates and estimates used in prior reports on the illicit market in Australia.

From our analysis, compared with industry sales data, Euromonitor data most accurately captures both the nominal volumes and the trend in the market across the 2007-2012 period as a whole. As a result, we have adjusted the historic illicit volumes estimations based on using Euromonitor volume estimates as opposed to using the Datamonitor data previously used.

We have sought to avoid possible over estimation of the illicit proportion of the market that would be caused by having an estimation of legal domestic sales lower than industry supplied volumes. As a result, we have uplifted the Euromonitor volume estimate for manufactured cigarettes by 2% in each year between 2007 and 2013. Loose tobacco volumes do not require adjustment.

Notes: (a) To preserve confidentiality of commercially sensitive data, Exchange of Sales data has been grossed up to factor in the market coverage of the data and then rounded to the nearest thousand

(b) No illicit tobacco study was carried out in 2008 and as such no 'previous report' sales estimate exists for this year

Sources: (1) Datamonitor

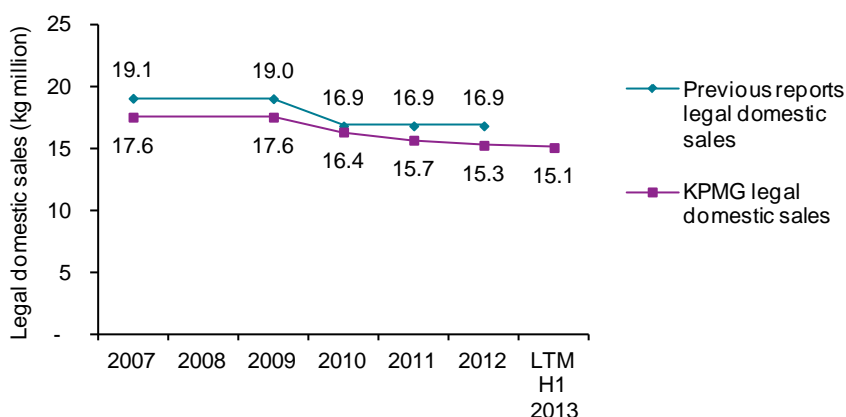
(2) Euromonitor, Legal domestic sales, accessed August 2013

(3) Industry sales data

## KPMG have adjusted legal domestic sales volumes based on publicly available data to ensure current sales volumes are reflected

### A2.1.8 Adjustment of results – adjustment 4; source of legal domestic sales estimates (cont.)

#### Estimates of legal domestic sales, 2007- H1 2013<sup>(1)(2)(3)(4)(5)</sup>



#### Comparative estimates of legal domestic sales<sup>(a)</sup>

	2007 <sup>(a)</sup>	2009 <sup>(a)</sup>	2010	2011	2012	LTM H1 2013
Prior reports manufactured cigarettes legal domestic sales (kg '000s)	17,491	17,410	15,253	15,261	15,261	-
Prior reports loose tobacco legal domestic sales (kg '000s)	1,593	1,640	1,600	1,600	1,600	-
<b>Total prior reports legal domestic sales (kg '000s)</b>	<b>19,084</b>	<b>19,050</b>	<b>16,853</b>	<b>16,861</b>	<b>16,861</b>	-
KPMG manufactured cigarettes legal domestic sales (kg '000s)	17,319	17,223	14,598	13,908	13,468	13,267
KPMG loose tobacco legal domestic sales (kg '000s)	1,595	1,684	1,768	1,800	1,829	1,846
<b>Total KPMG legal domestic sales (kg '000s)</b>	<b>18,915</b>	<b>18,907</b>	<b>16,367</b>	<b>15,708</b>	<b>15,297</b>	<b>15,114</b>

On page 59 we discussed the difference between Datamonitor and Euromonitor legal domestic sales figures. The chart and table above show the different volumes generated using previous report sales data and our estimates. Given that legal domestic sales volumes are an important input into both the consumption model

and EPS analysis, it is important to reflect the actual market size and growth. This will minimise any over or under estimation and also ensure that the trend in illicit consumption is more accurate.

Note: (a) Estimates of legal domestic sales in kilograms for 2007 and 2009 are presented on the basis of a comparable conversion rate to show comparability between KPMG estimates and estimates stated in prior reports

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012

(2) Industry data

(3) KPMG analysis

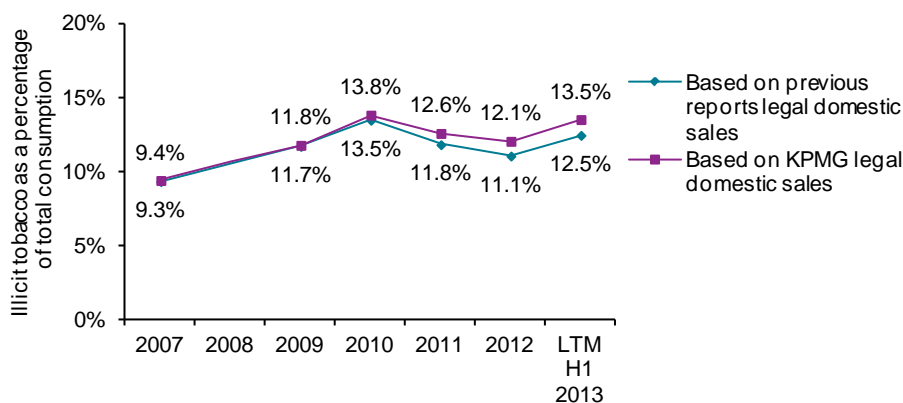
(4) Datamonitor

(5) Euromonitor, Legal domestic sales, accessed August 2013

## The adjustment of the legal domestic sales level increases the relative size of the illicit market from 2010 onwards

### A2.1.8 Adjustment of results – adjustment 4; source of legal domestic sales estimates (cont.)

#### Illicit tobacco consumption as a proportion of total consumption, 2007- H1 2013<sup>(1)(2)(3)</sup>



The effect of changing the source of legal domestic sales data to adjusted Euromonitor volumes is to increase the estimate of the proportion of consumption attributable to the illicit trade from 2010 onwards. This occurs as our estimate of legal domestic sales volume is lower in 2011 to LTM H1 2013 than the volume used in previous reports, resulting in the percentage of illicit tobacco consumption being higher as a proportion of total consumption.

#### KPMG results adjustment summary – adjustment 4

	2007	2009	2010	2011	2012	2013
<b>Original prior survey results</b>	9.6%	12.3%	15.6%	13.4%	10.5%	14.2%
<b>Effect of legal domestic sales adjustment on original results</b>	<b>9.7%</b>	<b>12.4%</b>	<b>16.1%</b>	<b>14.4%</b>	<b>11.6%</b>	<b>15.7%</b>

#### KPMG results adjustment summary – cumulative effect of adjustment 1, 2, 3 & 4

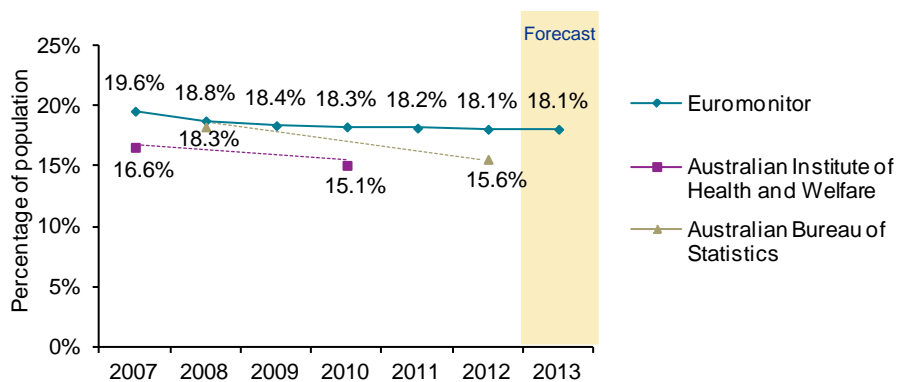
<b>Cumulative adjustment position after adjustment 3</b>	9.3%	11.7%	13.5%	11.8%	11.1%	12.5%
<b>Cumulative adjustment position after adjustment 4</b>	<b>9.4%</b>	<b>11.8%</b>	<b>13.8%</b>	<b>12.6%</b>	<b>12.1%</b>	<b>13.5%</b>

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012  
 (2) Industry data  
 (3) KPMG analysis

## Several estimations of Australian smoking prevalence are publicly available, but yearly data is not available from Australian government estimates

### A2.1.9 Adjustment of results – adjustment 5; estimation of smoking population

#### Smokers as a percentage of population, 2007-2013 <sup>(1)(2)(3)(a)(b)(c)</sup>



CAGR (%)	2007-10	2008-12	2007-13
◆ Euromonitor	-2.3%	-0.9%	-1.3%
■ Australian Institute of Health and Welfare	-3.1%	-	-
▲ Australian Bureau of Statistics	-	-3.9%	-

Official Australian Government estimates of smoking incidence are available from both the Australian Institute of Health and Welfare (AIHW) and the Australian Bureau of Statistics (ABS). Euromonitor also provide estimates of smoking incidence.

Each of the surveys reflects specific age groups. The AIHW and ABS estimates reflect prevalence for 14 year olds and above, whilst Euromonitor figures estimate prevalence among those aged over 18. This in part explains the higher Euromonitor estimate.

Timing of estimates also varies. The National Drug Strategy Household Survey is conducted by the AIHW every three years and includes questions on smoking prevalence. The last two surveys were conducted in 2007 and 2010; the 2013 survey is underway and results are expected to be released in 2014.

ABS figures are taken from Australian Health Surveys carried out in 2008 and 2012, whilst Euromonitor compiles its estimates annually.

All smoking prevalence surveys encounter issues with respondents under reporting. The AIHW survey highlights the possibility of under-reporting as some respondents did not answer smoking related questions. Potential under-reporting was identified in the ABS report, primarily due to social pressures, especially where other household members / parents were present at the interviews for respondents.

Where KPMG require prevalence data for our modelling process, we have used the AIHW results to ensure that our estimate for the number of Australian smokers is not overstated. Overstating the number of smokers would lead to an incorrectly inflated estimate of the size of the illicit trade.

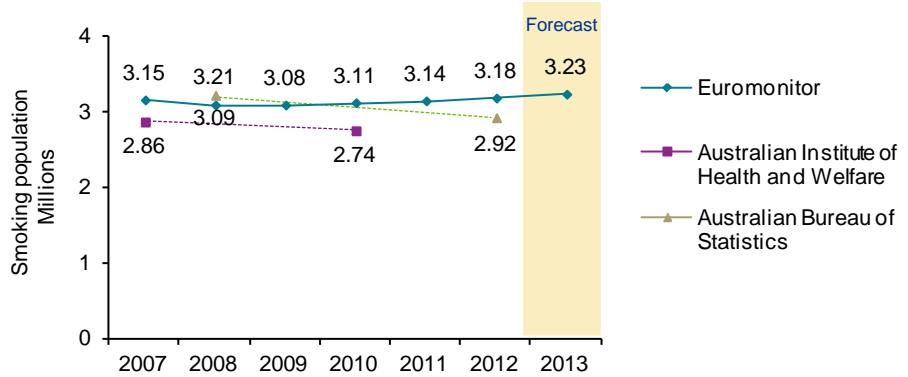
Notes: (a) Euromonitor, percentage of population that are smokers refers to daily smokers > 18 years  
 (b) Australian Institute of Health and Welfare and ABS percentage of population that are smokers refers to daily smokers >14 years  
 (c) Euromonitor figures for 2013 are based on full year estimates

Sources: (1) Euromonitor, smoking prevalence, accessed July 2013  
 (2) Australian Institute of Health and Welfare, *National Drug Strategy Household Survey*, 2007, 2010  
 (3) Australia Bureau of Statistics

# As with prevalence, KPMG believes it is prudent to use the lowest estimates of smoking population to calculate illicit consumption

## A2.1.9 Adjustment of results – adjustment 5; estimation of smoking population (cont.)

### Total number of smokers, 2007-2013 <sup>(1)(2)(3)(a)(b)(c)</sup>



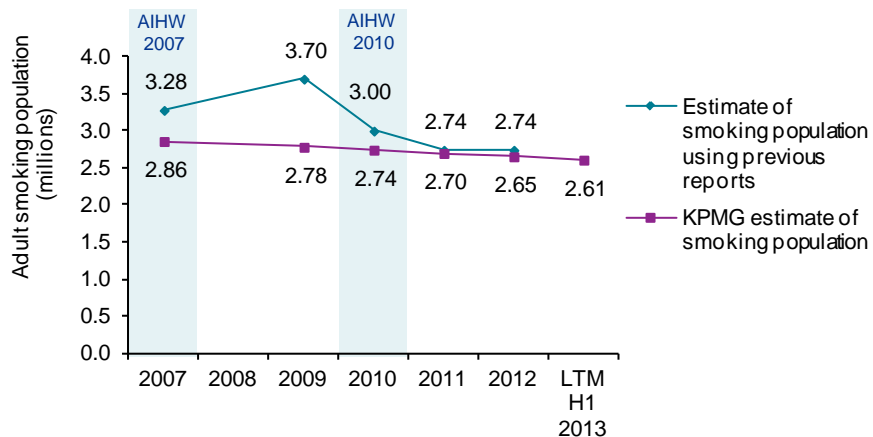
CAGR (%)	2007-10	2008-12	2007-13
Euromonitor	- 0.4%	0.7%	0.4%
Australian Institute of Health and Welfare	-1.4%	-	-
Australian Bureau of Statistics	-	-2.4%	-

The number of adult daily smokers in Australia is used to extrapolate the consumer survey results up to an illicit estimate for the entire population.

To avoid overstatement of results, KPMG considers it prudent to use the lowest estimate for smoking population to extrapolate illicit consumption due to the effect it has on the modelling process – i.e. as a higher smoking population equates to a higher illicit estimate.

As there is no recent AIHW estimate, KPMG have had to extrapolate forward the rate of decline in smoker numbers to create an estimate for 2013. Extrapolating the rate of decline forwards is more likely to give us an accurate estimate of the smoking population in comparison to taking the published 2010 AIHW estimate.

### Estimates of adult smoking population, 2007- H1 2013 <sup>(1)(2)(3)</sup>



Notes: (a) Euromonitor considers adult population as >18 years, while ABS and the Australian Institute of Health and Welfare considers adult population >14 years  
 (b) Figures for Australian Bureau of Statistics are taken from the National Drug Strategy Household Survey, 2007 and 2010  
 (c) Figures for 2013 are based on full year estimates  
 Sources: (1) Euromonitor, smoking prevalence, accessed July 2013  
 (2) Australian Institute of Health and Welfare, *National Drug Strategy Household Survey*, 2007, 2010  
 (3) Australia Bureau of Statistics



## Rather than using a historic smoking prevalence estimate, we have estimated the size of the smoking population to avoid large, periodic restatements

### A2.1.9 Adjustment of results – adjustment 5; estimation of smoking population (cont.)

The estimate of the number of adult daily smokers in Australia is another key input for the consumption model. This number is used to extrapolate the consumption model results to arrive at an illicit estimate for the entire population.

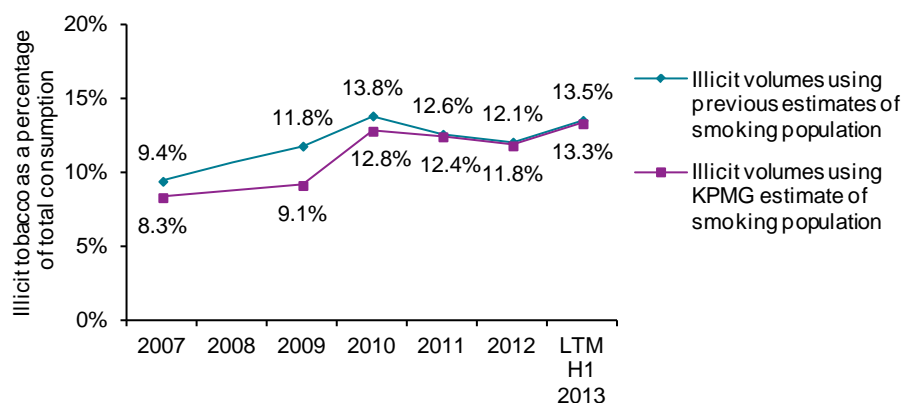
There is no robust, pan-Australian, yearly estimate of smoking incidence available. The most widely accepted estimate of adult smoking incidence available is obtained from the AIHW Drug Use survey. These incidence levels, combined with Australian Bureau of Statistics population data give a consistent measure of the smoking population.

To avoid large, periodic restatements we smooth the data based on historic growth rates.

Since the 2013 AIHW result will not be available until 2014, we have assumed a 3.1% CAGR decline in incidence per year from 2010 to 2013. This is consistent with the rate of decline between 2007 and 2010<sup>(5)</sup>. Whilst this prediction of smoker numbers is an estimate, assuming a lower smoking population will return a lower estimate of the illicit trade, and as such we have used a higher than expected rate of decline. This approach also avoids large step changes in estimates as new data is released.

The effect of the adjustment of the smoking population on the estimate of the illicit trade as a percentage of overall consumption is shown below.

#### Illicit tobacco consumption as a proportion of total consumption, 2007- H1 2013<sup>(1)(2)(3)(4)(5)</sup>



#### KPMG results adjustment summary – adjustment 5

	2007	2009	2010	2011	2012	2013
<b>Original prior survey results</b>	9.6%	12.3%	15.6%	13.4%	10.5%	14.2%
<b>Effect of smoking population adjustment on original results</b>	8.3%	9.3%	14.3%	13.2%	10.2%	13.6%

#### KPMG results adjustment summary – cumulative effect of adjustment 1, 2, 3, 4 & 5

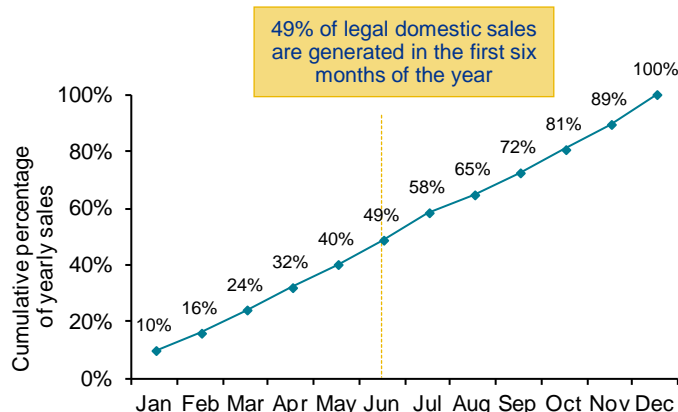
<b>Cumulative adjustment position after adjustment 4</b>	9.4%	11.8%	13.8%	12.6%	12.1%	13.5%
<b>Cumulative adjustment position after adjustment 5</b>	8.3%	9.1%	12.8%	12.4%	11.8%	13.3%

Sources: (1) Deloitte, *Illicit Trade of Tobacco in Australia*, 2010, 2011, 2012  
 (2) Industry data  
 (3) KPMG analysis  
 (4) Australian Bureau of Statistics  
 (5) AIHW National Drug Strategy Household Survey Report

## The annual distribution of legal sales has been taken into account when calculating legal volumes for the 12 month period ending in June 2013

### A2.2 LTM to June 2013 Analysis

#### Average distribution of legal domestic sales, 2007-2012<sup>(1)(a)</sup>



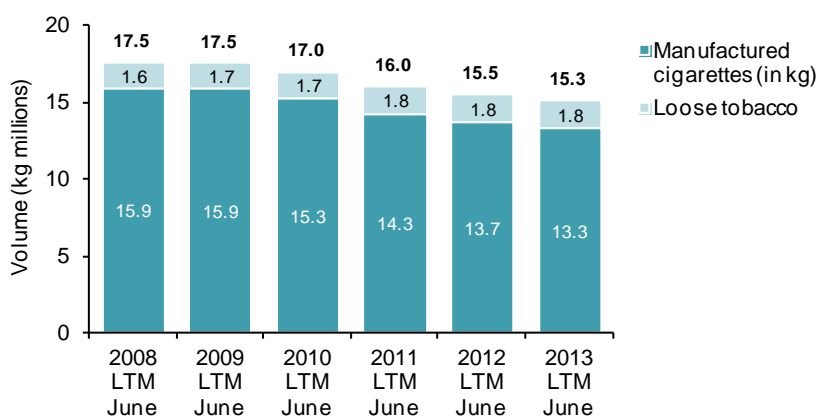
This report is based on the period July 2012 to June 2013. As no publicly available estimation of legal domestic sales exists for this period (Euromonitor only release calendar year estimates), KPMG have used a mixture of publicly available sources and confidential industry sales volume data to estimate sales for the LTM period.

In order to estimate total tobacco consumption for the LTM period ending in June 2013, the distribution of sales throughout prior years was analysed. Analysis of legal domestic sales volumes from 2007 to 2012 showed that approximately 49% of yearly sales are generated in the first six months of a given year. By applying this percentage to

annual sales data, legal domestic sales levels for the first half and second half of a year can be estimated. We have then used industry sales data detailing the percentage change in sales volumes between H1 2012 and H1 2013 to estimate a sales volume for H1 2013. Combining H2 2012 volumes with H1 2013 volumes give us our LTM 2013 estimate.

The result of this analysis produces a year-on-year decline in line with the rate of decline seen over the last three years. For comparative purposes, this method has also been applied to prior years to show the trend in LTM sales.

#### Legal domestic sales LTM comparison, LTM 2008 – LTM 2013<sup>(1)(2)(a)</sup>



CAGR (%)	2008-10	2010-12	2011-13	2008-13
Manufactured cigarettes	-2.2%	-5.3%	-4.7%	-4.0%
Loose tobacco	3.2%	2.6%	1.7%	2.7%
<b>Total market kg equivalents</b>	<b>-1.6%</b>	<b>-4.4%</b>	<b>-2.9%</b>	<b>-2.9%</b>

Note: (a) Monthly sales distribution is based on industry data

Sources: (1) Industry data

(2) Euromonitor

# The Commonwealth government has implemented the Plain Packaging Act and other tobacco controls in 2012

## A2.3 Recent regulatory changes

**Table A2.3.1: Recent regulatory changes 2012/13<sup>(1)(2)</sup>**

Jurisdiction	Legislation title	Regulation type	Effective date	Brief description
Australia	Tobacco Advertising Prohibition Amendment Act 1992	Internet advertising	6 September 2012	<ul style="list-style-type: none"> <li>It is made a criminal offence to publish tobacco advertising on the internet or other electronic media.</li> <li>Internet point-of-sale tobacco advertisements need to be presented in plain text-only format with graphic health warnings and warnings about age restriction on tobacco sales.</li> <li>Online tobacco retailers will have to display health warnings and comply with restrictions on advertisement wording under the same legislation that other forms of advertising are covered.</li> </ul>
	Tobacco Plain Packaging Act 2011;  <i>Trade Marks Amendment (Tobacco Plain Packaging) Act 2011</i>	Plain packaging of tobacco	1 December 2012	<ul style="list-style-type: none"> <li>Law on plain packaging for all tobacco products sold enacted and fully implemented.</li> </ul>
	Customs Amendment (Smuggled Tobacco) Bill 2012  Amendment of Customs Act 1901	Illicit tobacco	November 2012	<ul style="list-style-type: none"> <li>Smuggling tobacco or possessing illicit tobacco will attract tougher penalties including potential imprisonment.</li> </ul>
	Competition and Consumer (Tobacco) Information Standard 2011	Health warnings	1 December 2012	<ul style="list-style-type: none"> <li>Tobacco products required to display the updated and expanded graphic health warnings covering 75% of the front of face.</li> </ul>
	Budget 2012	Duty free tobacco restrictions	1 September 2012	<ul style="list-style-type: none"> <li>Inbound duty free allowance for tobacco products is reduced from 250g per person to 50g/ 50 sticks per person.</li> </ul>
	Budget 2013 announcement	Excise	1 December 2013 for excise increases  1 March 2013 AWOTE change will be effective	<ul style="list-style-type: none"> <li>In August 2013 the Australian government announced excise duty increases in tobacco products of an additional 12.5% for the next four years in addition to the switch to AWOTE. The impact of these tax increases will be to increase the excise on a pack of cigarettes in Australia by 60% above the rate of AWOTE inflation over the four years.</li> </ul>

Sources: (1) Australian Government Department of Health

(2) Department of Health, Victoria (<http://www.health.vic.gov.au/tobaccoreforms/>)

## Local states have been introducing additional regulations to further restrict tobacco consumption and meet local market requirements

### A2.3 Recent regulatory changes (continued)

Table A2.3.2 Recent regulatory changes 2012/13 – state specific<sup>(1)(2)(a)</sup>

Jurisdiction	Legislation title	Regulation type	Effective date	Brief description
New South Wales	Public Health Act 2008; Public Health Regulation 2009	Retail Display Ban	1 July 2013	Exemption for specialist tobacconists under the ban on the display of tobacco products at point-of-sale ends
Victoria	Tobacco Act 1987	Smoke free Local Areas	1 December 2012	A ban on smoking at all of Victoria's patrolled beaches in the area between the red-and-yellow lifesaving flags and within a 50 metre radius of a red-and-yellow flag.
	Tobacco Amendment (Shopper Loyalty Schemes) Bill 2012	Removal of tobacco from shopper loyalty programs	1 March 2013	Tobacco products are prohibited from earning points under shopper loyalty initiatives.
	Tobacco Act Amendment 1987	Smoke free Local Areas	July 2013	Introduction of smoke-free children's playgrounds and related recreational areas. Still going through Parliament.
South Australia	Tobacco Products Regulation Act 1997. Tobacco Products Regulations 2004. Tobacco Products Variation Regulations 2012 (Capsule cigarette)	Retail Display Ban	1 January 2012	A ban on the display of tobacco products at point-of-sale with an exemption for specialist tobacconists.  Display of 'capsule' cigarettes banned, extending previous ban on fruit & confectionery flavoured cigarettes.

Note: (a) There has been no new legislation specifically for The Northern Territory or the Australian Capital Territory

Sources: (1) Australian Government Department of Health

(2) Department of Health, Victoria (<http://www.health.vic.gov.au/tobaccoreforms/>)

## Local states have been introducing additional regulations to further restrict tobacco consumption and meet local market requirements

### A2.3 Recent regulatory changes (continued)

Table A2.3.2 Recent regulatory changes 2012/13 – state specific<sup>(1)(2)(a)</sup>

Jurisdiction	Legislation title	Regulation type	Effective date	Brief description
Tasmania	Public Health Act 1997	Retail Display Ban	1 March 2012	Specialist tobacconists included in retail display ban, removing earlier exemption.
		Removal of tobacco from shopper loyalty programs	1 March 2012	Tobacco products are prohibited from earning points under shopper loyalty initiatives.
		Licensing of tobacco retailers	1 March 2012	<ul style="list-style-type: none"> <li>■ Licences must be obtained prior to selling products from additional venues.</li> <li>■ Licenses are not transferable to new business owners.</li> <li>■ Licences will not be displayed in premises.</li> </ul>
		Vending machine restrictions	1 March 2012	Tobacco vending machines now restricted to one machine per site within specified locations.
Queensland	Health Legislation Amendment Act 2012	Tobacco type restriction	25 November 2012	Ban on the sale of fruit & confectionery flavoured cigarettes.

Note: (a) There has been no new legislation specifically for The Northern Territory or the Australian Capital Territory

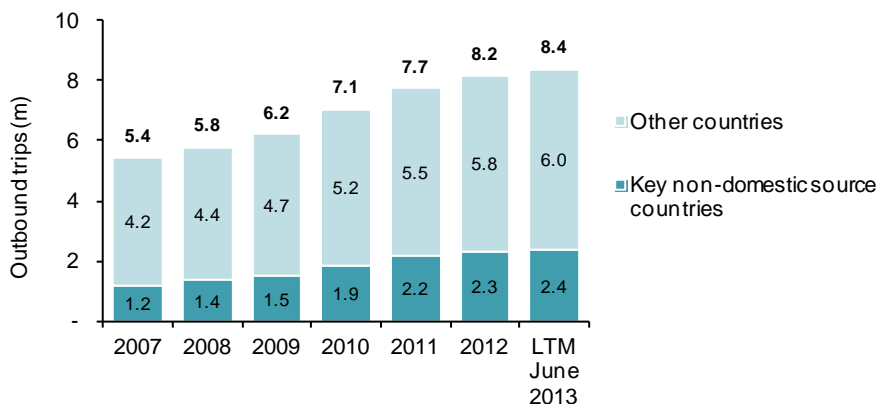
Sources: (1) Australian Government Department of Health

(2) Department of Health, Victoria (<http://www.health.vic.gov.au/tobaccoreforms/>)

# Visits to countries indicated by the empty pack survey as contributors to non-domestic packs found in Australia have grown strongly. This could imply a growth in legal non-domestic consumption

## A2.4 Travel trends and non-domestic legal calculation

### Overseas travel of Australian residents, 2007-2013 (LTM)<sup>(1)(a)</sup>



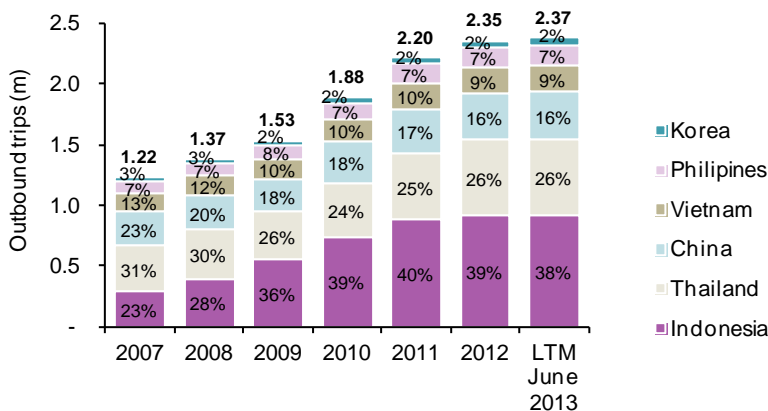
CAGR (%)	07-09	09-11	10-12	07-12
Key ND source countries	11.9%	20.1%	11.8%	14.0%
Total overseas trips	7.0%	11.5%	7.5%	8.5%

Travel trend data can be used in the calculation of non-domestic legal volumes, i.e. tobacco products that are brought into the country legally by consumers, such as during an overseas trip.

Trips made to key non-domestic source countries of manufactured cigarettes increased at a faster rate than overall visits, 14.0% compared to 8.5% between 2007 to 2012.

Later in the report this data is used to estimate legal non-domestic sales which, it will be shown, is immaterial in size.

### Overseas travel of Australian residents to key non-domestic source countries, 2007-2013 (LTM)<sup>(1)(a)</sup>



Visits to key non-domestic source countries reached a total of 2.37 million over the past 12 months to June 2013, accounting for approximately 30% of all trips made overseas by Australian residents.

However, reductions in duty free allowances will likely have tempered the growth of legal non-domestic consumption. We examine this in more detail overleaf.

Note: (a) 'Key non-domestic source countries' have been selected from the empty pack survey carried out in 2013, the countries highlighted in the graph above accounted for 90% of the non-domestic cigarette packs found in Australia.

Source: (1) Australian Bureau of Statistics, *Short-term movement, Resident Departures - Selected Destinations: Trend, 2013*

## Non-domestic legal ND(L) estimates account for a small proportion of total consumption and have a limited effect on the aggregate results

### A2.4 Travel trends and non-domestic legal calculation (continued)

#### Example non-domestic legal calculation

	Overseas visits		ND uplift		% population smokers		Propensity to purchase		Amount per trip		Total ('000 Kg)
Year 2013	2.4m	x	10%	x	13.7%	x	60%	x	50g	=	10.7

#### KPMG non-domestic legal calculation<sup>(1)(2)(3)(a)(b)(c)</sup>

	Source	2007	2009	2010	2011	2012	LTM 2013
Overseas trips to non-domestic source countries in the year (m)	Australian Bureau of statistics	1.22	1.53	1.53	2.2	2.35	2.37
Non-domestic source uplift	Empty pack survey	10%	10%	10%	10%	10%	10%
% of population that are smokers	AIHW (and extrapolated)	16.1%	15.5%	15.1%	14.7%	14.2%	13.7%
% of smokers that buy tobacco	RMR consumer survey (Q1 2013)	53%	53%	53%	53%	53%	60%
Number of smokers purchasing overseas (m)		0.11	0.14	0.14	0.19	0.20	0.21
Amount purchased	Duty Free allowance	250	250	250	250	183	50
Total (kg)		28,628	34,565	33,673	47,136	35,602	10,715
<b>Non-domestic legal as % of total consumption</b>		<b>0.1%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.1%</b>

Estimates of non-domestic legal show that total volumes account for a small proportion total consumption.

The change to inbound duty free allowances made in September 2012 has a significant impact on the amount of tobacco consumers can bring back into the country legally, reducing the estimate of legal non-domestic volumes further in 2013.

A consumer survey undertaken in February 2013 was the first time respondents were asked about overseas travel and tobacco purchase. The percentage of smokers who bought tobacco whilst overseas was 53%, however this may have changed during the period from 2007-2012. The H1 2013 survey showed that now 60% of smokers bought cigarettes overseas, potentially showing how the difference in price impacts purchasing decisions.

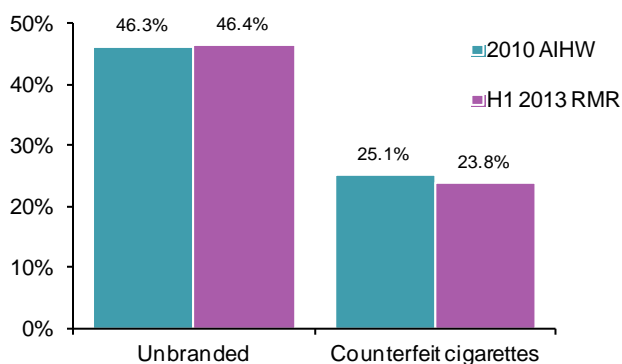
- Notes:
- Respondents were asked "Q51. Have you travelled outside of Australia in the last 6 months?"
  - Respondents were then asked "Q52. Did you buy any manufactured cigarettes or any other tobacco products to bring back to Australia on any of your trips to other countries in the past 6 months?"
  - The duty free allowance for 2012 has been calculated using the 250g limit for 8 months and the 50 gram limit for 4 months, to reflect the change in duty free allowances made in September 12012

- Sources:
- Roy Morgan Research, consumer survey, H1 2013
  - Australian Institute of Health and Welfare, *National Drug Strategy Household Survey*, 2007, 2010
  - Australian Bureau of Statistics, *Short-term movement, Resident Departures - Selected Destinations: Trend*, 2013

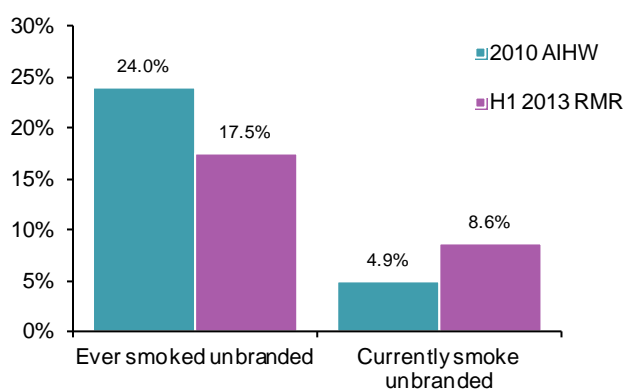
# The outputs of the Roy Morgan Research survey are broadly consistent with the AIHW survey on major indicators

## A2.5 Consumer surveys

**Comparison of illicit tobacco awareness levels in consumer surveys<sup>(1)(2)(a)</sup>**



**Comparison of unbranded illicit tobacco prevalence in consumer surveys<sup>(1)(2)(a)</sup>**



**Comparison of RMR and AIHW consumer surveys<sup>(1)(2)</sup>**

	RMR	AIHW (conducted by RMR)
<b>Survey focus</b>	■ Size of the illicit tobacco market	■ Knowledge of and attitudes towards drugs, drug consumption histories and related behaviours
<b>Frequency</b>	■ At least annually from 2009	■ Every three years
<b>Sample size</b>	■ 2010: 949 ■ 2011: 931 ■ 2012: 1,405	■ > 26,000 people aged 12 years or older participated in the survey
<b>Age groups</b>	■ Smokers aged 18 +	■ Smokers aged 14+
<b>Methodology</b>	■ Web based surveys	■ Self-completion drop and collect methodology
<b>Types of tobacco addressed</b>	■ Unbranded, counterfeit cigarettes, contraband cigarettes	■ Unbranded, counterfeit cigarettes

The Australian Institute of Health and Welfare's (AIHW) National Drug Strategy Household Survey is the only other major consumer survey in Australia that provides an overview on the prevalence of the use of illicit tobacco. There are a number of differences between the Roy Morgan Research and AIHW survey including the frequency of surveys carried out, size of the sample and the key purpose of each. The RMR survey is used to estimate the size of the illicit market whereas the AIHW survey is focused more on attitudes and behaviours. A key metric used from the RMR survey for sizing the illicit market is the quantity of illicit tobacco purchased per occasion, data that is not captured in the AIHW survey.

Methodologies, headline awareness and prevalence indicators of unbranded illicit tobacco are similar in the AIHW and RMR surveys. Awareness of unbranded tobacco was around 46% in both studies, while awareness of counterfeit cigarettes was similar at 25.1% under the AIHW methodology and 23.8% under the RMR methodology. Both surveys highlight the difference in responses when asking consumers about having 'ever smoked' compared to 'currently smoking'. Respondents in both cases appear to be more willing to admit to illicit behaviour when it's not considered a 'current' activity. The 2010 AIHW survey asks consumers about Chop Chop (unbranded loose tobacco sold in bags) only whereas the 2007 survey asked about both Chop Chop and unbranded cigarettes.

Note: (a) Roy Morgan Research results for 2013 are based on CAWI responses only

Sources: (1) Roy Morgan Research consumer survey, H1 2013

(2) Australian Institute of Health and Welfare, *The 2010 National Drug Strategy Household Survey*, 2011



## The description of the services set out below comprises the agreed scope of our work

### A2.6 Scope of work

#### Scope

We will analyse and report on:

- The total level of legal domestic sales of tobacco products and consumption in the market.
- The estimated proportion of the Australian tobacco market accounted for by the illicit trade, across both manufactured products and the unbranded, encompassing contraband, counterfeit and unbranded products (including 'chop chop').
- An overview of the nature of the illicit trade in the country, including the sources of illicit product.
- Findings on the characteristics and consumption patterns of illicit tobacco users, and how these have changed from the results of surveys previously undertaken, based on the consumer research outputs.
- Data on how taxation has evolved over time and report on tobacco regulation in the Australian market.

#### Methodology

In order to size the illicit tobacco market, we will use two principal approaches:

**Consumer research approach:** utilising the half yearly and full year 2013 Roy Morgan Research reports, as used in the previously published Deloitte 'Illicit trade of tobacco in Australia: Report for 2011/ 2012'; namely:

- Analyse consumer responses to establish the proportion of illicit tobacco consumed (including assisting with the design of the sampling methodology and the questionnaire for the 2013 surveys in order to help ensure that the consumer research is as robust as possible).
- Extrapolate the proportion of illicit tobacco consumed on a national level.
- Express the findings as a proportion of total tobacco consumption.

**Empty pack survey approach:** utilising empty pack survey data; namely

- Analyse the data output from the empty pack surveys to establish the proportion of market accounted for by non-domestic manufactured cigarettes.
- Extrapolate the non-domestic and counterfeit incidence estimates identified in the empty pack survey against the level of legal domestic sales in Australia.
- Express findings on the estimates of both non-domestic consumption of manufactured cigarettes and consumption of counterfeit product as a proportion of consumption.

The overall results from the two approaches will then be compared and combined in order to build up our overall estimate of the size and composition of the illicit market as a proportion of total tobacco consumption.

## A2.7 Roy Morgan Research questionnaire

Do you, or does any member of your immediate family work in any of the following companies/industry sectors?

What is your post code?

What is your gender?

Are you currently employed?

Which of the following occupational categories best suits you? (Options provided)

What is your approximate annual personal income?

What is your current age?

Which products do you currently consume? (Options provided)

What type of tobacco product do you smoke or use, even if only occasionally?

How often do you normally smoke manufactured cigarettes?

How often do you normally smoke roll your own cigarettes?

How many manufactured cigarettes do you normally smoke each day (on average)?

How many roll your own cigarettes do you normally smoke each day (on average)?

What is your regular brand of manufactured cigarettes, that is, the one you smoke more than any other brand now-a-days?

What other brands of manufactured cigarettes do you currently smoke?

What is your regular brand of roll your own cigarettes, that is, the one you smoke more than any other brand now-a-days?

What other brands of roll your own cigarettes do you currently smoke?

Are you aware that unbranded tobacco can be purchased? Unbranded tobacco is also known as 'chop chop.' It is loose tobacco or cigarettes in cartons or packs that are sold without a brand name. This does not include branded tobacco products that are now sold in plain packaging that are green/brown in colour with graphic health warnings and information messages.

Since you turned 18 have you ever purchased unbranded tobacco?

Throughout the survey, we're just focusing on products you buy for your own use. Do you purchase unbranded tobacco for your own use currently?

Have you purchased unbranded tobacco in the last 12 months? (Remember, we are talking about purchases for your own use)

In the past 12 months, how often did you purchase unbranded tobacco?

Well, can you give me an estimate of how often you purchased unbranded tobacco in the past 12 months?

Since you turned 18, how long had you been buying unbranded tobacco?

Well, can you give an estimate of how long you had been buying unbranded tobacco since you turned 18?

When you last purchased unbranded tobacco, from which outlet or outlets did you buy it?

When you last purchased unbranded tobacco, how many grams of unbranded tobacco did you purchase?

When you last purchased unbranded tobacco, what format or formats was the unbranded tobacco in?

When you last purchased loose unbranded tobacco, how many grams did you buy? (In grams)

When you last purchased loose unbranded tobacco, how much did it cost in total?

How long ago was your most recent purchase of loose unbranded tobacco?

Well, can you give me an estimate of when your most recent purchase of loose unbranded tobacco was?

When you last purchased cartons of unbranded tobacco, how many did you buy?

When you last purchased cartons of unbranded tobacco, how much did it cost in total?

How long ago was your most recent purchase of unbranded tobacco in cartons?

Well, can you give me an estimate of when your most recent purchase of unbranded tobacco in cartons was?

When you last purchased packs of unbranded tobacco, how many did you buy?

When you last purchased packs of unbranded tobacco, how much did it cost in total?

How long ago was your most recent purchase of unbranded tobacco in packs?

Well, can you provide an estimate of when your most recent purchase of unbranded tobacco in packs was?

When you were smoking unbranded tobacco, how much of it would you say that you smoked per day?

Well, can you provide an estimate of how much unbranded tobacco you were smoking per day?

How did you usually consume unbranded tobacco?

## A2.7 Roy Morgan Research questionnaire

How many suppliers did you ever purchase unbranded tobacco from, since you turned 18?

When you stopped buying unbranded tobacco did you not smoke or did you purchase duty paid tobacco products?

Why did you smoke unbranded tobacco?

Do you know the country of origin of the unbranded tobacco that you purchased?

Where does it usually come from?

Please select the reasons why you stopped purchasing unbranded tobacco? (Options provided)

How often do you purchase unbranded tobacco?

Well, can you provide an estimate of how often you purchase unbranded tobacco?

Since you turned 18, how long have you been buying unbranded tobacco?

Well, can you provide an estimate of how long you have been buying unbranded tobacco?

From which outlets do you usually buy your unbranded tobacco?

How many grams of unbranded tobacco do you purchase for the average purchase?

What format or formats do you usually purchase unbranded tobacco in?

What is the minimum price that you have paid for loose unbranded tobacco in bags?

What is the average price that you have paid for loose unbranded tobacco in bags?

What is the maximum price that you have paid for loose unbranded tobacco in bags?

What is the minimum price that you have paid for unbranded cigarettes in cartons?

What is the average price that you have paid for unbranded cigarettes in cartons?

What is the maximum price that you have paid for unbranded cigarettes in cartons?

What is the minimum price that you have paid for unbranded cigarettes in packs?

What is the average price that you have paid for unbranded cigarettes in packs?

What is the maximum price that you have paid for unbranded cigarettes in packs?

How much would you say that you smoke per day of unbranded tobacco?

Well, can you provide an estimate of how much you smoke per day of unbranded tobacco?

The most recent time you purchased unbranded tobacco what format or formats was it?

How much loose unbranded tobacco did you buy? (In grams)

How much did it cost in total?

How long ago was your most recent purchase of loose unbranded tobacco?

Well, can you provide an estimate of when your most recent purchase of loose unbranded tobacco was?

How many cartons of unbranded cigarettes did you buy?

How much did it cost in total?

How long ago was your most recent purchase of unbranded tobacco in cartons?

Well, can you provide an estimate of when your most recent purchase of unbranded tobacco in cartons was?

How many packs of unbranded cigarettes did you buy?

How much did it cost in total?

How long ago was your most recent purchase of unbranded tobacco in packs?

Well, can you provide an estimate of when your most recent purchase of unbranded tobacco in packs was?

How do you usually consume unbranded tobacco?

How many suppliers have you ever purchased unbranded tobacco from, since you turned 18?

Do you find unbranded tobacco easier or harder to obtain than a year ago or has there been no change?

If you cannot get unbranded tobacco do you not smoke or do you purchase duty paid tobacco products?

Why do you smoke unbranded tobacco?

Do you know the country of origin of the unbranded tobacco that you purchase?

Where does it usually come from?

Contraband cigarettes are legitimate brands of cigarettes purchased in shops without duty paid.

Are you aware that contraband cigarettes can be purchased?

How did you become aware of the availability of contraband cigarettes?

Since you turned 18, have you ever purchased contraband cigarettes?

## A2.7 Roy Morgan Research questionnaire

Do you purchase contraband cigarettes for your own use currently?

Have you purchased contraband cigarettes in the last 12 months?

If you think you might have purchased contraband cigarettes, which brand(s) was it? Any others?

What would you do if contraband product were not available where you usually purchase it from? (Options provided)

How would you rate the overall quality of the contraband product(s) you purchase compared to the non-contraband version(s)?

Counterfeit cigarettes are packs of cigarettes labelled with a brand name that are not really that particular brand. They have been smuggled into the country without duty paid.

Are you aware that counterfeit cigarettes can be purchased?

How did you become aware of the availability of counterfeit cigarettes?

Since you turned 18 have you ever purchased counterfeit cigarettes?

Do you purchase counterfeit cigarettes for your own use currently?

Have you purchased counterfeit cigarettes in the last 12 months?

If you think you might have purchased counterfeit cigarettes, which brand(s) was it? Any others?

What made you believe the cigarettes were counterfeit?

What would you do if counterfeit product were not available where you usually purchase it from?

How would you rate the overall quality of the counterfeit product(s) you purchase compared to the non-counterfeit version(s)?

You have indicated that you have bought counterfeit product. What does the availability of the brand(s) in counterfeit form make you feel? (Options provided)

You indicated that you would feel more negative towards the brand knowing that it is available in counterfeit, can you please explain why you feel this way.

What would you do if counterfeit product were not available where you usually purchase it from? (Options provided)

How would you rate the overall quality of the counterfeit product you purchase compared to the real legitimate brand?

The most recent time you purchased counterfeit cigarettes, did you buy them by weight, by packs, or by cartons?

When you bought the counterfeit cigarettes by weight, how much did you buy?

How much did it cost in total?

How long ago was your most recent purchase of counterfeit cigarettes by pack?

When you bought the counterfeit cigarettes/carton, how much did you buy?

How much did it cost in total?

How long ago was your most recent purchase of counterfeit cigarettes by carton?

Do you find counterfeit cigarettes easier or harder to obtain than a year ago or has there been no change?

Why do (or did) you smoke counterfeit cigarettes?

The most recent time you purchased contraband cigarettes, did you buy them by weight, by packs, or by cartons?

When you bought the contraband cigarettes by weight, how much did you buy?

How much did it cost in total?

How long ago was your most recent purchase of contraband cigarettes by weight?

When you bought the contraband cigarettes by pack, how much did you buy?

How much did it cost in total?

How long ago was your most recent purchase of contraband cigarettes by pack?

When you bought the contraband cigarettes by carton, how much did you buy?

How much did it cost in total?

How long ago was your most recent purchase of contraband cigarettes by carton?

Do you find contraband cigarettes easier or harder to obtain than a year ago or has there been no change?

Why do (or did) you smoke contraband cigarettes?

It is sometimes possible to purchase cigarettes for less than the normal retail price. The price of these 'cheap cigarettes' is several dollars or more below the normal retail price, (for example, a price of AUD10 or less for a pack of 25, or AUD8 or less for a pack of 20).

## A2.7 Roy Morgan Research questionnaire

Before today, were you aware of packs of cheap cigarettes that can be purchased for less than the normal retail price?

Since you turned 18 have you ever purchased cheap cigarettes for your own use?

Do you purchase cheap cigarettes for your own use currently?

Have you purchased cheap cigarettes for your own use in the last 12 months?

How did you become aware of the availability of cheap cigarettes?

If you think you might have purchased cheap cigarettes, what brand(s) were they?

What would you do if cheap cigarettes were not available where you usually purchase them from?

What did you do if cheap cigarettes were not available where you usually purchased them from?

How would you rate the overall quality of the cheap cigarettes that you have purchase(d) compared to the full price product(s)?

The most recent time you purchased cheap cigarettes, did you buy them by packs, or by cartons, or both?

When you bought the cheap cigarettes by pack, how many packs did you buy?

How much did it cost in total?

How long ago was your most recent purchase of cheap cigarettes by pack?

When you bought the cheap cigarettes by carton, how many cartons did you buy?

How much did it cost in total?

How long ago was your most recent purchase of cheap cigarettes by carton?

From what outlets do/did you usually buy cheap cigarettes?

Do you find cheap cigarettes easier or harder to obtain than a year ago or has there been no change?

Why do (or did) you smoke cheap cigarettes?

Why did you stop smoking cheap cigarettes?

You have indicated that you have purchased either contraband or counterfeit cigarettes in the past. Sometimes people refer to contraband or counterfeit cigarettes as 'cheap' cigarettes. These people may or may not know that the 'cheap' cigarettes are contraband or counterfeit.

Whilst you are familiar with the terms contraband and/or counterfeit, do you also know contraband or counterfeit cigarettes as 'cheap' cigarettes?

Do you purchase rolling papers, tubes, or both for the purpose of smoking loose tobacco?

When you purchase rolling papers for smoking loose tobacco, what is the once pack size of rolling papers you usually purchase?

What percentage of that pack of rolling papers do you use before the pack is damaged, lost or discarded? (Options provided)

When you purchase tubes for smoking loose tobacco, what is the one pack size of tubes you usually purchase?

What percentage of that pack of tubes do you use before the pack is damaged, lost or discarded? (Options provided)

Have you travelled outside of Australia in the last 6 months?

Did you bring back any manufactured cigarettes or any other tobacco products to bring back to Australia on any of your trips to other countries in the past 6 months?

How many trips in the last 6 months did you make where you purchased manufactured cigarettes or any other tobacco products to bring back to Australia?

For each type of product listed below, indicate how much you brought back into Australia on average per trip? (Options provided)

In which countries did you buy manufactured cigarettes/any other tobacco products?

Did you buy duty free manufactured cigarettes or any tobacco products at the airport or port on your return to Australia after any of your trips to other countries in the last 6 months?

How many trips did you make in the last 6 months where you purchased duty free manufactured cigarettes or any other tobacco products on your return to Australia?

For each type of product, indicate how much you purchased in duty free on average per trip.

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